Nyrada Inc.

Investor Presentation
September 2024

Improving Lives, Offering Hope

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

ASX:NYR

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Mr James Bonnar

Nyrada Chief Executive Officer

Nyrada's Expertise in Drug Development

- Drug discovery and development company specialising in rational design of novel small molecule therapeutics.
- Nyrada's lead drug candidate NYR-BI03:
  - demonstrated strong preclinical efficacy protecting the brain from secondary injury.
  - currently undergoing Good Laboratory Practice safety and tolerability testing.
  - preclinical TBI efficacy study with Walter Reed Army Institute of Research and UNSW in progress.
- Exploratory works for other indications and opportunities
- Commercially focused business model and expert team.

Nyrada Investment Proposition

- Pioneering transient receptor potential canonical (TRPC) channel blocking therapies.
- First-in-class neuroprotection therapy with novel mode of action.
- Brain injury program targeting significant market and unmet clinical demand.
- Collaborations with world leading institutions: Walter Reed Army Institute of Research (WRAIR) and UNSW Sydney. Strategic partnership with Rebion.
- Proven and globally experienced board and team.
- Cash position of AU$4.77M at 30 June 2024.
- AU$0.99M R&D rebate expected around December 2024.

Large Market Opportunity – Stroke

Globally:

~15 million people suffer strokes annually[1]

~5 million left permanently disabled[1]

One approved drug class for stroke suitable for <15% of patients (tPA - tissue plasminogen activator).

Effective treatment will improve patient outcomes and reduce high costs associated with long-term care.

Large and growing treatment market:

Currently **~US$30.3 billion[2]**

Growing **~7.5% CAGR[2]**

Forecast **~US$52.2 billion by 2030[2]**

Large Market Opportunity – Traumatic Brain Injury (TBI)

Globally:

~5.5 million
people suffer severe TBI annually[3]

~55 million
living with effects of medically treated TBI[3]

No current FDA approved treatments

Effective treatment will improve patient outcomes and reduce high costs associated with long-term care of brain injury survivors.

