

National Centre for Neuroimmunology and Emerging Diseases

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Postal Address:

National Centre for
Neuroimmunology and
Emerging Diseases
Griffith University, Gold Coast
G40, Mailbox 68
SOUTHPORT QLD 4222



NCNED contact:

(07) 5678 9283 or
ncned@griffith.edu.au

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), long COVID and Gulf War Illness (GWI).

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.

12 MAY 2025 -

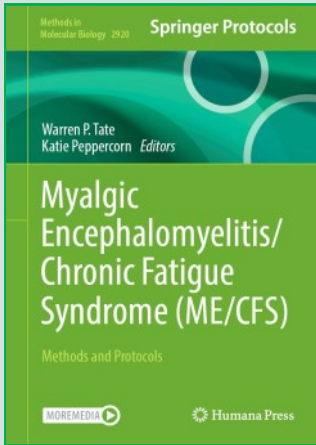
INTERNATIONAL ME/CFS AWARENESS DAY



In recognition of 2025 International ME/CFS Awareness Day, as per every year, NCNED paid tribute to sufferers worldwide by lighting up in blue the Griffith University buildings and on campus Bridge of Knowledge. Through the generous support of a local company, the Griffith University oval was painted to show our support and confirm our commitment to ongoing research in a bid to improve the quality of life of ME/CFS sufferers.



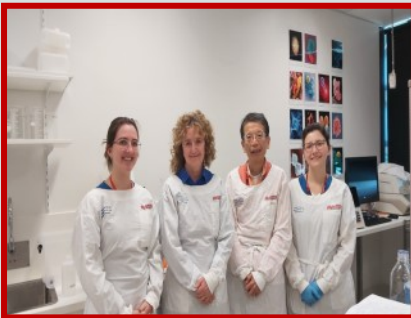
PUBLICATIONS



The NCNED team recently contributed to two chapters in the book *Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) Methods in Molecular Biology* (Springer Protocols 2920), providing gold-standard research methods for investigating ME/CFS. One chapter “*Review of Neuroimaging Methods in ME/CFS*”: Dr Kiran Thapaliya, Maira Inderyas, Associate Professor Leighton Barnden, (pictured top right), outlines advanced neuroimaging techniques to study brain function in ME/CFS patients.



Dr Natalie Eaton-Fitch (pictured right), Professor Katsuhiko Muraki, Dr Etienne Martini Sasso, Chandi Magawa and Professor Sonya Marshall-Gradisnik contributed to the chapter “*Analysis of Transient Receptor Potential Ion Channels in ME/CFS*”. This chapter details methods for analysing transient receptor potential (TRP) ion channels which play an important role in cellular signalling and is correlated to ME/CFS symptomatology. <https://doi.org/10.1007/978-1-0716-4498-0>



Dr Etienne Martini Sasso, Dr Natalie Eaton-Fitch, Dr Peter Smith, Professor Katsuhiko Muraki and Professor Sonya Marshall-Gradisnik have published the article “*Low-dose Naltrexone restored TRPM3 ion channel function in Natural Killer cells from long COVID patients*” in the scientific journal *Frontiers in Molecular Biosciences*. This NCNED publication reveals that Low Dose Naltrexone (LDN) can effectively restore the function of crucial components of human cells, known as TRPM3 ion channels, in immune cells of long COVID patients.

<https://www.frontiersin.org/journals/molecular-biosciences/articles/10.3389/>

WELCOME TO OUR NEW PHD/MASTERS STUDENTS

NCNED welcomes Mr Tanoj Singh (pictured right), a PhD candidate who joined the Centre in April. Tanoj’s research focuses on applying diffusion-weighted magnetic resonance imaging (DW-MRI) to investigate microstructural changes in the white matter of individuals with Myalgic Encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) and long COVID. The aim of Tanoj’s work is to enhance the understanding of underlying neurobiological mechanisms in these diseases through advanced neuroimaging techniques.



We are also pleased to welcome Mr Tianyi Song (pictured left), a Master’s student whose project focuses on the discovery of the dysfunction of TRP channels in Myalgic Encephalomyelitis/Chronic Fatigue Syndrome and long COVID patients.

APPRECIATION AND ACKNOWLEDGEMENT OF GRANTING ORGANISATIONS, AGENCIES, BENEFACTORS AND FUNDRAISERS

Thank you to the Stafford Fox Medical Research Foundation, McCusker Charitable Foundation, the Mason Foundation, 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, Dr John Hamwood and the National Health and Medical Research Council.

