ASX Announcement

19 September 2022

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individual care.

Emyria commences US preclinical program with leading neuroscience drug discovery CRO

PsychoGenics
Redefining Drug Discovery Through Innovation

HIGHLIGHTS

Emyria has engaged PsychoGenics, a leader in **Artificial Intelligence (AI) enabled drug discovery** and preclinical contract research services in neuroscience to help advance its MDMA-inspired New Drug Discovery program

PsychoGenics will use its proprietary SmartCube(™) platform to study novel compounds from Emyria's MDMA-inspired drug discovery program developed with partner the University of Western Australia

Study results are expected to help Emyria select promising drug candidates for clinical studies and help both parties evaluate the potential for a partnership to accelerate development and commercialisation of the broader MDMA-inspired library

PsychoGenics's specialist drug screening platforms have been used in shared-risk partnerships with major pharmaceutical companies, including Sunovion and Roche, resulting in the discovery of several novel compounds now in clinical trials

Approval from the US Drug Enforcement Agency (DEA) to import the initial compounds into the US from Australia has already been obtained.

Emyria and University of Western Australia have created and screened over 125 novel MDMA-analogues

Emyria Limited (ASX: EMD) (Emyria or the Company), a clinical stage biotech is pleased to engage PsychoGenics, a specialist neuroscience preclinical drug discovery and contract research organisation (CRO).

Emyria and partner, the University of Western Australia, will start by screening 5 novel MDMA analogues from their proprietary library using PsychoGenic's advanced drug discovery platform, SmartCube(™).

SmartCube(™) employs computer vision and Artificial Intelligence (AI) to extract and analyse behavioral and physiological data from mice. These data can help predict the clinical effects of new drug compounds by comparing the novel drugs effects to reference drug libraries.

The automated testing platform offers an effective approach to the discovery and development of the next generation of breakthrough treatments for neurological disorders and can significantly reduce the time and cost to reaching approved Investigational New Drug status.

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" Emyria and PsychoGenics share a common vision of accelerating the development of novel drug candidates to treat major neuropsychiatric disorders.

Emyria's leadership team and academic partners put the company at the forefront of MDMA-inspired neuropsychiatric drug development, and we are eager to help advance its preclinical program using our AI-enabled discovery engine and explore further partnership models together."

PsychoGenics CEO, Dr. Emer Leahy

PsychoGenics and Emyria have agreed to work collaboratively (at their own costs) in the initial phase, before exploring drug discovery and commercialisation partnership models.

PsychoGenics's specialist drug screening platforms have been used in shared-risk partnerships with major pharmaceutical companies, including Sunovion and Roche, resulting in the discovery of several novel compounds now in clinical trials or advanced preclinical development. A successful partnership with Emyria could accelerate the development of Emyria's novel MDMA-inspired drug candidate library, built with the University of Western Australia, into new treatments for severe neuropsychiatric disorders.

Emyria's Managing Director, Dr. Michael Winlo said: *"We are pleased to commence our US-based preclinical program with leading neuroscience CRO, PsychoGenics.*

PsychoGenics has successfully identified novel treatment candidates for serious and complex neuropsychiatric disorders via its proprietary SmartCube platform as well as formed innovative partnerships with major Pharmaceutical companies.

Given the increasing research and investment into novel neurological drugs and psychedelic-assisted therapies, we are excited to accelerate the identification of promising neuropsychiatric drugs and next-generation psychedelic-assisted therapies for further evaluation. We are also looking forward to exploring partnership models together in order to unlock value from our growing portfolio of MDMA-like drug candidates being developed with partner, UWA.

Approval has already been received from the US Drug Enforcement Agency (DEA) to transport the initial MDMA-analogues to the US *(See ASX release 04 Aug 2022)*

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

FOR FURTHER INFORMATION

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THE MDMA ANALOGUE LIBRARY

MDMA ('ecstasy') is showing promise as an adjunct to psychotherapy for the treatment of major unmet mental health needs *(i.e "psychedelic-assisted therapy").*