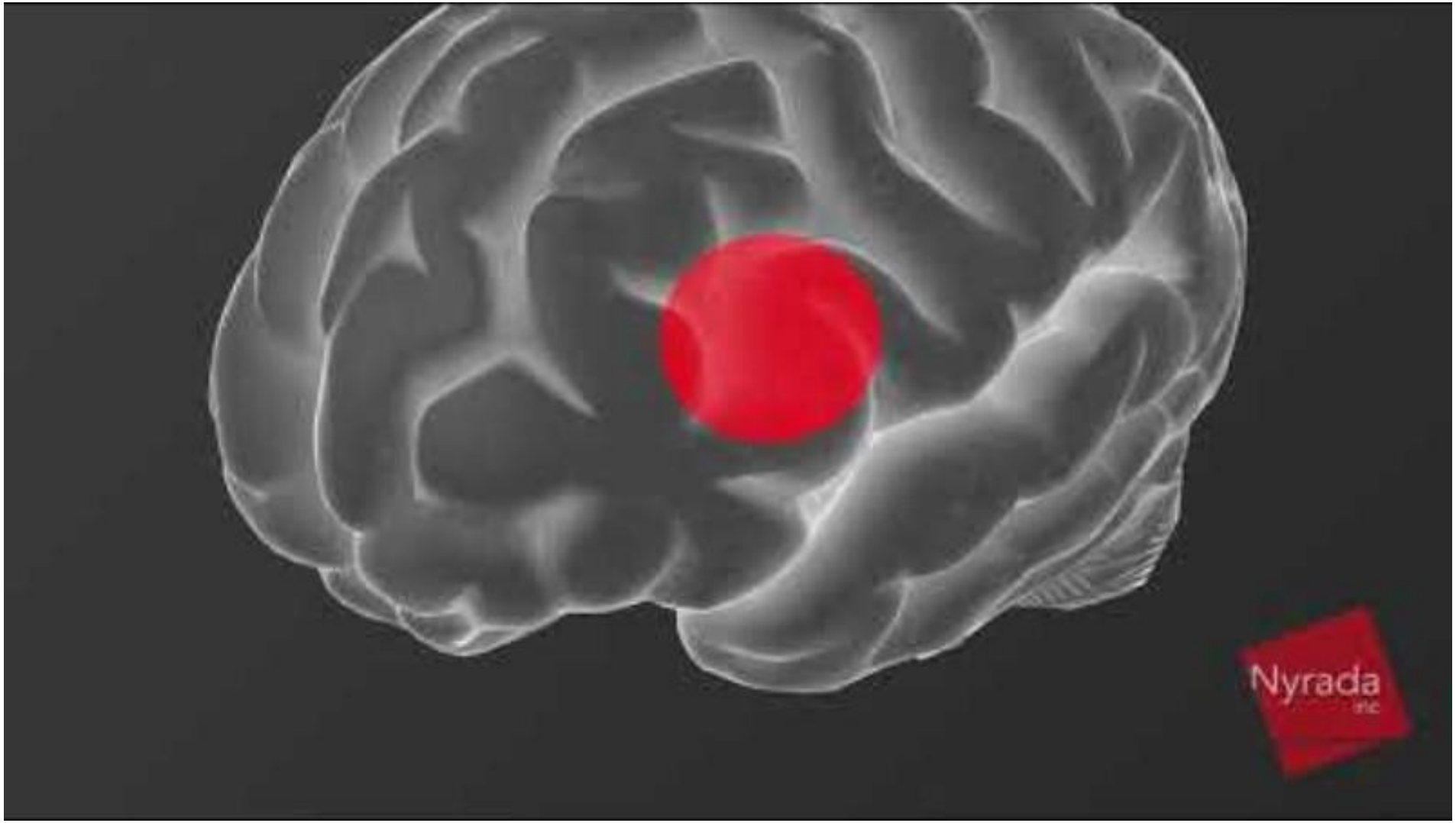
Large and growing treatment market:

Currently
~US$3.5 billion[4]

Growing
~6.2% CAGR[4]

Forecast
~US$5.5 billion by 2030[4]

Nyrada Brain Injury Program



Nyrada's Lead Brain Injury Candidate – NYR-BI03

First-in-Class with Novel Mechanism of Action

- NYR-BI03 is a first-in-class therapy.
- Novel mechanism of action.
- Australian developed innovation.

Significant Unmet Clinical Need and Market Opportunity

- Targeting multiple indications.
- Stroke and TBI are leading causes of death and disability.
- No current FDA approved drugs to treat secondary brain injury.

Statistically Significant Neuroprotection Achieved

Recent preclinical study demonstrated strong efficacy and good tolerability

42%

of brain injury in penumbra region rescued on average

MRI brain imaging showed a statistically significant neuroprotection achieved when animals received treatment (*p* value 0.021)[1]

41%

mean level of biomarkers for NYR-BI03 animals compared to control vehicle

NfL biomarker levels likely reflect neuroprotection. The mean level for the NYR-BI03 animals was 41% lower than the control vehicle (*p* value 0.068)[2]

Supporting NYR-BI03's favourable safety profile, the current study had no drug-related adverse effects.

