

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

**Subject to Completion, Dated December 8, 2021**

Preliminary prospectus supplement

(to Prospectus dated August 21, 2020)

\$100,000,000



We are offering \$100,000,000 of shares of our common stock.

Our common stock is listed on The Nasdaq Global Select Market under the symbol "RLMD." On December 7, 2021, the last reported sale price of our common stock on The Nasdaq Global Select Market was \$18.29 per share.

See the section titled "Risk Factors" beginning on page S-6 to read about factors you should consider before deciding to invest in shares of our common stock.

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

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions <sup>(1)</sup>	\$	\$
Proceeds, before expenses, to Relmada Therapeutics, Inc.	\$	\$

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

We have granted the underwriters an option for a period of 30 days to purchase up to \$15,000,000 of additional shares of common stock.

The underwriters expect to deliver the shares against payment in New York, New York, on \_\_\_\_\_, 2021.

**Goldman Sachs & Co. LLC**

**Jefferies**

**Guggenheim Securities**

Prospectus supplement dated \_\_\_\_\_, 2021

**TABLE OF CONTENTS**  
 PROSPECTUS SUPPLEMENT

	Page
<a href="#">About This Prospectus Supplement</a>	S-ii
<a href="#">Prospectus Supplement Summary</a>	S-1
<a href="#">Risk Factors</a>	S-6
<a href="#">Cautionary Note Regarding Forward-Looking Statements and Industry Data</a>	S-8
<a href="#">Use of Proceeds</a>	S-9
<a href="#">Dividend Policy</a>	S-10
<a href="#">Dilution</a>	S-11
<a href="#">Material U.S. Federal Income Tax Considerations for Non-U.S. Holders of Our Common Stock</a>	S-12
<a href="#">Underwriting</a>	S-16
<a href="#">Legal Matters</a>	S-21
<a href="#">Experts</a>	S-21
<a href="#">Where You Can Find More Information</a>	S-21
<a href="#">Incorporation of Certain Information by Reference</a>	S-22

PROSPECTUS

<a href="#">About This Prospectus</a>	ii
<a href="#">Cautionary Statement Regarding Forward-Looking Statements</a>	ii
<a href="#">Prospectus Summary</a>	1
<a href="#">Risk Factors</a>	4
<a href="#">Use of Proceeds</a>	4
<a href="#">Plan of Distribution</a>	4
<a href="#">Description of Securities We May Offer</a>	7
<a href="#">Common Stock</a>	8
<a href="#">Preferred Stock</a>	8
<a href="#">Warrants</a>	10
<a href="#">Subscription Rights</a>	13
<a href="#">Depository Shares</a>	14
<a href="#">Purchase Contracts</a>	16
<a href="#">Units</a>	16
<a href="#">Forms of Securities</a>	19
<a href="#">Legal Matters</a>	21
<a href="#">Experts</a>	21
<a href="#">Where You Can Find Additional Information</a>	21
<a href="#">Incorporation of Documents by Reference</a>	21

## 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 common stock offering 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, 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. 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 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 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 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., 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. You should read this entire prospectus supplement and accompanying prospectus carefully, especially the risks of investing in our common stock discussed under “Risk Factors” beginning on page S-6 of this prospectus supplement and on page 4 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.*

### Overview

Relmada Therapeutics, Inc. (Relmada or the Company, we, our or us) (a Nevada corporation), is a clinical-stage biotechnology company focused on the development of esmethadone (d-methadone, dextromethadone, REL-1017), an N-methyl-D-aspartate (NMDA) receptor antagonist. Esmethadone is a new chemical entity (NCE) that potentially addresses areas of high unmet medical need in the treatment of central nervous system (CNS) diseases and other disorders.

Currently, none of our product candidates has been approved for sale in the United States or elsewhere. We have no commercial products nor do we have a sales or marketing infrastructure. In order to market and sell our products we must conduct clinical trials on patients and obtain regulatory approvals from appropriate regulatory agencies, like the Food and Drug Administration (FDA) in the United States, and similar organizations elsewhere in the world.

We have not generated revenues and do not anticipate generating revenues for the foreseeable future. We had net loss of \$91,373,316 for the nine months ended September 30, 2021. At September 30, 2021, we had an accumulated deficit of \$270,688,619.

Our lead product candidate, esmethadone, is an NCE being developed as a rapidly acting, oral agent for the treatment of depression and other potential indications. On October 15, 2019 we reported top-line data from study REL-1017-202. This was a double-blind, placebo-controlled Phase 2 clinical trial evaluating the safety, tolerability and efficacy of two oral doses of REL-1017, 25 mg once a day and 50 mg once a day, as an adjunctive treatment in patients with major depressive disorder (MDD), who experienced an inadequate response to 1 to 3 adequate antidepressant treatments with an antidepressant medication.

We observed that subjects in both the REL-1017 25 mg and 50 mg treatment groups experienced statistically significant improvement on all efficacy measures tested as compared to subjects in the placebo group, including: the MADRS; the Clinical Global Impression – Severity (CGI-S) scale; the Clinical Global Impression – Improvement (CGI-I) scale; and the Symptoms of Depression Questionnaire (SDQ).

The study also confirmed the tolerability profile of REL-1017, which was also observed in the Phase 1 studies. Subjects experienced mild and moderate adverse events (AEs), and no serious adverse events, without significant differences between placebo and treatment groups. The AEs observed in the Phase 2a clinical study were of the same nature as those observed in the Phase 1 clinical studies in d-Methadone, and there was no evidence of either treatment induced psychotomimetic and dissociative AEs or withdrawal signs and symptoms upon treatment discontinuation.

### **Phase 3 Program**

On December 20, 2020, we announced that the first patient had been enrolled in the first Phase 3 clinical trial (RELIANCE I) for the Company's lead product candidate, REL-1017, as an adjunctive treatment for MDD.

Following discussions with the FDA, Relmada's Phase 3 program includes the following key attributes:

- The Phase 3 program consists of two sister, two-arm, placebo-controlled clinical trials. Each trial will be conducted in 55 clinical sites in the United States and will include planned enrollment of 364 MDD patients with inadequate response to standard antidepressants in their current depression episode. Patients will add either a 25 mg oral dose of REL-1017 once per day or placebo to their ongoing antidepressant treatment.

