MEDIA RELEASE

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Is multiple sclerosis on the rise?

Latest funding for new and innovative research announced by MS Australia

MS Australia has announced its new round of incubator grants for 'out-of-the-box' Australian research projects that will explore innovative ways to prevent and treat multiple sclerosis (MS), including new research that will further explore the prevalence and incidence of MS in different parts of Australia.

This latest round of funding for the new MS research projects will see $180,000, distributed across four research projects and a postgraduate scholarship for an outstanding young researcher in the field of MS.

MS Australia's Head of Research Dr Julia Morahan says the grants are both an investment into the research and in the researchers.

"They allow new and important questions to be asked that will lead us closer to the answers we need to ensure multiple sclerosis is where it needs to be - behind us.

"In this our 50th Year, our mission is to supercharge MS research and advocate with vigour, to achieve our ultimate goal, a world without MS," Dr Morahan said.

2022 Incubator Grant recipients

Incubator grants support novel ideas, and the subsequent generation of preliminary data that may enable researchers to apply for larger grants in the future.

Historically, for every dollar invested in MS Australia incubator grants, the scientists have managed to secure an additional 27 dollars in subsequent funding, accelerating their areas of research.

Professor Bruce Taylor from the University of Tasmania will measure the prevalence and incidence of MS at three locations in Australia at different latitudes and build on Professor Taylor's recent findings that found an increase in the total number of people being diagnosed with MS in the Hobart area.

It will also inform whether further study of modifiable lifestyle factors, such as sun exposure, is required.

Professor Taylor noted that low sunlight exposure and low vitamin D levels may be important drivers of MS risk.

"This may explain why the disease is more common in Tasmania than in locations closer to the equator. If we could identify the risk factors and reduce them by just 50%, we could significantly reduce the risk of MS globally," Professor Taylor said.

Dr Vivien Li from the Royal Melbourne Hospital VIC will study how pausing treatment affects MS disease activity using new MRI technologies.

Dr Li will use one of two 7-Tesla MRI scanners in Australia, which have over twice the magnetic strength of standard hospital scanners, to assist in making more informed treatment decisions.

"This research will study how brain inflammation is affected by stopping or pausing treatment using new MRI technologies, which provide better images, comparing them to routine hospital scans, to see if smaller and subtler changes of MS activity can be identified," Dr Li said.

Dr Belinda Kaskow from Murdoch University WA will investigate specific components of the immune system that may be involved in early signs of MS.

Dr Kaskow says this will help identify how early this immune imbalance occurs and give critical insight into how the disease begins.

"Understanding immune system dysfunction at the earliest clinical time point to study MS allows us to better understand the disease course so that we can develop therapies to halt disease progression," Dr Kaskow said.

Dr Alistair Govier-Cole from Monash University VIC aims to understand how cells that normally repair the protective sheath around nerve fibres known as 'myelin', may be involved in perpetuating the autoimmune reaction against myelin in people with MS.

"Knowing that every scientific contribution we can make to better understanding MS is one small step closer to the dream of eventually curing MS, or at least making it more treatable and improving the quality of life of people with MS, provides a lot of motivation," Dr Govier-Cole said.

2022 Postgraduate Scholarship recipient

MS Australia postgraduate scholarships support students with an outstanding track record who are undertaking a postgraduate degree in MS research.

Mr Samuel Klistorner from the University of Sydney will investigate better ways to monitor the degeneration of the nervous system caused by MS and the potential effects of therapies in preventing damage to brain tissue around chronic lesions.

Mr Klistorner is passionate about the future opportunities that technology brings to MS and the research field in general.

"My research, in collaboration with neurologists, scientists and fellow researchers, will help to develop biomarkers that can one day be used in drug trials for treatment," Mr Klistorner said.

More information about MS research projects can be found here https://www.msaustralia.org.au/projects/

To learn more about our researchers, see https://www.msaustralia.org.au/about-us/our-people/meet-the-researchers/

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About MS

MS is the most common acquired chronic neurological disease affecting young adults, often diagnosed between the ages of 20 to 40 and, in Australia, affects three times more women than men. As yet, there is no cure. There is no known single cause of MS, but many genetic and environmental factors have been shown to contribute to its development.

In MS, the body's own immune system mistakenly attacks and damages the fatty material – called myelin – around the nerves. Myelin is important for protecting and insulating nerves so that the electrical messages that the brain sends to the rest of the body, travel quickly and efficiently.

As the myelin breaks down during an MS attack – a process called demyelination – patches of nerves become exposed and then scarred, which renders the nerves unable to communicate messages properly and at risk of subsequent degeneration. This means that the brain cannot talk to other parts of the body, resulting in a range of symptoms that can include a loss of motor function (e.g., walking and hand and arm function, loss of sensation, pain, vision changes and changes to thinking and memory).

About MS Australia

MS Australia is Australia's national multiple sclerosis (MS) not-for-profit organisation that empowers researchers to identify ways to treat, prevent and cure MS, seeks sustained and systemic policy change via advocacy, and acts as the national champion for Australia's community of people affected by MS.

MS Australia represents and collaborates with its state and territory MS Member Organisations, people with MS, their carers, families and friends and various national and international bodies to:

- Fund, coordinate, educate and advocate for MS research as part of the worldwide effort to solve MS
- Provide the latest evidence-based information and resources
- Help meet the needs of people affected by MS.