As filed with the Securities and Exchange Commission on June 21, 2023

Registration No. 333-
Registration No. 333-257723

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM S-8

REGISTRATION STATEMENT

AND POST-EFFECTIVE AMENDMENT NO. 1 TO:
FORM S-8 REGISTRATION STATEMENT NO. 333-257723
UNDER
THE SECURITIES ACT OF 1933

RELMADA THERAPEUTICS, INC.
(Exact Name of Registrant as Specified in Its Charter)

Nevada	**45-5401931**
(State or other Jurisdiction of Incorporation or Organization)	(I.R.S Employer Identification Number)
2222 Ponce de Leon Blvd., Floor 3 Coral Gables, FL	**33134**
(Address of Principal Executive Offices)	(Zip Code)

RELMADA THERAPEUTICS, INC. 2021 EQUITY INCENTIVE PLAN
(Full Title of the Plans)

Sergio Traversa
Chief Executive Officer
2222 Ponce de Leon Blvd., Floor 3
Coral Gables, FL

Phone: (212) 547-9591
(Name, Address and Telephone Number of Agent for Service)

Copy to:

Gregory Sichenzia, Esq.
Barrett DiPaolo, Esq.
Sichenzia Ross Ference LLP
1185 Avenue of the Americas
New York, New York 10036
+1-212-930-9700

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging Growth Company	☐

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

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed by Relmada Therapeutics, Inc. (the "Company"), pursuant to General Instruction E to the Form S-8 Registration Statement under the Securities Act of 1933, as amended, to register an additional 6,400,000 shares of the Company's common stock, par value $0.001 per share (the "Common Stock") issued or issuable pursuant to awards under the Company's 2021 Equity Incentive Plan, as amended (the "2021 Plan);

1,500,000 shares of Common Stock issued or issuable under the 2021 Plan have been previously registered pursuant to the Company's Registration Statement on Form S-8 (File No. 333-257723), filed with the Securities and Exchange on July 6, 2021, and the information contained therein is incorporated herein by reference.

This Registration also includes a reoffer prospectus pursuant to Form S-3 (in accordance with Section C of the General Instructions to the Form S-8), which covers reoffers and resales of "restricted securities" and/or "control securities" (as such terms are defined in Section C of the General Instructions to Form S-8). This reoffer prospectus relates to offers and resales by directors and executive officers of shares of Common Stock and shares of Common Stock that are issuable upon the exercise of awards granted by the Company pursuant to the 2021 Plan. This reoffer prospectus may be used by the Selling Stockholders holders for reoffers and resales on a continuous or delayed basis in the future shares of Common Stock issued pursuant to the 2021 Plan.

The second part of this Registration Statement contains information required in the Registration Statement pursuant to Part II of Form S-8.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information

The documents containing the information specified in Part I of Form S-8 will be sent or given to each recipient of a grant under the 2021 Plan (the "Recipient") in accordance with Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission" or the "SEC") and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. Such documents and the documents incorporated by reference into this Registration Statement pursuant to Item 3 of Part II of this Registration Statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Item 2. Registrant Information and Employee Plan Annual Information.

We will provide to each Recipient a written statement advising of the availability of documents incorporated by reference in Item 3 of Part II of this Registration Statement (which documents are incorporated by reference in this Section 10(a) prospectus) and of documents required to be delivered pursuant to Rule 428(b) under the Securities Act without charge and upon written or oral request by contacting:

Relmada Therapeutics, Inc.

2222 Ponce de Leon Blvd., Floor 3
Coral Gables, FL 33134
Telephone: 212-547-9591
Attn: Investor Relations

REOFFER PROSPECTUS

6,020,608 Shares

Common Stock
Issued or issuable under certain awards
granted under the 2021 Plan

This reoffer prospectus relates to 6,020,608 shares of our common stock, $0.001 par value per share (the "Common Stock") that may be reoffered or resold, from time to time, by certain stockholders identified herein in the section entitled "Selling Stockholders." Such shares have been or may be acquired in connection with awards granted under the Relmada Therapeutics, Inc. (the "Company") 2021 Equity Incentive Plan (as amended, the "2021 Plan").

The Selling Stockholders, or their pledgees, donees, transferees or other successors-in-interest, may offer and sell their shares on the Nasdaq Global Select Market, or such other stock market or exchange on which our Common Stock may be listed or quoted, in negotiated transactions or otherwise, at market prices prevailing at the time of the sale, at prices related to prevailing market prices or at prices otherwise negotiated (see "Plan of Distribution" starting on page 9 of this prospectus). We will receive no part of the proceeds from sales made under this reoffer prospectus. The Selling Stockholders will bear all sales commissions and similar expenses. Any other expenses incurred by us in connection with the registration and offering and not borne by the Selling Stockholders will be borne by us.

