# PROSPECTUS SUPPLEMENT

(to Prospectus dated September 12, 2024)



# 40,142,000 Shares of Common Stock Pre-Funded Warrants to Purchase 5,315,000 Shares of Common Stock 5,315,000 Shares of Common Stock Underlying the Pre-Funded Warrants

We are offering 40,142,000 shares of our common stock and, in lieu of shares of common stock to investors that so choose, pre-funded warrants to purchase 5,315,000 shares of our common stock, or the "pre-funded warrants" (and the shares of common stock issuable from time to time upon exercise of each of the pre-funded warrants). The offering price is \$2.20 per share. The purchase price of each pre-funded warrant is equal to the offering price at which a share of common stock is sold in this offering, minus \$0.001, and the exercise price of each pre-funded warrant is \$0.001 per share of common stock. Each pre-funded warrant will be exercisable for one share of common stock at any time after the date of issuance of such pre-funded warrant, subject to an ownership limitation. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the pre-funded warrants.

Our common stock is listed on The Nasdaq Capital Market under the symbol "RLMD." On November 3, 2025, the last reported sale price of our common stock on The Nasdaq Capital Market was \$2.20 per share. There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the pre-funded warrants on any securities exchange or recognized trading system.

Investing in our common stock involves a high degree of risk. Please see "Risk Factors" beginning on page S-5 of this prospectus supplement, on page 2 of the accompanying prospectus and in the other documents that are incorporated by reference herein and therein for more information.

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.

		PER PRE-					
		FUNDED					
	PER	SHARE	WARRANT			TOTAL	
Offering price	\$	2.2000	\$	2.199	\$	100,000,085	
Underwriting discounts and commissions <sup>(1)</sup>	\$	0.1320	\$	0.132	\$	6,000,324	
Proceeds, before expenses, to us	\$	2.0680	\$	2.067	\$	93,999,761	

<sup>(1)</sup> See the section titled "Underwriting" for a description of the compensation payable to the underwriters.

Certain of our officers have indicated an interest in purchasing up to an aggregate of approximately \$2.6 million of shares of our common stock in this offering at the offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters could determine to sell more, less or no shares to any of these potential investors and any of these potential investors could determine to purchase more, less or no shares in this offering. The underwriting discount for any shares sold to these potential investors in the offering will be the same as the underwriting discount for the shares sold to other investors in this offering.

The underwriters expect to deliver the shares of common stock and pre-funded warrants on or about November 5, 2025.

Joint Book-Running Managers

**Jefferies** 

**Leerink Partners** 

# Mizuho

Prospectus Supplement dated November 4, 2025

# TABLE OF CONTENTS

# **Prospectus Supplement**

	Page
About This Prospectus Supplement	S-ii
Prospectus Supplement Summary	S-1
The Offering	S-3
Risk Factors	S-5
Cautionary Note Regarding Forward-Looking Statements and Industry Data	S-8
Use of Proceeds	S-9
<u>Dividend Policy</u>	S-9
<u>Dilution</u>	S-10
Description of Securities We Are Offering	S-11
Material U.S. Federal Income Tax Considerations for Non-U.S. Holders of Our Common Stock and Pre-Funded Warrants	S-12
<u>Underwriting</u>	S-16
<u>Legal Matters</u>	S-25
Experts	S-25
Where You Can Find More Information	S-25
Incorporation of Certain Information by Reference	S-26

# Prospectus

	Page
About This Prospectus	ii
Cautionary Statement Regarding Forward-Looking Statements	iii
Prospectus Summary	1
<u>Risk Factors</u>	2
<u>Use of Proceeds</u>	3
<u>Plan of Distribution</u>	4
Description of Securities We May Offer	7
Common Stock	7
Preferred Stock	8
<u>Warrants</u>	10
Subscription Rights	11
<u>Depositary Shares</u>	12
Purchase Contracts	13
<u>Units</u>	14
Forms of Securities	17
<u>Legal Matters</u>	18
<u>Experts</u>	18
Where You Can Find Additional Information	18
Incorporation of Documents by Reference	19

# ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus form part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC"), utilizing a "shelf" registration process. This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of common stock and pre-funded warrants and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus dated September 12, 2024, provides more general information. Generally, unless the context indicates otherwise, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

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 herein 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.

Neither we nor the underwriters have authorized anyone to provide any information other than that contained or incorporated by reference into this prospectus supplement or the accompanying prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus supplement and the accompanying prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock or pre-funded warrants. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections titled "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus supplement and in the accompanying prospectus.

We are offering to sell, and seeking offers to buy, shares of our common stock and pre-funded warrants only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock and pre-funded warrants in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and pre-funded warrants and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Unless the context otherwise indicates, references in this prospectus to "Relmada," "we," "our" and "us" refer, collectively, to Relmada Therapeutics, Inc. (a Nevada corporation), and its subsidiary, Relmada Therapeutics, Inc. (a Delaware corporation).

#### PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents we incorporate by reference herein and therein. This summary does not contain all of the information you should consider before investing in our common stock or pre-funded warrants. You should read this entire prospectus supplement and accompanying prospectus carefully, especially the risks of investing in our common stock and pre-funded warrants discussed under "Risk Factors" beginning on page S-5 of this prospectus supplement and on page 2 of the accompanying prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement and the accompanying prospectus, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference into this prospectus supplement and the accompanying prospectus, before making an investment decision.

# **Business Overview**

We are a publicly traded, clinical-stage biotechnology company. Our lead product, NDV-01 is a novel, controlled-release intravesical formulation of gemcitabine and docetaxel. NDV-01 is currently in a Phase 2 clinical trial to assess its safety and efficacy in patients with aggressive forms of non-muscle invasive bladder cancer (NMIBC). In 2022, there were approximately 744,000 cases of bladder cancer in the United States. In 2025, there were approximately 85,000 new cases of bladder cancer, of which approximately 68,000 were cases of NMIBC.

We intend to develop NDV-01 for the treatment of high-grade, 2nd line Bacillus Calmette-Guerin (BCG)-unresponsive NMIBC and also in intermediate risk patients in the adjuvant setting. We expect to initiate Phase III programs for each indication in the first-half of 2026. Our second product, Sepranolone, is a novel neurosteroid epimer of allopregnanolone. Sepranolone is being developed for the potential treatment of Prader-Willi Syndrome, Tourette Syndrome, excessive tremor and other diseases related to excessive GABAergic activity. We expect to initiate a Phase IIb study in Prader-Willi Syndrome in the first-half of 2026.

# **Recent Developments**

FDA Feedback on proposed NDV-01 Phase III Trials

The FDA indicated that in the BCG-unresponsive setting, a single arm trial may be acceptable in a patient population refractory to other therapies, with the details of such a design to be discussed further with the FDA. The FDA also indicated that, a randomized, post-transurethral resection of the bladder tumor ("TURBT") adjuvant study comparing NDV-01 to observation in intermediate risk NMIBC patients with a time-to-event primary endpoint is generally acceptable, subject to submission of the intended trial design and endpoint definition to the FDA in a meeting package. In addition, the FDA agreed with our proposal to rely on FDA's prior findings of safety for Gemzar and Taxotere and published literature for the nonclinical safety assessment of NDV-01 because this is a proposed 505(b)(2) approval. Based on this feedback, we will be requesting Type B meetings with the FDA for the randomized intermediate-risk NMIBC trial and for the BCG-unresponsive trial. We have protocols in active development for both the single-arm study in BCG-unresponsive NMIBC with carcinoma in situ (CIS) who are refractory to other therapies, which would enroll approximately 100 patients, and the randomized intermediate-risk NMIBC trial, which would enroll approximately 266 patients.

There can be no assurance that the FDA will agree that our new protocols and plans are sufficient to support approval of NDV-01 and we may not be able to proceed with our Phase III clinical trials on our proposed timetable.

Nine-Month Safety and Efficacy Data

We obtained nine-month safety and efficacy data for our Phase II study of NDV-01 in high-risk NMIBC. Among 36 enrolled patients who received at least one dose, no new safety signals were observed with respect to the type, frequency or severity of adverse events. No patients experienced Grade ≥3 treatment-related adverse events, and no patients discontinued treatment due to adverse events. Of the 36 patients, 22 (61%) experienced a treatment-related adverse event. Among treatment-related adverse events, 62% were transient uncomfortable urination (dysuria), 9% were asymptomatic positive urine culture and 7% were hematuria. The below table summarizes the efficacy data from the study.

Complete Response (CR)	% (n/N)
Anytime	92% (23/25)
3 months	84% (21/25)
6 months	87% (20/23)*
9 months	85% (17/20)*
* Includes patients with CR after re-induction. 60% CR rate after re-induction.	

Two patients have reached the 12-month assessment, and both have a CR. No patient has progressed to muscle-invasive disease and no patient has undergone radical cystectomy. 11 patients are awaiting the three-month response assessment.

Preliminary Financial Information as of September 30, 2025

While we have not completed our quarter-end financial close process, we expect to report that we had approximately \$13.9 million of cash, cash equivalents and short-term investments as of September 30, 2025. This amount is preliminary, has not been audited and is subject to change upon completion of our financial statement closing procedures, and any changes could be material. Additional information and disclosures would be required for a more complete understanding of our financial position as of September 30, 2025, which are not available as of the date of this prospectus supplement.

The unaudited financial data included in this prospectus supplement has been prepared by, and is the responsibility of, management of the Company. Our independent registered public accounting firm, CBIZ CPAs P.C., has not audited, reviewed, compiled or applied agreed-upon procedures with respect to the preliminary financial data set forth above. Accordingly, CBIZ CPAs P.C. does not express an opinion or any other form of assurance with respect thereto. We expect to complete our interim condensed consolidated financial statements as of and for the quarter ended September 30, 2025 subsequent to the completion of this offering. Accordingly, undue reliance should not be placed on this preliminary estimate.

#### **Smaller Reporting Company**

We are a "smaller reporting company" as defined in Item 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. We will remain a smaller reporting company until the last day of the fiscal year in which (i) the market value of our common stock held by non-affiliates exceeds \$250 million as of the prior June 30, or (ii) our annual revenues exceeded \$100 million during such completed fiscal year and the market value of our common stock held by non-affiliates exceeds \$700 million as of the prior June 30.

#### **Corporate Information**

Our principal executive offices are located at 2222 Ponce de Leon Blvd., Floor 3, Coral Gables, Florida 33134 and our telephone number is +1-786-629-1376. Our website address is www.relmada.com. The information contained therein or connected thereto shall not be deemed to be incorporated into this prospectus supplement or the accompanying prospectus. The information on our website is not part of this prospectus supplement or the accompanying prospectus.

For additional information about us, please refer to other documents we have filed with the SEC and that are incorporated by reference into this prospectus, as listed under the heading "Incorporation of Certain Information by Reference."

#### THE OFFERING

Common stock offered by us

40,142,000 shares.

Pre-funded warrants offered by us

We are also offering, in lieu of shares of common stock to certain investors that so choose, pre-funded warrants to purchase 5,315,000 shares of common stock. Each pre-funded warrant will have an initial exercise price per share of \$0.001, subject to certain adjustments. The purchase price of each pre-funded warrant is equal to the price at which the share of common stock is being sold in this offering, minus \$0.001. The pre-funded warrants are exercisable immediately and may be exercised at any time until all of the pre-funded warrants are exercised in full. For more information, see the section titled "Description of Securities We Are Offering—Pre-Funded Warrants." This prospectus supplement also relates to the offering of the shares of common stock issuable upon the exercise of such pre-funded warrants.

Each pre-funded warrant is exercisable for one share of common stock (subject to adjustment as provided therein) at any time at the option of the holder, provided that the holder will be prohibited from exercising its pre-funded warrant for shares of our common stock if, as a result of such exercise, the holder, together with its affiliates, would own more than 9.99% (or, at the election of the purchaser, 4.99%) of the total number of shares of our common stock then issued and outstanding. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase or decrease in such percentage shall not be effective until the sixty-first (61st) day after such notice to us.

Offering price

\$2.20 per share of common stock (or \$2.199 per pre-funded warrant).

Common stock to be outstanding immediately following this offering

73,333,622 shares (assuming no exercise of the pre-funded warrants offered and sold in this offering).

**Use of Proceeds** 

We estimate that the net proceeds to us from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$93.7 million.

We expect to use the net proceeds from this offering, together with our existing cash and cash equivalents and short-term investments, for working capital and general corporate purposes, which includes, without limitation, clinical studies required to gain regulatory approvals, implementation of adequate systems and controls to allow for regulatory approvals, further development of our product candidates, investing in or acquiring companies that are synergistic with or complementary to our technologies, licensing activities related to our current and future product candidates, the development of emerging technologies, investing in or acquiring companies that are developing emerging technologies, licensing activities, or the acquisition of other businesses. See the section titled "Use of Proceeds" in this prospectus supplement for a more complete description of the intended use of proceeds from this offering.

