

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

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

RenovoRx, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

27-1448452
(I.R.S. Employer
Identification Number)

2570 West El Camino Real, Suite 640
Mountain View, California 94040
(650) 284-4433

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Shaun R. Bagai
Chief Executive Officer
RenovoRx, Inc.
2570 West El Camino Real, Suite 640
Mountain View, California 94040
(650) 284-4433

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective on filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of

1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

Subject to Completion, dated April 16, 2026



8,438,790 Shares of Common Stock
2,200,000 Shares of Common Stock Issuable Upon Exercise of Pre-Funded Warrants
5,319,392 Shares of Common Stock Issuable Upon Exercise of Milestone Warrants

This prospectus relates to the resale by the selling stockholders named herein, including their transferees, assigns, pledgees or donees, or their respective successors, of an aggregate of up to the following held by the selling stockholders: (i) 8,438,790 shares (the “Shares”) of our common stock, par value \$0.0001 per share (which we refer to as our common stock), (ii) 2,200,000 shares (the “PFW Shares”) of our common stock issuable upon exercise of pre-funded warrants (the “Pre-Funded Warrants”) and (iii) 5,319,392 shares (the “Milestone Warrant Shares”) of our common stock issuable upon the exercise of revenue milestone warrants (the “Milestone Warrants”). The Shares, Pre-Funded Warrants and Milestone Warrants were issued by us in a private placement which closed on March 20, 2026 (the “March 2026 Private Placement”). The selling stockholders listed herein were the investors in the March 2026 Private Placement. For information about the selling stockholders, see “*Selling Stockholders*.”

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of common stock by the selling stockholder, although we may receive funds in the future upon the exercise of the Milestone Warrants held by the selling stockholders, if and when exercised for cash. The selling stockholders may sell Shares, PFW Shares and Milestone Warrant Shares (collectively, the “Selling Stockholder Shares”) from time to time in the principal markets on which the common stock is quoted at the prevailing market price, at prices related to prevailing market prices or in negotiated transactions. The selling stockholders may sell the Selling Stockholder Shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling stockholders, the purchasers of the Selling Stockholder Shares, or both. We are registering the offer and sale of the Selling Stockholder Shares pursuant to certain registration rights granted to the selling stockholders. The timing and amount of any sale of Selling Stockholder Shares is within the sole discretion of the selling stockholders. We do not know when or in what amount of Selling Stockholder Shares the selling stockholders may offer for sale. We will pay the expenses of registering the Selling Stockholder Shares, including legal and accounting fees. All selling and other expenses incurred by the selling stockholders will be borne by the selling stockholders. See “*Plan of Distribution*” for additional information.

Our common stock is listed on The Nasdaq Capital Market under the symbol “RNXT.” On April 15, 2026, the last reported sale price of our common stock on The Nasdaq Capital Market was \$1.02 per share.

The purchase of the common stock offered through this prospectus is speculative and involves a high degree of risk. You should carefully consider the risk factors beginning on page 4 of this prospectus before purchasing any of the securities offered by this prospectus.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

Neither the Securities and Exchange Commission (“SEC”) 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 ____, 2026.

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ABOUT THIS PROSPECTUS

The information contained or incorporated by reference in this prospectus is not complete and may be changed. You should rely only on the information provided in or incorporated by reference in this prospectus, in any prospectus supplement or in a related free writing prospectus, or documents to which we otherwise refer you. We have not authorized anyone else to provide you with different information.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or any related free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement or any related free writing prospectus. This prospectus and any accompanying prospectus supplement and any related free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any accompanying prospectus supplement and any related free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and any accompanying prospectus supplement and any related free writing prospectus, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement and any related free writing prospectus is delivered or securities are sold on a later date.

We have not done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourself about and to observe any restrictions relating as to this offering and the distribution of this prospectus and any such free writing prospectus outside the United States.

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 in this 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.

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.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement and the information incorporated by reference herein contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934, each as amended. 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,” “goal,” “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 or expectations regarding future revenues, expenses, anticipated capital requirements to fund our future operating expenses, and our need for additional financing;
- our anticipated financial or operational 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;
- projections 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 enrollment for and final results from 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 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 addressable markets;
- 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 the Nasdaq Stock Market (including, without limitation, the Nasdaq \$1.00 minimum bid price requirement); and
- our expectations regarding the impact of major domestic and geopolitical events on our business.

We have based our 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, but forward-looking statements are not guarantees of future performance or development. All 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.

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.

Company Overview

We are a life sciences company developing innovative targeted oncology therapies and commercializing **RenovoCath[®]**, a novel, U.S. Food and Drug Administration (“FDA”)-cleared local drug-delivery device, targeting high unmet medical needs. Our mission is to transform the lives of cancer patients by providing innovative solutions to enable targeted delivery of therapeutic agents.

Our patented **Trans-Arterial Micro-Perfusion (TAMP[™])** therapy platform, enabled by RenovoCath, is designed for targeted therapeutic delivery across the arterial wall near the tumor site (known as intra-arterial, or IA delivery) 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. RenovoCath is indicated for temporary vessel occlusion in applications including arteriography, preoperative occlusion, and chemotherapeutic drug infusion.

We are actively commercializing the TAMP therapy platform and RenovoCath as a stand-alone device within its FDA cleared fields of use. We are a commercial-stage growth company commercializing RenovoCath in the United States, have received our first commercial purchase orders for RenovoCath devices in December 2024. For the year ended December 31, 2025, we generated an aggregate of \$1.1 million in revenue from RenovoCath sales. These sales are from U.S. cancer centers that initiated repeat orders as well as new institutions adopting the device, including several esteemed, high-volume National Cancer Institute-designated centers. While we strive to meet and satisfy the anticipated demand, we continue to actively explore further revenue-generating activity, either on our own or in tandem with a medical device commercial partner.

