ASX Announcement
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emyria

A clinical stage biotech informed by patient experience.
Tackling unmet needs in neuroscience and mental health.

Emyria Expands MDMA Analogue Library to Address Mental Health and Neurological Disorders

HIGHLIGHTS

Emyria expands MDMA library with partner UWA; additional batch of 19 novel analogues sent for preliminary screening

MDMA analogue library now comprises over 150 novel chemical entities related to MDMA; one of the largest libraries of its kind in the world

Following the recent TGA decision to reschedule MDMA and psilocybin as controlled medicines from July 1st, 2023, MDMA and its analogues now have a potential pathway to registration and reimbursement [1]

Program Priorities: Develop faster-acting MDMA for PTSD therapy, and targeted analogues to address side effects of Parkinson's treatment, two unmet needs with large patient populations

Preclinical screening demonstrates that library's MDMA analogues have tunable selectivity for primary neurotransmitters supporting robust IP and potential to address a wide range of neuropsychiatric disorders

Emyria Limited (ASX: EMD) (Emyria or the Company), a clinical-stage biotech specialising in mental health and neuroscience, has expanded its MDMA analogue library, in partnership with the University of Western Australia (UWA) **to over novel 150 compounds**.

This milestone follows Emyria's encouraging progress in its preclinical MDMA-inspired drug discovery program and the recent approval of MDMA as a controlled medicine by the Therapeutic Goods Administration (TGA) from July 1st 2023.

MDMA, a small yet stable molecule, easily crosses the blood-brain barrier and interacts with the three primary neurotransmitters: serotonin, dopamine, and noradrenaline. By strategically modifying MDMA's structure, Emyria and UWA have generated novel chemical entities with different neurological effects. These compounds have high patentability and the potential to address major unmet needs across mental health and neurological disease.

KEY OBJECTIVES of the analogue program include:

- **Developing "faster-acting" MDMA for MDMA-assisted therapy for PTSD.** PTSD is a major unmet need with up to 50% of sufferers showing treatment resistance. [2] **MDMA-assisted therapy** has demonstrated remarkable benefits for patients with PTSD in Phase 3 clinical trials with clinically significant improvement seen in 80% of patients. [3] Speedier MDMA could shorten treatment sessions and increase the number of patients potentially benefiting from the therapy.

- **Developing MDMA "without the high" for Parkinson's patients experiencing L-DOPA treatment side effects (up to 80%).** A large proportion of Parkinson's patients will experience movement disorders related to use of L-DOPA - a common Parkinson's medication [4]. MDMA has been shown to improve those symptoms but carries unwanted side-effects. Emyria and UWA have developed novel MDMA analogues that maintain the therapeutic benefits while eliminating the euphoric "high" sensation [5].

The market potential for innovative MDMA analogues is large, as the demand for new treatments for challenging conditions like PTSD and Parkinson's disease increases.

Emyria's unique approach to MDMA-inspired drug discovery, alongside the Company's intentions to lead a specialist network providing MDMA-assisted therapy, positions the company at the forefront of working with MDMA to address critical medical needs.

Together with UWA, Emyria has now synthesised and shipped a fifth batch of 19 distinctive compounds, based on prior screening results, for preliminary screening with Eurofins. This addition brings the library's total to over 150 compounds. The company anticipates selecting lead compounds for pre-IND enabling studies in the second half of 2023, as it advances its preclinical program.

Emyria has secured exclusive rights to all MDMA-like compounds created under the partnership with the University of Western Australia, led by medicinal chemistry expert Dr. Matt Piggott. This collaboration enables Emyria to identify new chemical entities and drug candidates, solidifying the Company's leading position in developing MDMA therapies for the rapidly evolving mental health and neuroscience market.

References:

1. *Notice of final decisions to amend the current Poisons Standard in relation to psilocybine and MDMA (3 Feb '23)*
2. *Diagnosis, Course, and Prevalence of PTSD. Available from: https://ncbi.nlm.nih.gov/books/NBK224874/*
3. *Mitchell, J.M.,et al. MDMA-assisted therapy for severe PTSD Nat Med 27, 1025–1033 (2021)*
4. *Thanvi B., et al 2007*
5. *See ASX Release 01 Sep 2021*

FOR FURTHER INFORMATION

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UPCOMING MILESTONES

CLINICAL PROGRAMS

"direct-to-consumer"	*"prescription medicine"*
Formulation optimisation (RX5) ✓	**Formulation optimisation (RX7)** ✓
Phase 1 study done ✓	**Phase 1**
Phase 3 commencement ✓	Pre-IND **(FDA)**
Regulatory submission	**Pivotal** trials
Commercial strategy **Australia**	
Commercial strategy **Europe**	
Commercial strategy **USA**	

PRE-CLINICAL + THERAPY PROGRAMS

New Drug Discovery	MDMA-assisted therapy
Continuous creation & screening ✓	**Protocol developed** ✓
First patent family filed ✓	**Clinical partnerships** ✓
US-focused preclinical program ✓	**Real-World Data system** ✓
Metabolic studies ✓	**MDMA supply secured** ✓
Lead selection	**Therapist training**
Phase 1 trials	**First** patient
Global commercial strategy	**Global** commercial strategy

ABOUT EMYRIA | emyria.com

Emyria Limited is a clinical drug development and care delivery company focused on accelerating drug development and improving patient outcomes in neuroscience and mental health via:

- **Drug Development:** Emyria an Ultra-Pure cannabinoid platform that can support the registration of multiple proprietary dose forms. Emyria's first dose form, EMD-RX5 is in Phase 3 trials
- **New Drug Discovery:** Inspired by MDMA, Emyria is developing one of the world's largest libraries of MDMA-like compounds with partner, the University of Western Australia.
- **Proprietary Real-World Data (RWD):** Emyria gathers ethically-sourced data with patients cared for at Emyria's own specialist clinical service (Emerald Clinics).
  Emyria RWD can help support drug development and care model improvement.

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Interact with Emyria's announcements and updates by asking questions and comments, which our team can respond to where possible.

This announcement has been approved and authorised for release by the CEO of Emyria.

CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS Any statements in this press release about future expectations, plans and prospects for the Company, the Company's strategy, future operations, and other statements containing the words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions, constitute forward-looking statements. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: the Company's ability to successfully develop its product candidates and timely complete its planned clinical programs and the Company's ability to obtain marketing approvals for its product candidates. In addition, the forward-looking statements included in this press release represents the Company's views as of the date hereof. The Company anticipates that subsequent events and developments will cause the Company's views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date hereof.