# **Risk Factors**

You should read the section titled "Risk Factors" in this prospectus supplement and similarly titled sections in the documents incorporated by reference into this prospectus supplement for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.

#### **Indications of interest**

Certain of our officers have indicated an interest in purchasing up to an aggregate of approximately \$2.6 million of shares of our common stock in this offering at the offering price. However, because indications of interest are not binding agreements or commitments to purchase, the underwriters could determine to sell more, less or no shares to any of these potential investors and any of these potential investors could determine to purchase more, less or no shares in this offering. The underwriting discount for any shares sold to these potential investors in the offering will be the same as the underwriting discount for the shares sold to other investors in this offering.

#### Nasdaq Capital Market symbol

"RLMD." There is no established public trading market for the pre-funded warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the pre-funded warrants on any securities exchange or recognized trading system. See the section titled "Description of Securities We Are Offering—Pre-Funded Warrants."

The number of shares of our common stock to be outstanding after this offering is based on 33,191,622 shares of our common stock outstanding as of October 24, 2025, and excludes:

- 14,199,986 shares of our common stock issuable upon the exercise of stock options outstanding at October 24, 2025, at a weighted average exercise price of \$13.05 per share;
- 750,908 shares of our common stock issuable upon the exercise of warrants outstanding at October 24, 2025, at a weighted average exercise price of \$28.86 per share; and
- 852,956 shares of our common stock reserved for future grants under the Relmada Therapeutics, Inc. 2021 Equity Incentive Plan (the "2021 Equity Incentive Plan").

Unless otherwise indicated, all information in this prospectus supplement assumes:

- no exercise of the outstanding options and warrants described above; and
- the exercise in full of all pre-funded warrants sold in this offering.

Up to \$100.0 million of shares of our common stock were available for sale under our "at-the-market" facility that we entered into on April 7, 2022 (the "ATM Facility"), with Jefferies LLC, as sales agent for the ATM Facility. As of the date of this prospectus supplement, we have sold 484,900 shares of our common stock under the ATM Facility, and \$86.7 million of shares remain available for sale.

#### RISK FACTORS

Investing in our securities involves a high degree of risk. Before you decide to invest in our securities, you should carefully consider the risks and uncertainties described below, together with all other information contained in this prospectus supplement, the accompanying prospectus and in our filings with the SEC that we have incorporated by reference into this prospectus supplement and the accompanying prospectus, including the Risk Factors included in our Annual Report on Form 10-K for the year ended December 31, 2024, filed on March 27, 2025. If any of such risks actually occurs, our business, prospects, operating results and financial condition could suffer materially. In such event, the trading price of our common stock could decline and you might lose all or part of your investment.

#### Risks Related to Ownership of Our Common Stock, Pre-Funded Warrants, This Offering and Other Matters

# Our proposed development plans may not be sufficient to meet FDA expectations and support approval of NDV-01 and our other product candidates

The FDA and similar regulatory agencies in other countries typically consult with and advise drug companies about the quality and quantity of data needed to support approval new drug products. Drug companies frequently solicit and receive oral and written feedback about many aspects of their development plans, including non-clinical trials, clinical trials and manufacturing processes. While soliciting regulatory feedback is not mandatory and any feedback received is usually not binding, usually this feedback establishes minimum requirements for approval and following any advice received is regarded as a best practice for drug developers.

We have solicited and received feedback from the FDA regarding its expectations for Phase 3 clinical trials to support approval of NDV-01. Based on that feedback, we intend to draft new clinical trial protocols and solicit additional FDA advice on those protocols and our development program. We cannot be certain that the FDA will agree that our new protocols and plans are sufficient to support approval of NDV-01 and we may not be able to proceed with our Phase 3 clinical trials on our proposed timetable. Failure to obtain FDA agreement may delay the development and approval of NDV-01, may increase the cost of our trials and even result in approval never being obtained by us. In addition, our development programs may also fail to generate the data necessary to support approval from the FDA. See "Prospectus Supplement Summary–Recent Developments–FDA Feedback on proposed NDV-01 Phase III Trials".

Disruptions at the FDA and other government agencies caused by funding shortages could hinder their ability to hire, retain or deploy key leadership and other personnel, or otherwise prevent new or modified products from being developed, approved or commercialized in a timely manner or at all, which could negatively impact our business.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has shut down several times – including the most recent shutdown, which began October 1, 2025 -- and certain regulatory agencies, such as the FDA, have had to furlough critical FDA employees and stop critical activities.

If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

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, and you may lose all or part of your investment.

The market price of our common stock could fluctuate significantly, and you may not be able to resell your shares at or above the offering price. Those fluctuations could be based on various factors in addition to those otherwise described in this prospectus supplement or the accompanying prospectus. Any of these factors may result in large and sudden changes in the volume and trading price of our common stock. In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted securities class action litigation against that company. If we were involved in a class action suit, it could divert the attention of management, result in negative press reports and, if adversely determined, have a material adverse effect on our results of operations and financial condition.

In addition, 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 offering price and you may lose some or all of your investment.

# We need to raise additional capital to operate our business, which could dilute your ownership percentage in us.

We are a company focused on product development and have not generated any product revenues to date. Until, and if, we receive approval from the FDA and other regulatory authorities for our product candidates, we cannot sell our drugs and will not have product revenues. Based on our current development plans, we believe that our existing cash and cash equivalents and short-term investments, excluding the proceeds of this offering, will only enable us to fund our operating expenses and capital expenditure requirements into the first half of 2026 unless we halt research and development activities. Therefore, after that time, for the foreseeable future, we will have to fund all of our operations and capital expenditures from the net proceeds of future offerings, which we cannot assure you that we can complete, or we will need to halt our research and development activities. Our actual capital requirements will depend on many factors, including FDA feedback. If we experience unanticipated cash requirements, we will need to seek additional sources of financing, which may not be available on favorable terms, if at all. If we do not succeed in raising additional funds on acceptable terms, we will be unable to complete planned clinical trials or obtain approval of our product candidates from the FDA and other regulatory authorities. In addition, we could be forced to discontinue research and development activities, product development, reduce or forego attractive business opportunities, or discontinue operations.

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 at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

# If you purchase shares of common stock or pre-funded warrants in this offering, you will suffer immediate dilution of your investment.

Because the price of our common stock to be sold in this offering is substantially higher than the as adjusted net tangible book value per share of our common stock, if you purchase shares of our common stock (or pre-funded warrants at the offering price less \$0.001) in this offering, you will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on the offering price of \$2.20 per share, you will experience immediate dilution of \$0.81 per share, representing the difference between our as adjusted net tangible book value per share after giving effect to this offering and the offering price. To the extent outstanding options are exercised, you will incur further dilution. For additional information on the dilution that you will experience immediately after this offering, see the section titled "Dilution"

# We have broad discretion in the use of the proceeds from this offering 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.

Although we currently intend to use the proceeds from this offering in the manner described in the section titled "Use of Proceeds" in this prospectus supplement, our management will have broad discretion in the application of the proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. You will not have the opportunity to influence our decisions on how to use our proceeds from this offering. The failure by our management to apply these funds effectively could result in financial losses that could harm our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the proceeds from this offering in a manner that does not produce income or that losses value.

# Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future, and investors seeking cash dividends should not purchase shares of our common stock. Our board of directors has significant discretion as to whether to distribute dividends and in what amounts. Even if our board of directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on, among other matters, our future results of operations and cash flow, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our board of directors.

# There is no public market for the pre-funded warrants being offered by us in this offering.

There is no established public trading market for the pre-funded warrants being sold in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the pre-funded warrants on any securities exchange or recognized trading system. Without an active market, the liquidity of the pre-funded warrants will be limited.

#### Holders of the pre-funded warrants will have no rights as common stockholders until they acquire our common stock.

Until you acquire shares of our common stock upon exercise of the pre-funded warrants, you will have no rights with respect to our common stock issuable upon exercise of the pre-funded warrants, including the right to receive dividend payments, vote or respond to tender offers. Upon exercise of your pre-funded warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

# We will not receive significant additional funds upon the exercise of the pre-funded warrants being offered.

In certain limited circumstances, each pre-funded warrant may be exercised by way of a cashless exercise, meaning that the holder may not pay a cash purchase price upon exercise, but instead would receive upon such exercise the net number of shares of our common stock determined according to the formula set forth in the pre-funded warrant. Accordingly, we may not receive any additional funds upon the cashless exercise of the pre-funded warrants or if the pre-funded warrants altogether are not exercised at all. In addition, the pre-funded warrants have an exercise price of \$0.001 per share of common stock, and as a result we will not receive significant additional funds upon their exercise even if not a cashless exercise.

#### Significant holders or beneficial holders of shares of our common stock may not be permitted to exercise the pre-funded warrants that they hold.

A holder of a pre-funded warrant will not be entitled to exercise any portion of any pre-funded warrants which, upon giving effect to such exercise, would cause (i) the aggregate number of shares of our common stock beneficially owned by the holder (together with its affiliates) to exceed 9.99% (or, at the election of the purchaser, 4.99%) of the number of shares of our common stock outstanding immediately after giving effect to the exercise, or (ii) the combined voting power of our securities beneficially owned by the holder (together with its affiliates) to exceed 9.99% of the combined voting power of all of our securities then outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. Such percentage may be increased or decreased by written notice by the holder of the pre-funded warrants to any other percentage not in excess of 9.99%. Such increase or decrease will not be effective until the sixty-first (61st) day after such notice is delivered to us. As a result, you may not be able to exercise your pre-funded warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such circumstance you could seek to sell your pre-funded warrants to realize value, but you may be unable to do so in the absence of an established trading market for the pre-funded warrants.

# If we do not maintain a current and effective registration statement relating to the shares of common stock issuable upon exercise of the pre-funded warrants, holders will only be able to exercise such pre-funded warrants on a "cashless basis."

If we do not maintain a current and effective registration statement relating to the shares of common stock issuable upon exercise of the pre-funded warrants at the time that holders wish to exercise such pre-funded warrants, they will only be able to exercise them on a "cashless basis," provided that an exemption from registration is available. As a result, the number of shares of common stock that holders will receive upon exercise of the pre-funded warrants will be fewer than it would have been had such holder exercised his or her warrant for cash, and holders may be limited in their ability to immediately sell shares upon exercise, subject to volume or other securities law limitations. Further, if an exemption from registration is not available, holders would not be able to exercise on a cashless basis and would only be able to exercise their pre-funded warrants for cash if a current and effective registration statement relating to the shares of common stock issuable upon exercise of the pre-funded warrants is available.

# A sale of a substantial number of shares of our common stock, including any shares issuable upon exercise of any pre-funded warrants, may cause the price of our common stock to decline.

We cannot predict what effect, if any, future sales of our shares in the public market or the availability of shares for sale will have on the market price of our common stock. However, future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of any pre-funded warrants issued in this offering or option awards or upon settlement of restricted stock units or shares sold pursuant to our "at the market" equity offering program that we entered into on April 7, 2022 with Jefferies LLC (the "Sales Agreement"), or the perception that such sales may occur, could adversely affect the market price of our common stock. We also expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell common stock, convertible securities, or other equity securities in one or more transactions at prices and in a manner we determine from time to time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock.

#### CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein may contain forward looking statements that involve risks and uncertainties. All statements other than statements of historical fact contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein, including statements regarding future events, our future financial performance, business strategy, plans and objectives of management for future operations and the anticipated use of the net proceeds from this offering, are forward-looking statements. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "should," or "will" or the negative of these terms or other comparable terminology. Although we do not make forward looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under the section titled "*Risk Factors*" or elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein, which may cause our or our industry's actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Moreover, we operate in a highly regulated, very competitive, and rapidly changing environment. New risks emerge from time to time and it is not possible for us to predict all risk factors, nor can we address the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause our actual results to differ materially from those contained in any forward-looking statements.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy, short term and long term business operations, and financial needs. These forward-looking statements are subject to certain risks and uncertainties that could cause our actual results to differ materially from those reflected in the forward looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this prospectus supplement and the accompanying prospectus, and in particular, the risks discussed below and under the section titled "Risk Factors" and those discussed in other documents we file with the SEC. The following discussion should be read in conjunction with our audited consolidated financial statements as of December 31, 2024 and 2023, and the related consolidated statements of operations, stockholders' equity and cash flows for the years ended December 31, 2024 and 2023, as well as our interim unaudited consolidated financial statements as of and for the three and six months ended June 30, 2025 and 2024, and related notes, incorporated by reference into the prospectus. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statement. You should understand that it is not possible to predict or identify all risk factors. Consequently, you should not consider any such list to be a complete set of all potential risks or uncertainties.