S-1

- The primary endpoint to be evaluated will be the change from baseline on the MADRS score at day-28 for REL-1017 compared to placebo. Success on this endpoint with the collection of sufficient safety data could support the use of REL-1017 for chronic treatment, if approved.
- The change from baseline at the 7-day MADRS score will serve as a key secondary endpoint and will provide information on the time to treatment effect.

On April 1, 2021, we announced the initiation of RELIANCE II, the second of two sister pivotal Phase 3 clinical trials (RELIANCE I and RELIANCE II) for the Company's lead product candidate, REL-1017, as an adjunctive treatment for MDD. Patients who complete RELIANCE I and RELIANCE II will be eligible to rollover into the long-term, open-label study, which is also expected to include subjects who had not previously participated in a REL-1017 clinical trial.

### **Human Abuse Potential (HAP) Study top-line results:**

On July 27, 2021, we announced top-line results that showed that all three doses of REL-1017 (25 mg, 75 mg and 150 mg, the therapeutic, supratherapeutic and maximum tolerated doses, respectively) tested in recreational opioid users, demonstrated a highly statistically significant difference compared to the active control drug, oxycodone 40 mg. The study's primary endpoint was a measure of "likability" with the subjects rating the maximum effect (or Emax) for Drug Liking "at the moment", using a 1=100 bipolar rating scale (known as a visual analog scale or VAS), with 100 as the highest likability, 50 as neutral (placebo-like), and 0 as the highest dislike. All tested doses of REL-1017, including the maximum tolerated dose, showed a highly statistically significant difference in abuse potential compared to oxycodone, with p-values less than 0.001.

These statistically significant data clearly demonstrate a meaningful difference between REL-1017 and oxycodone at all three tested doses. These results, along with previously published literature, support the lack of opioid effects of REL-1017.

### **Psilocybin License Agreement**

In July 2021, we executed a License Agreement with Arbormentis, LLC which gives us the development and commercial rights to a novel psilocybin and derivate program. Under the terms of the agreement, we paid Arbormentis an up-front fee consisting of \$2.5 million in cash and seven-year warrants to purchase 500,000 shares of our common stock, with an exercise price of \$31.17 per share, in addition to potential milestone payments totaling in excess of \$150 million related to pre-specified development and commercialization milestones. Arbormentis LLC is also eligible to receive a low single digit royalty on net sales of any commercialized therapy resulting from this agreement. The license agreement is terminable by us but is perpetual and not terminable by the licensor absent material breach of its terms by us. We will collaborate with Arbormentis on the development of new therapies targeting neurological and psychiatric disorders, leveraging its understanding of neuroplasticity, and focusing on this emerging new class of drugs targeting the neuroplastic mechanism of action. Importantly, neuroplasticity also plays a key role in the activity of REL-1017, Relmada's lead program. Dr. Paolo Manfredi, our Acting Chief Scientific Officer and co-inventor of REL-1017, and Dr. Marco Pappagallo, our Acting Chief Medical Officer, are among the scientists affiliated with Arbormentis.

### **Key Upcoming Anticipated Milestones**

We expect multiple key milestones over the next 12 to 18 months. These include:

- Results of IV ketamine human abuse potential study in the first quarter of 2022.
- Results of monotherapy MDD trial in the second quarter of 2022.
- Results of RELIANCE I and RELIANCE II adjunctive MDD trials in the second half of 2022.
- Results of RELIANCE – OLS (Long-term, Open-label study in MDD) in the second half of 2022.

S-2

### **Business Strategy**

Our strategy is to leverage our considerable industry experience, understanding of CNS markets and development expertise to identify, develop and commercialize product candidates with significant market potential that can fulfill unmet medical needs in the treatment of CNS diseases. We have assembled a management team along with both scientific and business advisors, including recognized experts in the fields of depression, with significant industry and regulatory experience to lead and execute the development and commercialization of esmethadone.

We plan to further develop esmethadone as our priority program. As the drug esmethadone is an NCE, the regulatory pathway required to support an NDA submission will consist of conducting a full clinical development program. We plan to also generate intellectual property (IP) that will further protect our products from competition. We will continue to prioritize our product development activities after taking into account the resources we have available, market dynamics and potential for adding value.

### **Market Opportunity**

We believe that the market for addressing areas of high unmet medical need in the treatment of CNS diseases will continue to be large for the foreseeable future and that it will represent a sizable revenue opportunity for us. For example, the World Health Organization (WHO) has estimated that CNS diseases affect nearly 2 billion people globally, making up approximately 40% of total disease burden (based on disability adjusted life years), compared with 13% for cancer and 12% for cardiovascular disease.

The depression treatment market is segmented on the basis of antidepressants drugs, devices, and therapies. Antidepressants are the largest and most popular market segment. The antidepressants segment consists of large pharmaceutical and generic companies, such as Eli Lilly, Pfizer, GlaxoSmithKline, Allergan, Sage Therapeutics and Johnson & Johnson. Some of the notable drugs produced by these companies are Cymbalta® (Eli Lilly), Effexor® (Pfizer), Pristiq® (Pfizer), Zulresso® (Sage) and Spravato® (Johnson & Johnson).

### **Intellectual Property Portfolio and Market Exclusivity**

We have over 50 issued patents and pending patent applications related to REL-1017 for multiple uses, including psychological and neurological conditions. We have also secured an Orphan Drug Designation from the FDA for d-methadone for “the treatment of postherpetic neuralgia”, which, upon NDA approval, would carry 7-year FDA Orphan Drug marketing exclusivity. In the European Union, some of our products may be eligible up to 10 years of market exclusivity, which includes 8 years data exclusivity and 2 years market exclusivity. In addition to any granted patents, REL-1017 will be eligible for market exclusivity to run concurrently with the term of the patent for 5 years in the U.S. (Hatch Waxman Act) plus additional 6 months of pediatric exclusivity. We believe an extensive intellectual property estate of US and foreign patents and applications will protect our technology and products once our patent applications for our products are approved.