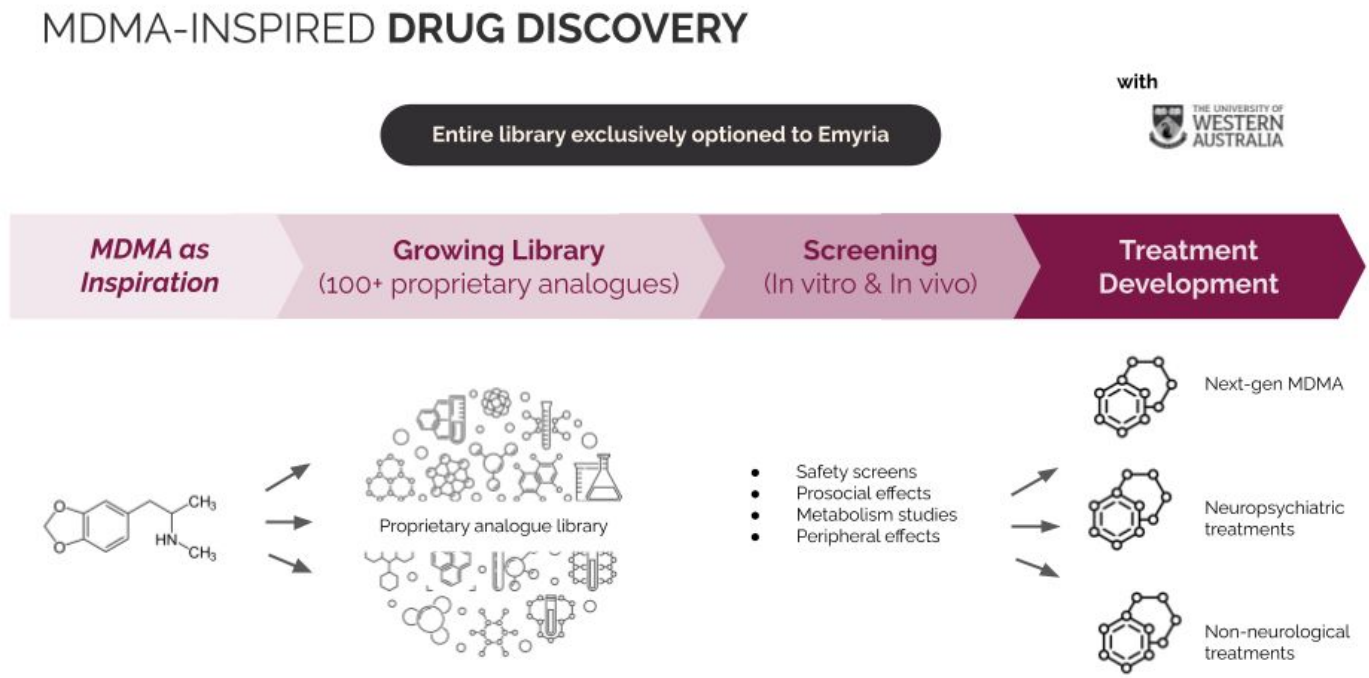
Emyria aims to develop new compounds inspired by MDMA. Like MDMA, its analogues are small, orally absorbed and central-nervous penetrating molecules that interact with a variety of targets in the brain and peripheral tissues and therefore hold promise as new treatments for a range of neurological and non-neurological disorders.

Emyria has created and screened over 125 MDMA-inspired analogues led by Professor Matt Piggott in partnership with the University of Western Australia. Prof. Piggott is an expert in medicinal chemistry and an international leader in modifying MDMA to create novel analogues with therapeutic potential. Emyria formed a partnership with the University of Western Australia to expand and develop an exclusive library of novel, MDMA-inspired compounds *("MDMA analogues")* creating a unique drug-discovery pipeline. *(See ASX announcement 05 Aug 2021)*

The analogues are unique chemical entities that are structurally similar to 3,4-Methylenedioxymethamphetamine *('MDMA', 'ecstasy')*, but designed to engage different neurological targets, and therefore, elicit potentially unique clinical and neuro-cognitive effects.

MDMA-analogues have also shown promise as treatments for other neurological disorders, such as Parkinson's Disease. In these indications, it may be desirable to limit or remove the euphoric and stimulant effects of MDMA.

Therefore, for the treatment of certain psychiatric and neurological disorders, there is an interest in developing MDMA-like compounds that are more selective for specific neurological receptors. More selective drug candidates have the potential to become treatments for large patient populations with reduced cost and increased efficacy.



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UPCOMING
DRUG DEVELOPMENT MILESTONES

CLINICAL PROGRAMS
Ultra-pure cannabinoid delivery platform

PRE-CLINICAL PROGRAM
MDMA-like analogues

EMD-RX5 *"direct-to-consumer"* program	**EMD-RX7** *"prescription medicine"* program	**MDMA**-like drug development
Formulation optimisation ✓	**Formulation optimisation** ✓	**Screening results** for first 85 compounds ✓
Phase 1 ✓	**Phase 1**	**First patent family** filed ✓
Ethics submitted for Phase 3 ✓	Pre-IND **(FDA)**	Batch **3** sent ✓
Phase 3 commencement ✓	**Pivotal** trials	Batch 3 **screening results** ✓
Regulatory submission		**Create and screen** additional batches ✓
Commercial strategy **Australia**		**US-focussed** preclinical program ✓
Commercial strategy **Europe**		**Metabolic** studies ✓
Commercial strategy **USA**		**Preclinical assays** *(multiple animal models)* ✓
		Human cell line assays ✓
		Lead selection
		Phase 1 trials

ABOUT EMYRIA | emyria.com

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

- **Drug Development:** Emyria has developed 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.

EMYRIA'S INTERACTIVE INVESTOR HUB investorhub.emyria.com

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

ABOUT PSYCHOGENICS | psychogenics.com

PsychoGenics Inc. and its discovery arm PGI Drug Discovery LLC (collectively known as PsychoGenics) have pioneered the translation of rodent behavioral and physiological responses into robust, high-throughput and high-content phenotyping. PsychoGenics' drug discovery platforms, SmartCube®, NeuroCube®,PhenoCube® and eCube™ have been used in shared-risk partnerships with major pharmaceutical companies, including Sunovion and Roche, resulting in the discovery of several novel compounds now in clinical trials or advanced preclinical development. PsychoGenics' capabilities also include standard behavioral testing, electrophysiology, translational EEG, molecular biology, microdialysis and quantitative immunohistochemistry. In addition, the Company offers a variety of in-licensed transgenic mouse models that support research in areas such as Huntington's disease, autism spectrum disorders, psychosis/schizophrenia, depression, PTSD, Alzheimer's disease, Parkinson's disease, muscular dystrophy, ALS, seizure disorders and pain. For more information on PsychoGenics Inc., visit www.psychogenics.com.

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.