National Foundation for Medical Research and Innovation

NFMRI

A/Prof Janet Davies and Swiss medtech company Abionic SA collaborate to develop rapid, targeted subtropical grass pollen tests

Associate Professor Janet Davies from QUT received portfolio 2 funding from the NFMRI between 2015 to 2016 to help support the development of an improved allergen immunotherapy vaccine targeting subtropical grass pollens. A/Prof Janet Davies and Swiss medtech company Abionic SA are collaborating to develop rapid, targeted tests for allergies to subtropical grass pollens – tests that could be administered in a GP office. A/Prof Davies shares her insights with us below.

"Grass pollen is the major outdoor allergen globally. There is an urgent need to better understand the influence of grass pollen allergy on asthma given the recent catastrophic epidemic thunderstorm asthma (ETSA) of November 2016 in Melbourne (Chief Health Officer's report 2017) that was triggered by grass pollen exposure in grass pollen allergic patients with hayfever.

To review factors associated with thunderstorm asthma

to review factors associated with thunderstorm asthma and public health implications, I was commissioned by the Victorian Department of Health to prepare a report that then underpinned a $15.6million research and public health response in Victoria initiated in 2017. Among patients with hay fever, some may be more at risk of asthma (as summarized in Letter to Editor British Medical Journal 2018). Use of allergen-specific immunotherapy (or allergy vaccines) are a clinically available treatment that could reduce underlying pollen allergy and reduce impact of pollen exposure on asthma. However, most treatments for grass pollen allergy are based on temperate grasses. Optimised vaccines based on subtropical grass pollen allergens are needed to provide more specific and effective desensitization treatment for the patients with pollen allergies who live in subtropical regions of the world.

During this NRMRI project, I collaborated with the Monash Antibody Technology Facility to efficiently develop a series of three new monoclonal antibodies that are specific for the major subtropical grass pollen allergen.

These new antibody probes are commercially protected for further development as tools for standardising the amount of active ingredient in subtropical allergy vaccines. The original patent application for protection of the subtropical grass pollen allergy innovations has now been allowed in the USA. The outcomes of this project have potential to meet the growing need of patients in subtropical regions of Australia, Asia, Africa and America.

The technology has attracted co-sponsorship from a Swiss SME, Abionic, and further funding from NFMRI for a new Portfolio 2 project to test utility of transferring these subtropical allergen components onto a point-of-care nanotechnology device. If successful and licensed, this test could serve as a companion diagnostic to indicate use of the standardized subtropical grass pollen allergy vaccines." - A/Prof Janet Davies

Read more about A/Prof Davies' progress here

Grant Round Updates

An update on our grant rounds can be found below.

We strongly recommend that those interested in applying for an NFMRI grant first read more about our strategy and if possible attend one of our presentations across the country later in 2018 or early 2019.

We suggest that institutions interested in hosting an NFMRI presentation contact us soon to organise an event as availabilities later in the year and in early 2019 are filling up quickly. Those interested may complete the speaker request form.

1. General and Infectious Diseases Grant Round

Applicants for both our general and infectious disease grant rounds have been shortlisted. Unsuccessful applicants have also been notified.

Funding announcements will be made later in the year at our Awards Night.

We wish to thank all applicants who took the time to submit an expression of interest. We strongly suggest that future applicants consider attending one of our presentations later in the year as the focus of these events is to help increase our applicant's chances of success.

2. Dr John Dixon Hughes Medal

Thank you to those who submitted a nomination for the 2019 Dr John Dixon Hughes Medal. Nominations are currently being reviewed and we will be announcing the recipient at our Awards Night later this year.

3. Alzheimer's Disease Grant Round

As part of our partnership with The Mason Foundation (managed by Equity Trustees), NFMRI recently held a special purpose Alzheimer's Disease grant round. Thank you to all of those who submitted an EOI. They are currently being reviewed and our Research Advisory Committee will be shortlisting applicant in mid-to-late September 2018.

Our Impact

The NFMRI has implemented a strategy focused on supporting gap areas along the innovation pathway for biomedical research.

This targeted support assists researchers to advance their research towards the development of new innovations including medicines, vaccines, diagnostics and devices. These innovations normally require regulatory approval, commercial partnerships and investors as they progress. Since implementation of our stategy, a number of projects are already achieving success. Read more about these success stories here.

ARMS 2018 Conference, 18-21 Sept 2018, Hotel Grand Chancellor, Hobart TAS "Research Futures: Thinking long term in a world of short term attention spans"

2018 NFMRI Awards Night, 5.00pm - 8.00pm on 27 November 2018, KPMG Level 38, 300 Barangaroo Street, Sydney NSW 2000

Speaker request form

NFMRI is happy to consider opportunities to present at research institution and university events to

2017 NFMRI Annual Report

Our 2017 Annual Report is available for download and includes case studies and highlights of our current and past research projects.

outline the Foundation's processes and strategy, with a view to assist applicants to improve their grant submission success rates. We are able to discuss topics such as what funders are looking for, how to better engage with industry and venture capital amongst many others. NFMRI is particularly interested in helping organisations and other funders support the advancement of biomedical innovations and get them translation/commercialisation ready.

Those interested should complete our speaker request form. A representative of NFMRI will be in touch shortly after the request is received.

Recent "Thinking Out Loud" blog posts

- Funding research and aligning expectations; the risk of forgotten intent
- NFMRI assists fibrosis cross the 'valley of death'
- NFMRI announces more than $1.7 million to fund Australian medical research innovations
- Effective and efficient support of medical research needs to consider more than just the cause
- $1.29m partnership to tackle cancer and Alzheimer's disease
- The power of patent analytics in Alzheimer's research

Our mailing address is:
PO Box 6247, Highton VIC 3216
Level 12, 20 Martin Place, Sydney 2000

www.nfmri.org.au | enquiries@nfmri.org.au