This reoffer prospectus has been prepared for the purposes of registering the shares under the Securities Act to allow for future sales by Selling Stockholders on a continuous or delayed basis to the public without restriction. We have not entered into any underwriting arrangements in connection with the sale of the shares covered by this reoffer prospectus.

Investing in our securities involves certain risks. See "Risk Factors" beginning on page 5 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.

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 June 16, 2023, was $2.60 per share.

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 reoffer prospectus is June 21, 2023

TABLE OF CONTENTS

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" or the "SEC"). This prospectus should be read in conjunction with the consolidated financial statements as of and for the years ended December 31, 2022 and December 31, 2021, 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 esmethadone (d-methadone, dextromethadone, REL-1017), an N-methyl-D-aspartate (NMDA) receptor antagonist. Esmethadone an isomer of methadone, is a new chemical entity (NCE) that potentially addresses areas of high unmet medical need in the treatment of central nervous system (CNS) diseases and other disorders.

Our lead product candidate, esmethadone, is 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.

Phase 2 Clinical Trial

In the REL-1017-202 study, 62 subjects, with an average age of 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. Other 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 inpatient 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.

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: 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.

The study also confirmed the tolerability profile of REL-1017, which was observed in the Phase 1 studies. Subjects experienced only 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 of 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, Relmada 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.

On April 1, 2021, Relmada 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.

On October 4, 2021, Relmada announced the initiation of RELIANCE III study, a monotherapy trial for the Company's lead product candidate, REL-1017.

On August 9, 2022, Relmada announced that the FDA granted Fast Track designation to REL-1017 as a monotherapy for the treatment of MDD.

On October 13, 2022, Relmada announced that its RELIANCE III study, evaluating REL-1017 in the monotherapy setting for MDD, did not achieve its primary endpoint, which was a statistically significant improvement in depression symptoms compared to placebo as measured by MADRS on Day 28. In the study, the REL-1017 treatment arm showed a MADRS reduction of 14.8 points at Day 28 versus 13.9 points for the placebo arm, a higher than expected placebo response.

On December 7, 2022, Relmada announced that its RELIANCE I study, evaluating REL-1017 as an adjunctive treatment for MDD, did not achieve its primary endpoint, which was a statistically significant improvement in depression symptoms compared to placebo as measured by MADRS on Day 28. In the study, the REL-1017 treatment arm (n= 113) showed a MADRS reduction of 15.1 points at Day 28 versus 12.9 points for the placebo arm (n=114), which is a clinically meaningful difference of 2.2 points on the MADRS. The study also showed a nominally statistically significant difference in the response rate, with a response rate of 39.8% in the REL-1017 arm vs 27.2% in the placebo arm ($p<0.05$).

Patients who complete the RELIANCE trials are eligible to rollover into the long-term, open-label study, which also is expected to include subjects who had not previously participated in a REL-1017 clinical trial.

In addition, in order to support potential regulatory submissions seeking approval for REL-1017 as monotherapy and adjunctive treatment, the FDA confirmed that, based on what is known at this time, Relmada will not be required to conduct a two-year carcinogenicity study of REL-1017, as sufficient clinical data have been generated to date. The FDA also confirmed that Relmada does not need to conduct a Thorough QT analysis (TQT) cardiac study in humans to support cardiac safety in potential regulatory submissions for REL-1017, as the data provided so far and the data generated by the Phase 3 program will be adequate to evaluate the cardiac safety profile of REL-1017.

Human Abuse Potential (HAP) Studies

Top-line Results - Oxycodone:

On July 27, 2021, Relmada 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 (MTD), respectively, tested in recreational opioid users, demonstrated a highly statistically significant difference vs. 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 the highest dislike. In summary, all tested doses of REL-1017, including the 150 mg MTD, showed a highly statistically significant difference in abuse potential versus oxycodone with p-values less than 0.05. Consistent results were seen for the secondary endpoints. Additionally, all REL-1017 doses including 150 mg (6 times the therapeutic dose and MTD) were statistically equivalent to placebo ($p<0.05$). These results support the lack of opioid effects of REL-1017.

