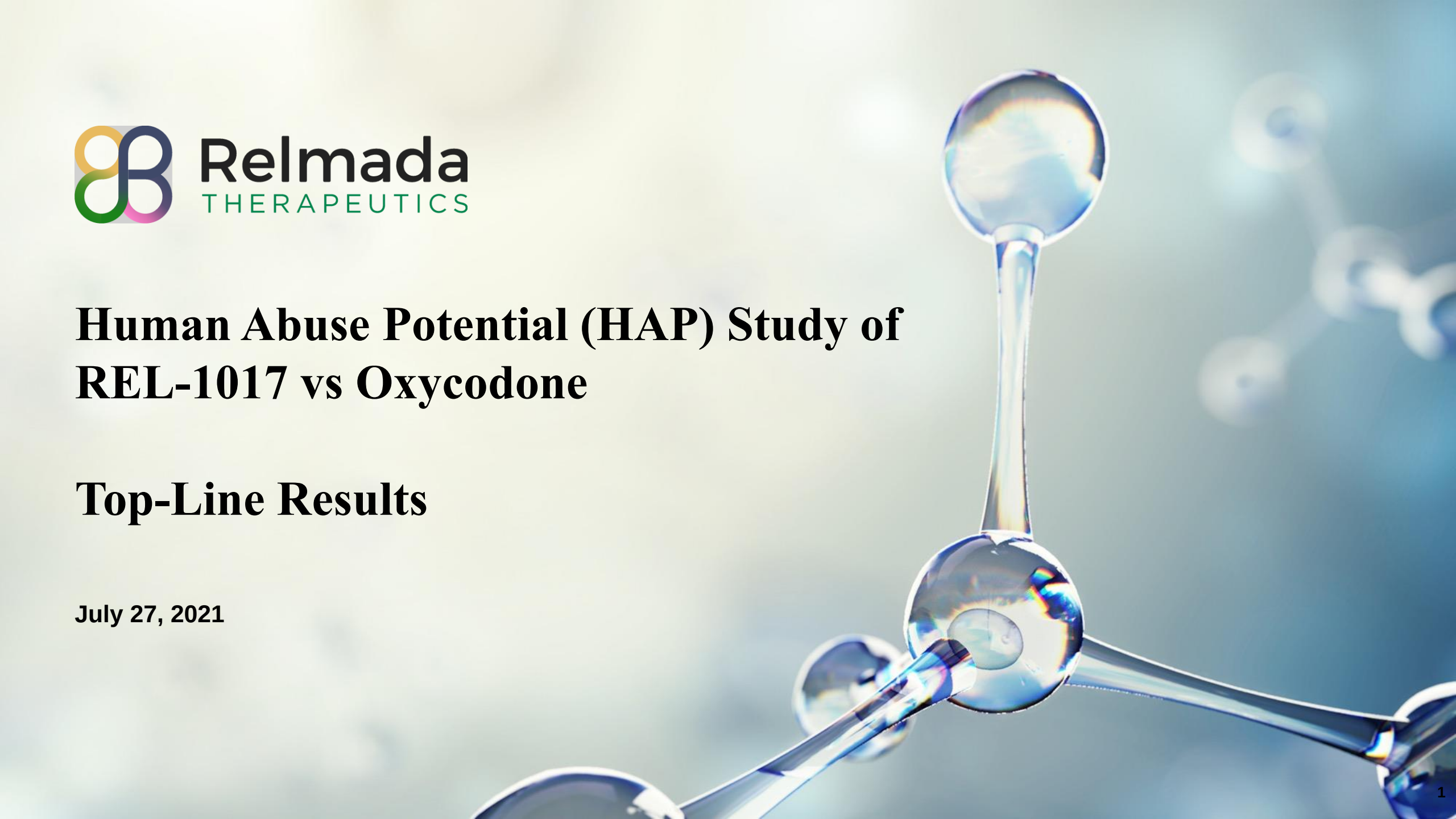
Relmada THERAPEUTICS

Human Abuse Potential (HAP) Study of REL-1017 vs Oxycodone

Top-Line Results

July 27, 2021



Forward Looking Statements & Safe Harbor

Relmada’s management team will be making forward-looking statements. Actual results could differ materially from those stated or implied by these forward-looking statements due to risks and uncertainties associated with the company's business.

These forward-looking statements are qualified by the cautionary statements contained in Relmada's press release issued today and the Company’s SEC filings, including in the annual report on Form 10-K and subsequent filings. This conference call also contains time-sensitive information that is accurate only as of the date of this live broadcast, July 27, 2021. Relmada undertakes no obligation to revise or update any forward-looking statements to reflect events or circumstances after the date of this conference call.