As of February 27, 2026, 12 U.S. cancer centers were utilizing RenovoCath, and 21 additional centers were evaluating the device, had completed evaluation, or were preparing for activation. These 33 centers represent a tripling of our near-term pipeline compared to the first quarter of 2025. The growing adoption reflects increasing clinical demand for RenovoCath as it becomes integrated into overall cancer treatment paradigms and sets the stage potential revenue expansion in 2026. In addition, we built our sales and marketing infrastructure from scratch with our full sales and marketing team having been launched in late 2025. With this, we established the systems and processes needed to scale and believe having this team in place further bolsters our prospects.

We are also evaluating our novel drug-device combination oncology product candidate (IA delivery of the FDA-approved chemotherapy gemcitabine via RenovoCath, which we call **IAG**) in our ongoing Phase III TIGeR-PaC trial. IAG is being evaluated by the Center for Drug Evaluation and Research (the drug division of the FDA) 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.

Our IAG combination product candidate, which is enabled by the RenovoCath device, is currently under investigation and has not been approved for commercial sale. RenovoCath with gemcitabine received Orphan Drug Designation for pancreatic cancer and bile duct cancer, which provides seven years of market exclusivity upon new drug application approval by the FDA.

We believe the initial target market for RenovoCath would be approximately \$400 million in peak annual U.S. sales, based on our internal assumptions, which include: (i) pressure-mediated delivery catheters on market today, which are analogous to RenovoCath, have an average selling price of \$6,500-\$8,500 per unit; (ii) approximately 7,000 initial target patients at peak market penetration; and (iii) an average of at least 5 to 6 procedures per patient.

We also believe there are expansion opportunities across other clinical indications that could ultimately create a multi-billion-dollar total addressable market potential for RenovoCath. We believe that we can achieve meaningful market penetration with our sales and marketing team targeting the top 200 high-volume treatment centers. Furthermore, and importantly, there is a current reimbursement code with the Centers for Medicare and Medicaid Services covering specialty pressure-mediated delivery catheters, which creates incentives for hospitals to adopt more advanced technology, like RenovoCath.

We continue to advance broader clinical programs by generating new data through post-marketing registry studies in solid tumors and continued support of investigator-initiated trials in borderline resectable and metastatic pancreatic cancer, along with exploring physician interest in other areas. Registry and IIT trials achieve cost neutrality as capital-efficient studies providing meaningful data that may further broaden the application for the TAMP.

Corporate Information

We were incorporated in the State of Delaware on December 17, 2012. Our principal executive offices are located at 2570 West El Camino Real, Suite 640, Mountain View, CA 94040. 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.

THE OFFERING

- Common Stock to be offered:** 8,438,790 Shares, 2,200,000 PFW Shares and 5,319,392 Milestone Warrant Shares held or acquirable by the selling stockholders.
- Terms of the Offering:** The selling stockholders will determine when and how to sell the Selling Stockholder Shares offered in this prospectus, as described in “*Plan of Distribution*.”
- Use of Proceeds:** We will not receive any proceeds from the sale of Selling Stockholder Shares in this offering. However, we may receive proceeds from the exercise of the Milestone Warrants by the selling stockholders to the extent they are exercised for cash. In the event we receive proceeds from the cash exercise of the Milestone Warrants, we intend to use the aggregate net proceeds from such exercise for general corporate purposes, including working capital. See the sections titled “*Use of Proceeds*” and “*Selling Stockholders*” for additional information.
- Listing and Symbols:** Our common stock is listed on The Nasdaq Capital Market under the symbol “RNXT”.
- Risk Factors:** *Investing in our securities is speculative and involves substantial risks.* You should read the “*Risk Factors*” section of this prospectus and in the documents incorporated by reference in this prospectus for a discussion of factors to consider before deciding to purchase our securities.

Shares of our common stock that may be offered under this prospectus will be fully paid and non-assessable. Throughout this prospectus, when we refer to the shares of our common stock being registered on behalf of the selling stockholders for offer and resale, we are referring to the Shares that have been issued to the selling stockholders and the PFW Shares and the Milestone Warrant Shares issued in the March 2026 Private Placement. When we refer to the selling stockholders in this prospectus, we are referring to the selling stockholders identified in this prospectus and, as applicable, their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

RISK FACTORS

Investing in our securities is speculative and 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 Annual Report on Form 10-K for our fiscal year ended December 31, 2025 and in our other filings with the SEC, 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*.”

Risks Relating to this Offering

If you purchase the common stock being offered in this offering, you may experience immediate dilution as a result of this offering.

Since the price per share of our common stock being offered may be substantially higher than the net tangible book value per share of our common stock, you may suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock that could result in further dilution to the investor purchasing our common stock in this offering or result in downward pressure on the price of our common stock. We may sell shares of our common stock or other securities in any other offering at prices that are higher or lower than the prices paid by the investor in this offering, and the investor purchasing shares or other securities in the future could have rights superior to existing stockholders. Moreover, to the extent that we issue options or warrants to purchase, or securities convertible into or exchangeable for, shares of our common stock in the future and those options, warrants or other securities are exercised, converted or exchanged, stockholders may experience further dilution.

The trading price of our common stock has been, and is likely to continue to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control.

