

National Centre for Neuroimmunology and Emerging Diseases

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Our Mission

The National Centre for Neuroimmunology and Emerging Diseases (NCNED) is a research team located at Griffith University on the Gold Coast. Led by Professor Sonya Marshall-Gradisnik, the team has a focus on Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) and long COVID.

Our mission is to translate research findings into preventative medicine, social and clinical care and public health outcomes. By collaborating with local, national and international research institutes, we aim to create sustained improvements in health and health care for not only those affected by ME/CFS and long COVID but also other immune disorders.

NCNED TO COMMENCE LONG COVID CLINICAL TRIAL

We are excited to announce that we will shortly be commencing our Low Dose Naltrexone Clinical Trial for long COVID sufferers. Eligibility criteria includes being aged between 18 and 65 years of age, BMI between 18.5 and 29.9, not pregnant or breastfeeding, not taking routine medications, no previous diagnoses of ME/CFS. If you think you may be interested in participating, please call us on (07) 56789283 or email ncned@griffith.edu.au.

PUBLICATIONS

PhD student, Ms Maira Inderyas, and NCNED researchers have recently published an important paper in **Frontiers in Neuroscience** titled "Subcortical and Default Mode Network connectivity is impaired in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome". The paper reports significant reductions in the functional connectivity between the brainstem and cerebellum regions of ME/CFS patients compared with healthy controls. If you would like to read more on this subject, the paper can be accessed via this link: <https://www.frontiersin.org/articles/10.3389>.



Professor Sonya Marshall-Gradisnik and Dr Natalie Eaton-Fitch, alongside NCNED collaborator Professor James Baraniuk, have recently published the latest update for the *British Medical Journal (BMJ)* guidelines for ME. These guidelines advocate for the removal of graded exercise therapy and cognitive behavioural therapy (GET/CBT) as treatment options for ME/CFS. Research has consistently demonstrated that the use of GET/CBT is a potential detriment to patient care, aligning with the recently updated NICE guidelines for ME/CFS. NCNED ensures the highest standard of care is delivered to patients and this update aligns with current research for the diagnosis and treatment of ME/CFS. We extend our appreciation to Professor James Baraniuk for his invitation to collaborate on this project and for his dedication and expertise in shaping healthcare for those living with ME/CFS.



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Thank you to the Stafford Fox Medical Research Foundation, McCusker Charitable Foundation, the Mason Foundation, Ian and Talei Stewart, the Alison Hunter Memorial Foundation, the Blake Beckett Foundation, Mr Adrian Flack, the Buxton Foundation, the Henty Community, Change for ME Charity, ME/CFS/FM Support Association QLD Inc., the ACT ME/CFS Society, ME/CFS and Lyme Association of WA Inc., MERUK, and the National Health and Medical Research Council.

PUBLICATIONS CONTINUED

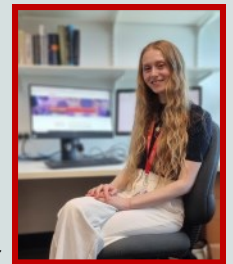
Dr Kiran Thapaliya and NCNED team members have had their paper “*Imbalanced Brain Neurochemicals in long COVID and ME/CFS: A Preliminary Study using MRI*” accepted by **The American Journal of Medicine** for publication. This study aims to measure brain neurochemical levels in long COVID and ME/CFS patients as well as healthy controls to investigate associations with severity measures. This study identified significantly elevated Glutamate and N-acetyl-aspartate levels in long COVID and ME/CFS patients compared with healthy controls. No significant differences in brain neurochemicals were observed between the two patient cohorts, suggesting a potential overlap in their underlying pathology. These findings suggest that imbalanced neurochemicals contribute to the complex symptoms experienced by long COVID and ME/CFS patients. To find out more about this study, please use the link provided: [https://www.amjmed.com/article/S0002-9343\(24\)00216-X/fulltext](https://www.amjmed.com/article/S0002-9343(24)00216-X/fulltext)



CONFERENCES

PhD student Breanna Weigel is committed to investigating the underlying pathology and health impacts and outcomes for people afflicted with long COVID. People with long COVID in Australia have poor health outcomes that are comparable with Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) over a 12 month period, new Griffith University research has discovered.

Breanna was invited to present her findings virtually in Singapore this month at the International Public Health Conference 2024. In her presentation “Patient-reported health outcomes are comparable between people with Myalgic Encephalomyelitis/Chronic Fatigue Syndrome and Post COVID-19 Condition over time”, she reported that “Quality of life and disability scores were significantly poorer for both long COVID and ME/CFS patients when compared with healthy people.” Please see our Facebook post for additional information: <https://www.facebook.com/NCNED/>.



CONGRATULATIONS

A Multimodal longitudinal 7 Tesla MRI study to investigate brain changes and disease progression of ME/CFS patients

Associate Professor Leighton Barnden, Dr Kiran Thapaliya, Dr Natalie Eaton-Fitch and Professor Sonya Marshall-Gradisnik have been awarded a grant of \$438,000 by ME Research UK (MERUK) to investigate ME/CFS progression within the brain region. The study will use an ultra-high field 7 Tesla (7T) MRI to capture a clearer depiction of brain regions and detect subtle brain changes in ME/CFS patients, one of the first to identify the most affected brain regions at different points in time. This information will help to identify specific brain regions that are involved in the disease process and explain how brain changes contribute to the symptoms of ME/CFS such as cognitive impairment, fatigue and post-exertional malaise. The study will commence in September and be conducted over a three year period.