You should not place undue reliance on any forward-looking statement, each of which applies only as of the date on which it is made, which is the date of this prospectus supplement or the accompanying prospectus or the document incorporated by reference herein in which such statement appears, as applicable. Except as required by law, we undertake no obligation to update or revise publicly any of the forward-looking statements after the date of this prospectus supplement to conform our statements to actual results or changed expectations. You are advised, however, to consult any further disclosures we make on related subjects in our reports on Forms 10-K, 10-Q and 8-K filed with the SEC.

This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein may include statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. All of the market data used in this prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such data. We believe that the information from these industry publications, surveys and studies is reliable.

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.

#### USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of shares of our common stock (or pre-funded warrants in lieu thereof) in this offering will be approximately \$93.7 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We expect to use the net proceeds from this offering, together with our existing cash and cash equivalents and short-term investments, for working capital and general corporate purposes, which includes, without limitation, clinical studies required to gain regulatory approvals, implementation of adequate systems and controls to allow for regulatory approvals, further development of our product candidates, investing in or acquiring companies that are synergistic with or complementary to our technologies, licensing activities related to our current and future product candidates, the development of emerging technologies, investing in or acquiring companies that are developing emerging technologies, licensing activities, or the acquisition of other businesses.

This expected use of the net proceeds from this offering and our existing cash and cash equivalents and short-term investments represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. As of the date of this prospectus supplement, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above. We may also use a portion of the net proceeds to acquire, license or invest in complementary products, technologies, intellectual property or businesses, although we have no present commitments or agreements to do so. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents and short-term investments, will enable us to fund our operating expenses and capital expenditure requirements up to approximately 24 months from the filing of this prospectus supplement. The expected net proceeds from this offering will not be sufficient for us to fund any of our product candidates through regulatory approval, and we will need to raise substantial additional capital to complete the development and commercialization of our product candidates. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from preclinical studies and clinical trials, the timing of regulatory submissions and the outcome of regulatory review, as well as any collaborations that we may enter into with third parties for our product candidates and any unforeseen cash needs. For additional information regarding our potential capital requirements, including factors that could cause actual costs to vary from the estimates set forth above, see the section titled "Risk Factors." As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

# DIVIDEND POLICY

We plan to retain any earnings for the foreseeable future for our operations. We have never paid any dividends on our common stock and do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of our board of directors and will depend on our financial condition, operating results, restrictions in the agreements governing any indebtedness we may enter into, capital requirements and such other factors as our board of directors deems relevant.

# DILUTION

If you invest in our securities in this offering, your ownership interest will be diluted immediately to the extent of the difference between the offering price per share of common stock (or pre-funded warrant in lieu thereof) you will pay in this offering and the as adjusted net tangible book value per share of our common stock after this offering.

Our historical net tangible book value as of June 30, 2025, was \$15.9 million, or \$0.48 per share of common stock. Our historical net tangible book value is the amount of our total tangible assets less our total liabilities. Historical net tangible book value per share represents our historical net tangible book value divided by the number of shares of our common stock outstanding as of June 30, 2025.

After giving effect to the issuance and sale of 45,457,000 shares of common stock (which assumes the exercise of all pre-funded warrants sold in this offering) in this offering at the offering price of \$2.20 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2025, would have been \$109.7 million, or \$1.39 per share. This represents an immediate increase of \$0.91 in as adjusted net tangible book value per share to existing stockholders and immediate dilution of \$0.81 in as adjusted net tangible book value per share to investors purchasing securities in this offering. Dilution per share to investors purchasing securities in this offering price per share paid by investors purchasing securities in this offering. The following table illustrates this dilution to the investors purchasing shares securities in this offering.

Offering price per share		\$ 2.20
Historical net tangible book value per share as of June 30, 2025	\$ 0.48	
Increase in as adjusted net tangible book value per share attributable to investors purchasing securities in this offering	0.91	
As adjusted net tangible book value per share after giving effect to this offering	,	 1.39
Dilution per share to investors purchasing securities in this offering		\$ 0.81

#### The table above excludes:

- 14,158,927 shares of our common stock issuable upon the exercise of stock options outstanding at June 30, 2025, at a weighted average exercise price of \$13.05 per share:
- 750,908 shares of our common stock issuable upon the exercise of warrants outstanding at June 30, 2025, at a weighted average exercise price of \$28.86 per share; and
- 894,015 shares of our common stock reserved for future grants under the 2021 Equity Incentive Plan.

To the extent that outstanding stock options and warrants are exercised, new stock options or other types of awards are issued under our equity incentive plans, or we issue additional shares of common stock, warrants convertible debt or other convertible securities in the future, there will be further dilution to investors participating in this offering.

#### DESCRIPTION OF SECURITIES WE ARE OFFERING

#### Common Stock

The material terms and provisions of our common stock and each other class of our securities that qualifies or limits our common stock are described under the caption "Description of Securities We May Offer-Common Stock" in the accompanying prospectus. We have 350,000,000 shares of capital stock authorized under our Articles of Incorporation, which consists of 150,000,000 shares of common stock with a par value of \$0.001 per share and 200,000,000 shares of preferred stock with par value \$0.001 per share. Our common stock is listed on The Nasdaq Capital Market under the symbol "RLMD." Our transfer agent is Empire Stock Transfer Inc.

#### **Pre-Funded Warrants**

The material terms and provisions of the pre-funded warrants being issued in this offering are summarized below. The following description is subject to, and qualified in its entirety by, the form of pre-funded warrant which will be filed as an exhibit to a Current Report on Form 8-K to be filed by us with the SEC in connection with this offering. You should review the form of pre-funded warrant for a complete description of the terms and conditions applicable to the pre-funded warrants.

Term. The pre-funded warrants will not expire.

Duration and exercise price. Each pre-funded warrant offered hereby will have an initial exercise price per share equal to \$0.001. The exercise price and number of shares of common stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price.

Exercisability. The pre-funded warrants will be exercisable at any time on or after the original issuance date. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of such holder's pre-funded warrant to the extent that the holder would own more than 9.99% (or, at the election of the purchaser, 4.99%) of the outstanding shares of common stock immediately after exercise, except that upon at least sixty-one (61) days' written prior notice from the holder to us, the holder may increase or decrease the amount of ownership of outstanding shares of common stock after exercising the holder's pre-funded warrants up to 9.99% of the number of shares of common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. No fractional shares of common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will either pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price or round up to the next whole share.

Cashless exercise. In lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the pre-funded warrants

*Transferability.* Subject to compliance with any applicable securities laws and rule of any applicable trading market, the pre-funded warrants are separately tradeable immediately after issuance at the option of the holders and may be transferred at the option of the holders upon surrender of the warrant and payment for all applicable transfer taxes (if any).

No Listing. There is no established public trading market for the pre-funded warrants and we do not expect a market to develop. In addition, we do not intend to apply for listing of the pre-funded warrants on any securities exchange or recognized trading system, including The Nasdaq Capital Market. Without an active market, the liquidity of the pre-funded warrants will be limited.

Fundamental Transactions. In the event of a fundamental transaction, as described in the pre-funded warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our assets, our consolidation or merger with or into another person or the acquisition of 50% or more of our outstanding common stock, the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction.

Rights as a Stockholder. Except as otherwise provided in the pre-funded warrants or by virtue of a holder's ownership of shares of our common stock, the holders of the pre-funded warrants do not have the rights or privileges of holders of our common stock, including the right to receive dividend payments, vote or respond to tender offers, until they exercise their pre-funded warrants.

Warrant Agent. We will act as warrant agent for the pre-funded warrants.

# MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF OUR COMMON STOCK AND PRE-FUNDED WARRANTS

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock and pre-funded warrants to non-U.S. holders, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed, possibly retroactively, so as to result in U.S. federal income tax consequences different from those set forth below.

This summary does not address the tax considerations arising under the laws of any U.S. state or local or any non-U.S. jurisdiction, the potential application of the alternative minimum tax, special accounting rules under Section 451(b) of the Code, or the Medicare contribution tax on net investment income or under U.S. federal gift and estate tax laws. In addition, this discussion does not address all tax considerations that may be applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies or other financial institutions;
- tax-exempt organizations;
- dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- real estate investment trusts and regulated investment companies;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships and other pass-through entities and arrangements that are treated as pass-through entities (and investors therein);
- persons that own, or are deemed to own, more than 5% of our common stock and/or pre-funded warrants (except to the extent specifically set forth below);
- certain former citizens or long-term residents of the United States;
- persons who hold our common stock or pre-funded warrants as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction;
- persons who hold or receive our common stock or pre-funded warrants pursuant to the exercise of an employee stock option or otherwise as compensation;
- persons who do not hold our common stock or pre-funded warrants as a capital asset within the meaning of Section 1221 of the Code (generally, for investment purposes); or
- persons deemed to sell our common stock or pre-funded warrants under the constructive sale provisions of the Code.

In addition, if a partnership or entity or arrangement classified as a partnership for U.S. federal income tax purposes holds our common stock or pre-funded warrants, the tax treatment of its partners generally will depend on the status of the partners and upon the activities of the partnership. Accordingly, partnerships that hold our common stock and pre-funded warrants, and partners in such partnerships, should consult their tax advisors.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock or pre-funded warrants arising under the U.S. federal non-income tax laws, or under the laws of any U.S. state or local or any non-U.S. or other taxing jurisdiction or any applicable tax treaty.

#### Non-U.S. Holder Defined

For purposes of this discussion, you are a non-U.S. holder if you are any holder (other than a partnership or entity or arrangement classified as a partnership for U.S. federal income tax purposes) that is not:

- an individual who is a citizen or resident of the United States;
- a corporation or other entity taxable as a corporation created or organized in the United States or under the laws of the United States or any state or political subdivision thereof or the District of Columbia;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (x) whose administration is subject to the primary supervision of a court within the United States and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (y) which has made a valid election to be treated as a U.S. person for U.S. federal income tax purposes.

#### **Characterization of the Pre-Funded Warrants for Tax Purposes**

Although it is not entirely free from doubt, because the exercise price of the pre-funded warrants is a nominal amount, the pre-funded warrants are generally expected to be treated as shares of our common stock for U.S. federal income tax purposes (and a non-U.S. holder is expected to be subject to the same tax considerations as if the non-U.S. holder held shares of our common stock as discussed below). Accordingly, no gain or loss should be recognized upon exercise of a pre-funded warrant, and the holding period of the shares of our common stock received upon exercise of a pre-funded warrant should include the holding period of the pre-funded warrant. Similarly, the tax basis of the pre-funded warrant should carry over to the shares of common stock received upon exercise, increased by the exercise price. Each non-U.S. holder is urged to consult its tax advisor regarding the U.S. federal income tax considerations to it of the ownership and disposition of the pre-funded warrants. The following discussion generally assumes that the characterization described above is respected for U.S. federal income tax purposes.

#### **Constructive Distributions on Pre-Funded Warrants**

Under Section 305 of the Code, an adjustment to (or failure to adjust) the number of shares that will be issued on the exercise of the pre-funded warrants may be treated as a constructive distribution to a non-U.S. holder of pre-funded warrants if, and to the extent that, such adjustment (or failure to adjust) has the effect of increasing such non-U.S. holder's proportionate interest in our assets or earnings and profits as determined under U.S. federal income tax law, depending on the circumstances of such adjustment. Non-U.S. holders should consult their tax advisors on the circumstances in which a constructive distribution may be realized, and the tax consequences of any such constructive distribution.

# **Dividends on Common Stock**

We have never paid dividends on our common stock and do not anticipate doing so in the foreseeable future. However, if we do make distributions of cash or property on our common stock, those payments will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of common stock (see "Gain on Disposition of Common Stock and Pre-Funded Warrants" below).

Subject to the discussion below on effectively connected income, any dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us and/or our paying agent with an Internal Revenue Service, or IRS, Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 certifying qualification for the reduced rate. If you hold our common stock through a financial institution or other agent acting on your behalf, you will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through intermediaries.

Dividends received by you that are effectively connected with your conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, are attributable to a permanent establishment maintained by you in the United States) are taxed at the same rates applicable to U.S. persons, net of certain deductions and credits. In addition, if you are a corporate non-U.S. holder, dividends you receive that are effectively connected with your conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty. Payments of effectively connected dividends that are included in the gross income of a non-U.S. holder generally are exempt from withholding tax. In order to obtain this exemption, you must provide us and/or our paying agent with an IRS Form W-8ECI or other applicable IRS Form W-8 properly certifying such exemption.

If you are eligible for a reduced rate of withholding tax pursuant to a tax treaty, you may be able to obtain a refund of any excess amounts currently withheld if you timely file an appropriate claim for refund with the IRS.

Dividends on our common stock will also be subject to the discussion below under the headings "Backup Withholding and Information Reporting" and "Foreign Account Tax Compliance Act."

As discussed above under "Constructive Distributions on Pre-Funded Warrants" certain adjustments to the pre-funded warrants may result in a constructive distribution to holders of such pre-funded warrants. Non-U.S. holders should consult their tax advisors on the circumstances in which a constructive distribution may be realized, and the tax consequences of any such constructive distribution.