Our stock price is volatile. During the period from March 20, 2025 to March 20, 2026, the closing price of our common stock ranged from a high of \$1.42 per share to a low of \$0.73 per share. The stock market in general and the market for smaller pharmaceutical and biotechnology companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your common stock at or above the public offering price and you may lose some or all of your investment.

We issued a large number of shares of common stock and warrants to purchase common stock in connection with our recent financing activities. Substantial future sales of such shares of our common stock could cause the market price of our common stock to decline or have other adverse effects on our company.

In connection with our public and private placement financing activities in 2024, 2025 and 2026, we issued a large number of shares and warrants to purchase common stock. Such shares and shares underlying warrants have been registered at initial issuance or for public resale. Sales of a substantial number of these shares in the public market, or the perception that these sales might occur, could depress the market price of our common stock or cause such market price to decline significantly. Such sales or the perception that such sales might occur could also impair our ability to raise capital through the sale of additional equity securities. We are unable to predict with any certainty the effect that such sales, or the perception that such sales may occur, may have on the prevailing market price of our shares or other adverse impacts that this situation could have on our company.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the Selling Stockholder Shares by the selling stockholders. However, we may receive proceeds from the exercise of the Milestone Warrants by the selling stockholders to the extent they are exercised for cash. We estimate that the maximum proceeds that we may receive from the exercise of the Milestone Warrants, assuming all the warrants are exercised for cash at their applicable exercise prices, will be approximately \$9.3 million. We do not know, however, whether any of the Milestone Warrants will be exercised or, if any of such warrants are exercised, when they will be exercised. It is possible that the Milestone Warrants will expire and never be exercised. There are circumstances under which the Milestone Warrants may be exercised on a cashless basis. In these circumstances, even if such warrants are exercised, we may not receive any proceeds, or the proceeds that we do receive may be significantly less than what we might expect.

We will retain broad discretion over the use of the net proceeds to us from the exercise of the Milestone Warrants. Unless otherwise provided in the applicable prospectus supplement, we currently expect to use the aggregate net proceeds from the exercise of the Milestone Warrants for general corporate purposes, including working capital. 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 from the exercise of the Milestone Warrants 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 from the exercise of the Milestone Warrants. 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. The actual allocation of proceeds realized from the exercise of the Milestone Warrants will depend upon the amount and timing of such exercises, our operating revenues and cash position at such time and our working capital requirements.

The selling stockholders will pay any expenses incurred by the selling stockholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling stockholders in disposing of their shares of common stock. We will bear all other costs, fees and expenses incurred in effecting the registration of the Selling Stockholder Shares covered by this prospectus, including, without limitation, all registration fees and fees and expenses of our counsel and our accountants.

SELLING STOCKHOLDERS

The shares of common stock being offered by the selling stockholders listed below were issued in, or are underlying the Pre-Funded Warrants and the Milestone Warrants issued in connection with, the March 2026 Private Placement. Other than the relationships as purchasers under the Securities Purchase Agreement (as defined below) and as otherwise described herein, to our knowledge, no material relationships exist between any of the selling stockholders and us nor have any such material relationships existed within the past three years.

As used herein, the term “selling stockholders” means the selling stockholders listed below and such holders’ donees, pledgees, transferees, or other successors-in-interest selling shares of common stock or warrant shares received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer.

Summary of March 2026 Private Placement

On March 17, 2026, we entered into a securities purchase agreement (the “Securities Purchase Agreement”) in connection with the March 2026 Private Placement to 15 accredited investors or qualified institutional buyers (the “Investors”), five of whom are our directors, officers or employees of our company (the “Insiders”) and the remaining are non-affiliated institutional investors (the “Institutional Investors”). The March 2026 Private Placement was also closed on March 20, 2026. In connection with the March 2026 Private Placement, we raised aggregate gross proceeds of approximately \$10 million, before deducting placement agent fees and expenses payable by us.

In connection with the March 2026 Private Placement, we sold to the selling stockholders an aggregate of (i) 8,438,790 Shares of our common stock, (ii) Pre-Funded Warrants to two Investors to purchase 2,200,000 PFW Shares and (iii) Milestone Warrants to purchase an aggregate of 5,319,392 shares of common stock.

The purchase price paid by the Institutional Investors for each Share and related Milestone Warrant was \$0.938. To comply with Nasdaq Stock Market rules, the purchase price paid by the Insiders for each Share and related Milestone Warrant was \$1.0288.

The Pre-Funded Warrants were offered to any Institutional Investor whose purchase of the Shares in the March 2026 Private Placement would result in such Investor, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or at the election of the Investor, 9.99%) of the outstanding common stock immediately following the consummation of the March 2026 Private Placement, the opportunity to purchase, if it so chooses, up to Pre-Funded Warrants, in lieu of the common stock that would otherwise result in ownership in excess of 4.99% (or 9.99%, as applicable) of the outstanding common stock. The purchase price of each Pre-Funded Warrant will equal the price per share of common stock being sold to the Institutional Investors in the March 2026 Private Placement, minus \$0.0001, and the exercise price of each Pre-Funded Warrant will be \$0.0001 per share. The Pre-Funded Warrants do not expire and each Pre-Funded Warrant will be immediately exercisable and may be exercised at any time until exercised in full.