### **Key Strengths**

We believe that the key elements for our market success include:

- Compelling lead product opportunity, with esmethadone currently in Phase 3 trials for the adjunctive treatment of MDD and as a monotherapy treatment of MDD.
- Active on-going Phase 3 program, with two mirror-sister Phase 3 registration studies currently enrolling for the treatment of MDD, with open-label safety extension study also currently on-going.
- Robust and statistically significant efficacy seen with esmethadone in a randomized Phase 2 trial, the primary endpoint at 7 days, with onset of action seen at 4 days, and the effect carrying through to 14 days (7 days post-treatment).
- Substantial IP portfolio and market protection: over 50 issued patents and pending patent applications provide coverage beyond 2033.

S-3

- Potential in additional multiple indications in underserved markets with large patient population, such as MDD, other affective disorders, and cognitive disorders
- Scientific support of leading experts: Our scientific advisors include clinicians and scientists who are affiliated with a number of highly regarded medical institutions such as Harvard, Cornell, Yale, and University of Pennsylvania.

### **Corporate Information**

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

### The Offering

<b>Common stock offered by us</b>	shares.
<b>Option to purchase additional shares</b>	We have granted the underwriters an option for a period of 30 days from the date of this prospectus supplement to purchase up to additional shares of common stock.
<b>Common stock to be outstanding immediately following this offering</b>	shares (or shares if the underwriters exercise in full their option to purchase additional shares).
<b>Use of proceeds</b>	<p>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 \$ million, or \$ million if the underwriters exercise their option to purchase additional shares in full.</p> <p>We expect to use the net proceeds from this offering, together with our existing cash and cash equivalents and short-term investments, to fund research and development activities for our clinical development programs related to REL-1017 (esmethadone), as well as for working capital and general corporate purposes. 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.</p>
<b>Risk factors</b>	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.
<b>Nasdaq Global Select symbol</b>	"RLMD"

The number of shares of our common stock to be outstanding after this offering is based on 17,579,025 shares of our common stock outstanding as of December 7, 2021, and excludes:

- 5,043,931 shares of our common stock issuable upon the exercise of stock options outstanding at December 7, 2021, at a weighted average exercise price of \$27.07 per share;
- 3,208,777 shares of our common stock issuable upon the exercise of warrants outstanding at December 7, 2021, at a weighted average exercise price of \$16.45 per share; and
- 1,609,011 additional shares of our common stock available as of December 7, 2021, for future issuance of awards under our 2014 and 2021 Equity Incentive Plans.

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

- no exercise of the outstanding options and warrants described above; and
- no exercise by the underwriters of their option to purchase up to \$15,000,000 of additional shares of our common stock.

### RISK FACTORS

*Investing in our common stock involves a high degree of risk. Before you decide to invest in our common stock, 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, 2020, filed on March 24, 2021. If any of the 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, This Offering and Other Matters**

***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 public offering price and you may lose some or all of your investment.

***If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our stock, the price of our stock could decline.***

The trading market for our common stock will rely, in part, on the research and reports that industry or financial analysts publish about us or our business. There can be no assurance that existing analysts will continue to cover us or that new analysts will begin to cover us. There is also no assurance that any covering analyst will provide favorable coverage. A lack of research coverage or adverse coverage may negatively impact the market price of our common stock. In addition, if one or more of the analysts covering our business downgrade their evaluations of our stock, the price of our stock could decline. If one or more of these analysts cease to cover our stock, we could lose visibility in the market for our stock, which in turn could cause our stock price to decline.

***Future sales of a substantial number of shares of our common stock by our existing stockholders could cause our stock price to decline.***

The market price of our common stock could decline as a result of sales of substantial amounts of our common stock in the public market after the closing of this offering, or the perception that these sales could occur. For example, certain of our security holders possess rights with respect to the registration of their shares of common stock, including shares issuable upon exercise of certain of our outstanding warrants, under the Securities Act. We have filed separate registration statements to register in aggregate up to 6,846,397 shares of our common stock for sale into the public market by certain selling stockholders named therein. These shares represent a large number of shares of our common stock, and if sold in the market all at once or at about the same time, could depress the market price of our common stock during the period the registration statement remains effective and could also affect our ability to raise equity capital.

In addition, we have a significant number of stock options outstanding. If a substantial number of shares of common stock underlying these options are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

***If you purchase shares of common stock 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 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 public offering price of \$ per share, you will experience immediate dilution of \$ per share, representing the difference between our as adjusted net tangible book value per share after giving effect to this offering and the public 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 loses 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.

***We need to raise additional capital to operate our business.***

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 for at least the next twelve months 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.

***We are a "smaller reporting company," and the reduced disclosure requirements applicable to smaller reporting companies may make our common stock less attractive to investors.***

We are a smaller reporting company as defined in the Exchange Act, and we will remain a smaller reporting company until the fiscal year following the determination that our voting and non-voting common shares held by non-affiliates is more than \$250 million measured on the last business day of our second fiscal quarter, or our annual revenues are less than \$100 million during the most recently completed fiscal year and our voting and non-voting common shares held by non-affiliates is more than \$700 million measured on the last business day of our second fiscal quarter. Smaller reporting companies have reduced disclosure obligations, such as an exemption from providing selected financial data and an ability to provide simplified executive compensation information and only two years of audited financial statements.

We have elected to take advantage of certain of the reduced reporting obligations. Investors may find our common stock less attractive as a result of our reliance on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

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

This prospectus supplement and 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 and 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 and 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, 2020, December 31, 2019 and June 30, 2019, and the related consolidated statements of operations, stockholders’ equity and cash flows for the year ended December 31, 2020, the six months ended December 31, 2019 and the year ended June 30, 2019, as well as our interim unaudited consolidated financial statements as of and for the three and nine months ended September 30, 2021 and 2020, 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.