#### Gain on Disposition of Common Stock and Pre-Funded Warrants

In general, subject to the discussion below under the headings "Backup Withholding and Information Reporting" and "Foreign Account Tax Compliance Act," you will not be subject to U.S. federal income tax or withholding tax on any gain realized upon the sale or other disposition of our common stock or pre-funded warrants unless:

- the gain is effectively connected with your conduct of a U.S. trade or business (and, if an income tax treaty so requires, the gain is attributable to a permanent establishment or fixed base maintained by you in the United States), in which case you will be required to pay tax on the net gain derived from the sale (net of certain deductions or credits) under regular U.S. federal income tax rates, and for a non-U.S. holder that is a corporation, such non-U.S. holder may also be subject to a branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty;
- you are an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met, in which case you will be required to pay a flat 30% tax on the gain derived from the sale, which tax may be offset by certain U.S. source capital losses (even though you are not considered a resident of the United States) subject to an applicable tax treaty providing otherwise; or
- our common stock or pre-funded warrants constitute a U.S. real property interest by reason of our status as a "United States real property holding corporation" for U.S. federal income tax purposes (a USRPHC) at any time within the shorter of the five-year period preceding the disposition or your holding period for our common stock. We believe that we are not currently and that we will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our worldwide real property and our other assets which are used or held for use in a trade or business, there can be no assurance that we will not become a USRPHC in the future. Even if we became a USRPHC, a non-U.S. holder would not be subject to U.S. federal income tax on a sale, exchange or other taxable disposition of our common stock or pre-funded warrants by reason of our status as a USRPHC so long as our common stock is regularly traded on an established securities market (within the meaning of the applicable regulations) and such non-U.S. holder does not own and is not deemed to own, directly, indirectly or constructively (including through the ownership of pre-funded warrants) more than 5% of our outstanding common stock at any time during the shorter of the five year period ending on the date of disposition and such holder's holding period. However, no assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rules described above. Our pre-funded warrants are not expected to be regularly traded and special rules may apply to non-U.S. holders of pre-funded warrants. Prospective investors are encouraged to consult their own tax advisors regarding the possible consequences to them if we are, or were to become, a USRPHC.

#### **Backup Withholding and Information Reporting**

Generally, we must report annually to the IRS the amount of distributions paid to you, your name and address, and the amount of tax withheld, if any. A similar report will be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of distributions or of proceeds on the disposition of common stock or pre-funded warrants made to you may be subject to additional information reporting and backup withholding at a current rate of 24% unless you establish an exemption, for example by properly certifying your non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax, rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

# Foreign Account Tax Compliance Act

The Foreign Account Tax Compliance Act, or FATCA, imposes a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock or pre-funded warrants (subject to the discussion below) to a "foreign financial institution" (as specifically defined for this purpose) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock (subject to the discussion below) to a "non-financial foreign entity" (as specifically defined for this purpose) unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or indirect U.S. owners or provides information regarding direct and indirect U.S. owners of the entity. The U.S. Treasury Department has released proposed regulations which, if finalized in their present form, would eliminate the U.S. federal withholding tax of 30% applicable to the gross proceeds of a sale or other disposition of our common stock. The proposed regulations may be relied upon by taxpayers until final regulations are issued. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Under certain circumstances, you may be eligible for refunds or credits of tax withheld pursuant to the rules described in this section. You should consult your tax advisors regarding these withholding provisions.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, owning and disposing of our common stock and/or prefunded warrants, including the consequences of any proposed change in applicable laws.

#### UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated November 4, 2025, by and among us, Jefferies LLC and Leerink Partners LLC, as the representatives of the underwriters named below and the joint book-running managers of this offering, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock and pre-funded warrants shown opposite its name below:

Number of

		Number of
	Number of	Pre-Funded
Underwriter	Shares	Warrants
Jefferies LLC	18,063,900	2,391,750
Leerink Partners LLC	16,056,800	2,126,000
Mizuho Securities USA LLC	6,021,300	797,250
Total	40,142,000	5,315,000

The underwriting agreement provides that the obligations of the several underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock and pre-funded warrants if any of them are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act of 1933, as amended (the "Securities Act"), and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that, following the completion of this offering, they currently intend to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so, and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters are offering the shares of common stock and pre-funded warrants subject to their acceptance of the shares of common stock and pre-funded warrants from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers and to reject orders in whole or in part.

# **Commission and Expenses**

The underwriters have advised us that they propose to offer the shares of common stock and pre-funded warrants at the offering price set forth on the cover page of this prospectus supplement and to certain dealers, which may include the underwriters, at that price less a concession not in excess of \$0.0792 per share of common stock or pre-funded warrant. The underwriters may allow, and certain dealers may reallow, a discount from the concession to certain brokers and dealers. After the offering price, concession and reallowance to dealers may be reduced by the representatives. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement.

The following table shows the offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds, before expenses, to us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Per Per Pre-Funded					
	 Share		Warrant		Total	
Offering price	\$ 2.2000	\$	2.199	\$	100,000,085	
Underwriting discounts and commissions paid by us	\$ 0.1320	\$	0.132	\$	6,000,324	
Proceeds, before expenses, to us	\$ 2.0680	\$	2.067	\$	93,999,761	

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$265,000. We have also agreed to reimburse the underwriters up to \$15,000 for their expenses relating to clearing of this offering with the Financial Industry Regulatory Authority, Inc. ("FINRA"). In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

# Listing

Our common stock is listed on The Nasdaq Capital Market under the trading symbol "RLMD". There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

#### No Sales of Similar Securities

We, our officers and directors have agreed, subject to specified exceptions, not to directly or indirectly:

- sell, offer, contract to sell or lend, grant any option to sell (including any short sale), pledge, swap, hypothecate, grant any security interest in, transfer, establish or increase a "put equivalent position" within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or liquidate or decrease a "call equivalent position" within the meaning of Rule 16a-1(b) under the Exchange Act;
- make any demand for, or exercise any right with respect to, the registration under the Securities Act of the offer and sale of any shares of common stock, options or warrants or other rights to acquire shares of common stock or any securities exchangeable or exercisable for or convertible into shares of common stock, or cause to be filed a registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) with respect to any such registration;

- otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially; or
- publicly announce an intention to do any of the foregoing, for a period of 90 days after the date of this prospectus supplement without the prior written consent of Jefferies LLC and Leerink Partners LLC.

This restriction terminates after the close of trading of the common stock on and including the 90th day after the date of this prospectus supplement.

Jefferies LLC and Leerink Partners LLC may, in their sole discretion and at any time or from time to time before the termination of the 90-day period release all or any portion of the securities subject to lock-up agreements. Except for customary lock-up exceptions, including with respect to our Sales Agreement with Jefferies LLC, there are no existing agreements between the underwriters and any of our officers or directors who will execute a lock-up agreement that provide consent to the sale of shares of common stock prior to the expiration of the lock-up period.

#### Stabilization

The underwriters have advised us that, pursuant to Regulation M under the Securities Exchange Act of 1934, as amended, certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. Similar to other purchase transactions, the underwriter's purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriters may also engage in passive market making transactions in our common stock on The Nasdaq Capital Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

# **Electronic Distribution**

This prospectus supplement and the accompanying prospectus in electronic format may be made available by e-mail or on the websites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus supplement in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus supplement, has not been approved and/or endorsed by us or the underwriters and should not be relied upon by investors.

# Other Activities and Relationships

The underwriters and certain of their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their respective affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses. For example, Jefferies LLC is the sales agent under our Sales Agreement and both Jefferies LLC and Leerink Partners LLC have served as underwriters in other of our equity offerings.

In the ordinary course of their various business activities, the underwriters and certain of their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriters or their respective affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their respective affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the securities offered hereby. Any such short positions could adversely affect future trading prices of the shares of our common stock. The underwriters and certain of their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

# Disclaimers About Non-U.S. Jurisdictions

#### Australia

Neither this prospectus supplement nor the accompanying prospectus is a disclosure document for the purposes of Australia's Corporations Act 2001 (Cth) of Australia, or Corporations Act, or has been lodged with the Australian Securities & Investments Commission, and each is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus supplement and the accompanying prospectus in Australia:

You confirm and warrant that you are either:

- a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;
- a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to the Company which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;
- a person associated with the Company under Section 708(12) of the Corporations Act; or
- a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act, any offer made to you under this prospectus supplement and the accompanying prospectus is void and incapable of acceptance.

You warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus supplement and the accompanying prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

#### Canada

#### (A) Resale Restrictions

The distribution of securities in Canada is being made only in the provinces of Ontario, Quebec, Alberta, British Columbia, Manitoba, New Brunswick and Nova Scotia on a private placement basis exempt from the requirement that we prepare and file a prospectus supplement with the securities regulatory authorities in each province where trades of these securities are made. Any resale of the securities in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

# (B) Representations of Canadian Purchasers

By purchasing securities in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the securities without the benefit of a prospectus supplement qualified under those securities laws as it is an "accredited investor" as defined under National Instrument 45-106—Prospectus Exemptions or Section 73 3(1) of the Securities Act (Ontario) as applicable,
- the purchaser is a "permitted client" as defined in National Instrument 31-103—Registration Requirements, Exemptions and Ongoing Registrant Obligations,
- · where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

#### (C) Conflicts of Interest

Canadian purchasers are hereby notified that the representatives are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105—*Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this document.

# (D) Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the prospectus supplement (including any amendment thereto) such as this document contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser of these securities in Canada should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

# (E) Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

#### (F) Taxation and Eligibility for Investment

Canadian purchasers of securities should consult their own legal and tax advisors with respect to the tax consequences of an investment in the securities in their particular circumstances and about the eligibility of the securities for investment by the purchaser under relevant Canadian legislation.

#### European Economic Area

In relation to each Member State of the European Economic Area (each a "Relevant State"), no securities have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that the securities may be offered to the public in that Relevant State at any time:

- (a) to any legal entity which is a "qualified investor" as defined under Article 2 of the Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of securities shall require us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation. Each person who initially acquires any securities or to whom any offer is made will be deemed to have represented, warranted, acknowledged and agreed to and with us and each of the underwriters that it is a "qualified investor" within the meaning of Article 2 of the Prospectus Regulation.

In the case of any securities being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, warranted, acknowledged and agreed that the securities acquired by it in the offering have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any securities to the public other than their offer or resale in a Relevant State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters has been obtained to each such proposed offer or resale

For the purposes of this provision, the expression "offer to the public" in relation to the securities in any Relevant State means the communication in any form and by means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

# Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong, or the SFO, and any rules made under that Ordinance; or in other circumstances which do not result in the document being a "prospectus" as defined in the Companies Ordinance (Cap. 32) of Hong Kong, or the CO, or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under that Ordinance.

This prospectus supplement has not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus supplement may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus supplement and the relevant offering documents and that he is not acquiring, and has not been offered any securities in circumstances that contravene any such restrictions.

#### Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus supplement is being distributed only to, and is directed only at, and any offer of the securities is directed only at, (i) a limited number of persons in accordance with the Israeli Securities Law and (ii) investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals," each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

# Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended) (FIEL), and the underwriters will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means, unless otherwise provided herein, any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

#### Singapore

This prospectus supplement has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities may not be circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions of, any other applicable provision of the SFA

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the securities pursuant to an offer made under Section 275 of the SFA except:
  - (i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
  - (ii) where no consideration is or will be given for the transfer;
  - (iii) where the transfer is by operation of law;
  - (iv) as specified in Section 276(7) of the SFA; or
  - (v) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Solely for the purposes of its obligations pursuant to section 309B(1)(a) and 309B(1)(c) of the SFA and the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore (the "CMP Regulations 2018"), we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the securities are "prescribed capital markets products" (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products; and MAS notice FAA-N16: Notice on Recommendations on Investment Products).

#### Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus supplement has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus supplement nor any other offering or marketing material relating to the securities or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus supplement nor any other offering or marketing material relating to the offering, the Company or the securities have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus supplement will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or the CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities.

# United Kingdom

No securities have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the securities which has been approved by the Financial Conduct Authority in the United Kingdom, except that the securities may be offered to the public in the United Kingdom at any time:

- $(a) \ \ to \ any \ legal \ entity \ which \ is \ a \ qualified \ investor \ as \ defined \ under \ Article \ 2 \ of \ the \ UK \ Prospectus \ Regulation;$
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Section 86 of the FSMA,

provided that no such offer of securities shall require us or any of the underwriters to publish a prospectus pursuant to Section 85 of the FSMA or Article 3 of the UK Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. Each person in the United Kingdom who initially acquires any securities or to whom any offer is made will be deemed to have represented, warranted, acknowledged and agreed to and with us and each of the underwriters that it is a "qualified investor" within the meaning of the UK Prospectus Regulation.