The Milestone Warrants are exercisable immediately upon issuance and expire on the earlier of (i) March 30, 2029 or (ii) 30 days following the date we report at least \$1.5 million in product sales revenue (excluding licensing fees, upfront milestones and grants, but including royalty revenue from product sales) for any calendar quarter in a quarterly or annual report. The Milestone Warrants will entitle the holder to purchase Milestone Warrant Shares at an exercise price equal to \$1.751 per share for the Institutional Investors and \$1.9326 for the Insiders. The Milestone Warrants are subject to a beneficial ownership limitation, preventing any holder from exercising a Milestone Warrant if such exercise would result in the holder and its affiliates beneficially owning more than 4.99% (or 9.99% at the holder’s election) of the outstanding common stock. The exercise price and the number of Milestone Warrant Shares issuable upon exercise of the Milestone Warrants is subject to adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting the common stock, and also upon any distributions of assets, including cash, stock or other property to our stockholders.

Pursuant to the Securities Purchase Agreement, we agreed to file a registration statement for the resale of the Shares, PFW Shares and the Milestone Warrant Shares within thirty (30) days after the execution of the Securities Purchase Agreement and to use commercially reasonable efforts to cause such registration statement to become effective within thirty (30) calendar days following the initial filing date. We have filed the registration statement of which this prospectus is a part to satisfy this obligation.

Selling Stockholders Table

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of common stock by each of the selling stockholders. The table below sets forth information as of the date of this prospectus, to our knowledge, about the beneficial ownership of our common stock by the selling stockholders both before and immediately after this offering. Because the selling stockholders may sell, transfer, or otherwise dispose of all, some, or none of their shares of common stock, we cannot determine the number of such shares that will be sold, transferred or otherwise disposed of by the selling stockholders, or the amount or percentage of shares of our common stock that will be held by the selling stockholders upon termination of any particular offering. See “*Plan of Distribution*.” For purposes of the table below, we assume that the selling stockholders will sell all of their shares of common stock.

Name	Shares of Common Stock Beneficially Owned Before Completion of the Offering ⁽¹⁾		Sum of Number of Shares of Common Stock Offered Hereby ⁽²⁾	Shares of Common Stock Beneficially Owned After Completion of the Offering ⁽³⁾	
	Sum of Number	Percentage		Sum of Number	Percentage
The Bagai Family Trust ⁽⁴⁾	325,507	*	36,450	289,057	*
Ryan Joseph Witt ⁽⁵⁾	287,781	*	131,220	156,561	*
Voll Family Trust DTD 6/23/2010 Mark Voll ⁽⁶⁾	145,800	*	145,800	-	-
Ronald B. Kocak ⁽⁷⁾	205,612	*	14,580	178,437	*
Laurence Marton Rollover IRA ⁽⁸⁾	14,580	*	14,580	-	-
The Hewlett Fund LP ⁽⁹⁾	1,344,402	2.96%	1,119,402	225,000	*
Transcend Partners LLC ⁽¹⁰⁾	5,247,441	4.99%	4,797,441	450,000	*
Pathfinder Asset Management Ltd. ⁽¹¹⁾	1,159,573	2.56%	799,573	360,000	*
Lytton-Kambara Foundation ⁽¹²⁾	1,976,043	4.32%	1,918,975	57,068	*
AIGH Investment Partners, LP ⁽¹³⁾	4,761,916	4.99%	2,911,386	1,850,530	4.11%
WVP Emerging Manager Onshore Fund, LLC - AIGH Series ⁽¹⁴⁾	1,751,026	3.86%	1,086,363	664,663	1.48%
Michael M. Kellen Descendants 2012 GST Trust ⁽¹⁵⁾	2,199,147	4.82%	1,599,147	600,000	1.33%
Conrad Group Inc Defined Benefit Plan ⁽¹⁶⁾	319,828	*	319,828	-	-
Keystone Capital Partners, LLC ⁽¹⁷⁾	399,793	*	399,793	-	-
T.R. Winston & Company LLC ⁽¹⁸⁾	159,913	*	159,913	-	-
3i, LP ⁽¹⁹⁾	559,231	1.24%	503,731	55,500	*
Total Selling Stockholders			15,958,182		

* Less than 1%.

- (1) Applicable percentages based on 45,052,706 shares of common stock outstanding as of the date of this prospectus. Beneficial Ownership prior to this offering includes any share options either vested or which will vest within 60 days of the filing of this registration statement, and any common stock warrants exercisable within 60 days of the filing of this registration statement.
- (2) Consists of Shares, PFW Shares and Milestone Warrant Shares (as the case may be), with respect to each selling stockholder, in connection with the March 2026 Private Placement.
- (3) Assumes full exercise of all Milestone Warrant Shares by each selling stockholder and the resale or other disposition of all Shares, PFW Shares and Investor Warrant Shares (as the case may be) by each such selling stockholder.
- (4) The shares of common stock being offered include (i) 24,300 shares of common stock and (ii) 12,150 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.9326 per share. Shaun Bagai, Chief Executive Officer and Director of the Company, has voting and dispositive power of the securities held by this selling stockholder.