Top-line Results - Ketamine:

On February 23, 2022, Relmada announced top-line results that showed that all three doses of REL-1017 (25 mg, 75 mg, and 150 mg, the therapeutic, supratherapeutic and MTD, respectively) tested in recreational drug users, demonstrated a substantial (30+ points) and statistically significant difference vs. the active control drug, intravenous ketamine 0.5 mg/kg over 40 minutes, and, importantly, were statistically equivalent to placebo. The study's primary endpoint was a measure of "likability" with the subjects rating the maximum effect (or Emax) for Drug Liking "at this 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 the highest dislike. Consistent results are seen for the secondary endpoints.

Key Upcoming Anticipated Milestones

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

- Results of RELIANCE II, the second of two adjunctive MDD trials, in the first half of 2024.
- Initiation of a new Phase III adjunctive MDD trial in mid-2023 with completion anticipated in the second half of 2024.
- Results of RELIANCE – OLS (Long-term, Open-label) study in MDD in mid-2023.

Our Development Program

Esmethadone (d-Methadone, dextromethadone, REL-1017) as a treatment for MDD

Background

In 2020, the National Institute of Mental Health (NIMH) estimated that 21.0 million adults aged 18 or older in the United States had at least one major depressive episode in the past year. According to data from nationally representative surveys supported by NIMH, only about half of Americans diagnosed with major depression in a given year receive treatment. Of those receiving treatment with as many as four different standard antidepressants, 33% of drug-treated depression patients do not achieve adequate therapeutic benefits according to the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) trial published in the American Journal of Psychiatry.

In addition to the high failure rate, only two of the marketed products for depression, esketamine (marketed by Johnson and Johnson as Spravato®), an in-clinic nasal spray treatment, and dextromethorphan-bupropion (marketed by Axsome as Auvelity ä), can demonstrate rapid antidepressant effects, while the other currently approved products can take two to eight weeks to show activity. The urgent need for improved, faster acting antidepressant treatments is underscored by the fact that severe depression can be life-threatening, due to heightened risk of suicide.

Esmethadone Overview and Mechanism of Action

Esmethadone's mechanism of action, as a low affinity, non-competitive NMDA channel blocker or antagonist, is fundamentally differentiated from most currently FDA-approved antidepressants, as well as all atypical antipsychotics used adjunctively with standard, FDA-approved antidepressants. Working through the same brain mechanisms as ketamine and esketamine but potentially lacking their adverse side effects, esmethadone is being developed as a rapidly acting, oral agent for the treatment of depression and potentially other CNS conditions.

In chemistry an enantiomer, also known as an optical isomer, is one of two stereoisomers that are mirror images of each other that are non-superimposable (not identical), much as one's left and right hands are the same except for being reversed along one axis. A racemic compound, or racemate, is one that has equal amounts of left- and right-handed enantiomers of a chiral molecule. For racemic drugs, often only one of a drug's enantiomers is responsible for the desired physiologic effects, while the other enantiomer is less active or inactive.

As a single isomer of racemic methadone, esmethadone has been shown to possess NMDA antagonist properties with virtually no traditional opioid or ketamine-like adverse events at the expected therapeutic doses. In contrast, racemic methadone is associated with common opioid side effects that include anxiety, nervousness, restlessness, sleep problems (insomnia), nausea, vomiting, constipation, diarrhea, drowsiness, and others. It has been shown that the left (levo) isomer, l-methadone, is largely responsible for methadone's opioid activity, while the right (dextro) isomer, esmethadone, at the currently therapeutic doses used in development is virtually inactive as an opioid while maintaining affinity for the NMDA receptor.

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, esmethadone could show benefits in several different CNS indications.

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

While our current strategy is currently to focus on the further development of esmethadone as an adjunctive treatment of MDD, we may in the future re-commence testing of esmethadone as a monotherapy for MDD. In addition, we are evaluating other indications that Relmada may explore in the future, including restless leg syndrome and other glutamatergic system activation related diseases.

About This Offering

This prospectus relates to the public offering, which is not being underwritten, by the Selling Stockholders listed in this prospectus, of up to 6,020,608 shares of our Common Stock. Of the shares being offered, 6,020,608 of which are currently issued and outstanding. The shares offered by this prospectus may be sold by the Selling Stockholders from time to time in the open market, through negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices. We will receive none of the proceeds from the sale of the shares by the Selling Stockholders. We will bear all expenses of registration incurred in connection with this offering, but all selling and other expenses incurred by the Selling Stockholders will be borne by them.

Stock Listing

Our Common Stock is listed on The Nasdaq Global Select Market under the symbol "RLMD."

Corporate Information

Our principal executive offices are located at 2222 Ponce de Leon Blvd., Floor 3, Coral Gables, FL 33134 and our telephone number is +1-646-876-3459. Our website address is *www.relmada.com.* The information contained therein or connected thereto shall not be deemed to be incorporated into this prospectus or the registration statement of which it forms a part. The information on our website is not part of this prospectus.

