

# Brain Injury Program Preclinical Development Update

- New brain injury drug candidate NYR-BI03 to be advanced instead of NYR-BI02 due to demonstrated superior potency and safety profile, overcoming limitations identified with NYR-BI02 during GLP preclinical studies
- NYR-BI03 to be evaluated in WRAIR TBI efficacy study and stroke model study in 2H CY2023, in parallel to the required preclinical studies
- Remaining preclinical safety and toxicology studies paused until 2H CY2023, while the manufacture of sufficient quantities of NYR-BI03 is completed
- Funding in place to pursue preclinical development of NYR-BI03 in preparation for a Phase I first-in-human study
- Nyrada to present abstract on brain injury drug target at the US Military Health System Research Symposium in August

**Sydney 9<sup>th</sup> June 2023:** Nyrada Inc (ASX: NYR), a preclinical stage, drug development company specialising in novel small molecule drugs to treat cardiovascular and neurological diseases, today provides an update on its Brain Injury Program.

# Selection of New Lead Brain Injury Drug Candidate NYR-BI03

During preclinical development, NYR-BIO2 was shown to be a potent blocker of TRPC ion channels, limiting excitotoxicity and secondary brain damage following a traumatic brain injury (TBI) or stroke. However, Good Laboratory Practice (GLP) studies completed by the Company demonstrated a sub-optimal safety profile for continuous dosing in patients with these conditions.

Following a review of over 200 available compounds generated by the Company's medicinal chemistry program, NYR-BIO3, a closely related analogue of NYR-BIO2, was identified as having a superior safety profile along with better potency on the TRPC ion channel protein target, securing its selection as Nyrada's new lead brain injury drug candidate.

The Company has paused the preclinical GLP studies while a sufficient quantity of NYR-BI03 is manufactured. Additional slots have been secured at the Contract Research Organisation (CRO) contracted by Nyrada to undertake these studies later in the calendar year.

**Nyrada CEO, James Bonnar commented**: "Strong results delivered through our medicinal chemistry program have allowed us to pivot quickly to a superior brain injury molecule to take forward into GLP studies and the TBI efficacy study that will be run at the Walter Reed Army Institute of Research.

"The exploratory studies using NYR-BI03 gives us confidence it is the optimal drug candidate to take into clinical development. We are working closely with our CRO to expedite the manufacture of NYR-BI03 ahead of commencing the preclinical, TBI efficacy and stroke model studies in the second half of this year," Mr Bonnar added.



## Military Health System Research Symposium (MHSRS)

Nyrada's abstract on the TRPC channel ion channel blocker has been accepted for presentation at the MHSRS conference being held in August in Florida, US. The MHSRS is the Department of Defense's foremost scientific meeting, focusing specifically on the unique medical needs of military personnel, drawing approximately 3,500 attendees.

With 1 in 5 military service members suffering a TBI, developing the first ever drug to treat this injury is a key priority for the Department of Defense. The invitation to present at the Symposium is recognition of the potential for Nyrada's Brain Injury Program to positively impact the lives of those who have been affected by TBI.

## **TBI Efficacy Study and Stoke Model Study**

NYR-BI03 replaces NYR-BI02 as the compound to be tested in the Walter Reed Army Institute of Research (WRAIR) TBI efficacy study and stroke model study to be run in the second half of the year. The progress of the stroke model study had to be halted when the limitations of NYR-BI02 were identified.

#### Phase I Study

The Company will provide an update on the expected commencement of the Phase I study once manufacture of NYR-BI03 is complete and the preclinical GLP studies have commenced.

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#### About Nyrada Inc

Nyrada is a preclinical stage, drug discovery and development company, specialising in novel small molecule drugs to treat cardiovascular and neurological diseases. The Company has two main programs, each targeting market sectors of significant size and considerable unmet clinical need. These are a cholesterol-lowering drug and a drug to treat brain injury, specifically traumatic brain injury and stroke. Nyrada Inc. ARBN 625 401 818 is a company incorporated in the state of Delaware, US, and the liability of its stockholders is limited.

#### www.nyrada.com

Authorised by Mr. John Moore, Non-Executive Chairman, on behalf of the Board.

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