In the case of any securities being offered to a financial intermediary as that term is used in Article 5(1) of the UK Prospectus Regulation, each such financial intermediary will be deemed to have represented, warranted, acknowledged and agreed that the securities acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer to the public other than their offer or resale in the United Kingdom to qualified investors, in circumstances in which the prior consent of the underwriters has been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an "offer to the public" in relation to the securities in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities, the expression "UK Prospectus Regulation" means Regulation (EU) 2017/1129 as it forms part of domestic law in the United Kingdom by virtue of the European Union (Withdrawal) Act 2018, and the expression "FSMA" means the Financial Services and Markets Act 2000.

In the United Kingdom, this prospectus supplement is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are "qualified investors" (as defined in the UK Prospectus Regulation) (i) who have professional experience in the matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order and/or (ii) who are high net worth companies falling within Article 49(2)(a) to (d) of the Order and other persons to whom it may lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). In the United Kingdom, this document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available in the United Kingdom to relevant persons and will be engaged in only with relevant persons.

#### United Arab Emirates

The securities have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus supplement does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. Neither this prospectus supplement nor the accompanying prospectus has been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the Dubai Financial Services Authority.

# Dubai International Financial Centre

This document relates to an Exempt Offer in accordance with the Markets Rules of the Dubai Financial Services Authority. This document is intended for distribution only to Persons of a type specified in those rules to whom Exempt Offers can be made. It must not be delivered to, or relied on by, any other Person. The Dubai Financial Services Authority has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The Dubai Financial Services Authority has not approved this document nor taken steps to verify the information set out in it, and has no responsibility for it. The securities to which this document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this document you should consult an authorized financial adviser.

#### LEGAL MATTERS

The validity of the securities offered hereby is being passed upon for us by Holland & Hart LLP, Denver, Colorado and Lowenstein Sandler LLP, New York, New

#### **EXPERTS**

Our consolidated financial statements as of and for the years ended December 31, 2024 and 2023, incorporated in this prospectus supplement by reference to our Annual Report on Form 10-K filed with the SEC on March 27, 2025, have been so incorporated in reliance on the report of Marcum LLP, an independent registered public accounting firm, which report includes an explanatory paragraph regarding the Company's ability to continue as a going concern, given on the authority of said firm as experts in auditing and accounting.

# WHERE YOU CAN FIND MORE INFORMATION

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 www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at www.relmada.com.

This prospectus supplement is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus supplement and the accompanying prospectus regarding us and the securities, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC's Internet site. The registration statement and the documents referred to below under the section titled "Incorporation of Certain Information by Reference" are also available on our Internet website, www.relmada.com. Our website is not a part of this prospectus supplement or the accompanying prospectus and is not incorporated by reference into this prospectus supplement or the accompanying prospectus.

# INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus supplement and the accompanying prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference into this prospectus supplement and the accompanying prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus supplement and the accompanying prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement and the accompanying prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement, the accompanying prospectus or in any document previously incorporated by reference have been modified or superseded.

We incorporate by reference the documents listed below that we have previously filed with the SEC:

- Our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on March 27, 2025;
- Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2025, filed with the SEC on May 12, 2025, and June 30, 2025, filed with the SEC on August 7, 2025:
- Our Current Reports on Form 8-K filed with the SEC on <u>January 6, 2025</u>, <u>January 27, 2025</u>, <u>February 6, 2025</u>, <u>March 26, 2025</u>, <u>April 28, 2025</u>, <u>May 12, 2025</u>, <u>May 27, 2025</u>, <u>July 10, 2025</u>, <u>July 23, 2025</u>, <u>September 16, 2025</u> and <u>November 4, 2025</u>;
- Our Definitive Proxy Statement filed with the SEC on April 11, 2025 (other than information furnished rather than filed); and
- The description of our common stock contained in our Registration Statement on Form 8-A filed on October 8, 2019, including any amendment or report filed for the purpose of updating such descriptions, including Exhibit 4.10 to our Annual Report on Form 10-K for the year ended December 31, 2024.

All reports and other documents that we file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement and prior to effectiveness of the registration statement, and after the date of this prospectus but prior to the termination of the offering of the securities hereunder will also be considered to be incorporated by reference into this prospectus from the date of the filing of these reports and documents, and will supersede the information herein; provided, however, that all reports, exhibits and other information that we "furnish" to the SEC will not be considered incorporated by reference into this prospectus. Any statement contained in a document incorporated by reference in this prospectus or any subsequent prospectus supplement shall be deemed to be modified or superseded to the extent that a statement contained herein, therein or in any other subsequently filed document that also is incorporated by reference herein or therein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus or any subsequent prospectus supplement.

We will provide you without charge, upon your oral or written request, with a copy of any or all reports, proxy statements and other documents we file with the SEC, as well as any or all of the documents incorporated by reference in this prospectus or the registration statement (other than exhibits to such documents unless such exhibits are specifically incorporated by reference into such documents). You may request a copy of these documents at no cost, by writing or calling us at the following address or phone number:

Relmada Therapeutics, Inc. Chief Financial Officer 2222 Ponce de Leon Blvd., Floor 3 Coral Gables, FL 33134 +1-786-629-1376



# RELMADA THERAPEUTICS, INC.

\$250,000,000

COMMON STOCK
PREFERRED STOCK
WARRANTS
SUBSCRIPTION RIGHTS
DEPOSITARY SHARES
PURCHASE CONTRACTS
UNITS

This prospectus relates to common stock, preferred stock, warrants, subscription rights, depositary shares, purchase contracts and units that we may sell from time to time in one or more offerings, for an aggregate initial offering price of up to \$250,000,000. We may offer and sell these securities separately or together, in one or more series or classes and in amounts, at prices and on terms described in one or more offerings. We may offer securities through underwriting syndicates managed or co-managed by one or more underwriters or dealers, through agents or directly to purchasers. The prospectus supplement for each offering of securities will describe in detail the plan of distribution for that offering. For general information about the distribution of securities offered, please see "Plan of Distribution" in this prospectus.

Each time our securities are offered or sold, we will provide a prospectus supplement containing more specific information about the terms of that particular offering and attach it to this prospectus. The prospectus supplements may also add, update or change information contained in this prospectus. This prospectus may not be used to offer or sell securities without a prospectus supplement which includes a description of the method and terms of this offering.

Our common stock is quoted on the Nasdaq Global Select Market under the symbol "RLMD." The last reported sale price of our common stock on The Nasdaq Global Select Market on August 27, 2024, was \$2.72 per share.

If we decide to seek a listing of any preferred stock, warrants, subscriptions rights, depositary shares or units offered by this prospectus, the related prospectus supplement will disclose the exchange or market on which the securities will be listed, if any, or where we have made an application for listing, if any.

The securities offered by this prospectus involve a high degree of risk. Before making any investment decision, you should carefully review and consider all the information in this prospectus and the documents incorporated by reference herein, including the risks and uncertainties described under "Risk Factors" beginning on page 2, in addition to Risk Factors contained in the applicable prospectus supplement. We urge you to carefully read this prospectus and the accompanying prospectus supplement, together with the documents we incorporate by reference, describing the terms of these securities before investing.

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 September 12, 2024.

#### TABLE OF CONTENTS

	Page
About This Prospectus	ii
Cautionary Statement Regarding Forward-Looking Statements	iii
Prospectus Summary	1
Risk Factors	2
<u>Use of Proceeds</u>	3
<u>Plan of Distribution</u>	4
Description of Securities We May Offer	7
Common Stock	7
Preferred Stock	8
<u>Warrants</u>	10
Subscription Rights	11
<u>Depositary Shares</u>	12
Purchase Contracts	13
<u>Units</u>	14
Forms of Securities	17
Legal Matters	18
<u>Experts</u>	18
Where You Can Find Additional Information	18
Incorporation of Documents by Reference	19

The terms "Relmada," the "Company," "we," "our" or "us" in this prospectus refer to Relmada Therapeutics, Inc. and our subsidiary Relmada Therapeutics, Inc. (Delaware), unless the context suggests otherwise.

You should rely only on the information contained or incorporated by reference in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with information different from that contained or incorporated by reference into this prospectus. If any person does provide you with information that differs from what is contained or incorporated by reference in this prospectus, you should not rely on it. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus. You should assume that the information contained in this prospectus supplement is accurate only as of the date on the front of the document and that any information contained in any document we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any prospectus supplement or any sale of a security. These documents are not an offer to sell or a solicitation of an offer to buy these securities in any circumstances under which the offer or solicitation is unlawful.

# ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may offer and sell, either individually or in combination, in one or more offerings, any of the securities described in this prospectus, for an aggregate initial offering price of up to \$250,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities under this prospectus, we will provide a prospectus supplement to this prospectus that will contain more specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus.

We urge you to read carefully this prospectus, any applicable prospectus supplement and any free writing prospectuses we have authorized for use in connection with a specific offering, together with the information incorporated herein by reference as described under the heading "Incorporation of Documents by Reference," before investing in any of the securities being offered. You should rely only on the information contained in, or incorporated by reference into, this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. We have not authorized anyone to provide you with different or additional information. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

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

This prospectus may also contain trademarks, service marks and trade names of third parties, which are the property of their respective owners. Our use or display of third parties' trademarks, service marks, trade names or products in this prospectus is not intended for, and does not imply a relationship with, or endorsement or sponsorship by us. Solely for convenience, the trademarks, service marks and trade names referred to in this prospectus may appear without the ®, SM and TM symbols, but the omission of such references is not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the right of the applicable owner of these trademarks, service marks and trade names.

# CAUTIONARY NOTE REGARDING FORWARD LOOKING STATEMENTS

This prospectus and any accompanying prospectus supplement and the documents incorporated by reference herein may contain forward looking statements that involve risks and uncertainties. All statements other than statements of historical fact contained in this prospectus and any accompanying prospectus supplement and the documents incorporated by reference herein, including statements regarding future events, our future financial performance, business strategy, and plans and objectives of management for future operations, are forward-looking statements. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "should," or "will" or the negative of these terms or other comparable terminology. Although we do not make forward looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under "Risk Factors" or elsewhere in this prospectus and the documents incorporated by reference herein, which may cause our or our industry's actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Moreover, we operate in a highly regulated, very competitive, and rapidly changing environment. New risks emerge from time to time and it is not possible for us to predict all risk factors, nor can we address the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause our actual results to differ materially from those contained in any forward-looking statements.

You should read these forward-looking statements carefully because they discuss our expectations about our future performance, our future operating results or our future financial condition, or state other "forward-looking" information. Before you invest, you should be aware that the occurrence of any of the events described in "Risk Factors" or "Item 1A. Risk Factors" in our most recent Annual Report on Form 10-K, any subsequently filed Quarterly Reports on Form 10-Q, any subsequently filed Current Reports on Form 8-K (other than, in each case, information furnished rather than filed), all of which are incorporated by reference herein, and any risk factors included in any applicable prospectus supplement could substantially harm our business, results of operations and financial condition. In light of these risks, uncertainties and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than we have described. Should one or more of the risks or uncertainties described in this prospectus or the documents incorporated by reference herein occur, or should underlying assumptions prove incorrect, our actual results and plans could differ materially from those expressed in any forward-looking statements.

Forward-looking statements contained in this prospectus and all subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by this cautionary statement.

Except as otherwise required by applicable law, we disclaim any duty to update any forward-looking statements, all of which are expressly qualified by the statements in this section, to reflect events or circumstances after the date of this prospectus.

#### PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus. This summary does not contain all the information that you should consider before investing in our Company. You should carefully read the entire prospectus, including all documents incorporated by reference herein. In particular, attention should be directed to our "Risk Factors," "Information with Respect to the Company," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the financial statements and related notes thereto contained herein or otherwise incorporated by reference hereto, before making an investment decision.

All references to "we," "us," "our," "Relmada" and the "Company" mean Relmada Therapeutics, Inc. and its subsidiary Relmada Therapeutics, Inc. (Delaware).

#### **Business Overview**

Relmada Therapeutics, Inc., a Nevada corporation, is a clinical-stage biotechnology company addressing diseases of the central nervous system (CNS).

#### Esmethadone Program (REL-1017)

We have focused on the development of our lead product candidate, esmethadone (d-methadone, dextromethadone, REL-1017), an N-methyl-D-aspartate (NMDA) receptor antagonist. Esmethadone, an isomer of methadone, is a new chemical entity (NCE) that potentially addresses areas of high unmet medical need in the treatment of CNS diseases and other disorders. Esmethadone, is being developed as a rapidly acting, oral agent for the treatment of depression and other potential indications.