S-8

---

## USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of \_\_\_\_\_ shares of our common stock in this offering will be approximately \$ \_\_\_\_\_ million, or approximately \$ \_\_\_\_\_ million if the underwriters exercise their option to purchase additional shares in full, in each case 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, to fund research and development activities for the clinical development programs related to REL-1017 (esmethadone), and for working capital and general corporate purposes.

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.

As of September 30, 2021, we had cash and cash equivalents of approximately \$11.45 million and short-term investments of \$76.64 million. 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 for at least the next twelve months. 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.

S-9

---

## 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.

S-10

## DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the public offering price per share 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 September 30, 2021, was \$72.69 million, or \$4.15 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 September 30, 2021.

After giving effect to the issuance and sale of \_\_\_\_\_ shares of common stock in this offering at the public offering price of \$ \_\_\_\_\_ 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 September 30, 2021, would have been \$ \_\_\_\_\_ million, or \$ \_\_\_\_\_ per share. This represents an immediate increase of \$ \_\_\_\_\_ in as adjusted net tangible book value per share to existing stockholders and immediate dilution of \$ \_\_\_\_\_ in as adjusted net tangible book value per share to investors purchasing shares of our common stock in this offering. Dilution per share to investors purchasing shares of our common stock in this offering is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by investors purchasing shares of our common stock in this offering. The following table illustrates this dilution to the investors purchasing shares of our common stock in this offering without giving effect to any exercise by the underwriters of their option to purchase additional shares.

Public offering price per share		\$
Historical net tangible book value per share as of September 30, 2021	\$	4.15
Increase in as adjusted net tangible book value per share attributable to investors purchasing shares of our common stock in this offering		
As adjusted net tangible book value per share after giving effect to this offering		
Dilution per share to investors purchasing shares of our common stock in this offering		\$

If the underwriters exercise their option to purchase up to \_\_\_\_\_ additional shares in full, the as adjusted net tangible book value will increase to \$ \_\_\_\_\_ per share, representing an immediate increase to existing stockholders of \$ \_\_\_\_\_ per share and immediate dilution of \$ \_\_\_\_\_ per share to investors purchasing shares of our common stock in this offering.

The table above excludes:

- 5,043,931 shares of our common stock issuable upon the exercise of stock options outstanding at September 30, 2021, at a weighted average exercise price of \$27.07 per share;
- 3,244,248 shares of our common stock issuable upon the exercise of warrants outstanding at September 30, 2021, at a weighted average exercise price of \$16.08 per share; and
- 1,609,011 additional shares of our common stock available as of September 30, 2021, for future issuance of awards under our 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.

S-11

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

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock 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 (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 as a position in a hedging transaction, “straddle,” “conversion transaction” or other risk reduction transaction;
- persons who hold or receive our common stock pursuant to the exercise of an employee stock option or otherwise as compensation;
- persons who do not hold our common stock 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 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, 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 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 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.**

S-12

---

#### **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.

#### **Dividends**

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” 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 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.”

#### **Gain on Disposition of Common Stock**

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 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 applicable tax treaty providing otherwise; or
- our common stock constitutes 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 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) 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. 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 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-E 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 (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. In December 2018, the U.S. Treasury Department 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. In its preamble to such proposed regulations, the U.S. Treasury Department stated that taxpayers may generally rely on the proposed regulations 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, including the consequences of any proposed change in applicable laws.**

## UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman Sachs & Co. LLC and Jefferies LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman Sachs & Co. LLC	
Jefferies LLC	
Guggenheim Securities, LLC	
<b>Total</b>	

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional \_\_\_\_\_ shares of common stock from us. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional \_\_\_\_\_ shares.

<b>Paid by Us</b>	<b>No Exercise</b>	<b>Full Exercise</b>
Per Share	\$	\$
Total	\$	\$

We estimate that our total expenses of the offering, excluding underwriting discounts and commissions, will be approximately \$ \_\_\_\_\_. We have agreed to reimburse the underwriters for expenses of up to \$ \_\_\_\_\_ related to the clearance of this offering with the Financial Industry Regulatory Authority, Inc.

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ \_\_\_\_\_ per share from the public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We, our executive officers and our directors have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of our common stock or securities convertible into or exchangeable for shares of our common stock during the period from the date of this prospectus supplement continuing through the date 90 days after the date of this prospectus supplement, except with the prior written consent of Goldman Sachs & Co. LLC and Jefferies LLC.

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

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on Nasdaq, in the over-the-counter market or otherwise.

The company may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with those derivatives, the third parties may sell securities covered by this prospectus, including in short sale transactions. If so, the third party may use securities pledged by the company or borrowed from the company or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from the company in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter or will be identified in a post-effective amendment.

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to us and to persons and entities with relationships with us, for which they received or will receive customary fees and expenses. For example, Jefferies LLC is the sales agent under an Open Market Sale Agreement dated as of May 15, 2020, with us. Under the Open Market Sale Agreement, we may offer and sell, from time to time, shares of our common stock through Jefferies LLC through an "at the market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to our assets, securities and/or instruments (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with us. The underwriters and 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 assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

In relation to each Member State of the European Economic Area (each a “Relevant State”), no shares 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 shares 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 offers of Shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- (a) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of 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 shares shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

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

#### **Notice to Prospective Investors in the United Kingdom**

No shares 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 shares which has been approved by the Financial Conduct Authority, except that the shares 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 representatives for any such offer; or
- (c) in any other circumstances falling within Section 86 of the FSMA,

provided that no such offer of the shares shall require us or any underwriter to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an “offer to the public” in relation to the shares 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 shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

#### **Notice to Prospective Investors in Canada**

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

---

S-18

---

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) 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 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.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

#### **Notice to Prospective Investors in Hong Kong**

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (“Companies (Winding Up and Miscellaneous Provisions) Ordinance”) or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (“Securities and Futures Ordinance”), or (ii) to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares 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 in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

#### **Notice to Prospective Investors in Singapore**

This prospectus supplement has not been 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 shares may not be circulated or distributed, nor may the shares 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 (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the “SFA”)) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is 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, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6

months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore ("Regulation 32").

