ASX Announcement

18 Aug 2022

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Emyria receives positive screening results for MDMA-inspired drug discovery program

Highlights:

- **Emyria** and the University of Western Australia (UWA) have received positive screening results from the **third batch of MDMA analogues** sent to Eurofins
- **All 19 compounds** demonstrate no significant interactions with selected **"anti-targets"** *(receptors & enzymes known to be involved in unwanted side effects)*
- **125 compounds** have now been successfully created and screened as part of Emyria's unique **"New Drug Discovery Program"** including 45 new MDMA analogues created since inception of the collaboration
- **Multiple preclinical programs are underway** to evaluate the potential of a select group of high priority compounds to become registered medicines.
- These results are guiding further drug synthesis, expanding one of the **world's largest libraries of novel MDMA-inspired compounds**

Emyria Limited (ASX: EMD) (Emyria or the Company), a clinical stage biotech is pleased to announce positive progress on its novel drug discovery program inspired by MDMA (aka 'ecstasy') with partner the University of Western Australia (UWA).

Positive screening results grows MDMA analogue library

All 19 compounds sent from the third batch of compounds successfully passed screening with Eurofins at the test concentrations. These compounds showed no evidence of significant interactions with any of the enzymes or cell receptors ("anti-targets") that can be associated with unwanted clinical side effects.

Over 100 compounds have now been successfully screened. The positive results continue to inform the drug design process. Synthesis of additional novel analogues guided by screening results is ongoing. *(See ASX releases 08 Dec 2021 and 22 May 2022).*

Preclinical evaluations have commenced on a number of high priority compounds selected based on these initial screening results. *(See ASX releases 09 May 2022 and 04 Aug 2022)*

Approval has been received from the US Drug Enforcement Agency (DEA) to transport 5 high priority MDMA-analogues to the US, allowing for engagement with leading US-based research bodies and potential partners. *(See ASX release 04 Aug 2022)*

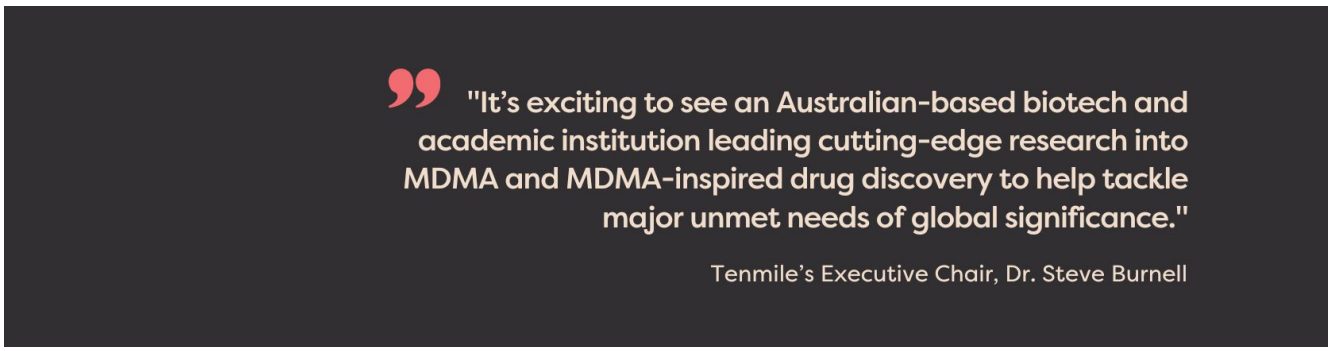
Emyria has identified three potential therapeutic areas for its MDMA-inspired drug discovery program:

1. **treatments for major mental health disorders** where more potent and shorter-acting MDMA-like treatments, when given alongside therapy, may offer advantages over standard MDMA in drug-assisted therapy
2. **treatments for neurological disorders** where selective neurological receptor effects are desired and;
3. **treatments for non-neurological disorders** where selective activity at peripheral (non-brain) targets are of interest

Emyria's Managing Director, Dr. Michael Winlo said: *"Emyria's drug discovery and screening program with partner the University of Western Australia continues to make exciting forward progress.*

These latest positive screening results will help guide the creation of the next batch of novel MDMA-inspired compounds for our drug discovery portfolio.

These results will also help inform which leads to advance to preclinical screening in our three, high-priority areas; next generation psychedelic-assisted therapies as well as potential treatments for unmet neurological and non-neurological conditions."