- (5) The shares of common stock being offered include (i) 87,480 shares of common stock and (ii) 43,740 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.9326 per share.
- (6) The shares of common stock being offered include (i) 97,200 shares of common stock and (ii) 48,600 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.9326 per share. Mark Voll, Chief Financial Officer of the Company, has voting and dispositive power of the securities held by this selling stockholder.
- (7) The shares of common stock being offered include (i) 9,720 shares of common stock and (ii) 4,860 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.9326 per share.
- (8) The shares of common stock being offered include (i) 9,720 shares of common stock and (ii) 4,860 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.9326 per share. Laurence Marton, Director of the Company, has voting and dispositive power of the securities held by this selling stockholder.
- (9) The shares of common stock being offered include (i) 746,268 shares of common stock and (ii) 373,134 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. Martin Chopp is the general partner of The Hewlett Fund LP and may be deemed to be the beneficial owner of the securities held by The Hewlett Fund LP. The business address of The Hewlett Fund LP and Mr. Chopp is 100 Merrick Road, Suite 400W, Rockville Centre, NY 11570.
- (10) The shares of common stock being offered include (i) 1,748,294 shares of common stock, (ii) 1,450,000 shares of common stock issuable upon exercise of Pre-Funded Warrants and (iii) 1,599,147 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. The exercise of Pre-Funded Warrants and Milestone Warrants held by this selling stockholder are subject to certain beneficial ownership limitations in the related instruments, which provide that a holder of such warrants will not have the right to exercise any portion thereof if such holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of common stock outstanding immediately after giving effect to such exercise. Malcolm Fairbairn, the Chief Investment Officer of Transcend Partners LLC, has voting and dispositive power of the securities held by Transcend Partners LLC. The business address of Transcend Partners LLC and Mr. Fairbairn is 3972 Happy Valley Road, Lafayette, CA 94549.
- (11) The shares of common stock being offered include (i) 533,049 shares of common stock and (ii) 266,524 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. Rob Ballard, Portfolio Manager of Pathfinder Asset Management Ltd., has voting and dispositive power of the securities held by Aviso Financial Inc. ITF Pathfinder Partners' Fund. The business address of Aviso Financial Inc. ITF Pathfinder Partners' Fund and Mr. Ballard is 1450-1066 West Hastings St. Vancouver, BC V6E 3X1.
- (12) The shares of common stock being offered include (i) 1,279,317 shares of common stock and (ii) 639,658 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. Laurence Lytton, President of Lytton-Kambara Foundation, has voting and dispositive power of the securities held by Lytton-Kambara Foundation. The business address of Lytton-Kambara Foundation and Mr. Lytton is 467 Central Park West, 17-A, New York, NY 10025.
- (13) The shares of common stock being offered include (i) 1,190,924 shares of common stock, (ii) 750,000 shares of common stock issuable upon exercise of Pre-Funded Warrants and (iii) 970,462 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. The exercise of Pre-Funded Warrants and Milestone Warrants held by this selling stockholder are subject to certain beneficial ownership limitations in the related instruments, which provide that a holder of such warrants will not have the right to exercise any portion thereof if such holder, together with its affiliates, would beneficially own in excess of 4.99% of the number of shares of common stock outstanding immediately after giving effect to such exercise. Mr. Orin Hirschman is the managing member of AIGH Capital Management, LLC, a Maryland limited liability company ("AIGH CM"), who is an advisor with respect to the securities held by AIGH Investment Partners, L.P. ("AIGH LP"). Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM, directly held by AIGH IP and directly held by Mr. Hirschman and his family. The business address for AIGH CM, AIGH LP and Mr. Hirschman is 6006 Berkeley Avenue, Baltimore, Maryland 21209.
- (14) The shares of common stock being offered include (i) 724,242 shares of common stock and (ii) 362,121 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. Mr. Orin Hirschman is the managing member of AIGH Capital Management, LLC, a Maryland limited liability company ("AIGH CM"), who is a sub-advisor with respect to the securities held by WVP Emerging Manager Onshore Fund, LLC - AIGH Series. Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM and directly held by Mr. Hirschman and his family directly. The address for AIGH CM and Mr. Hirschman is 6006 Berkeley Avenue, Baltimore, Maryland 21209.
- (15) The shares of common stock being offered include (i) 1,066,098 shares of common stock and (ii) 533,049 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. Denise Kellen, Trustee of Michael M. Kellen Descendants 2012 GST Trust, has voting and dispositive power of the securities held by Michael M. Kellen Descendants 2012 GST Trust. The business address of Michael M. Kellen Descendants 2012 GST Trust and Mr. Kellen is c/o Bleichroeder LP 1345 Avenue of the Americas, 47th Floor, New York, NY 10105-4700.
- (16) The shares of common stock being offered include (i) 213,219 shares of common stock and (ii) 106,609 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. Brett Conrad, the trustee of Conrad Group Inc Defined Benefit Plan, has voting and dispositive power of the securities held by Conrad Group Inc Defined Benefit Plan. The business address of Conrad Group Inc Defined Benefit Plan and Mr. Conrad is 554 Tearasinab Way., Ivins, UT 84738.
- (17) The shares of common stock being offered include (i) 266,529 shares of common stock and (ii) 133,264 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. Fredric G. Zaino, Chief Investment Officer of Keystone Capital Partners, LLC, has voting and dispositive power of the securities held by Keystone Capital Partners, LLC. The business address of Keystone Capital Partners, LLC and Mr. Zaino is 139 Fulton Street, Suite 412, New York, NY 10038.
- (18) The shares of common stock being offered include (i) 106,609 shares of common stock and (ii) 53,304 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. G. Tyler Runnels, the Chief Executive Officer of T.R. Winston & Company LLC, has voting and dispositive power of the securities held by T.R. Winston & Company LLC. The business address of T.R. Winston & Company LLC and Mr. Runnels is 376 Main St., PO Box 74, Bedminster, NJ 07921.
- (19) The shares of common stock being offered include (i) 335,821 shares of common stock and (ii) 167,910 shares of common stock issuable upon exercise of Milestone Warrants, at an exercise price of \$1.751 per share. 3i Management LLC is the general partner of 3i, LP, and Maier Joshua Tarlow is the manager of 3i Management LLC. As such, Mr. Tarlow exercises sole voting and investment discretion over securities beneficially owned directly or indirectly by 3i, LP and 3i Management LLC. Mr. Tarlow disclaims beneficial ownership of the securities beneficially owned directly by 3i, LP and indirectly by 3i Management LLC. The business address of each of the aforementioned parties is 2 Wooster Street, 2nd Floor, New York, NY 10013.