- During late 2022, we announced that our Phase 3 clinical trials, RELIANCE I, a trial of REL-1017 as an adjunctive treatment for Major Depressive Disorder (MDD), and RELIANCE III, a monotherapy trial of REL-1017 for MDD, did not achieve their primary endpoints.
- For our long-term open label study of REL-1017 in patients with MDD, Study 310, which included both patients who completed the RELIANCE trials and subjects who had not previously participated in a REL-1017 clinical trial, in September 20, 2023, we announced efficacy results for the de novo (or new to treatment) patients and safety results for all subjects. Patients treated daily with REL-1017 for up to one year experienced rapid, clinically meaningful, and sustained improvements in depressive symptoms and associated functional impairment. REL-1017 was well-tolerated with long-term dosing, showing low rates of adverse events and discontinuations due to adverse events. The most commonly reported adverse events deemed to be treatment-related all occurred included headache, nausea and dizziness. No new safety signals were detected.
- We plan to complete two additional ongoing adjunctive Phase 3 trials (RELIANCE II and RELIGHT) that build on the knowledge obtained from RELIANCE I,

#### Psilocybin Program (REL-P11)

We also intend to enter human studies of our proprietary, modified-release formulation of psilocybin (REL-P11) for metabolic indications in doses that we believe are lower than those associated with psychedelic effects. The Company plans to commence a single-ascending dose Phase 1 trial in obese subjects in Canada in 2024 to define the pharmacokinetic, safety and tolerability profile of REL-P11 in this population, followed by a Phase 2a trial to establish clinical proof-of-concept.

Pre-clinical data in a rodent model of metabolic dysfunction-associated steatotic liver disease demonstrated beneficial effects of psilocybin on multiple metabolic parameters, including reduced hepatic steatosis, reduced body weight gain, and fasting blood glucose levels.

#### **Stock Listing**

Our common stock is listed on The Nasdaq Global Select Market under the symbol "RLMD."

# **Corporate Information**

Our principal executive offices are located at 2222 Ponce de Leon Blvd., Floor 3, Coral Gables, Florida 33134 and our telephone number is +1-786-629-1376. Our website address is *www.relmada.com*. The information contained therein or connected thereto shall not be deemed to be incorporated into this prospectus or the registration statement of which it forms a part. The information on our website is not part of this prospectus.

For additional information about us, please refer to other documents we have filed with the SEC and that are incorporated by reference into this prospectus, as listed under the heading "Incorporation of Certain Information by Reference."

# RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision, you should consider carefully the risks, uncertainties and other factors, if any, described under the caption "Risk Factors" in the applicable prospectus supplement, together with all the other information contained in the prospectus supplement or appearing or incorporated by reference into this prospectus. You should also consider the risks, uncertainties and assumptions discussed under the caption "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K, as supplemented and updated by subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K that we have filed or will file with the SEC, all of which (other than information furnished therein rather than filed) are deemed incorporated by reference into this prospectus.

Our business, affairs, prospects, assets, financial condition, results of operations and cash flows could be materially and adversely affected by these risks. For more information about our SEC filings, please see "Where You Can Find More Information."

# USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, we intend to use the net proceeds from these sales for working capital and general corporate purposes, which includes, without limitation, clinical studies required to gain regulatory approvals, implementation of adequate systems and controls to allow for regulatory approvals, further development of our product candidates, investing in or acquiring companies that are synergistic with or complimentary to our technologies, licensing activities related to our current and future product candidates and working capital, the development of emerging technologies, investing in or acquiring companies that are developing emerging technologies, licensing activities, or the acquisition of other businesses. We will retain broad discretion over the use of the net proceeds from the sale of the securities offered hereby. The amounts and timing of these expenditures will depend on numerous factors, including the development of our current business initiatives.

### 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 securities from time to time to or through underwriters or dealers, through agents, or directly to one or more purchasers. A distribution of the securities offered by this prospectus may also be effected through the issuance of derivative securities, including without limitation, warrants, rights to purchase and subscriptions. In addition, the manner in which we may sell some or all of the securities covered by this prospectus includes, without limitation, through:

- a block trade in which a broker-dealer will attempt to sell as agent, but may position or resell a portion of the block, as principal, in order to facilitate the transaction;
- purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account; or
- ordinary brokerage transactions and transactions in which a broker solicits purchasers.

A prospectus supplement or supplements with respect to each series of securities will describe the terms of the offering, including, to the extent applicable:

- the terms of the offering;
- the name or names of the underwriters or agents and the amounts of securities underwritten or purchased by each of them, if any;
- the public offering price or purchase price of the securities or other consideration therefor, and the proceeds to be received by us from the sale;
- any delayed delivery requirements;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

The offer and sale of the securities described in this prospectus by us, the underwriters or the third parties described above may be effected from time to time in one or more transactions, including privately negotiated transactions, either:

- at a fixed price or prices, which may be changed;
- in an "at the market offering" within the meaning of Rule 415(a)(4) of the Securities Act;
- at prices related to such prevailing market prices; or
- at negotiated prices.

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

#### **Underwriters and Agents; Direct Sales**

If underwriters are used in a sale, they will acquire the offered securities for their own account and may resell the offered securities 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. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate.

Unless the prospectus supplement states otherwise, the obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

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

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

#### Dealers

We may sell the offered securities to dealers as principals. The dealer may then resell such securities to the public either at varying prices to be determined by the dealer or at a fixed offering price agreed to with us at the time of resale.

#### Institutional Purchasers

We may authorize agents, dealers or underwriters to solicit certain institutional investors to purchase offered securities on a delayed delivery basis pursuant to delayed delivery contracts providing for payment and delivery on a specified future date. The applicable prospectus supplement or other offering materials, as the case may be, will provide the details of any such arrangement, including the offering price and commissions payable on the solicitations.

We will enter into such delayed contracts only with institutional purchasers that we approve. These institutions may include commercial and savings banks, insurance companies, pension funds, investment companies and educational and charitable institutions.

#### Indemnification; Other Relationships

We may provide agents, underwriters, dealers and remarketing firms with indemnification against certain civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents, underwriters, dealers and remarketing firms, and their affiliates, may engage in transactions with, or perform services for, us in the ordinary course of business. This includes commercial banking and investment banking transactions.

#### Market-Making; Stabilization and Other Transactions

There is currently no market for any of the offered securities, other than our common stock, which is quoted on the Nasdaq Global Select Market. If the offered securities are traded after their initial issuance, they may trade at a discount from their initial offering price, depending upon prevailing interest rates, the market for similar securities and other factors. While it is possible that an underwriter could inform us that it intends to make a market in the offered securities, such underwriter would not be obligated to do so, and any such market-making could be discontinued at any time without notice. Therefore, no assurance can be given as to whether an active trading market will develop for the offered securities. We have no current plans for listing of the preferred stock, warrants or subscription rights on any securities exchange or quotation system; any such listing with respect to any particular preferred stock, warrants or subscription rights will be described in the applicable prospectus supplement or other offering materials, as the case may be.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

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

#### **Fees and Commissions**

If 5% or more of the net proceeds, not including underwriting compensation, of any offering of securities made under this base prospectus and accompanying prospectus supplement will be (i) used to reduce or retire the balance of a loan or credit facility extended by a FINRA member participating in the offering, its affiliates and its associated persons, in the aggregate; or (ii) otherwise directed to such a FINRA member, its affiliates and associated persons, in the aggregate, the offering pursuant to such prospectus supplement will be conducted in accordance with FINRA Rule 5121.

### DESCRIPTION OF SECURITIES WE MAY OFFER

#### General

This prospectus describes the general terms of our capital stock. The following description is not complete and may not contain all the information you should consider before investing in our capital stock. For a more detailed description of these securities, you should read the applicable provisions of Nevada law and our amended and restated certificate of incorporation, referred to herein as our certificate of incorporation, and our amended and restated bylaws, referred to herein as our bylaws. The description below is based on and is qualified in its entirety by reference to our certificate of incorporation and bylaws. When we offer to sell a particular series of these securities, we will describe the specific terms of the series in a supplement to this prospectus. Accordingly, for a description of the terms of any series of securities, you must refer to both the prospectus supplement relating to that series and the description of the securities described in this prospectus. To the extent the information contained in the prospectus supplement differs from this summary description, you should rely on the information in the prospectus supplement.

We, directly or through agents, dealers or underwriters designated from time to time, may offer, issue and sell, together or separately:

- · common stock;
- preferred stock;
- warrants to purchase our securities;
- subscription rights to purchase our securities;
- depositary shares;
- · purchase contracts; or
- units comprised of, or other combinations of, the foregoing securities.

The preferred stock may also be exchangeable for and/or convertible into shares of common stock, another series of preferred stock or other securities that may be sold by us pursuant to this prospectus or any combination of the foregoing. When a particular series of securities is offered, a supplement to this prospectus will be delivered with this prospectus, which will set forth the terms of the offering and sale of the offered securities.

### Authorized Capital Stock; Issued and Outstanding Capital Stock

We have authorized 350,000,000 shares of capital stock, par value \$0.001 per share, of which 150,000,000 are shares of common stock and 200,000,000 are shares of preferred stock, 3,500,000 of which are designated Class A Convertible Preferred Stock. As of August 27, 2024, there were 30,174,202 shares of common stock issued and outstanding. There are no shares of preferred stock issued and outstanding.

The authorized and unissued shares of common stock and the authorized and undesignated shares of 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 on which our securities may be listed. Unless approval of our stockholders is so required, our board of directors does not intend to seek stockholder approval for the issuance and sale of our common stock or preferred stock.

### Common Stock

The holders of our common stock are entitled to one vote per share. Our certificate of incorporation does not provide for cumulative voting. Our directors are divided into three classes, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of stockholders, with the other classes continuing for the remainder of their respective three-year terms. At each annual meeting of stockholders, directors elected to succeed those directors whose terms expire are elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election. The holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of legally available funds. However, the current policy of our board of directors is to retain earnings, if any, for operations and growth. Upon liquidation, dissolution or winding-up, the holders of our common stock are entitled to share ratably in all assets that are legally available for distribution. The holders of our common stock have no preemptive, subscription or conversion rights and there are no redemption or sinking fund provisions applicable to the common stock. 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 any series of preferred stock, which may be designated solely by action of our board of directors and issued in the future.

#### **Preferred Stock**

### **Authorized Preferred Stock**

As of August 27, 2024, there were no shares of Class A Convertible Preferred Stock issued and outstanding.

The rights and preferences of our Class A Convertible Preferred Stock include the following:

#### Liquidation Preference

In the event of any dissolution, liquidation or winding up of our Company, whether voluntary or involuntary, the holders of our Class A Convertible Preferred Stock are entitled to participate in any distribution out of our assets of on an equal basis per share with the holders of our common stock.

#### Dividends

The Class A Convertible Preferred Stock is, with respect to dividend rights, entitled to two times the amount of any dividend granted by our board of directors to the holders of our common stock.

#### Conversion

Optional Conversion. Subject to certain exceptions, each share of Class A Convertible Preferred Stock is convertible at the option of the holder and without the payment of additional consideration by the holder, at any time, into shares of our common stock at a conversion rate of one share of our common stock for every one share of our Class A Convertible Preferred Stock. However, a holder of our Class A Convertible Preferred Stock cannot convert shares of our Class A Convertible Preferred Stock to shares of our common stock if such conversion would cause the holder or any "group" (within the meaning of Section 13(d) of the Securities Exchange Act of 1934 (the "Exchange Act") of which such holder is or deemed to be a part, to "beneficially own" (within the meaning of Rule 13d-3 under the Exchange Act) more than 9.9% of the number of shares of our common stock listed as outstanding by in our most recent public filing with the Commission prior to us receiving the conversion demand.

Automatic Conversion. Subject to the limitation on conversion described above, on the first day of each month until there are no shares of our Class A Convertible Preferred Stock outstanding, each share of our Class A Convertible Preferred Stock will convert without the payment of additional consideration by a holder into shares of our common stock on the automatic conversion date at a conversion rate of one share of our common stock for every one share of our Class A Convertible Preferred Stock.

#### Voting

The holders of our Class A Convertible Preferred Stock are not entitled to vote on any matter submitted to a vote of the holders of our common stock, including the election of directors.

#### Other Series of Preferred Stock We May Issue

The board of directors is authorized, subject to any limitations prescribed by law, without further vote or action by our stockholders, to issue from time to time shares of preferred stock in one or more series. Each such series of preferred stock shall have such number of shares, designations, preferences, voting powers, qualifications and special or relative rights or privileges as determined by our board of directors, which may include, among others, dividend rights, voting rights, liquidation preferences, conversion rights and preemptive rights. Issuance of preferred stock by our board of directors may result in such shares having dividend and/or liquidation preferences senior to the rights of the holders of our common stock and could dilute the voting rights of the holders of our common stock.

