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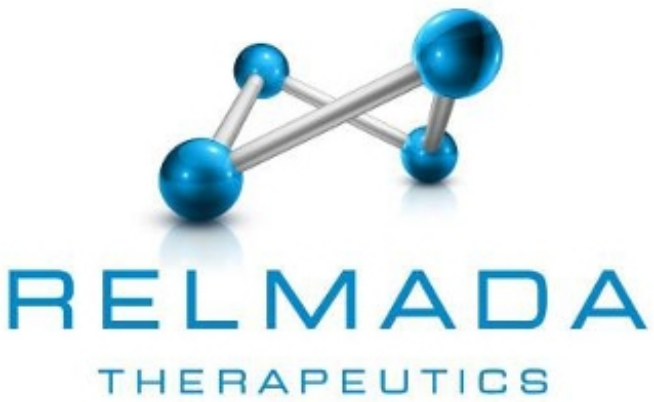
Relmada Therapeutics Announces Results of In Vivo Study Showing d-Methadone has Antidepressant-like Effects

Data show that d-Methadone produces antidepressant activity comparable to ketamine after single dose administration in a well-validated model.

NEW YORK, May 4, 2016 /PRNewswire/ -- Relmada Therapeutics, Inc. (OTCQB: RLMD), a clinical-stage company developing novel therapies for the treatment of chronic pain, today announced the results of an in vivo study showing that administration of d-Methadone (REL-1017), a N-methyl-d-aspartate (NMDA) receptor antagonist, results in antidepressant-like effects. Results are shown to be comparable to those achieved in similar treatment models using ketamine.



"This study is the first to clearly demonstrate that d-Methadone exhibits antidepressant-like effects in a well-validated treatment model to predict antidepressant activity," said Richard Mangano, Ph.D., chief scientific officer of Relmada. "Ketamine, also a noncompetitive NMDA receptor antagonist, has been thoroughly characterized in this

model and has demonstrated rapid onset of activity in several clinical studies, but has also been shown in multiple studies to present a high risk of toxicity. Combined with the results of our recent Phase I single and multiple ascending dose studies, the encouraging results of this in vivo study support our belief that d-Methadone warrants further evaluation in a Phase II study as an effective treatment for depression."

The purpose of this study was to determine whether d-Methadone elicits antidepressant-like effects after a single administration in a well-validated animal model to predict antidepressant effects, the forced swim test. In the study, male Sprague Dawley rats were administered single doses of vehicle, ketamine, or d-Methadone on day one (after habituation; 24 hours prior to forced swim testing). At all doses tested, d-Methadone significantly decreased immobility of the rats compared to the vehicle, suggesting antidepressant-like activity. In addition, the effect of d-Methadone on immobility at the two highest doses tested was larger than the effect seen with ketamine. Importantly, the effects of d-Methadone in the forced swim test were not confounded by any changes in the locomotor activity of the rats.

About d-Methadone (REL-1017)

As a single isomer, d-Methadone (REL-1017) has been shown to possess NMDA antagonist properties with virtually no opioid activity at the expected therapeutic doses. The activation of NMDA receptors has been associated with neuropathic pain and it is expected that REL-1017 will have a role in pain management by blocking this activity. In contrast, racemic methadone is a long-acting narcotic used in the treatment of various pain states and as a substitution therapy in opioid addiction and associated with typical opioid side effects.

About Relmada Therapeutics, Inc.

Relmada Therapeutics is a clinical-stage, publicly traded specialty pharmaceutical company developing novel versions of proven drug products together with new chemical entities that potentially address areas of high unmet medical need in the treatment of pain. The Company has a diversified portfolio of four products at various stages of development, including d-Methadone (REL-1017), an N-methyl-D-aspartate (NMDA) receptor antagonist for neuropathic pain; topical mepivacaine (REL-1021), an orphan drug designated topical formulation of the local anesthetic mepivacaine; oral buprenorphine (REL-1028),an oral dosage form of the opioid analgesic buprenorphine; and LevoCap ER (REL-1015), an abuse resistant, sustained release dosage form of the opioid analgesic levorphanol. The Company's product development efforts are guided by the internationally recognized scientific expertise of its research team. The Company's approach is expected to reduce clinical development risks and costs while potentially delivering valuable products to address areas of high unmet medical needs. For more information, please visit Relmada's website at: www.relmada.com.

Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements made by us or on our behalf. We may from time to time make written or oral statements in this letter, the proxy statements filed with the SEC communications

to stockholders and press releases which constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are based upon management's current expectations, estimates, assumptions and beliefs concerning future events and conditions and may discuss, among other things, anticipated future performance, expected product development, product potential, future business plans and costs. Any statement that is not historical in nature is a forward-looking statement and may be identified by the use of words and phrases such as "expects," "anticipates," "believes," "will," "will likely result," "will continue," "plans to" and similar expressions. No forward-looking statement can be guaranteed and actual results may differ materially from those projected. Relmada undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise. Readers are cautioned that it is not possible to predict or identify all of the risks, uncertainties and other factors that may affect future results and that the risks described herein should not be considered to be a complete list.

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