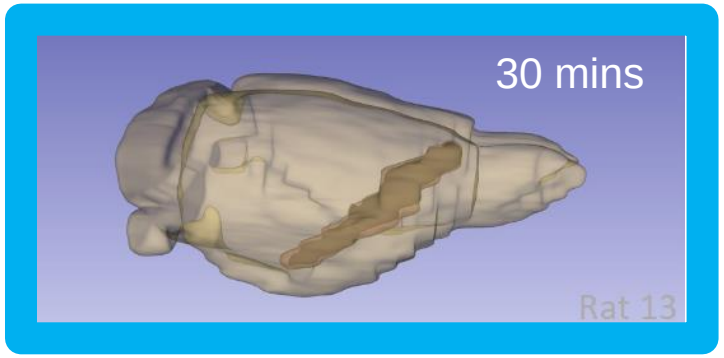
Study Design

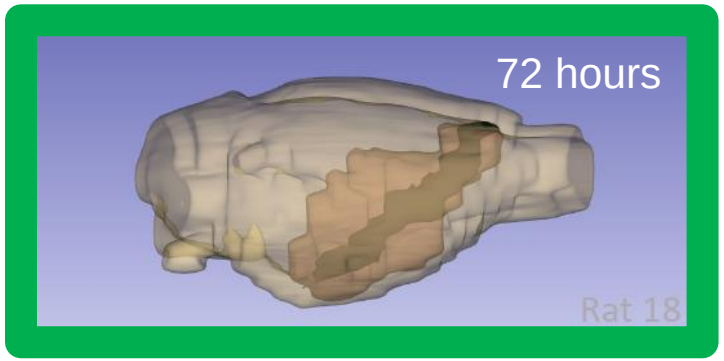
- The study involved inducing a focal ischemic stroke using a photothrombotic model.
- 16 test animals were treated with either NYR-BI03 or vehicle 30 mins following the induced brain injury. Treatment was conducted for 72 hours via continuous intravenous infusion.

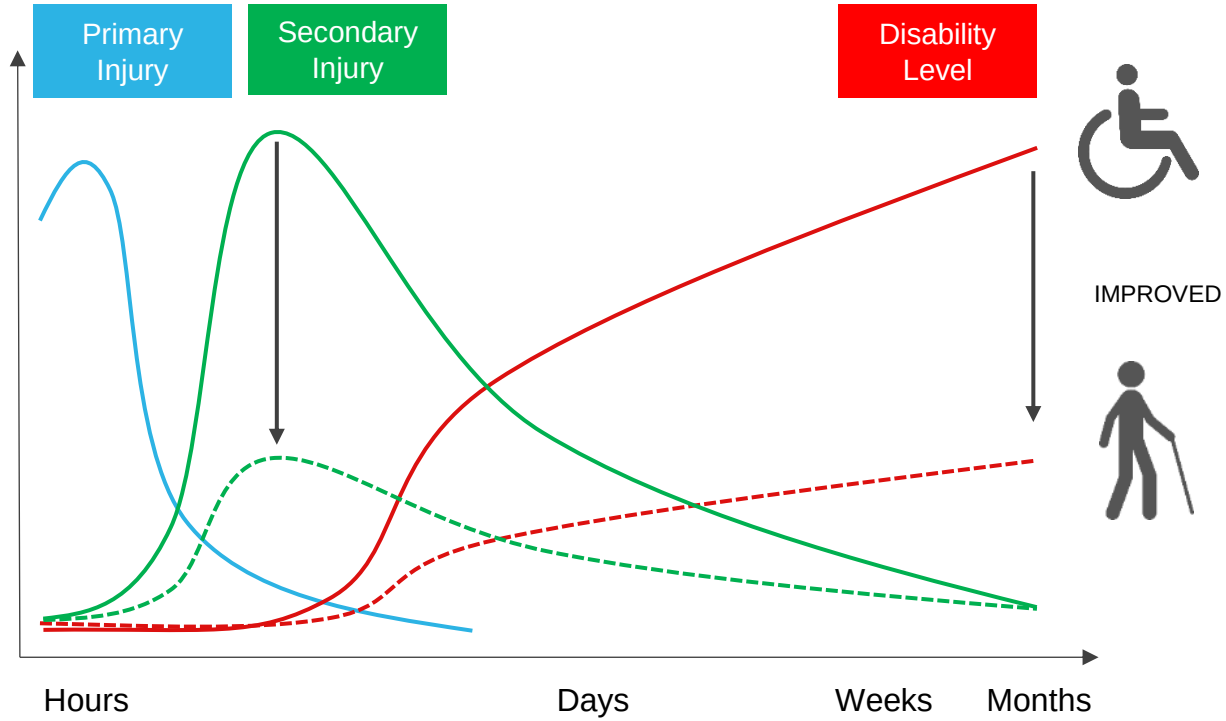
1. *p* value 0.021, Mann-Whitney Rank Sum Test.
2. *p* value 0.068, t-test.