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 under the caption "Risk Factors" and elsewhere in our most recent Annual Report on Form 10-K, , 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."

USE OF PROCEEDS

The shares which may be sold under this reoffer prospectus will be sold for the respective accounts of each of the Selling Stockholders listed herein (which includes our executive officers and directors). Accordingly, we will not realize any proceeds from the sale of the shares of our Common Stock. We will receive proceeds from the exercise of the options; however, no assurance can be given as to when or if any or all of the options will be exercised. If any options are exercised, the proceeds derived therefrom will be used for working capital and general corporate purposes. All expenses of the registration of the shares will be paid by us. See "Selling Stockholders" and "Plan of Distribution."

SELLING STOCKHOLDERS

This reoffer prospectus relates to shares of Common Stock that are being registered for reoffer and resale by Selling Stockholders who have received or acquired, or may hereafter receive or acquire, the shares pursuant to the Plans. The Selling Stockholders may resell all, a portion, or none of the shares of Common Stock from time to time.

The following table sets forth (a) the name of each Selling Stockholder; (b) the number of shares of Common Stock beneficially owned by each Selling Stockholder as of June 12, 2023; (c) the maximum number of shares of Common Stock that each Selling Stockholder may offer for sale from time to time pursuant to this reoffer prospectus, whether or not the Selling Stockholder has any present intention to do so and whether or not such shares have previously been issued to the Selling Stockholders or may be issued in the future if at all; and (d) the number of shares of Common Stock and the percentage of the Company's outstanding Common Stock that would be beneficially owned by each Selling Stockholder assuming the sale of all of that Selling Stockholder's shares offered hereby. The percentage of our outstanding Common Stock to be owned by each Selling Stockholder assuming the sale of all of that Selling Stockholder's shares offered hereby is based on 30,099,203 shares of Common Stock issued and outstanding as of June 12, 2023. All information with respect to beneficial ownership has been furnished by the Selling Stockholders.

Beneficial ownership is determined in accordance with the rules of the Commission and generally includes voting or investment power with respect to securities. Options to purchase and rights to receive shares of Common Stock that are currently exercisable or vested, or which are exercisable or vest within 60 days of the date of this prospectus are deemed to be outstanding and to be beneficially owned by the person holding such options for the purpose of computing the percentage ownership of any other person. Shares of restricted stock, whether vested or unvested, are deemed to be outstanding and to be beneficially owned by the person holding such restricted stock for the purpose of computing the percentage ownership of such person and are treated as outstanding for the purpose of computing the percentage ownership of each other person.

Information concerning the identities of the Selling Stockholders, the number of shares that may be sold by each Selling Stockholder and information about the shares beneficially owned by the Selling Stockholders may from time to time be updated in supplements to this reoffer prospectus, which will be filed with the SEC in accordance with Rule 424(b) of the Securities Act if and when necessary. The names of persons selling shares under this reoffer prospectus and the amount of such shares are set forth below to the extent we presently have such information. However, other affiliate Selling Stockholders may elect to sell shares pursuant to this reoffer prospectus as they receive them from time to time.

The address of each Selling Stockholder is c/o Relmada Therapeutics, Inc., 2222 Ponce de Leon Blvd., Floor 3, Coral Gables, Florida 33134.

	Number of Shares Beneficially Owned Prior to Offering (1)		Number of Shares Being	Number of Shares Beneficially Owned After Offering (1)	
Selling Stockholder	**Number**	**Percent (%)**	**Offered**	**Number**	**Percent (%)**
Sergio Traversa	1,795,114	5.7%	1,994,722	144,024	*%
Maged Shenouda	895,625	2.9	1,035,289	2,228	*
Charles Ence	494,822	1.6	1,040,597	-	*
Cedric O'Gorman	60,120	*	400,000	10,121	*
Charles Casamento	449,551	1.5	300,000	-	*
Paul Kelly	796,511	2.6	450,000	187,295	*
Eric Schmidt	412,500	1.4	300,000	100,000	*
John Glasspool	312,500	1.0	300,000	-	*
Fabiana Fedeli	-	*	200,000	-	*
Totals	**5,216,743**	**17.3%**	**6,020,608**	**443,668**	***%**

* less than 1%

(1) The securities "beneficially owned" by a person are determined in accordance with the definition of "beneficial ownership" set forth in the rules and regulations promulgated under the Exchange Act, and accordingly, may include securities owned by and for, among others, the spouse and/or minor children of an individual and any other relative who has the same home as such individual, as well as other securities as to which the individual has or shares voting or investment power or which such person has the right to acquire within 60 days of June 12, 2023 pursuant to the exercise of options, or otherwise. Beneficial ownership may be disclaimed as to certain of the securities.

