

# CONNECTING RESEARCH TO RESULTS

OUR 2022-2024 Strategy

# LOOKING AHEAD

What started in 1990 as discussion around a kitchen table between four scientists has by 2022 become a 300-person strong institute with purpose-built facilities that enable us to remain at the forefront of neuroscience.

Looking ahead, the Neuroscience Research Australia (NeuRA) Strategy 2022-2024 focuses on a clear vision and outcomes, greater collaboration, growing our impact, and becoming a more cohesive and dynamic place to work.

> Maine Anti-Gravity Systems 4.981,307

# AN INVITATION TO PARTNER WITH THE PROBLEM SOLVERS

Biomedical research is about solving problems. Our job is to ensure that the health problems of today are not the health problems of tomorrow. As health problems change and evolve, so must we to address community needs.

# Our priority areas for impact will be neurodegeneration, mental health and ageing well.

We invite you to join us as we make and shape the future of health.

# OUR VISION & MISSION

Vision: To improve the health and lives of those living with brain and nervous system disorders

Mission: To discover solutions for neurodegeneration, mental health and healthy ageing through world-class medical research

# OUR STRATEGY

FOCUS: Our core focus areas are neurodegeneration, mental health and translational neuroscience.

PLAN FOR SCALE: Our research has the ability to inspire, aid recruitment, attract larger grants and build trust with philanthropists.

JOIN FORCES: We are collaborative and believe in partnerships to drive impact and innovation.

GET REAL: We partner with clinical researchers and industry to demonstrate the real-world impact of our work.

ADVOCATE: We advocate to improve health outcomes for all Australians and use our research to make the community and government aware of issues that matter.

### NEURODEGENERATION

### Dementia

#### Problem

Dementia is becoming a global health crisis. In 2022 in Australia, 487,500 are estimated to be living with dementia and 1.6 million are involved in their care. Up to 65% of people with dementia live in the community and 68% of aged care residents are cognitively impaired. Globally, 44 million are affected and this number is set to double every 20 years.

#### Our response

30-50% of cases of dementia can be prevented, so this is where we will focus. We will work with the World Health Organisation (WHO) and other bodies to build tools and programs to upskill both clinicians and community members in risk reduction. We will continue our clinical trials to find a therapy for families affected by early onset dementia, the worst affected.

# NEURODEGENERATION

# Parkinson's disease

#### Problem

Parkinson's disease (PD) affects more than 10 million people worldwide and currently about 80,000 in Australia. Disability and death from PD are increasing faster than from any other neurological disorder. By the time PD is diagnosed, typically 80% of the person's neurons have died and there is currently no cure.

#### Our response

Existing pharmacological treatments only help control the motor dysfunctions involved. We will focus on clinical research to develop novel therapies to slow the progress of disease, if not halt it.

# MENTAL HEALTH

#### Problem

Over 45% of Australians will experience a mental illness, and in one in five adults the illness becomes chronic. Around 1.1 billion people are affected globally. One in 30 children in Australia are now on anti-depressants. Remission rates with existing treatments are low and many treatments produce side-effects people struggle to live with.

#### Our response

We will focus more strongly on the development of tools and programs to foster resilience and wellbeing in both children and adults. We will continue our drive to develop better treatments for people affected by schizophrenia and to uncover biomarkers for people with bipolar disorder. Importantly, we will seek to partner with others in the field who have complementary strengths.

# HEALTHY AGEING

# **Falls prevention**

#### Problem

Between 2015 and 2050, the WHO estimates the percentage of the world's population aged 60+ will nearly double. Falls are a major health problem for this group – fall-related deaths have risen much faster than any other type of injury over the past two decades. Every year in Australia, one in three people over 65 will fall, often leading to hospitalisation and death. Spinal cord injury is one of the most serious fall-related injuries (it also occurs in younger people through accidents).

#### Our response

The gait training programs we have developed for over 65s can reduce the incidence of falls by 40%. We will focus on rolling these programs out into community settings and on advocating to Government for a national falls prevention strategy.

# HEALTHY AGEING

# Pain & Injury

#### Problem

Chronic pain is now common in Australia: one in five people over 45 suffer from it. Sometimes, injury is the cause, sometimes the cause is unknown. This adversely affects every aspect of their lives: sleep, ability to work, exercise and socialise. The mental health of those affected by chronic pain suffers significantly, and they tend to survive on opioids and other analgesics which are largely ineffective.

#### Our response

We will develop multi-modal interventions to retrain the brain and how it perceives chronic pain. We will amplify and replicate our initial success with this approach to low back pain and apply it to other chronic pain conditions. We will continue our groundbreaking clinical trials to restore a range of functions to people with spinal cord injury, as well as our research to drive down motor vehicle injuries.

OUR VALUES IMPACT OPENNESS EXCELLENCE INTEGRITY INCLUSION

Our scientists and researchers are committed to unlocking life-changing discoveries that will benefit all Australians and deliver global impact.

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We invite you to join us on this journey.