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

---

S-19

---

#### **Notice to Prospective Investors in Japan**

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering 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 the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

#### **Notice to Prospective Investors in Australia**

No prospectus or other disclosure document, as defined in the Corporations Act 2001 ("Cth") of Australia, or the Corporations Act, in relation to our shares has been or will be lodged with the Australian Securities & Investments Commission (the "ASIC"). This document has not been lodged with ASIC and is only directed to certain categories of exempt persons. Accordingly, if you receive this document in Australia:

- (a) you confirm and warrant that you are either:
  - (i) a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;
  - (ii) a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to us 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;
  - (iii) a person associated with us under section 708(12) of the Corporations Act; or
  - (iv) a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act, and 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 document is void and incapable of acceptance; and
- (b) you warrant and agree that you will not offer any of our shares for resale in Australia within 12 months of that security being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

#### **Notice to Prospective Investors in Israel**

In the State of Israel this prospectus supplement shall not be regarded as an offer to the public to purchase shares of our common stock under the Israeli Securities Law, 5728 – 1968, or the Israeli Securities Law, which requires a prospectus to be published and authorized by the Israel Securities Authority if it complies with certain provisions of Section 15 of the Israeli Securities Law, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the "Addressed Investors"); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, subject to certain conditions (the "Qualified Investors"). The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. We have not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law. We have not and will not distribute this prospectus supplement or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law. In particular, we may request, as a condition to be offered shares of our common stock, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law and the regulations promulgated thereunder in connection with the offer to be issued shares of our common stock; (iv) that the shares of our common stock and that it will be issued are subject to exemptions available under the Israeli Securities Law (a) for its own account, (b) for investment purposes only and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

---

S-20

---

#### **LEGAL MATTERS**

The validity of the shares of our common stock offered hereby is being passed upon for us by Sichenzia Ross Ference LLP, New York, New York. Cooley LLP, New York, New York, is acting as counsel for the underwriters in connection with this offering.

#### **EXPERTS**

Our consolidated financial statements as of December 31, 2020, December 31, 2019 and June 30, 2019, and for the year ended December 31, 2020, the six months ended December 31, 2019 and the year ended June 30, 2019, incorporated in this prospectus supplement by reference to our Annual Report on Form 10-K filed with the SEC on March 24, 2021, have been so incorporated in reliance on the report of Marcum LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

#### WHERE YOU CAN FIND MORE INFORMATION

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](http://www.sec.gov). Copies of certain information filed by us with the SEC are also available on our website at [www.relmada.com](http://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](http://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.

S-21

---

#### 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 is considered to be part of 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. This prospectus supplement and the accompanying prospectus incorporate by reference the documents listed below (File No. 001-39082) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (in each case, other than those documents or the portions of those documents not deemed to be filed), until the offering of the securities under the registration statement is terminated or completed.

- Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2020;
- Quarterly Reports on Form 10-Q for the fiscal quarters ended [March 31, 2021](#), [June 30, 2021](#), and [September 30, 2021](#);
- Current Reports on Form 8-K filed on [January 5, 2021](#), [January 7, 2021](#), [May 20, 2021](#), [July 20, 2021](#), [October 7, 2021](#), [November 15, 2021](#), [November 23, 2021](#), and [December 7, 2021](#);
- Definitive Proxy Statement filed on [March 31, 2021](#) (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 amendments or reports filed for the purpose of updating such description, including Exhibit 4.9 to our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2020.

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

S-22

---

#### Prospectus



RELMADA THERAPEUTICS, INC.

\$250,000,000

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

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

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, we will provide a prospectus supplement containing more specific information about the 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 5, 2020 was \$37.87 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.

**Investing in our securities involves certain risks. See "Risk Factors" beginning on page 4 and the risk factors in our most recent Annual Report on Form 10-K, which are incorporated by reference herein, as well as in any other more recently filed annual, quarterly or current reports and, if any, in the relevant 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 August 21, 2020.

---

## TABLE OF CONTENTS

	<b>Page</b>
<a href="#">About This Prospectus</a>	ii
<a href="#">Cautionary Statement Regarding Forward-Looking Statements</a>	ii
<a href="#">Prospectus Summary</a>	1
<a href="#">Risk Factors</a>	4
<a href="#">Use of Proceeds</a>	4
<a href="#">Plan of Distribution</a>	4
<a href="#">Description of Securities We May Offer</a>	7
<a href="#">Common Stock</a>	8
<a href="#">Preferred Stock</a>	8
<a href="#">Warrants</a>	10
<a href="#">Subscription Rights</a>	13
<a href="#">Depository Shares</a>	14
<a href="#">Purchase Contracts</a>	16
<a href="#">Units</a>	16
<a href="#">Forms of Securities</a>	19
<a href="#">Legal Matters</a>	21
<a href="#">Experts</a>	21
<a href="#">Where You Can Find Additional Information</a>	21
<a href="#">Incorporation of Documents by Reference</a>	21



## 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 total gross proceeds 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.”

### 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.

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, and in particular, the risks discussed below and under the heading “Risk Factors” and those discussed in other documents we file with the Securities and Exchange Commission (the “Commission”). This prospectus should be read in conjunction with the consolidated financial statements as of and for the years ended June 30, 2019 and 2018, as of December 31, 2019, and for the transition period from July 1, 2019 to December 31, 2019, and related notes thereto, incorporated by reference into this prospectus. We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. 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 not place undue reliance on any forward-looking statement, each of which applies only as of the date of this prospectus. 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 Commission 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," and the "Company" mean Relmada Therapeutics, Inc. and its subsidiary Relmada Therapeutics, Inc. (Delaware).*

### **Business Overview**

Relmada Therapeutics, Inc. (Relmada or the Company, we or us) (a Nevada corporation), is a clinical-stage biotechnology company focused on the development of REL-1017 (d-methadone, dextromethadone), an N-methyl-D-aspartate (NMDA) receptor antagonist. REL-1017 is a new chemical entity (NCE) that potentially addresses areas of high unmet medical need in the treatment of central nervous system (CNS) diseases and other disorders.

NMDA receptors are present in many parts of the central nervous system and play important roles in regulating neuronal activity. We believe that dextromethadone acting as an NMDA receptor antagonist can have potential applications in a number of disease indications which mitigates risk and offers significant upside.