PLAN OF DISTRIBUTION

The shares of Common Stock covered by this reoffer prospectus are being registered by the Company for the account of the Selling Stockholders.

The shares of Common Stock offered may be sold from time to time directly by or on behalf of each Selling Stockholder in one or more transactions on the Nasdaq Global Select Market or any other stock exchange on which the Common Stock may be listed at the time of sale, in privately negotiated transactions, or through a combination of such

methods, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at fixed prices (which may be changed) or at negotiated prices. The Selling Stockholders may sell shares through one or more agents, brokers or dealers or directly to purchasers. Such brokers or dealers may receive compensation in the form of commissions, discounts or concessions from the Selling Stockholders and/or purchasers of the shares or both. Such compensation as to a particular broker or dealer may be in excess of customary commissions.

The Selling Stockholders may use any one or more of the following methods when disposing of Common Stock or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the Common Stock as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this reoffer prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the Selling Stockholders to sell a specified number of such Common Stock at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The Selling Stockholders may, from time to time, pledge or grant a security interest in some or all of the Common Stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the common stock, from time to time, under this reoffer prospectus, or under an amendment to this reoffer prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of Selling Stockholders to include the pledgee, transferee or other successors in interest as Selling Stockholders under this reoffer prospectus. The Selling Stockholders also may transfer the Common Stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this reoffer prospectus.

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

In connection with their sales, a Selling Stockholder and any participating broker or dealer may be deemed to be “underwriters” within the meaning of the Securities Act, and any commissions they receive and the proceeds of any sale of shares may be deemed to be underwriting discounts and commissions under the Securities Act.

We are bearing all costs relating to the registration of the shares of Common Stock. Any commissions or other fees payable to brokers or dealers in connection with any sale of the shares will be borne by the Selling Stockholders or other party selling such shares. Sales of the shares must be made by the Selling Stockholders in compliance with all applicable state and federal securities laws and regulations, including the Securities Act.

In addition to any shares sold hereunder, Selling Stockholders may sell shares of Common Stock in compliance with Rule 144. There is no assurance that the Selling Stockholders will sell all or a portion of the Common Stock offered hereby.

The Selling Stockholders may agree to indemnify any broker, dealer or agent that participates in transactions involving sales of the shares against certain liabilities in connection with the offering of the shares arising under the Securities Act.

We have notified the Selling Stockholders of the need to deliver a copy of this reoffer prospectus in connection with any sale of the shares.

LEGAL MATTERS

Certain legal matters relating to the validity of the issuance of Common Stock in this offering are being passed upon for us by Sichenzia Ross Ference LLP, New York, New York.

EXPERTS

The financial statements incorporated by reference into this prospectus have been so included in reliance on the report of Marcum LLP, an independent registered public accounting firm, related to the consolidated financial statements as of December 31, 2022 and 2021, and each of the two years in the period ended December 31, 2022, given on the authority of said firm as experts in auditing and accounting.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

We are incorporating by reference certain information that we have filed with the Commission under the informational requirements of the Exchange Act, which means that we disclose important information to you by referring to another document filed separately with the Company. The information contained in the documents we are incorporating by reference is considered to be a part of this reoffer prospectus, and the information that we later file with the SEC will automatically update and supersede the information contained or incorporated by reference in this reoffer prospectus.

The following documents filed with the SEC are incorporated by reference in this reoffer prospectus:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the Commission on March 23, 2023;
- Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2023, filed with the Commission on May 11, 2023;
- Our Current Reports on Form 8-K filed with the Commission on January 5, 2023, January 17, 2023, April 19, 2023, May 15, 2023, May 25, 2023;
- Our Definitive Proxy Statement on Schedule 14A filed with the Commission on March 31, 2023; and
- The description of certain capital stock contained in our Registration Statement on Form 8-A filed on October 8, 2019, as it may further be amended from time to time.

All documents filed with the Commission by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of this reoffer prospectus and prior to the termination of the offering relating to this reoffer prospectus (other than such portions and exhibits of the respective filings that were furnished pursuant to Items 2.02 or 7.01 of Current Reports on Form 8-K and not deemed filed under the Exchange Act) will be deemed to be incorporated by reference into this reoffer prospectus and to be a part of this reoffer prospectus from the date of filing of those documents. Any statement incorporated or deemed to be incorporated by reference into this reoffer prospectus will be deemed to be modified, replaced or superseded for purposes of this reoffer prospectus to the extent that a statement contained in this Reoffer Prospectus or in any other subsequently filed document, that also is or is deemed to be incorporated by reference into this reoffer prospectus modifies, replaces or supersedes that statement. Any statement so modified, replaced or superseded will be deemed, except as so modified, replaced or superseded, to constitute a part of this reoffer prospectus.

