



13 JULY 2023

## **\$10 million MRFF funding awarded for Australian research on Epstein-Barr virus in MS**

**13 JULY 2023:** MS Australia has partnered with Australian research teams in five successful bids for government funding for research into the Epstein-Barr virus (EBV) in MS, totalling almost \$10 million.

The funding announced yesterday from the Medical Research Future Fund (MRFF), will support two Australian clinical trials of antiviral medications to treat multiple sclerosis (MS) fatigue and progression, as well as three large-scale studies to understand how EBV interacts with the human immune system to increase the risk of developing MS.

EBV infection is almost universal in people with MS, compared to around 90 per cent of the general population. It appears to be 'essential, but on its own not sufficient' to cause MS. A [very large study of over 10 million military personnel published last year](#), showed that EBV increased the risk of MS by 32-fold, providing the strongest evidence yet that EBV may cause MS.

"To translate this research into better outcomes for people with MS, we need a better understanding of how EBV interacts with the immune system to increase MS risk, and possibly, to drive the disease process.

"We are delighted to partner with outstanding Australian researchers in this critical work," Mr Rohan Greenland, CEO of MS Australia said.

Associate Professor Des Graham, the Chair of MS Australia and a person living with MS said, "This funding is a significant and exciting investment into research that may well lead to innovative approaches for early intervention, better treatments and prevention of MS."

Another essential piece of research is fast-tracking answers to whether we can treat EBV in the clinic to improve MS outcomes.

"We have worked very closely with Australian neurologists, immunologists, virologists, international EBV experts and people with MS to design two clinical trials of antiviral agents in MS.

"These antiviral medications are already TGA-approved for the treatment of other conditions, so if the trials prove successful, they have the potential to be approved quickly for MS treatment in Australia," Dr Julia Morahan, Head of Research at MS Australia said.

MS Australia congratulates the successful funding recipients, including Professor Simon Broadley of Griffith University and Associate Professor Todd Hardy of the University of Sydney, who will lead the clinical trials of antiviral medications for disease progression and fatigue in MS, respectively.

Professor Anne-Louise Ponsonby of the Florey Institute of Neuroscience and Mental Health, Professor Tri Phan of the Garvan Institute of Medical Research, and Dr Yuan Zhou of the Menzies Institute of Medical Research will each lead fundamental research to understand different aspects of EBV's interaction with the immune system at the genetic, molecular and cellular levels to increase MS risk.

Dr Julia Morahan says part of this research will take advantage of large collections of biological samples and clinical information collected over many years within [MS Australia's National Collaborative Research Platforms](#).

"MS Australia is, and has been, very active in raising awareness with the federal government of the urgent unmet needs in MS, and the research desperately needed to address these needs. These grants are welcomed by MS Australia, but we will continue to pursue further research funding until a cure is found," said Associate Professor Des Graham.

"We are delighted to see this targeted support for MS research by the MRFF as part of their Clinical Trials Activity, and Emerging Priorities and Consumer Driven Research Initiatives," Dr Morahan said.

## Links

- New evidence: Does the Epstein-Barr virus cause MS? - <https://www.msaustralia.org.au/news/new-evidence-does-the-epstein-barr-virus-cause-ms/>
- Landmark funding for MS research applauded by MS Australia - <https://www.msaustralia.org.au/news/landmark-funding-for-ms-research-applauded-by-ms-australia/>
- A powerful voice for MS: how an Australia-wide study is influencing policymakers - <https://www.msaustralia.org.au/news/a-powerful-voice-for-ms-how-an-australia-wide-study-is-influencing-policymakers/>

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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.