Human Abuse Potential (HAP) Study of REL-1017 vs Oxycodone

Top-Line Results – Conference Call & Webcast Agenda

Introduction	**Sergio Traversa,** Chief Executive Officer of Relmada
Study Design & Top-Line Results	**Jack Henningfield, Ph.D.,** Vice President, Research, Health Policy, and Abuse Liability at Pinney Associates; former Chief of the Clinical Pharmacology Research Branch, and the Abuse Potential and Biology of Dependence Assessment Section of the National Institute on Drug Abuse (NIDA); four decades experience in HAP assessment beginning at Johns Hopkins School of Medicine and NIDA
Concluding Remarks	**Sergio Traversa,** Chief Executive Officer of Relmada
Q&A	**Marco Pappagallo, MD,** Chief Medical Officer of Relmada **Paolo Manfredi, MD,** Chief Scientific Officer of Relmada **Charles Gorodetzky, MD, PhD,** former Scientific Director of the NIDA Intramural Research Program/Addiction Research Center; Co-Principal Investigator of NIDA Methamphetamine Clinical Trials Group; Charter Fellow at College on Problems of Drug Dependence (CPDD); Global Head of Central Nervous System (CNS) Drug Development at Hoechst Marion Roussel (now Sanofi) **Frank Vocci, PhD,** former Chief of the Drug Abuse Staff at the FDA; Director of NIDA Medications Development Program; President/Senior Research Scientist Friends Research Institute **Frank Sapienza,** former Chief, Drug and Chemical Evaluation Section, Drug Enforcement Administration (DEA) Office of Diversion Control; more than 30 years with the DEA

Human Abuse Potential (HAP) Study of REL-1017 vs Oxycodone

Top-Line Results Summary

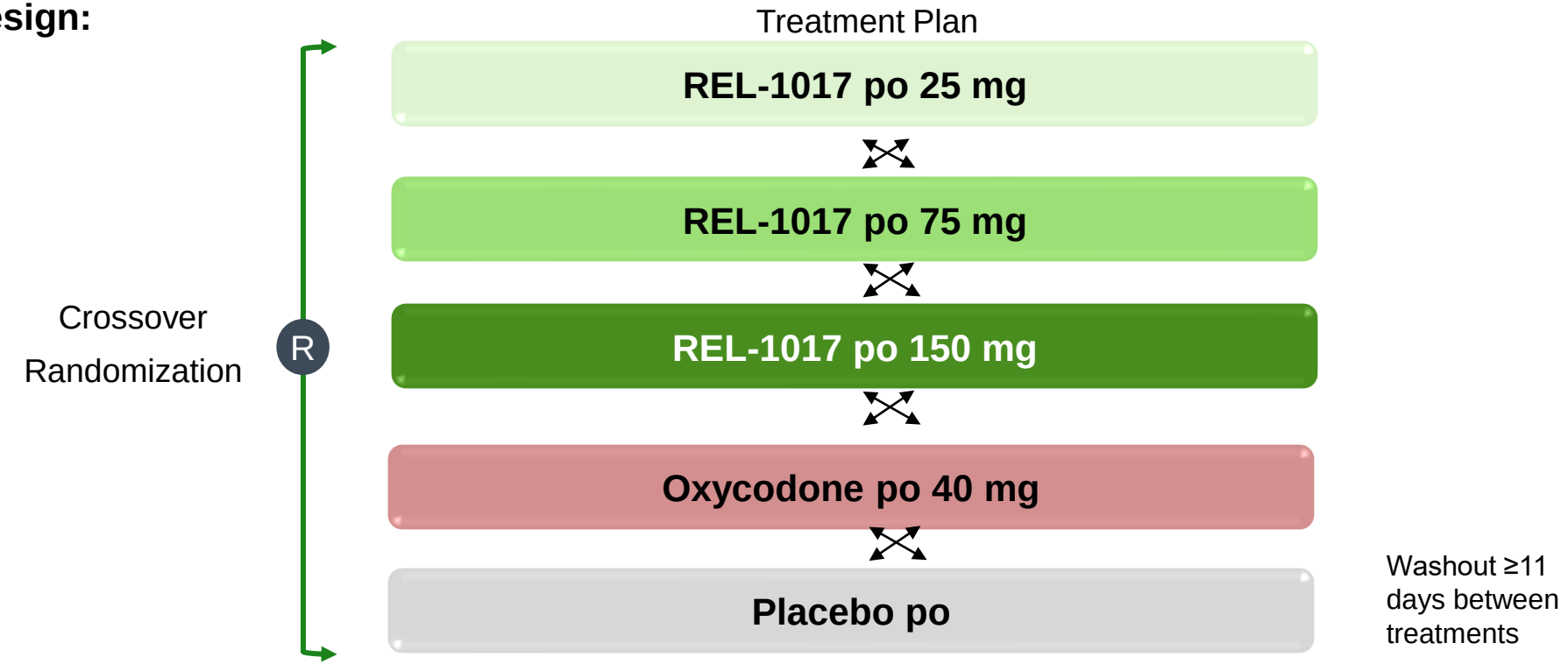
- All REL-1017 doses tested showed highly statistically significant differentiation vs. oxycodone 40 mg ($p<0.001$)
- REL-1017 therapeutic doses did not differ significantly from placebo
- Key secondary endpoint results were consistent with primary endpoint