Brain Injury Trajectory, Patient Outcomes, Treatment Aims

Serial reconstruction from MRI





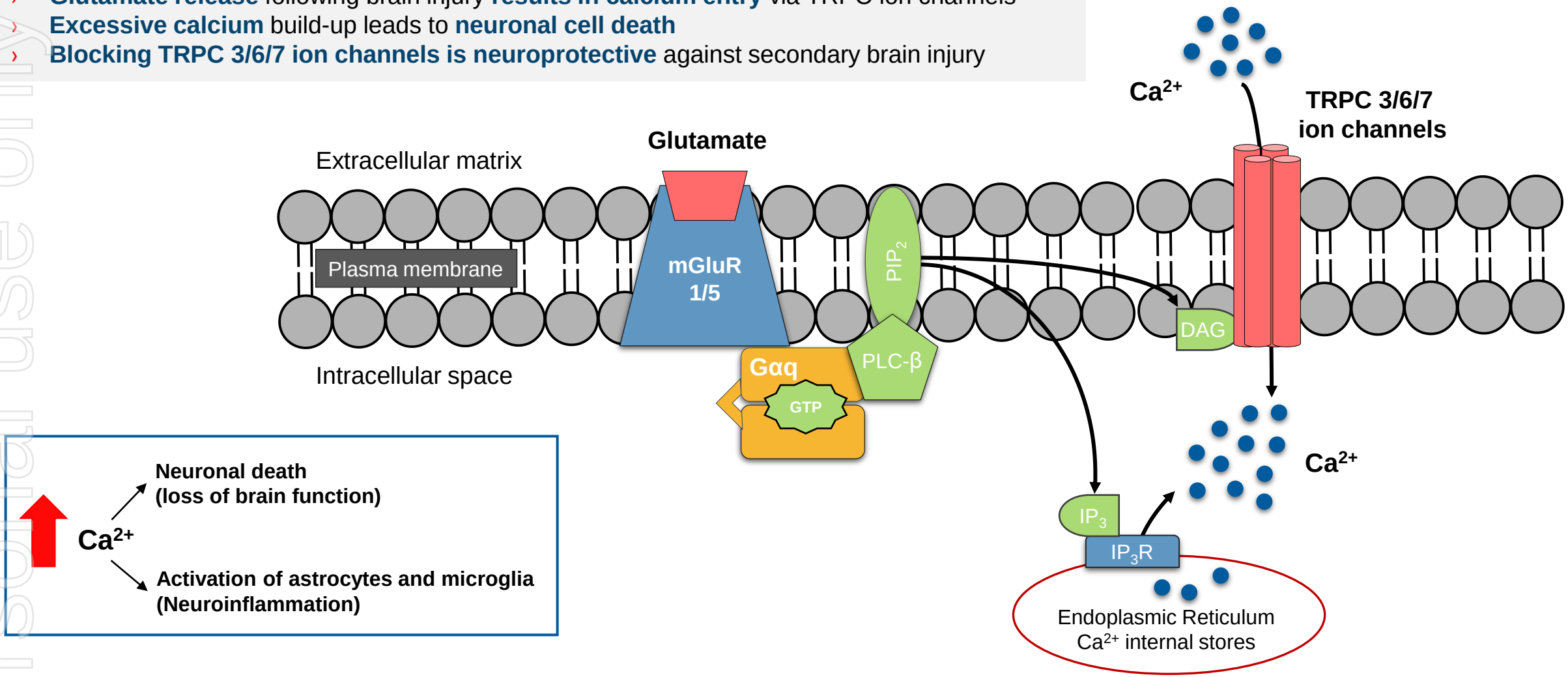


Nyrada drug NYR-BI03
An acute 3-day intravenous treatment

Reduce secondary injury resulting from stroke or TBI
- **Improve survivability, limit disability**
- **Improve quality of life**