On October 7, 2019, our application to list our common stock on the NASDAQ Capital Market was approved. On October 10, 2019, our common stock began trading on NASDAQ under the existing symbol, "RLMD". On July 14, 2020, our common stock was uplisted to the Nasdaq Global Select Market and continues to trade under the symbol "RLMD."

On December 19, 2019, the Board of Directors of the Company approved a change to its end of fiscal year from June 30 to December 31. The change in fiscal year became effective for the Company's 2020 fiscal year, which began on January 1, 2020 and will end December 31, 2020.

Our lead product candidate, REL-1017, is an NCE being developed as a rapidly acting, sustained effect oral agent for the treatment of depression and other potential indications. We have previously completed Phase 1 single and multiple ascending dose studies and on October 15, 2019 we reported top-line data from study REL-1017-202. This was a double-blind, placebo-controlled Phase 2 clinical trial evaluating the safety, tolerability and efficacy of two oral doses of REL-1017, 25 mg once a day and 50 mg once a day, as an adjunctive treatment in patients with major depressive disorder (MDD), who experienced an inadequate response to 1 to 3 treatments with an antidepressant medications.

In the REL-1017-202 study, 62 subjects, average age 49.2 years, with an average Hamilton Depression Rating Scale score of 25.3 and an average Montgomery-Asberg Depression Rating Scale (MADRS) score of 34.0 (severe depression), were randomized. Demographic characteristics were balanced across all arms. After an initial screening period, subjects were randomized to one of three arms: placebo, REL-1017 25 mg or REL-1017 50 mg, in addition to stable background antidepressant therapy. Subjects in the REL-1017 treatment arms received one loading dose of either 75 mg (25 mg arm) or 100 mg (50 mg arm) of REL-1017. Subjects were treated as inpatients for 7 days and discharged home at Day 9. They returned for follow-up visits at Day 14 and Day 21. Efficacy was measured on Days 2, 4 and 7 in the dosing period and on Day 14, one week after treatment discontinuation. 61 subjects received all treatment doses and were included in the per-protocol population (PPP) treatment analysis; 57 subjects completed all visits. All 62 randomized subjects were part of the intention-to-treat (ITT) analysis. No differences were observed between the ITT and PPP analyses and results.

**Key findings:**

We observed that subjects in both the REL-1017 25 mg and 50 mg treatment groups experienced statistically significant improvement on all efficacy measures tested as compared to subjects in the placebo group, including: the Montgomery-Asberg Depression Rating Scale (MADRS); the Clinical Global Impression – Severity (CGI-S) scale; the Clinical Global Impression – Improvement (CGI-I) scale; and the Symptoms of Depression Questionnaire (SDQ).

Improvements on the MADRS endpoint appeared on Day 4 in both REL-1017 dose groups and continued through Day 7 and Day 14, seven days after treatment discontinuation, with P values < 0.03 and large effect sizes (a measure of quantifying the difference between two groups), ranging from 0.7 to 1.0. Similar findings emerged from the CGI-S and CGI-I scales.

**MADRS: Analysis of Change from Baseline to Day 7 and to Day 14 ITT Population**

	Day 2			Day 4			Day 7			Day 14		
	LS Means Difference	P-value	d	LS Means Difference	P-value	d	LS Means Difference	P-value	D	LS Means Difference	P-value	d
REL-1017 25mg vs Placebo	-1.9	0.4340	0.3	-7.9	0.0087	0.9	-8.7	0.0122	0.8	-9.4	0.0103	0.9
REL-1017 50mg vs Placebo	-0.3	0.9092	0.0	-7.6	0.0096	0.8	-7.2	0.0308	0.7	-10.4	0.0039	1.0

LS = Least Squares; d = Cohen's effect size

The study also confirmed the favorable tolerability profile of REL-1017, which was also observed in the Phase 1 studies. Subjects experienced mild and moderate adverse events (AEs), and no serious adverse events, without significant differences between placebo and treatment groups. The AEs observed in the Phase 2a clinical study were of the same nature as those observed in the Phase 1 clinical studies in REL-1017, and there was no evidence of either treatment induced psychotomimetic and dissociative AEs or withdrawal signs and symptoms upon treatment discontinuation.

**Key Upcoming Anticipated Milestones**

We expect multiple key milestones over the next 12 months. These include:

- Presentation of full details of the Phase 2 data for REL-1017.
- Start of pivotal studies for REL-1017 as an adjunctive treatment of MDD in the second half of 2020.
- Start of Phase 2 study in MDD. We plan to start a Phase 2 MDD study in the second half of 2020, though development plans may change based on the FDA's feedback and other factors.

NMDA receptors are present in many parts of the CNS and play important roles in regulating neuronal activity and promoting synaptic plasticity in brain areas important for cognitive functions such as executive function, learning and memory. Based on these premises, REL-1017 could show benefits in several different CNS indications.

**REL-1017 Phase 1 Clinical Safety Studies**

The safety data from two Company-funded REL-1017 Phase 1 clinical safety studies and a third study conducted by researchers at Memorial Sloan-Kettering Cancer Center indicate that REL-1017 was well tolerated in both healthy subjects and cancer patients at all projected therapeutic doses tested.

**REL-1017 (dextromethadone, d-methadone) in other indications**

In addition to developing REL-1017 as an adjunctive treatment of MDD, we are planning to evaluate the utility of REL-1017 as a front line monotherapy treatment for MDD.

Also, other indications that Relmada may explore in the future, include, restless leg syndrome and other glutamatergic system activation related diseases.

In January 2018, we entered into an Intellectual Property Assignment Agreement (the Assignment Agreement) and License Agreement (the "License Agreement" and together with the Assignment Agreement, the Agreements) with Dr. Charles E. Inturrisi and Dr. Paolo Manfredi (collectively, the Licensor). Pursuant to the Agreements, Relmada assigned its existing rights, including patents and patent applications, to REL-1017 in the context of psychiatric use (the Existing Invention) to Licensor. Licensor then granted Relmada under the License Agreement a perpetual, worldwide, and exclusive license to commercialize the existing invention and certain further inventions regarding REL-1017 in the context of other indications such as those contemplated above.