WHERE YOU CAN FIND MORE INFORMATION

This reoffer prospectus refers to certain documents that are not presented herein or delivered herewith. Such documents are available to any person, including any beneficial owner of our shares, to whom this reoffer prospectus is delivered upon oral or written request, without charge. Requests for such documents should be directed to Investor Relations, Relmada Therapeutics, Inc., 2222 Ponce de Leon Blvd, Floor 3, Coral Gables, Florida 33134. Please note that additional information can be obtained from our website at *www.relmada.com.*

We file annual and special reports and other information with the SEC. Certain of our SEC filings are available over the Internet at the SEC's web site at*http://www.sec.gov*. You may also read and copy any document we file with the SEC at its public reference facilities:

Public Reference Room Office 100 F Street, N.E.
Room 1580
Washington, D.C. 20549

You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Callers in the United States can also call (202) 551-8090 for further information on the operations of the public reference facilities.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed by the Registrant with the Commission are incorporated herein by reference (excluding any portions of such documents that have been "furnished" but not "filed" for purposes of the Securities Exchange Act of 1934, as amended (the "Exchange Act")):

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the Commission on March 23, 2023;
- Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2023, filed with the Commission on May 11, 2023;
- Our Current Reports on Form 8-K filed with the Commission on January 5, 2023, January 17, 2023, April 19, 2023, May 15, 2023, May 25, 2023;
- Our Definitive Proxy Statement on Schedule 14A filed with the Commission on March 31, 2023; and
- The description of certain capital stock contained in our Registration Statement on Form 8-A filed on October 8, 2019, as it may further be amended from time to time.

In addition, all documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of the post-effective amendment to this Registration Statement which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of the filing of such documents.

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

Under no circumstances will any information filed under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

You may request a copy of these filings, at no cost, by writing or telephoning the Registrant at:

880 Third Avenue
2222 Ponce de Leon Blvd., Floor 3
Coral Gables, FL 33134

Telephone: 212-547-9591
Attn: Investor Relations

You should rely only on the information provided or incorporated by reference in this Registration Statement or any related prospectus. The Registrant has not authorized

anyone to provide you with different information. You should not assume that the information in this Registration Statement or any related prospectus is accurate as of any date other than the date on the front of the document.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

The Registrant is a Nevada corporation and generally governed by the Nevada Private Corporations Code, Title 78 of the Nevada Revised Statutes, or NRS.

Section 78.138 of the NRS provides that, unless the corporation's Articles of Incorporation provide otherwise, a director or officer will not be individually liable unless it is proven that (i) the director's or officer's acts or omissions constituted a breach of his or her fiduciary duties, and (ii) such breach involved intentional misconduct, fraud, or a knowing violation of the law. Our Articles of Incorporation provide that no director or officer shall be personally liable to the corporation or any of its stockholders for damages for any breach of fiduciary duty as a director or officer except for liability of a director or officer for (i) acts or omissions involving intentional misconduct, fraud, or a knowing violation of law or (ii) payment of dividends in violation of Section 78-300 of the NRS.

Section 78.7502 of the NRS permits a company to indemnify its directors and officers against expenses, judgments, fines, and amounts paid in settlement actually and reasonably incurred in connection with a threatened, pending, or completed action, suit, or proceeding, if the officer or director (i) is not liable pursuant to NRS 78.138, or (ii) acted in good faith and in a manner the officer or director reasonably believed to be in or not opposed to the best interests of the corporation and, if a criminal action or proceeding, had no reasonable cause to believe the conduct of the officer or director was unlawful. Section 78.7502 of the NRS also precludes indemnification by the corporation if the officer or director has been adjudged by a court of competent jurisdiction, after exhaustion of all appeals, to be liable to the corporation or for amounts paid in settlement to the corporation, unless and only to the extent that the court determines that in view of all the circumstances, the person is fairly and reasonably entitled to indemnity for such expenses and requires a corporation to indemnify its officers and directors if they have been successful on the merits or otherwise in defense of any claim, issue, or matter resulting from their service as a director or officer.