PLAN OF DISTRIBUTION

We are registering the Selling Stockholder Shares on behalf of the selling stockholders to permit the resale of such shares by the selling stockholders from time to time after the date of this prospectus. The Selling Stockholder Shares were purchased or are acquirable by the selling stockholders, who participated in the March 2026 Private Placement. We will not receive any of the proceeds from the sale by the selling stockholders of the shares of common stock. We will bear all fees and expenses incident to our obligation to register the shares of common stock.

The selling stockholders, which may include donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholders as a gift, pledge, partnership distribution or other transfer, may sell all or a portion of the shares of common stock beneficially owned by them and offered hereby from time to time on any stock exchange, market or trading facility on which the shares are traded or in private transactions.

A selling stockholder may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its own account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- through agreements between broker-dealers and the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the pledgees, transferees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, as permitted by that rule, or Section 4(a)(1) under the Securities Act, if available, rather than under this prospectus; provided that they meet the criteria and conform to the requirements of those provisions.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into options or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to each such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. The selling stockholders reserve the right to accept and, together with its agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. If the selling stockholder is an “underwriter” within the meaning of Section 2(11) of the Securities Act, it will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the name of the selling stockholder, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

If underwriters are used in the sale, the shares of common stock will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. In connection with any such underwritten sale of shares of common stock, underwriters may receive compensation from the selling stockholder, for whom they may act as agents, in the form of discounts, concessions or commissions. If the selling stockholder uses an underwriter or underwriters to effectuate the sale of shares of common stock, we and/or it will execute an underwriting agreement with those underwriters at the time of sale of those shares of common stock.

To the extent required by law, the names of the underwriters will be set forth in a prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes the prospectus supplement and the accompanying prospectus used by the underwriters to sell those securities. The obligations of the underwriters to purchase those shares of common stock will be subject to certain conditions precedent, and unless otherwise specified in a prospectus supplement, the underwriters will be obligated to purchase all the shares of common stock offered by such prospectus supplement if any of such shares of common stock are purchased. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

Listing

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

LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Ellenoff Grossman & Schole LLP, New York, New York.

EXPERTS

The financial statements of RenovoRx, Inc. as of and for the year ended December 31, 2025 and 2024 incorporated by reference in this prospectus, 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.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3, of which this prospectus is a part, under the Securities Act, to register the shares of common stock offered by this prospectus. However, this prospectus does not contain all of the information contained in the Registration Statement. We have omitted from this prospectus some parts of the Registration Statement as permitted by the rules and regulations of the SEC. Statements in this prospectus concerning any document we have filed as an exhibit to the Registration Statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified in their entirety by reference to these filings. In addition, we file annual, quarterly and other 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 www.sec.gov. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge through the Internet. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, can also be accessed free of charge from our website at <http://www.adnas.com>. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained on our website is not part of this prospectus.

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, 2025, filed with the SEC on March 30, 2026 (the "2025 Annual Report");
- All other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act, since the end of the fiscal year covered by the 2025 Annual Report (other than the portions of these documents not deemed to be filed); and
- The description of our common stock contained in the Registration Statement on [Form 8-A](#) (File No. 001-40738) filed with the Commission on August 11, 2021, including any amendment or report filed for the purpose of updating such description (including [Exhibit 4.6](#) to our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Commission on March 30, 2022).

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
2570 West El Camino Real, Suite 640
Mountain View, California 94040
(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.

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8,438,790 Shares of Common Stock
2,200,000 Shares of Common Stock Issuable Upon Exercise of Pre-Funded Warrants
5,319,392 Shares of Common Stock Issuable Upon Exercise of Milestone Warrants

Offered by the Selling Stockholders

PROSPECTUS

_____, 2026

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following is an estimate (other than the SEC registration fee) of the expenses (all of which are to be paid by the registrant) that we may incur in connection with the securities being registered hereby.

	Amount to be Paid
SEC registration fee	\$ 2,788
Legal fees and expenses (including Blue Sky fees)	50,000
Accounting fees and expenses	15,000
Transfer agent fees and expenses	5,000
Miscellaneous	-
Total	\$ 72,788

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors, and other corporate agents, provided that the person acted in good faith and in a manner the person reasonably believed to be in the corporation's best interests, and, with respect to any criminal action, had no reasonable cause to believe the person's actions were unlawful. A similar standard is applicable in the case of derivative actions, except that indemnification extends only to expenses, including attorneys' fees, incurred in connection with the defense or settlement of such action and the statute requires court approval before there can be any indemnification where the person seeking indemnification has been found liable to the corporation. The Delaware General Corporation Law further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise.