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

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https://investorhub.emyria.com
Our investor hub is a place to interact with our announcements and updates. You can ask questions and add comments, which our team can respond to where possible.

The MDMA-inspired 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").

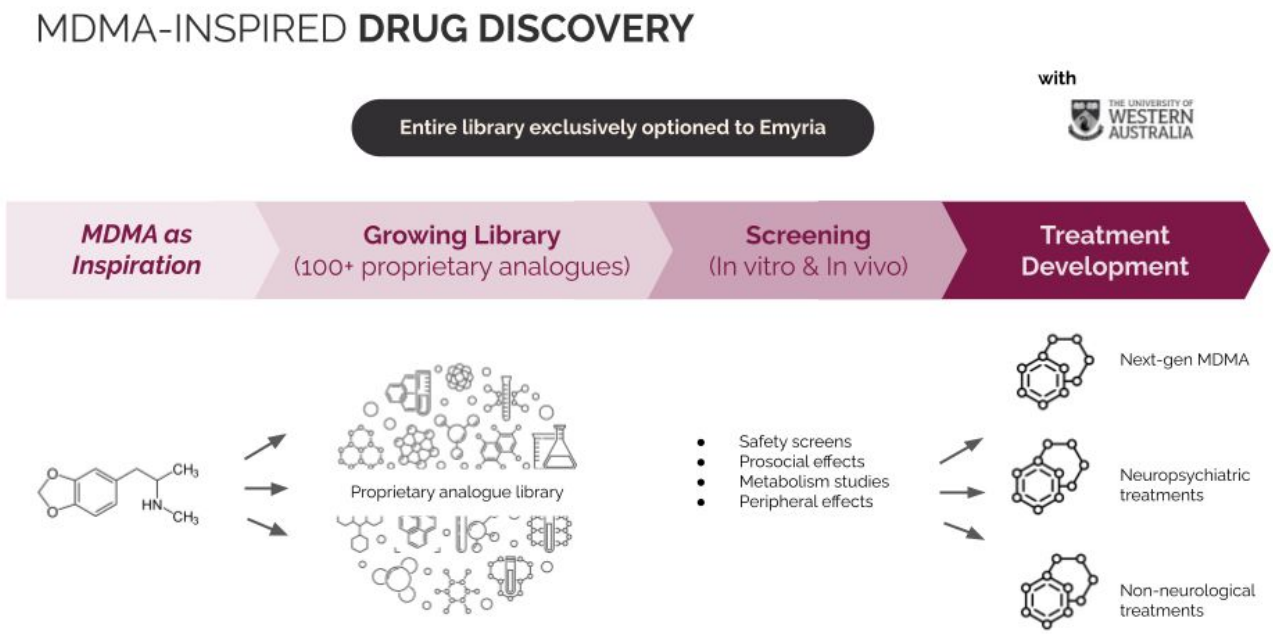
Emyria aims to develop new compounds inspired by MDMA. Like MDMA, its analogues are small, orally absorbed and central-nervous penetrating molecules that interact with a variety of targets in the brain and peripheral tissues and therefore hold promise as new treatments for a range of neurological and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

PRE-CLINICAL PROGRAM

EMD-RX5 *"direct-to-consumer"* program	**EMD-RX7** *"prescription medicine"* program	**MDMA**-inspired 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**		**Metabolic** studies ✓
Commercial strategy **Europe**		**Preclinical assays** *(multiple animal models)*
Commercial strategy **USA**		**Human cell** line assays ✓
		Lead selection
		Phase 1 trials

ABOUT EMYRIA | emyria.com

Emyria Limited is a clinical stage biotech focussed on accelerating treatment development and improving patient care by:

1. **Collecting and analysing Real-World Data (RWD):** Emyria gathers ethically-sourced clinical evidence with patients across Emyria's independent clinical services *(emeraldclinics.com.au)*. Emyria's proprietary RWD provides deep treatment and drug development insights.
2. **Repurposing promising treatments:** Emyria uses its RWD to improve the formulations of, and find new indications for, select medications. Emyria's first repurposed and proprietary drug products (EMD-RX5 and EMD-RX7) incorporate Ultra-Pure cannabinoids and are targeting global registration opportunities as over-the-counter and prescription-only medicines.
3. **Developing analogues of promising new compounds**: Emyria collaborates with leading institutions to develop new chemical entities inspired by promising molecules. Emyria's first new chemical entity program is focussed on generating novel MDMA-inspired analogues with the potential to become registered therapies for a range of major unmet needs.

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.