Human Abuse Potential (HAP) Study of REL-1017 vs Oxycodone

Randomized, Double-Blind, Crossover Study to Assess the Abuse Potential of REL-1017

Primary Study Objective:
To evaluate the **abuse potential of single oral doses of REL-1017 relative to oxycodone 40 mg and placebo** in experienced recreational drug users using the **Emax for Drug Liking** (“at this moment”), as assessed by a bipolar (0 to 100 point) visual analog scale (VAS) [1]

Study Design:



[1]The primary endpoint for the study was the subject’s rating of the maximum effect (or Emax) for Drug Liking (“at the moment”), using a 1=100 rating scale (known as a visual analog scale or VAS), where a score of 0 represents ’strong disliking,’ a score of 100 represents ’strong liking,’ and a score of 50 represents ’neither like nor dislike’ (neutral point). The question text is ’At this moment, my liking for this drug is.’

Primary Endpoint (Emax for Drug Liking "at the moment")[1]

REL-1017 vs. Oxycodone 40 mg – Statistical Analysis (Difference)

Statistic Parameter	Placebo	REL-1017 25 mg	REL-1017 75 mg	REL-1017 150 mg	Oxycodone 40 mg
n	44	44	44	44	44
Mean	**51.7**	**53.0**	**58.2**	**64.9**	**85.0**
Median	50.0	50.0	50.0	58.0	89.0
SD	4.28	8.67	14.98	16.74	15.40
SE	0.64	1.31	2.26	2.52	2.32
P-value for Mean Difference vs. Oxycodone 40 mg	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**-**

- **Results for all REL-1017 doses were highly statistically different from oxycodone 40 mg**
- **Consistent, significant results were seen for the two key secondary endpoints** ("Overall Drug Liking" and "Take Drug Again")

[1] The primary endpoint for the study was the subject's rating of the maximum effect (or Emax) for Drug Liking ("at the moment"), using a 1=100 rating scale (known as a visual analog scale or VAS), where a score of 0 represents 'strong disliking,' a score of 100 represents 'strong liking,' and a score of 50 represents 'neither like nor dislike' (neutral point). The question text is 'At this moment, my liking for this drug is.'

Primary Endpoint (Emax for Drug Liking “at the moment”)[1]

REL-1017 vs. Placebo – Statistical Analysis (Similarity)

Statistic Parameter	Placebo	REL-1017 25 mg	REL-1017 75 mg	REL-1017 150 mg	Oxycodone 40 mg
n	44	44	44	44	44
Mean	**51.7**	**53.0**	**58.2**	**64.9**	**85.0**
Median	50.0	50.0	50.0	58.0	89.0
SD	4.28	8.67	14.98	16.74	15.40
SE	0.64	1.31	2.26	2.52	2.32
P-value for Mean Difference vs. Placebo	**-**	**<0.001**	**<0.001**	**0.082**	**-**

- **Therapeutic REL-1017 doses did not differ significantly from placebo, and are statistically significantly equivalent to placebo for the primary endpoint** (Emax for Drug Liking “at this Moment”)
- **The maximum tolerated dose of REL-1017 (supratherapeutic, 6x daily dose) separates compared to placebo, as commonly seen in HAP studies of unscheduled, Schedule V and IV central nervous system (CNS)-active drugs[2] and as expected for REL-1017, a potentially rapid-acting antidepressant**

[1]The primary endpoint for the study was the subject’s rating of the maximum effect (or Emax) for Drug Liking (“at the moment”), using a 1=100 rating scale (known as a visual analog scale or VAS), where a score of 0 represents ’strong disliking,’ a score of 100 represents ’strong liking,’ and a score of 50 represents ’neither like nor dislike’ (neutral point). The question text is ’At this moment, my liking for this drug is.’ [2] Levy-Cooperman N, et al. Abuse liability assessment of eslicarbazepine acetate in healthy male and female recreational sedative users: A Phase I randomized controlled trial. Epilepsy Behav. 2016 Aug; 61:63-71.

Human Abuse Potential (HAP) Study of REL-1017 vs Oxycodone

Top-Line Results Summary

- All REL-1017 doses tested showed highly statistically significant differentiation vs. oxycodone 40 mg ($p<0.001$)
- REL-1017 therapeutic doses did not differ significantly from placebo
- Key secondary endpoint results were consistent with primary endpoint

Q&A

Relmada THERAPEUTICS

Thank You