The registrant's Sixth Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and Amended and Restated Bylaws (the "Bylaws") provide for indemnification of directors and officers to the fullest extent permitted by law, including payment of expenses in advance of resolution of any such matter.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director or officer of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director or officer, except (1) for any breach of the director's or officer's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions by a director or officer not in good faith or which involve intentional misconduct or a knowing violation of law, (3) for payments of unlawful dividends or unlawful stock repurchases or redemptions made to a director, (4) for any transaction from which the director or officer derived an improper personal benefit or (5) an officer in any action by or in the right of the corporation. The Amended and Restated Certificate of Incorporation of the registrant provides that the registrant's directors shall not be personally liable to it or its stockholders for monetary damages for breach of fiduciary duty as a director and that if the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of the registrant's directors shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

Section 174 of the Delaware General Corporation Law provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved, or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

Further, as permitted by the Delaware General Corporation Law, the registrant has entered into separate indemnification agreements with each of its directors and officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. Each indemnification agreement provides, among other things, for indemnification to the fullest extent permitted by law and the Certificate of Incorporation and Bylaws against any and all expenses, judgments, fines, penalties and amounts paid in settlement of any claim. The indemnification agreements provide for the advancement or payment of all expenses to the indemnitee and for reimbursement to the registrant if it is found that such indemnitee is not entitled to such indemnification under applicable law and the Certificate of Incorporation and Bylaws.

The registrant has obtained and maintains standard policies of insurance under which coverage is provided (a) to its directors and officers against loss(es) rising from claims made by reason of breach of duty or other wrongful act, and (b) to it with respect to payments that it may make to such officers and directors pursuant to the above indemnification provision or otherwise as a matter of law. The coverage provided by these policies may apply whether or not the registrant would have the power to indemnify such person against such liability under the provisions of the Delaware General Corporation Law.

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

See also the undertakings set out in response to Item 17 herein.

Item 16. Exhibits

(a) Exhibits

A list of exhibits filed with this registration statement on Form S-3 is set forth on the Exhibit Index and is incorporated herein by reference.

Item 17. Undertakings

The undersigned registrant hereby undertakes:

1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

a. To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended;

b. To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

c. To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (1)(a), (b) and (c) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the Registration Statement.

2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

a. each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

b. (each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

5) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

6) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
4.1	Form of Pre-Funded Warrant Issued to Investors in the March 2026 Private Placement	8-K	001-40738	4.1	March 23, 2026	
4.12	Form of Milestone Warrant Issued to Investors in the March 2026 Private Placement	8-K	001-40738	4.2	March 23, 2026	
5.1	Opinion of Ellenoff Grossman & Schole LLP					X
10.1	Form of Securities Purchase Agreement in the March 2026 Private Placement	8-K	001-40738	10.1	March 23, 2026	
23.1	Consent of Independent Registered Public Accounting Firm – Frank, Rimerman + Co. LLP					X
23.2	Consent of Ellenoff Grossman & Schole LLP (included in the opinion filed as Exhibit 5.1 to this Registration Statement)					X
24.1	Powers of Attorney (incorporated by reference to the signature page hereto)					X
107	Filing Fee Table					X

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, RenovoRx, Inc., a Delaware corporation, certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Mountain View, State of California, on the 16th day of April, 2026.

RenovoRx, Inc.

By: /s/ Shaun R. Bagai
Name: Shaun R. Bagai
Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Shaun R. Bagai and Ramtin Agah, and each of them, as his or her true and lawful attorney-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities (including his or her capacity as a director and/or officer of RenovoRx, Inc.) to sign any or all amendments (including post-effective amendments) to this registration statement and any and all additional registration statements filed pursuant to Rule 462(b) of the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith and about the premises, as fully to all intents and purposes as they, he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or any of them, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Shaun R. Bagai</u> Shaun R. Bagai	Chief Executive Officer and Director <i>(Principal Executive Officer)</i>	April 16, 2026
<u>/s/ Mark Voll</u> Mark Voll	Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i>	April 16, 2026
<u>/s/ Ramtin Agah</u> Ramtin Agah	Executive Chairman and Chief Medical Officer	April 16, 2026
<u>/s/ Kirsten Angela Macfarlane</u> Kirsten Angela Macfarlane	Director	April 16, 2026
<u>/s/ Laurence J. Marton</u> Laurence J. Marton	Director	April 16, 2026
<u>/s/ Una S. Ryan</u> Una S. Ryan	Director	April 16, 2026
<u>/s/Robert J. Spiegel</u> Robert J. Spiegel	Director	April 16, 2026

ELLENOFF GROSSMAN & SCHOLE LLP
1345 AVENUE OF THE AMERICAS
NEW YORK, NEW YORK 10105
TELEPHONE: (212) 370-1300
FACSIMILE: (212) 370-7889
www.egslp.com

April 16, 2026

RenovoRx, Inc.
2570 W El Camino Real, Suite 640
Mountain View, CA 94040

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to RenovoRx, Inc., a Delaware corporation (the “**Company**”), in connection with the preparation of a registration statement on Form S-3 (the “**Registration Statement**”) filed by the Company with the Securities and Exchange Commission (the “**Commission**”) pursuant to the Securities Act of 1933, as amended (the “**Securities Act**”). The Registration Statement relates to the resale by the selling stockholders listed in the prospectus included as a part of the Registration Statement (the “**Selling Stockholders**”) of up to an aggregate of 15,958,182 shares of common stock, par value \$0.0001 per share, of the Company (the “**Common Stock**”), which is comprised of: (i) 8,438,790 shares of Common Stock (the “**Shares**”) held by the Selling Stockholders, (ii) 2,200,000 shares of Common Stock (the “**PFW Shares**”) issuable upon exercise of pre-funded warrants (the “**Pre-Funded Warrants**”) held by two of the Selling Stockholders and (iii) 5,319,392 shares of Common Stock (the “**Milestone Warrant Shares**”) issuable upon the exercise of revenue milestone warrants (the “**Milestone Warrants**”) held by the Selling Stockholders.