### **Key Strengths**

We believe that the key elements for our market success include:

- Compelling lead product opportunity, REL-1017 completed Phase 2 trial for the adjunctive treatment of MDD.
- Successful Phase 1 safety studies of REL-1017 and strong clinical activity signal in depression established in three independent animal models.
- Potential in additional indications in underserved markets with large patient population, such as MDD, other affective disorders, and cognitive disorders.
- Scientific support of leading experts: Our scientific advisors include clinicians and scientists who are affiliated with a number of highly regarded medical institutions such as Harvard, Cornell, Yale, and University of Pennsylvania.
- Substantial IP portfolio and market protection: approved and filed patent applications provide coverage beyond 2033. In addition, REL-1017 has also been designated as Orphan Drugs by the FDA, thereby providing seven years of market exclusivity at launch.

### **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 880 Third Avenue, 12th Floor, New York, NY 10022 and our telephone number is +1-646-876-3459. Our website address is [www.relmada.com](http://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.

## 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 described in our most recent Transition Report on Form 10-KT, 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, which are 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."

***The number of shares we have registered for sale is significant in relation to the number of our outstanding shares of common stock.***

We have separate effective registration statements registering (a) up to \$56.1 million of unissued shares of our common stock (and/or other securities, in any combination), at market or negotiated prices, and (b) up to 10,894,658 currently outstanding shares of our common stock for sale into the public market by certain selling stockholders named therein. These shares represent a large number of shares of our common stock, and if sold in the market all at once or at about the same time, could depress the market price of our common stock during the period the registration statement of which this prospectus is a part remains effective and could also affect our ability to raise equity capital.

## 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. 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 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, either through exercise of the over-allotment option or 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 of any offering of securities made under this prospectus will be received by a FINRA member participating in the offering or affiliates or associated persons of such FINRA member, the offering 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. 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, up to \$250,000,000 in the aggregate of:

- 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

On September 27, 2019, we completed a 1-for-4 reverse stock split; all share and per share numbers in this prospectus and any prospectus supplement have been adjusted to give effect to such reverse split. We have authorized 250,000,000 shares of capital stock, par value \$0.001 per share, of which 50,000,000 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 5, 2020, there were 16,023,946 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.

We also have warrants that are outstanding, which are described below.



## **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. 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.

On October 10, 2019, our common stock started trading on the Nasdaq Capital Market under the symbol "RLMD." On July 14, 2020, our common stock was uplisted to the Nasdaq Global Select Market and continues to trade under the symbol "RLMD."

## **Preferred Stock**

### ***Outstanding Preferred Stock***

As of August 5, 2020, 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**

#### *Series A Preferred Warrants*

In connection with our sale of Series A preferred stock and 8% senior subordinated unsecured convertible notes in 2012 and 2013, we sold to the purchasers 124,610 warrants to purchase common stock at an exercise price of \$16.00 per share (the "Series A Preferred Warrants"). As of August 3, 2020, there were 8,833 Series A Preferred Warrants outstanding. The Series A Preferred Warrants have a seven-year term from their issuance dates, which occurred between July 10, 2012 and September 26, 2013. The exercise price of the Series A Preferred Warrants is subject to adjustment upon certain events. If we at any time while the Series A Preferred Warrants remain outstanding and unexpired shall declare a dividend or make a distribution on the outstanding common stock payable in shares of its capital stock, or split, subdivide or combine the common stock into a different number of securities of the same class, the exercise price for the Series A Preferred Warrants shall be proportionately decreased in the case of a dividend, split or subdivision or proportionately increased in the case of a combination. The Series A Preferred Warrants contained an anti-dilution provision that was eliminated upon the Company going public.

#### *Notes Warrants*

In connection with our 2012 and 2013 notes financing, we sold to the purchasers 14,063 warrants to purchase common stock at an exercise price of \$16.00 per share. The note warrants have a seven-year term from their issuance dates and have substantially the same terms as the Series A Preferred Warrants (as described above). As of August 3, 2020 there were 846 of these warrants to purchase common stock outstanding.

#### *Advisory Firm Warrants*

In connection with an agreement with an advisory firm, we issued to such advisory firm warrants ("Advisory Firm Warrants") to purchase 12% of the fully diluted shares of Relmada, or 432,790 shares of common stock. As of August 3, 2020 there were 0 Advisory Firm Warrants outstanding. The Advisory Firm Warrants are exercisable at \$0.004 per share, provide for cashless exercise and expire seven years after the date of issuance. Shares purchased by exercise of the Advisory Firm Warrants have unlimited piggyback registration rights should we have a public offering registered with the Commission and are subject to lock-ups, if any, required by SEC regulations or other applicable law, or by investors.

#### *Placement Agent Warrants*

In connection with our sale of Series A preferred stock and 8% senior subordinated unsecured convertible notes in 2012 and 2013, we issued to a placement agent warrants to purchase 62,500 shares of common stock at an exercise price of \$16.00 per share (the "Placement Agent Warrants"). As of August 3, 2020 there were 1,892 of these warrants to purchase common stock outstanding. These Placement Agent Warrants include a cashless exercise provision and have substantially the same terms as the Series A Preferred Warrants.

In connection with the 2013 notes financing, the placement agent or its designees also received warrants to purchase 7,032 shares of our common stock at a price of \$16.00 per share. As of August 3, 2020 there were 4,219 of these warrants to purchase common stock outstanding.

In connection with our merger with Medeor in December 2013, we issued to a placement agent 10,003 warrants exercisable for shares of our common stock at an exercise price of \$22.00 per share. As of August 3, 2020 there were 2,014 of these warrants to purchase common stock outstanding.