TRPC 3/6/7 Ion Channels as a Therapeutic Target

- **Glutamate release** following brain injury **results in calcium entry** via TRPC ion channels
- **Excessive calcium** build-up leads to **neuronal cell death**
- **Blocking TRPC 3/6/7 ion channels is neuroprotective** against secondary brain injury



NYR-BI03 Good Laboratory Practice (GLP) Safety Studies

GLP Study	Reported
AMES	16 July 2024
hERG	16 July 2024
Rat CNS	06 August 2024
Rat Respiratory	20 August 2024
Dog cardiovascular safety	09 September 2024
14-day dog toxicology	
14-day rat toxicology	
In vitro micronucleus	
In vivo micronucleus	

Brain Injury Program - Indicative Phase I Study Design

OBJECTIVES To assess the safety, tolerability, and pharmacokinetics of NYR-BI03

DESIGN

- Randomised, double-blind placebo – controlled, dose escalation design
- 5 cohorts; 8 participants each cohort; 6:2 active and placebo treatments
- 3 cohorts will be single ascending doses
- 2 cohorts will be given continuous infusion doses

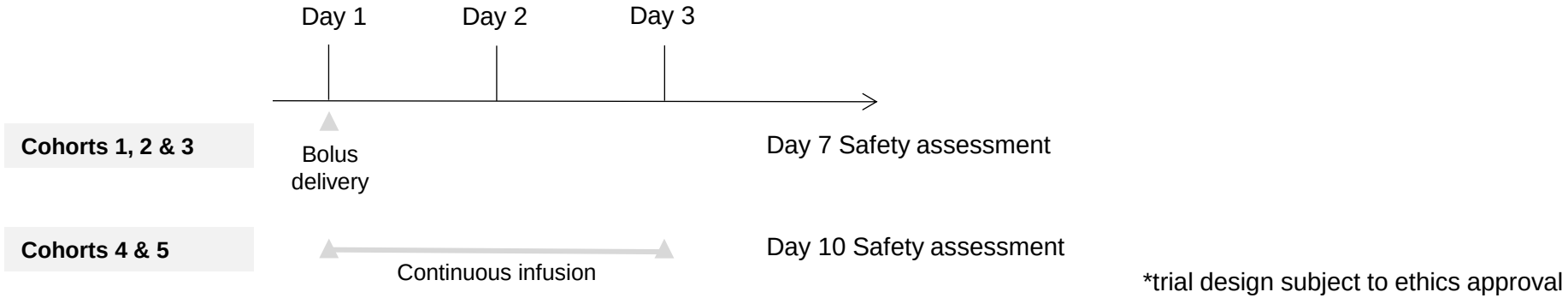
PARTICIPANTS

- Male and female healthy volunteers
- 18 – 50 years age

Cohort number	Dose administered
1	Low dose single bolus
2	Medium dose single bolus
3	High dose
4	Low dose continuous infusion (72 hrs)
5	High dose continuous infusion (72 hrs)