Prior to the issuance of shares of each series of preferred stock, our board of directors is required by the Nevada Revised Law and our amended and restated certificate of incorporation to adopt resolutions and file a certificate of designations with the Secretary of State of the State of Nevada, which fixes for each class or series the designations, powers, preferences, rights, qualifications, limitations and restrictions. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the Commission, the form of any certificate of designations for the series of preferred stock we are offering before the issuance of the related series of preferred stock. The prospectus supplement relating to any preferred stock that we may offer will contain the specific terms of the class or series and of the offering, which terms may include the following:

- the title and stated value;
- the number of shares we are offering;
- · the offering price;
- the number of shares constituting that series, which number may be increased or decreased (but not below the number of shares then outstanding) from time to time by action of our board of directors:
- the dividend rate and the manner and frequency of payment of dividends on the shares of that series, whether dividends will be cumulative, and, if so, from which date;
- whether that series will have voting rights, in addition to any voting rights provided by law, and, if so, the terms of such voting rights;
- whether that series will have conversion privileges, and, if so, the terms and conditions of such conversion, including provision for adjustment of the conversion rate in such events as our board of directors may determine;
- whether or not the shares of that series will be redeemable, and, if so, the terms and conditions of such redemption;
- whether that series will have a sinking fund for the redemption or purchase of shares of that series, and, if so, the terms and amount of such sinking fund;
- whether or not the shares of the series will have priority over or be on a parity with or be junior to the shares of any other series or class in any respect;
- the rights of the shares of that series in the event of voluntary or involuntary liquidation, dissolution or winding up of the corporation, and the relative rights or priority, if any, of payment of shares of that series;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material or special United States federal income tax considerations applicable to the preferred stock;
- any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other relative rights, preferences and limitations of that series.

Once designated by our board of directors, each series of preferred stock may have specific financial and other terms that will be described in a prospectus supplement. The description of the preferred stock that is set forth in any prospectus supplement is not complete without reference to the documents that govern the preferred stock. These include our amended and restated certificate of incorporation and any certificates of designation that our board of directors may adopt.

All shares of our preferred stock will, when issued, be fully paid and non-assessable, including shares of our preferred stock issued upon the exercise of preferred stock warrants or subscription rights, if any.

Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our Company or make removal of management more difficult. Additionally, the issuance of preferred stock could have the effect of decreasing the market price of our common stock.

Although our board of directors has no intention at the present time of doing so, it could authorize the issuance of a series of preferred stock that could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt.

#### Warrants

We may issue warrants to purchase our securities or other rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies, securities or indices, or any combination of the foregoing. Warrants may be issued independently or together with any other securities that may be sold by us pursuant to this prospectus or any combination of the foregoing and may be attached to, or separate from, such securities. To the extent warrants that we issue are to be publicly-traded, each series of such warrants will be issued under a separate warrant agreement to be entered into between us and a warrant agent.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the Commission, forms of the warrant and warrant agreement, if any. The prospectus supplement relating to any warrants that we may offer will contain the specific terms of the warrants and a description of the material provisions of the applicable warrant agreement, if any. These terms may include the following:

- the title of the warrants;
- the aggregate number of warrants;
- the price or prices at which the warrants will be offered;
- the designation, amount and terms of the securities or other rights for which the warrants are exercisable;
- the designation and terms of the other securities, if any, with which the warrants are to be issued and the number of warrants issued with each other security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- the price or prices at which the securities or other rights purchasable upon exercise of the warrants may be purchased;
- any provisions for adjustment of the number or amount of securities receivable upon exercise of the warrants or the exercise price of the warrants;
- the manner of exercise of the warrants, including any cashless exercise rights;
- the terms of any rights of us to redeem or call the warrants;
- the identities of any warrant agent and any calculation or other agent for the warrants;
- a discussion of any material U.S. federal income tax considerations applicable to the exercise of the warrants;
- the date on which the right to exercise the warrants will commence, and the date on which the right will expire;
- If any, the maximum or minimum number of warrants that may be exercised at any time;
- information with respect to book-entry procedures, if any; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Exercise of Warrants. Each warrant will entitle the holder of warrants to purchase the amount of securities or other rights, at the exercise price stated or determinable in the prospectus supplement for the warrants. Warrants may be exercised at any time up to the close of business on the expiration date shown in the applicable prospectus supplement, unless otherwise specified in such prospectus supplement. After the close of business on the expiration date, if applicable, unexercised warrants will become void. Warrants may be exercised in the manner described in the applicable prospectus supplement. When the warrant holder makes the payment and properly completes and signs the warrant certificate at the corporate trust office of the warrant agent, if any, or any other office indicated in the prospectus supplement, we will, as soon as possible, forward the securities or other rights that the warrant holder has purchased. If the warrant holder exercises less than all of the warrants represented by the warrant certificate, we will issue a new warrant certificate for the remaining warrants.

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

Warrant Agreement Will Not Be Qualified Under Trust Indenture Act. No warrant agreement will be qualified as an indenture, and no warrant agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of warrants issued under a warrant agreement will not have the protection of the Trust Indenture Act with respect to their warrants.

# **Outstanding Warrants**

As of August 27, 2024, we have outstanding warrants to purchase up to 1,813,455 shares of our common stock, at a weighted average exercise price of \$23.72 per share, with remaining terms of approximately between 1 month and 7.2 years.

### **Subscription Rights**

We may issue rights to purchase our securities. The rights may or may not be transferable by the persons purchasing or receiving the rights. In connection with any rights offering, we may enter into a standby underwriting or other arrangement with one or more underwriters or other persons pursuant to which such underwriters or other persons would purchase any offered securities remaining unsubscribed for after such rights offering. In connection with a rights offering to holders of our capital stock a prospectus supplement will be distributed to such holders on the record date for receiving rights in the rights offering set by us.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the Commission, forms of the subscription rights, standby underwriting agreement or other agreements, if any. The prospectus supplement relating to any rights that we offer will include specific terms relating to the offering, including, among other matters:

- the date of determining the security holders entitled to the rights distribution;
- the aggregate number of rights issued and the aggregate amount of securities purchasable upon exercise of the rights;
- the exercise price;
- the aggregate number of rights to be issued;
- the date, if any, on and after which the rights will be separately transferable;
- the conditions to completion of the rights offering;
- the date on which the right to exercise the rights will commence and the date on which the rights will expire;
- any applicable federal income tax considerations; and
- any other terms of the rights, including terms, procedures and limitations relating to the distribution, exchange and exercise of the rights.

Each right would entitle the holder of the rights to purchase the principal amount of securities at the exercise price set forth in the applicable prospectus supplement. Rights may be exercised at any time up to the close of business on the expiration date for the rights provided in the applicable prospectus supplement. After the close of business on the expiration date, all unexercised rights will become void.

Holders may exercise rights as described in the applicable prospectus supplement. Upon receipt of payment and the rights certificate properly completed and duly executed at the corporate trust office of the rights agent, if any, or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the securities purchasable upon exercise of the rights. If less than all of the rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby underwriting arrangements, as described in the applicable prospectus supplement.

### **Depositary Shares**

General. We may offer fractional shares of preferred stock, rather than full shares of preferred stock. If we decide to offer fractional shares of our preferred stock, we will issue receipts for depositary shares. Each depositary share will represent a fraction of a share of a particular series of our preferred stock, and the applicable prospectus supplement will indicate that fraction. The shares of preferred stock represented by depositary shares will be deposited under a deposit agreement between us and a depositary that is a bank or trust company that meets certain requirements and is selected by us. The depositary will be specified in the applicable prospectus supplement. Each owner of a depositary share will be entitled to all of the rights and preferences of the preferred stock represented by the depositary share. The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Depositary receipts will be distributed to those persons purchasing the fractional shares of our preferred stock in accordance with the terms of the offering. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the Commission, forms of the deposit agreement, form of certificate of designation of underlying preferred stock, form of depositary receipts and any other related agreements.

Dividends and Other Distributions. The depositary will distribute all cash dividends or other cash distributions received by it in respect of the preferred stock to the record holders of depositary shares relating to such preferred shares in proportion to the numbers of depositary shares held on the relevant record date.

In the event of a distribution other than in cash, the depositary will distribute securities or property received by it to the record holders of depositary shares in proportion to the numbers of depositary shares held on the relevant record date, unless the depositary determines that it is not feasible to make such distribution. In that case, the depositary may make the distribution by such method as it deems equitable and practicable. One such possible method is for the depositary to sell the securities or property and then distribute the net proceeds from the sale as provided in the case of a cash distribution.

Redemption of Depositary Shares. Whenever we redeem the preferred stock, the depositary will redeem a number of depositary shares representing the same number of shares of preferred stock so redeemed. If fewer than all of the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot, pro rata or by any other equitable method as the depositary may determine.

Voting of Underlying Shares. Upon receipt of notice of any meeting at which the holders of our preferred stock of any series are entitled to vote, the depositary will mail the information contained in the notice of the meeting to the record holders of the depositary shares relating to that series of preferred stock. Each record holder of the depositary shares on the record date will be entitled to instruct the depositary as to the exercise of the voting rights represented by the number of shares of preferred stock underlying the holder's depositary shares. The depositary will endeavor, to the extent it is practical to do so, to vote the number of whole shares of preferred stock underlying such depositary shares in accordance with such instructions. We will agree to take all action that the depositary may deem reasonably necessary in order to enable the depositary to do so. To the extent the depositary does not receive specific instructions from the holders of depositary shares relating to such preferred shares, it will abstain from voting such shares of preferred stock.

Withdrawal of Shares. Upon surrender of depositary receipts representing any number of whole shares at the depositary's office, unless the related depositary shares previously have been called for redemption, the holder of the depositary shares evidenced by the depositary receipts will be entitled to delivery of the number of whole shares of the related series of preferred stock and all money and other property, if any, underlying such depositary shares. However, once such an exchange is made, the preferred stock cannot thereafter be re-deposited in exchange for depositary shares. Holders of depositary shares will be entitled to receive whole shares of the related series of preferred stock on the basis set forth in the applicable prospectus supplement. If the depositary receipts delivered by the holder evidence a number of depositary shares representing more than the number of whole shares of preferred stock of the related series to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares.

Amendment and Termination of Depositary Agreement. The form of depositary receipt evidencing the depositary shares and any provision of the applicable depositary agreement may at any time be amended by agreement between us and the depositary. We may, with the consent of the depositary, amend the depositary agreement from time to time in any manner that we desire. However, if the amendment would materially and adversely alter the rights of the existing holders of depositary shares, the amendment would need to be approved by the holders of at least a majority of the depositary shares then outstanding.

The depositary agreement may be terminated by us or the depositary if:

- all outstanding depositary shares have been redeemed; or
- there has been a final distribution in respect of the shares of preferred stock of the applicable series in connection with our liquidation, dissolution or winding up and such distribution has been made to the holders of depositary receipts.

Resignation and Removal of Depositary. The depositary may resign at any time by delivering to us notice of its election to do so. We may remove a depositary at any time. Any resignation or removal will take effect upon the appointment of a successor depositary and its acceptance of appointment.

Charges of Depositary. We will pay all transfer and other taxes and governmental charges arising solely from the existence of any depositary arrangements. We will pay all charges of each depositary in connection with the initial deposit of the preferred shares of any series, the initial issuance of the depositary shares, any redemption of such preferred shares and any withdrawals of such preferred shares by holders of depositary shares. Holders of depositary shares will be required to pay any other transfer taxes.

*Notices*. Each depositary will forward to the holders of the applicable depositary shares all notices, reports and communications from us which are delivered to such depositary and which we are required to furnish the holders of the preferred stock represented by such depositary shares.

Miscellaneous. The depositary agreement may contain provisions that limit our liability and the liability of the depositary to the holders of depositary shares. Both the depositary and we are also entitled to an indemnity from the holders of the depositary shares prior to bringing, or defending against, any legal proceeding. We or any depositary may rely upon written advice of counsel or accountants, or information provided by persons presenting preferred shares for deposit, holders of depositary shares or other persons believed by us to be competent and on documents believed by us or them to be genuine.

#### **Purchase Contracts**

We may issue purchase contracts, representing contracts obligating holders to purchase from us, and us to sell to the holders, a specific or varying number of common stock, preferred stock, warrants, depositary shares or any combination of the above, 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 common stock, preferred stock, warrants, depositary shares, or any combination of the above. The price of the securities and other property subject to the purchase contracts may be fixed at the time the purchase contracts are issued or may be determined by reference to a specific formula set forth in the purchase contracts. The purchase contracts may be issued separately or as a part of a unit that consists of (a) a purchase contract and (b) one or more of the other securities that may be sold by us pursuant to this prospectus or any combination of the foregoing, which may secure the holders' obligations to purchase the securities under the purchase contract. The purchase contracts may require us to make periodic payments to the holders or require the holders to make periodic payments to us. These payments may be unsecured or prefunded and may be paid on a current or on a deferred basis. The purchase contracts may require holders to secure their obligations under the contracts in a manner specified in the applicable prospectus supplement.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the Commission, forms of the purchase contracts and purchase contract agreement, if any. The applicable prospectus supplement will describe the terms of any purchase contracts in respect of which this prospectus is being delivered, including, to the extent applicable, the following:

- 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;
- whether the purchase contracts will be issued in fully registered or global form; and
- any applicable federal income tax considerations; and

## Units

We may issue units consisting of any combination of the other types of securities offered under this prospectus in one or more series. We may evidence each series of units by unit certificates that we may issue under a separate agreement. We may enter into unit agreements with a unit agent. Each unit agent, if any, may be a bank or trust company that we select. We will indicate the name and address of the unit agent, if any, in the applicable prospectus supplement relating to a particular series of units. Specific unit agreements, if any, will contain additional important terms and provisions. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report that we file with the Commission, the form of unit and the form of each unit agreement, if any, relating to units offered under this prospectus.