#### *2017 Note Warrants*

In connection with our sale of notes in 2017, we sold to the purchasers an aggregate of 1,200,826 warrants to purchase common stock at an exercise price of \$6.00 per share (the "Note Warrants"). As of August 3, 2020, there were 535,822 of these 2017 Note Warrants outstanding. In connection with our sale of notes in 2017, we issued to a placement agent warrants to purchase 201,000 shares of common stock at an exercise price of \$6.60 per share. As of August 3, 2020 there are 151,589 warrants to purchase common stock outstanding. The 2017 Note Warrants have a seven-year term from their respective issuance dates. There is no cashless exercise provision.

#### *2018 Warrants*

In connection with our sale of units in October 2018, November 2018, December 2018 and February 2019, we sold to the purchasers an aggregate of 1,184,336 warrants to purchase common stock at an exercise price of \$6.00 per share, and an additional 213,585 warrants to purchase common stock at an exercise price of \$3.96 per share were issued to the placement agent (the "2018 Warrants"). As of August 3, 2020, there were 1,032,799 of these 2018 Warrants outstanding. The 2018 Warrants have a five-year term from their respective issuance dates. There is no cashless exercise provision.

#### *2019 Warrants*

In connection with our sale of units in March 2019, we sold to a single investor 89,286 warrants ("March 2019 Warrants") to purchase common stock at an exercise price of \$9.00 per share. As of August 3, 2020, there were 89,286 of these March 2019 Warrants outstanding. The March 2019 Warrants have a five-year term from their respective issuance dates. There is no cashless exercise provision.

In connection with our sale of units in May and June 2019, we sold to the purchasers 987,280 warrants to purchase common stock at an exercise price of \$9.00 per share. An additional 90,697 warrants to purchase common stock at an exercise price of \$6.60 per share and 53,118 warrants to purchase common stock at an exercise price of \$9.00 per share were issued to placement agents. As of August 3, 2020, 577,603 warrants with an exercise price of \$9.00 and 72,557 warrants with an exercise price of \$6.60 were outstanding. The warrants have a five-year term from their respective issuance dates. There is no cashless exercise provision.

#### *Additional Warrants*

An additional 338,883 warrants have been issued to employees and consultants and as of August 3, 2020, there were 259,581 of these warrants outstanding. These warrants have a weighted average exercise price of \$17.66.

#### **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.

### **Depository 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 depository shares. Each depository 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 depository shares will be deposited under a deposit agreement between us and a depository that is a bank or trust company that meets certain requirements and is selected by us. The depository will be specified in the applicable prospectus supplement. Each owner of a depository share will be entitled to all of the rights and preferences of the preferred stock represented by the depository share. The depository shares will be evidenced by depository receipts issued pursuant to the deposit agreement. Depository 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 depository receipts and any other related agreements.

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

In the event of a distribution other than in cash, the depository will distribute securities or property received by it to the record holders of depository shares in proportion to the numbers of depository shares held on the relevant record date, unless the depository determines that it is not feasible to make such distribution. In that case, the depository may make the distribution by such method as it deems equitable and practicable. One such possible method is for the depository 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 arising or asserting a claim arising pursuant to any provision of NRS Chapters 78 or 92A or any provision of the Articles 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 Articles 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.

#### **Anti-takeover Effects of Our Articles of Incorporation and By-laws**

Our Articles 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 Articles 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 the assets of the resident domestic corporation, (ii) 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) 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 or any subsidiary 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; and (d) certain other transactions with an 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, (ii) the market value per share of common shares on the date of announcement of the combination and the date the interested stockholder acquired the shares, 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 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 depository or its nominee as the owner of the warrants or units represented by these global securities. The depository 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 depository or its nominee identified in the applicable prospectus supplement and registered in the name of that depository 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 depository for the registered global security, the nominees of the depository or any successors of the depository or those nominees.

The specific terms of the depository 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 depository arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depository or persons that may hold interests through participants. Upon the issuance of a registered global security, the depository 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 depository, 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 depository, or its nominee, is the registered owner of a registered global security, that depository 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 depository 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 depository 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 depository or its nominee will be made to the depository 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 depository 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 depository. 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 depository for any of these securities represented by a registered global security is at any time unwilling or unable to continue as depository or ceases to be a clearing agency registered under the Exchange Act and a successor depository 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 depository. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depository gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depository's instructions will be based upon directions received by the depository from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depository.

## 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 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 financial statements incorporated by reference into this prospectus have been so included in reliance on the reports of Marcum LLP, an independent registered public accounting firm, related to the consolidated financial statements as of December 31, 2019, June 30, 2019 and June 30, 2018 and for the six months ended December 31, 2019 and the years ended June 30, 2019 and 2018, 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 Transition Report on [Form 10-KT](#) for the transition period from July 1, 2019 to December 31, 2019, filed with the Commission on March 26, 2020;
- Our Annual Report on [Form 10-K](#) for the fiscal year ended June 30, 2019, filed with the Commission on September 24, 2019;
- Our Quarterly Reports on Form 10-Q for the quarterly period ended [September 30, 2019](#), filed with the Commission on November 13, 2019, for the quarterly period ended [March 31, 2020](#), filed with the Commission on May 15, 2020, and for the quarterly period ended [June 30, 2020](#), filed with the Commission on August 12, 2020
- Our Current Reports on Form 8-K and 8-K/A filed with the Commission on [July 17, 2019](#), [July 18, 2019](#), [July 29, 2019](#), [September 27, 2019](#), [October 1, 2019](#), [October 18, 2019](#), [October 21, 2019](#); [December 3, 2019](#), [December 6, 2019](#), [December 26, 2019](#), January 1, 2020, [March 9, 2020](#), [March 12, 2020](#), [April 6, 2020](#), and [June 3, 2020](#); and
- The description of certain capital stock contained in our Registration Statement on Form 8-A filed on October 10, 2019, 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 subsequent to the date of this registration statement 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 880 Third Avenue, 12th Floor, New York, NY 10022. Our telephone number is 646-876-3459. Information about us is also available at our website at [www.relmada.com](http://www.relmada.com). However, the information in our website is not a part of this prospectus and is not incorporated by reference.

---

---

\$100,000,000



Common Stock

---

**PROSPECTUS SUPPLEMENT**

---

**Goldman Sachs & Co. LLC  
Jefferies  
Guggenheim Securities**

---

, 2021

---

---