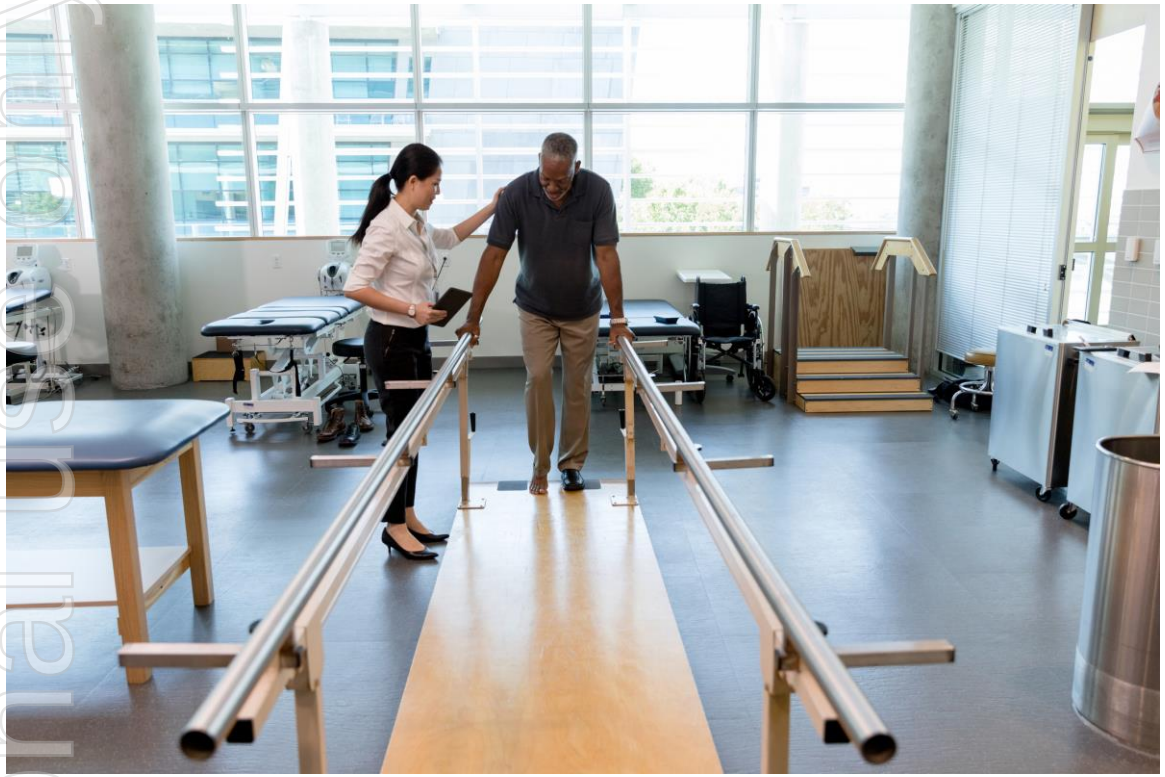
LOCATION & DURATION

- Study will be conducted at a clinical trial centre in Australia expected to commence 4QCY2024
- Study duration will vary between 1 – 4 days



*trial design subject to ethics approval

Near Term Catalysts and Newsflow



- Early October 2024 – 1QFY2025 Cashflow and business update.
- 2HCY2024 – Good Laboratory Practice (GLP) safety and tolerability study updates.
- 4QCY2024 – Human Research Ethics Committee application submission.
- 4QCY2024 – First-in-human Phase I clinical trial.
- 1QCY2025 – Walter Reed (WRAIR) traumatic brain injury/UNSW pre-clinical efficacy study update.

References

1 – World Health Organization - https://www.emro.who.int/health-topics/stroke-cerebrovascular-accident/index.html#:~:text=Annually%2C%2015%20million%20people%20worldwide,cause%20is%20high%20blood%20pressure

2 – Databridge Market Research - https://www.databridgemarketresearch.com/reports/global-stroke-market .

3 – National Academy of Sciences - https://nap.nationalacademies.org/catalog/25394/traumatic-brain-injury-a-roadmap-for-accelerating-progress

4 – Databridge Market Research - https://www.databridgemarketresearch.com/reports/global-traumatic-brain-injuries-treatment-market

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Brain Injury Solution Animation