National Foundation for Medical Research and Innovation

NFMRI

2019 Alzheimer's Disease Research Grants Announced

NFMRI is pleased to announce the successful researchers from across the country receiving new funding to support the advancement of their innovations in Alzheimer's Disease commencing in 2019.

This funding is generously provided thanks to support from The Mason Foundation (managed by Equity Trustees).

THE MASON FOUNDATION
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Dr Peter van Wijngaarden, Centre for Eye Research Australia
Portfolio 3, $250,000 over two years

Translating an eye imaging biomarker for Alzheimer's Disease to the clinic

Summary: Dr Wijngaarden's research group has recently developed a novel imaging method that allows them to non-invasively detect the accumulation of amyloid beta in the retina. Their research has utilised a state-of-the-art, costly

amyloid beta in the retina. Their research has utilised a state-of-the-art, costly camera that images the retina sequentially with 90 different wavelengths (colours) of light. They have identified that 3 wavelengths of light carry most of the amyloid beta signal, suggesting that a modified, low cost retinal camera may be used as a screening test for Alzheimer's disease. NFMRI funding will enable retinal camera prototype development and clinical studies to validate the technology against their state-of-the-art research camera.

Dr Lesley Cheng, La Trobe University

Portfolio 1, $75,300 over one year

Specificity testing and cross-laboratory validation of a blood test for Alzheimer's Disease

Summary: This research aims to accurately detect Alzheimer's disease (AD) within a time-frame to allow positive lifestyle changes and ultimately therapeutic intervention. The work is based on the discovery that small vesicles, called exosomes, are released from cells acting as distinct indicators of the health status of the tissues from which they derive. Exosomes thus represent disease biomarkers. The novel hypothesis surrounding Dr Cheng's research is that exosomes secreted from brain tissue migrate across the blood brain barrier into the blood where brain biomarkers are readily detected. This is equivalent to a 'liquid biopsy' of the brain reflecting neurological status. In preliminary studies she has already identified a panel of 16 serum exosomal miRNAs that are altered in AD compared to heathy patients.

NFMRI funding will help validate the specificity of these potential AD biomarkers. Therapeutic strategies aimed at limiting neurodegeneration and improving quality of life in AD require methods to diagnose and monitor the disease in pre-clinical patients. Currently, definitive diagnosis of AD is only possible post-mortem or through PET neuroimaging that requires expensive equipment, highly trained operators and cerebrospinal fluid (CSF) collection. In comparison, blood is a conveniently collected, less-invasive source of biomarkers. Funding will enable this critical work to go full term and be translated to a reliable, economically viable, routine pre-clinical AD screen.

A/Prof Anthony White, QIMR Berghofer Medical Research Institute

Portfolio 1, $100,000 over one year

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A personalised medicine approach for screening neuroinf'ammatory drug efficacy in Alzheimer's Disease

Summary: A/Prof White's team has developed a unique approach to screening drugs that target the brain's resident immune cells (microglia) on a person-by-person basis. They are able to generate microglia from a person's blood cells (monocytes) in 2 weeks at a cost of ~$50/person. These cells can be screened for the ability of different drugs to enhance their protective functions, allowing them to determine which drugs will likely benefit each patient. With access to large Alzheimer's disease cohorts they are in a unique position to establish a screening platform for patient-specific drug efficacy, allowing physicians to prescribe a drug treatment regime tailored to an individual's own microglia. Patient microglia responses can then be monitored over time. NFMRI funding will support research to screen patient specific potential drugs.

Dr Sanjaya Kuruppu, Monash University
Portfolio 2, $90,000 over one year

Improving the efficacy of a new venom-derived drug for Alzheimer's Disease

Summary: Dr Kuruppu's preliminary data demonstrates that administration of his team's originally discovered peptide can prevent the formation of amyloid beta plaque. Inability to get peptides across the blood brain barrier is a significant factor that impedes the development of drugs for neurodegenerative diseases. Previous studies have shown that L-arginine can improve the blood brain barrier permeability of drug leads.
This research grant will enable Dr Kuruppu to determine if co-administration with L-arginine will facilitate the uptake of the peptide by the brain, thereby preventing amyloid beta build-up and associated behavioural changes. The results of this study can add significant value to their original discovery helping to fast track it towards the clinic.

2019 Conference Supporter:

phillips ormonde fitzpatrick
intellectual property

Sponsorship Opportunities are available:

2019 Funding Opportunities Closing Soon

1. NFMRI General Grant Round - OPEN

Expressions of interest for our general grant round are now open. Applications for innovations across all diseases and conditions are accepted from Australian publicly funded research organisations.

Focus: Open nationally across all diseases and conditions affecting humans, applications that fall within portfolios 2 & 3 only.
closes: **6pm AEST on Friday, 29th March 201**9
more information about this grant round can be found here.
The EOI form is available on our website here.
Completed EOIs must be submitted online via this link.

2. Cystic Fibrosis Grant Round - OPEN

As part of our partnership with the Cure4 Cystic Fibrosis Foundation (Cure4CF), NFMRI is seeking EOIs for research that seeks to develop therapies or cures that will result in an increase in average life expectancy of people with cystic fibrosis with consideration given to quality of life.

The successful grant(s) will be named the "Cure4 Cystic Fibrosis Foundation – Barbara Stow-Smith CF Innovation Grant"
focus: Cystic fibrosis, applications that fall within portfolios 1, 2 & 3 (preference for 2 &3), open nationally
more information about this grant round can be found here
closes: **6pm AEST on Friday, 29th March 2019**
The EOI form is available on our website here.
Completed EOIs must be submitted online via this link.

3. Alzheimer's Disease Grant Round – OPENING SOON

As part of our partnership with The Mason Foundation (managed by Equity Trustees), NFMRI will be seeking EOIs for projects investigating potential treatments and/or cure for Alzheimer's Disease with funding commencing in 2020.

focus: Alzheimer's Disease, applications that fall within portfolios 1, 2 & 3, open nationally
more information about this grant round can be found here
opens: **Monday, 29 April 2019**
closes: 6pm AEST on Thursday, 13 June 2019 forms will be made available here once this grant round is open.

Upcoming Events

30 October - 1 November 2019 - Melbourne - 2019 AusBiotech Life Sciences Conference
20 November - 21 November 2019 - Torquay - 2019 NFMRI Conference

If you would like to invite a speaker from NFMRI please complete the speaker request form.

Our mailing address is:
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