This opinion letter is furnished to you at your request to enable you to fulfill the requirements, in connection with the Registration Statement, of Item 601(b)(5) of Regulation S-K promulgated by the Commission.

We have examined such documents and considered such legal matters as we have deemed necessary and relevant as the basis for the opinion set forth below including, without limitation: (i) the Registration Statement; (ii) the Certificate of Incorporation and Bylaws of the Company, each as amended to date; (iii) the Pre-Funded Warrants and the Milestone Warrants; and (iv) records of meetings and consents of the Board of Directors of the Company provided to us by the Company. With respect to such examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as reproduced or certified copies, and the authenticity of the originals of those latter documents. As to questions of fact material to this opinion, we have, to the extent deemed appropriate, relied upon certain representations of certain officers of the Company.

Based upon and subject to the foregoing, we are of the opinion that:

1. The Shares are duly and validly issued, fully paid and non-assessable shares of Common Stock.
2. Upon due exercise of the Pre-Funded Warrants and payment to the Company of the applicable aggregate exercise price in accordance with the terms of the Pre-Funded Warrants, and when certificates or book-entry evidence of ownership for the PFW Shares have been duly executed and countersigned and delivered in accordance with and pursuant to the terms of the Pre-Funded Warrants, the PFW Shares issuable upon such exercise will be duly and validly issued, fully paid and non-assessable shares of Common Stock.
3. Upon due exercise of the Milestone Warrants and payment to the Company of the applicable aggregate exercise price in accordance with the terms of the Milestone Warrants, and when certificates or book-entry evidence of ownership for the Milestone Warrant Shares have been duly executed and countersigned and delivered in accordance with and pursuant to the terms of the Milestone Warrants, the Milestone Warrant Shares issuable upon such exercise will be duly and validly issued, fully paid and non-assessable shares of Common Stock.

The opinions expressed herein are limited solely to the General Corporation Law of the State of Delaware, including the applicable provisions of the Delaware Constitution and the reported judicial decisions interpreting such law, as currently in effect. We express no opinion as to the effect of any other law of the State of Delaware or the laws, rules or regulations of any other jurisdiction.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to our firm under the caption “Legal Matters” in the prospectus constituting a part of the Registration Statement. In giving such consent, we do not thereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

We assume no obligation to update or supplement any of the opinion set forth herein to reflect any changes of law or fact that may occur following the date hereof.

Yours truly,

/s/ Ellenoff Grossman & Schole LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 30, 2026, relating to the financial statements of RenovoRx, Inc. appearing in the Annual Report on Form 10-K of RenovoRx, Inc. for the year ended December 31, 2025. We also consent to the reference to our Firm under the caption "Experts" in the Registration Statement.

/s/ Frank, Rimerman + Co. LLP

San Francisco, California
April 16, 2026

Calculation of Filing Fee Tables

S-3

RenovoRx, Inc.

Table 1: Newly Registered and Carry Forward Securities

Not Applicable

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid in Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to be Paid	1 Equity	Common Stock	Other	10,638,790	\$ 1.02	\$ 10,851,565.80	0.0001381	\$ 1,498.60				
Fees to be Paid	2 Equity	Common Stock underlying Milestone Warrants issued to Insiders	Other	114,210	\$ 1.9326	\$ 220,722.25	0.0001381	\$ 30.48				
Fees to be Paid	3 Equity	Common Stock underlying Milestone Warrants issued to Non-Affiliated Institutional Investors	Other	5,205,182	\$ 1.751	\$ 9,114,273.68	0.0001381	\$ 1,258.68				
Fees Previously Paid												
Carry Forward Securities												
Carry Forward Securities												
Total Offering Amounts:						\$		\$ 2,787.76				
Total Fees Previously Paid:								\$ 0.00				
Total Fee Offsets:								\$ 0.00				
Net Fee Due:								\$ 2,787.76				

Offering Note

1

Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the Registrant's common stock, par value \$0.0001 per share ("Common Stock"), in connection with any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of outstanding shares of Common Stock.

Consists of (i) 8,438,790 shares of Common Stock and (ii) 2,200,000 shares of Common Stock issuable upon the exercise of pre-funded warrants of the Registrant.

Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) under the Securities Act, based upon the average of the high and low sales price of the Common Stock of \$1.02 as reported on the Nasdaq Capital Market on April 14, 2026.

2

Represents shares of Common Stock issuable upon the exercise of revenue milestone warrants (the "Milestone Warrants") issued to certain directors, officers, or employees of the Registrant with an exercise price of \$1.9326 per share.

3

Represents shares of Common Stock issuable upon the exercise of Milestone Warrants issued to non-affiliated institutional investors with an exercise price of \$1.751 per share.

Table 2: Fee Offset Claims and Sources

Not Applicable

		Registrant or Filer Name	Form or Filing Type	File Number	Initial Filing Date	Filing Date	Fee Offset Claimed	Security Type Associated with Fee Offset Claimed	Security Title Associated with Fee Offset Claimed	Unsold Securities Associated with Fee Offset Claimed	Unsold Aggregate Offering Amount Associated with Fee Offset Claimed	Fee Paid with Fee Offset Source
Rules 457(b) and 0-11(a)(2)												
Fee Offset Claims												
Fee Offset Sources												
Rule 457(p)												
Fee Offset Claims												
Fee Offset Sources												

Table 3: Combined Prospectuses

Not Applicable

	Security Type	Security Class Title	Amount of Securities Previously Registered	Maximum Aggregate Offering Price of Securities Previously Registered	Form Type	File Number	Initial Effective Date
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