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

- the title of the series of units;
- identification and description of the separate constituent securities comprising the units;
- · the price or prices at which the units will be issued;
- the date, if any, on and after which the constituent securities comprising the units will be separately transferable;
- a discussion of certain United States federal income tax considerations applicable to the units; and
- any other material terms of the units and their constituent securities.

#### Forum for Adjudication of Disputes

Pursuant to our bylaws, to the fullest extent permitted by law, and unless we consent in writing to the selection of an alternative forum, the Eighth Judicial District Court of Clark County, Nevada, shall be the sole and exclusive forum for any stockholder (including a beneficial owner of stock) to bring (a) any derivative action or proceeding brought in the name or right of the Company or on our behalf, (b) any action asserting a claim of, or a claim based on, breach of any fiduciary duty owed by any current or former director, officer, employee, agent or stockholder of the Company to the Company or the Company's stockholders, (c) any action asserting a claim arising pursuant to any provision of NRS Chapters 78 or 92A or any provision of the certificate of incorporation or our bylaws or (d) any action asserting a claim against us or any current or former director, officer, employee or stockholder (including a beneficial owner of stock) governed by the internal affairs doctrine, including, without limitation, any action to interpret, apply, enforce or determine the validity of the certificate of incorporation or our bylaws. To the fullest extent permitted by law, our forum selection provision applies to actions arising under the Securities Act or Exchange Act. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. The Company does not intend for its exclusive forum jurisdiction provision to apply to Exchange Act claims. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Although our certificate of incorporation contain the choice of forum provision described above, it is possible that a court could rule that such a provision is inapplicable for a particular claim or action or that such provisio

#### Anti-takeover Effects of Our Certificate of Incorporation and By-laws

Our certificate of incorporation and bylaws contain certain provisions that may have anti-takeover effects, making it more difficult for or preventing a third party from acquiring control of our Company or changing our Board of Directors and management. According to our bylaws and certificate of incorporation, neither the holders of our common stock nor the holders of our preferred stock have cumulative voting rights in the election of our directors. The combination of the present ownership by a few stockholders of a significant portion of our issued and outstanding common stock and lack of cumulative voting makes it more difficult for other stockholders to replace our Board of Directors or for a third party to obtain control of our Company by replacing our Board of Directors.

#### Anti-takeover Effects of Nevada Law

#### **Business Combinations**

The "business combination" provisions of Sections 78.411 to 78.444, inclusive, of the Nevada Revised Statutes, or NRS, generally prohibit a Nevada corporation with at least 200 stockholders of record, a "resident domestic corporation," from engaging in various "combination" transactions with any "interested stockholder" unless certain conditions are met or the corporation has elected in its articles of incorporation to not be subject to these provisions.

A "combination" is generally defined to include (a) a merger or consolidation of the resident domestic corporation or any subsidiary of the resident domestic corporation with the interested stockholder or affiliate or associate of the interested stockholder; (b) any sale, lease, exchange, mortgage, pledge, transfer, or other disposition, in one transaction or a series of transactions, by the resident domestic corporation or any subsidiary of the resident domestic corporation to or with the interested stockholder or affiliate or associate of the interested stockholder having: (i) an aggregate market value equal to 5% or more of the aggregate market value of all outstanding shares of the resident domestic corporation, or (iii) representing 10% or more of the earning power or net income of the resident domestic corporation; (c) the issuance or transfer in one transaction or series of transactions of shares of the resident domestic corporation having an aggregate market value equal to 5% or more of the resident domestic corporation to the interested stockholder or affiliate or associate of the interested stockholder.

An "interested stockholder" is generally defined as a person who, together with affiliates and associates, owns (or within three years, did own) 10% or more of a corporation's voting stock. An "affiliate" of the interested stockholder is any person that directly or indirectly through one or more intermediaries is controlled by or is under common control with the interested stockholder. An "associate" of an interested stockholder is any (a) corporation or organization of which the interested stockholder is an officer or partner or is directly or indirectly the beneficial owner of 10% or more of any class of voting shares of such corporation or organization; (b) trust or other estate in which the interested stockholder has a substantial beneficial interest or as to which the interested stockholder serves as trustee or in a similar fiduciary capacity; or (c) relative or spouse of the interested stockholder, or any relative of the spouse of the interested stockholder, who has the same home as the interested stockholder.

If applicable, the prohibition is for a period of two years after the date of the transaction in which the person became an interested stockholder, unless such transaction is approved by the board of directors prior to the date the interested stockholder obtained such status; or the combination is approved by the board of directors and thereafter is approved at a meeting of the stockholders by the affirmative vote of stockholders representing at least 60% of the outstanding voting power held by disinterested stockholders; and extends beyond the expiration of the two-year period, unless (a) the combination was approved by the board of directors prior to the person becoming an interested stockholder; (b) the transaction by which the person first became an interested stockholder was approved by the board of directors before the person became an interested stockholder; (c) the transaction is approved by the affirmative vote of a majority of the voting power held by disinterested stockholders at a meeting called for that purpose no earlier than two years after the date the person first became an interested stockholder; or (d) if the consideration to be paid to all stockholders other than the interested stockholder is, generally, at least equal to the highest of: (i) the highest price per share paid by the interested stockholder within the three years immediately preceding the date of the announcement of the combination or in the transaction in which it became an interested stockholder, whichever is higher, plus compounded interest and less dividends paid, or (iii) for holders of preferred stock, the highest liquidation value of the preferred stock, plus accrued dividends, if not included in the liquidation value. With respect to (i) and (ii) above, the interest is compounded at the rate for one-year United States Treasury obligations from time to time in effect.

Applicability of the Nevada business combination law would discourage parties interested in taking control of our company if they cannot obtain the approval of our board of directors. These provisions could prohibit or delay a merger or other takeover or change in control attempt and, accordingly, may discourage attempts to acquire our company even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price. The Company has elected to not be governed by the Nevada business combination provisions.

#### **Control Share Acquisitions**

The "control share" provisions of Sections 78.378 to 78.3793, inclusive, of the NRS, apply to "issuing corporations," which are Nevada corporations with at least 200 stockholders of record, including at least 100 stockholders of record who are Nevada residents, and which conduct business directly or indirectly in Nevada, unless the corporation has elected to not be subject to these provisions.

The control share statute prohibits an acquirer of shares of an issuing corporation, under certain circumstances, from voting its shares of a corporation's stock after crossing certain ownership threshold percentages, unless the acquirer obtains approval of the target corporation's disinterested stockholders. The statute specifies three thresholds: (a) one-fifth or more, but less than one-third, (b) one-third or more, but less than a majority, and (c) a majority or more, of the outstanding voting power. Generally, once a person acquires shares in excess of any of the thresholds, those shares and any additional shares acquired within 90 days thereof become "control shares" and such control shares are deprived of the right to vote until disinterested stockholders restore the right. These provisions also provide that if control shares are accorded full voting rights and the acquiring person has acquired a majority or more of all voting power, all other stockholders who do not vote in favor of authorizing voting rights to the control shares are entitled to demand payment for the fair value of their shares in accordance with statutory procedures established for dissenters' rights.

A corporation may elect to not be governed by, or "opt out" of, the control share provisions by making an election in its articles of incorporation or bylaws, provided that the opt-out election must be in place on the 10th day following the date an acquiring person has acquired a controlling interest, that is, crossing any of the three thresholds described above. We have opted out of the control share statutes, and, provided the "opt out" election remains in place, we will not be subject to the control share statutes.

The effect of the Nevada control share statute is that the acquiring person, and those acting in association with the acquiring person, will obtain only such voting rights in the control shares as are conferred by a resolution of the stockholders at an annual or special meeting. The Nevada control share law, if applicable, could have the effect of discouraging takeovers of our company.

# Listing

Our common stock is listed on The Nasdaq Global Select Market under the symbol "RLMD."

### **Transfer Agent**

The transfer agent and registrar for our common stock is Empire Stock Transfer Inc. The transfer agent's address 1859 Whitney Mesa Dr., Henderson, NV 89014, and its telephone number is (702) 818-5898.

#### FORMS OF SECURITIES

Each security may be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the warrants or units represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

### Registered Global Securities

We may issue the securities in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

The specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement or unit agreement.

Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement or unit agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depositary for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement or unit agreement, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Payments to holders with respect to securities represented by a registered global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the registered global security. None of the Company, the trustees, the warrant agents, the unit agents or any other agent of the Company, agent of the trustees, the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a registered global security, upon receipt of any payment of principal, premium, interest or other payment or distribution to holders of that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in "street name," and will be the responsibility of those participants.

If the depositary for any of these securities represented by a registered global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act and a successor depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depositary. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depositary gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depositary.

#### LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities offered by this prospectus and certain other legal matters as to Nevada law will be passed upon for us by Sichenzia Ross Ference Carmel LLP, New York, New York, If legal matters in connection with offerings made by this prospectus are passed on by counsel for the underwriters, dealers or agents, if any, that counsel will be named in the applicable prospectus supplement.

#### **EXPERTS**

The consolidated financial statements of Relmada Therapeutics, Inc., as of and for the years ended December 31, 2023 and 2022, appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2023, incorporated by reference into this prospectus, have been so included in reliance on the reports of Marcum LLP, an independent registered public accounting firm, incorporated by reference herein, given on the authority of said firm as experts in auditing and accounting.

### WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, along with 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.

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC to register the securities offered hereby under the Securities Act of 1933, as amended. This prospectus does not contain all of the information included in the registration statement, including certain exhibits and schedules. You may obtain the registration statement and exhibits to the registration statement from the SEC from the SEC's internet site.

### INCORPORATION OF DOCUMENTS BY REFERENCE

We are "incorporating by reference" in this prospectus certain documents we file with the Commission, which means that we can disclose important information to you by referring you to those documents. The information in the documents incorporated by reference is considered to be part of this prospectus. Statements contained in documents that we file with the Commission and that are incorporated by reference in this prospectus will automatically update and supersede information contained in this prospectus, including information in previously filed documents or reports that have been incorporated by reference in this prospectus, to the extent the new information differs from or is inconsistent with the old information. We have filed or may file the following documents with the Commission and they are incorporated herein by reference as of their respective dates of filing.

- Our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on March 19, 2024;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, filed with the SEC on May 8, 2024;
- Our Quarterly Report on Form 10-Q for the quarter ended June 30, 2024, filed with the SEC on August 7, 2024;
- Our Current Reports on Form 8-K filed with the SEC on <u>January 3, 2024, January 11, 2024</u> and <u>May 30, 2024</u>; and
- The description of our common stock contained in our Registration Statement on Form 8-A filed on October 8, 2019, and as it may further be amended from time to time

All documents that we filed with the Commission pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act on or after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the filing of a post-effective amendment to this registration statement that indicates that all securities offered under this prospectus have been sold, or that deregisters all securities then remaining unsold, will be deemed to be incorporated in this registration statement by reference and to be a part hereof from the date of filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus shall be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus, or in any subsequently filed document that also is deemed to be incorporated by reference in this prospectus, modifies, supersedes or replaces such statement. Any statement so modified, superseded or replaced shall not be deemed, except as so modified, superseded or replaced, to constitute a part of this prospectus. 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, either furnished under Item 9.01 or included as an exhibit therein, that we may from time to time furnish to the Commission will be incorporated by reference into, or otherwise included in, this prospectus, except as otherwise expressly set forth in the relevant document. Subject to the foregoing, all information appearing in this prospectus is qualified in its entirety by the information appearing in the documents incorporated by reference.

You may request, orally or in writing, a copy of these documents, which will be provided to you at no cost (other than exhibits, unless such exhibits are specifically incorporate by reference), by contacting our chief financial officer, c/o Relmada Therapeutics, Inc., at 222 Ponce de Leon Blvd., Floor 3, Coral Gables, FL 33134. Our telephone number is 1-786-629-1376. Information about us is also available at our website at <a href="https://www.relmada.com">www.relmada.com</a>. However, the information in our website is not a part of this prospectus and is not incorporated by reference.



# 40,142,000 Shares of Common Stock Pre-Funded Warrants to Purchase 5,315,000 Shares of Common Stock 5,315,000 Shares of Common Stock Underlying the Pre-Funded Warrants

# PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

**Jefferies** 

**Leerink Partners** 

Mizuho

November 4, 2025