Section 78.751 of the NRS permits a Nevada company to indemnify its officers and directors against expenses incurred by them in defending a civil or criminal action, suit, or proceeding as they are incurred and in advance of final disposition thereof, upon determination by the stockholders, the disinterested board members, or by independent legal counsel. Section 78.751 of NRS requires a corporation to advance expenses as incurred upon receipt of an undertaking by or on behalf of the officer or director to repay the amount if it is ultimately determined by a court of competent jurisdiction that such officer or director is not entitled to be indemnified by the company if so provided in the corporations articles of incorporation, bylaws, or other agreement. Section 78.751 of the NRS further permits the company to grant its directors and officers additional rights of indemnification under its articles of incorporation, bylaws, or other agreement.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The Exhibits to this Registration Statement are listed in the Exhibit Index to this Registration Statement, which Exhibit Index is incorporated herein by reference.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to the Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

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

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

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

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

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

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

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Company certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on this 21st day of June, 2023

Relmada Therapeutics, Inc.

By: /s/ Sergio Traversa
Sergio Traversa
Chief Executive Officer and (Duly Authorized Officer and Principal Executive Officer)

By: /s/ Maged Shenouda
Maged Shenouda
Chief Financial Officer
(Principal Financial Officer)

POWER OF ATTORNEY

Each of the undersigned directors and officers of Relmada Therapeutics, Inc., a Nevada corporation, do hereby constitute and appoint Sergio Traversa the undersigned's true and lawful attorney and agent, with full power of substitution and resubstitution in each, to do any and all acts and things in our name and on our behalf in our respective capacities as directors and officers and to execute any and all instruments for us and in our names in the capacities indicated below, which said attorneys and agents, or either one of them, may deem necessary or advisable to enable said corporation to comply with the Securities Act, as amended, and any rules, regulations and requirements of the Securities and Exchange Commission, in connection with this registration statement, including specifically, but without limitation, power and authority to sign for us or any of us in our names in the capacities indicated below, any and all amendments (including post-effective amendments) hereto, and each of the undersigned does hereby ratify and confirm all that said attorneys and agents, or either one of them or any substitute, shall do or cause to be done by virtue hereof. This Power of Attorney may be executed in any number of counterparts.

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

Signature	Title	Date
/s/ Charles Ence Charles Ence	Chief Accounting and Compliance Officer (Principal Accounting Officer)	June 21, 2023
/s/ Charles Casamento Charles Casamento	Director, Chairman of the Board	June 21, 2023
/s/ Paul Kelly Paul Kelly	Director	June 21, 2023
/s/ John Glasspool John Glasspool	Director	June 21, 2023
/s/ Eric Schmidt Eric Schmidt	Director	June 21, 2023
/s/ Fabiana Fedeli Fabiana Fedeli	Director	June 21, 2023

INDEX TO EXHIBITS

Exhibit No.	Description
3.1	Articles of Incorporation (incorporated by reference to Exhibit 3.1 to Registration Statement on Form S-1 filed with the SEC on November 13, 2012).

3.2	Certificate of Designation dated May 13, 2014 (incorporated by reference to Exhibit 4.1 to Report on Form 8-K filed with the SEC on May 19, 2014).
3.3	Nevada Certificate of Amendment to Articles of Incorporation, effective May 30, 2014 (incorporated by reference to Exhibit 3.1 to Form 8-K filed with the SEC on June 2, 2014).
3.4	Nevada Certificate of Amendment to Articles of Incorporation, effective July 8, 2014 (incorporated by reference to Exhibit 3.1 to Form 8-K filed with the SEC on July 14, 2014).
3.5	Nevada Certificate of Amendment to Articles of Incorporation, effective February 12, 2015 (incorporated by reference to Exhibit 3.1 to Form 10-Q filed with the SEC on February 13, 2015).
3.6	Nevada Certificate of Change Pursuant to NRS 78.209, effective August 11, 2015 (incorporated by reference to Exhibit 3.1 to Form 8-K filed with the SEC on August 10, 2015).
3.7	Second Amended and Restated Bylaws of Relmada Therapeutics, Inc. (incorporated by reference to Exhibit 3.2 of Relmada's Form 8-K filed with the SEC on November 25, 2015).
3.8	Certificate of Amendment to Articles of Incorporation, dated April 12, 2019 (incorporated by reference to Exhibit 3.1 to Form 10-Q filed on May 14, 2019).
3.9	Nevada Certificate of Change Pursuant to NRS 78.209, effective September 26, 2019 (incorporated by reference to Exhibit 3.1 of Relmada's Form 8-K filed with the SEC on September 27, 2019).
3.10	Certificate of Amendment to Articles of Incorporation, dated September 22, 2022 (incorporated by reference to Exhibit 3.1 to Form 8-K filed on September 22, 2022).
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to Form S-8 filed on October 2, 2015).
5.1	Opinion of Sichenzia Ross Ference LLP*
23.1	Consent of Marcum LLP*
23.2	Consent of Sichenzia Ross Ference LLP (included in Exhibit 5.1)*
24.1	Power of Attorney (included on signature page)*
99.1	Relmada Therapeutics, Inc. 2021 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on May 20, 2021).
99.2	Relmada Therapeutics, Inc. 2021 Equity Incentive Plan, as amended (incorporated by reference to Exhibit 10.1 to Form 8-K filed with the SEC on May 25, 2023).
107	Filing Fee Table

* Filed herewith

Exhibit 5.1

SICHENZIA ROSS FERENCE LLP

June 21, 2023

VIA ELECTRONIC TRANSMISSION

Relmada Therapeutics, Inc.
2222 Ponce De Leon Blvd., 3rd Floor
Coral Gables, Florida 33134

Re: Registration Statement on Form S-8
Post-Effective Amendment No. 1 to:
Registration Statement on Form S-8 No. 333-257723

Ladies and Gentlemen:

We refer to the above-captioned registration statement and post-effective amendments to registration statements on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act"), filed by Relmada Therapeutics, Inc., a Nevada corporation (the "Company"), with the Securities and Exchange Commission.

We have examined the originals, photocopies, certified copies or other evidence of such records of the Company, certificates of officers of the Company and public officials, and other documents as we have deemed relevant and necessary as a basis for the opinion hereinafter expressed. In such examination, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as certified copies or photocopies and the authenticity of the originals of such latter documents.

Based on our examination mentioned above, we are of the opinion that the securities to be issued and sold pursuant to the Registration Statement are duly authorized and are, or will be when so issued, legally and validly issued, and fully paid and non-assessable.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement. In giving the foregoing consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Act, or the rules and regulations of the Securities and Exchange Commission.

Very truly yours,

/s/ Sichenzia Ross Ference LLP
Sichenzia Ross Ference LLP

1185 Avenue of the Americas | 31st Floor | New York, NY 10036
T +1.212.930.9700 | F +1.212.930.9725 | www.srf.law

Exhibit 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Relmada Therapeutics, Inc. on Form S-8 and Post-Effective Amendment No. 1 to Form S-8 (File No. 333-257723) of our report dated March 23, 2023, with respect to our audits of the consolidated financial statements of Relmada Therapeutics, Inc. as of December 31, 2022 and 2021, and for the years ended December 31, 2022 and 2021 appearing in the Annual Report on Form 10-K of Relmada Therapeutics, Inc. for the year ended December 31, 2022**.** We also consent to the reference to our firm under the heading "Experts" in the Prospectus, which is part of this Registration Statement.

/s/ Marcum llp

Marcum llp
Houston, Texas
June 21, 2023

Exhibit 107

Calculation of Filing Fee Tables

Form S-8
(Form Type)

Relmada Therapeutics, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1—Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered(1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common stock, $0.001 par value per share:	457(c) and 457(h)	5,830,914(2)	$ 9.61(3)	$ 56,035,083.54	$ 0.00011020	$ 6,175.07
Equity	Common stock, $0.001 par value per share:	457(c) and 457(h)	569,086(4)	2.545(5)	$ 1,448,323.87	$ 0.00011020	$ 159.61
		Total Offering Amounts			$ 57,483,407.41		$ 6,334.67
		Total Fee Offsets					—
		Net Fee Due					$ 6,334.67

(1) Represents additional shares of common stock, $0.001 par value per share ("Common Stock"), of Relmada Therapeutics, Inc. (the "Company") reserved for issuance under the Company's 2021 Equity Incentive Plan (as amended, the "2021 Plan"). Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers an additional indeterminate amount of shares to be offered or sold pursuant to the 2021 Plan and shares that may become issuable under the 2021 Plan by reason of certain corporate transactions or events, including any share dividend, share split, recapitalization or any other similar adjustment of the outstanding Common Stock.
(2) Represents the number of shares and shares issuable pursuant to stock option awards outstanding under the 2021 Plan.
(3) Estimated pursuant to Rule 457(h) solely for purposes of calculating the aggregate offering price and the amount of the registration fee based upon a weighted average of the exercise prices of outstanding options previously granted.
(4) Represents the number of shares and shares issuable pursuant to stock option awards available for future awards under the 2021 Plan.
(5) Estimated solely for the purpose of calculating the registration fee computed pursuant to Rule 457(c) and (h), upon the basis of the average of the high and low prices of the common stock as quoted on the Nasdaq Stock Market on June 16 , 2023.