MEDIA

The publication authored by Sasso EM, Eaton-Fitch N, Smith P, Muraki K, Marshall-Gradisnik S: *Low Dose Naltrexone treatment restored TRPM3 ion channel function in NK cells from long COVID patients*, *Frontiers in Molecular Biosciences*, Vol 12, May 2025, produced a high volume of media coverage via online and radio mediums, examples of which can be seen using the attached link: [Media](#)

CONGRATULATIONS



The NCNED is pleased to announce the conferral of a Doctor of Philosophy degree to our researcher Etianne Martini Sasso. Etianne's thesis investigated the role of TRPM3 ion channels in the pathomechanism of ME/CFS, long COVID (LC) and Gulf War Illness (GWI) and explored potential treatments to improve symptoms and quality of life for those affected.

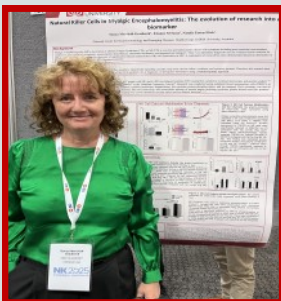
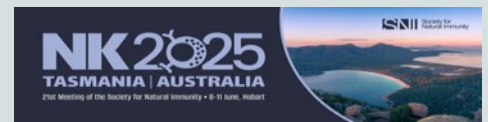
The NCNED team congratulates Etianne on achieving this significant milestone which reflects her dedication and hard work.

Congratulations are also in order for Dr Etianne Sasso and her supervisors Professor Sonya Marshall-Gradisnik, Dr Natalie Eaton-Fitch & Dr Kiran Thapaliya on receiving the prestigious Award of Excellence. Etianne was recognised for exemplary performance in her PhD thesis. The examiners unanimously agreed on the significance of her research and its valuable contribution to the field of ME/CFS, LC and GWI. Such rare consensus highlights the outstanding quality of her work, which met the highest academic standards. The NCNED team is proud to celebrate this well-deserved achievement, made possible through the dedication and collaboration of our entire research team, and with sincere thanks to all NCNED participants who make our research possible.

CONFERENCES/SYMPOSIUMS ATTENDED

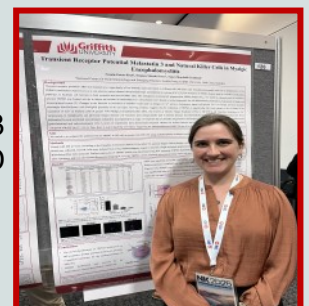
NCNED researchers delivered a total of eleven presentations across Australia, Japan and the United Kingdom in the last quarter. These presentations included both oral and poster formats, highlighting key findings in ME/CFS, LC and GWI, and reinforcing NCNED's leadership in international research collaboration and knowledge dissemination. NCNED researchers successfully submitted abstracts and presented their findings at the following institutional and international conferences/symposiums:

International Biomedical NK2025 Conference - Tasmania, 8-11 June



Professor Sonya Marshall-Gradisnik (pictured left) presented NCNED NK data that has been collected and collated from numerous ME/CFS investigations highlighting biomarker application.

Dr Eaton-Fitch (pictured right) presented NCNED findings on TRPM3 ion channel dysfunction and potential therapeutic targets NCNED researchers are investigating to improve this ion channel function.



CONFERENCES/SYMPOSIUMS ATTENDED CONTINUED

Ion Channel Modulation Symposium – Tokyo, Japan, 29-30 May

NCNED's PhD candidate, Chandi Magawa, presented at a key platform for scientists and professionals in ion channel research. Chandi presented preliminary results from her ongoing project, reporting impairment of ion channels and calcium influx in cell organelles in ME/CFS patients when compared to healthy controls. The platform provided an opportunity to discuss the latest advancements in ion channel modulation and fosters global collaboration in the field. With a goal to improve patient outcomes, we are aiming to harness and adopt the acquired knowledge and techniques into ME/CFS and LC research.



14th Biomedical Research into ME Colloquium - UK, 28-30 May and

Young EMERG Symposium for Promoting the Advancement of Research Knowledge in ME (SPARK ME) - UK, 26-27 May

This year NCNED was proudly represented by Dr Etienne Martini Sasso who was honoured to be invited as a speaker at the conference. Etienne presented NCNED's latest neurological and immunological findings in ME/CFS and LC to a distinguished international audience of leading experts in the field.



Dr Etienne Martini Sasso was also honoured to be a speaker at the “Young EMERG Symposium for Promoting the Advancement of Research Knowledge in ME”, where she delivered both oral and poster presentations on the role of TRPM3 as a biomarker and potential therapeutic target for ME/CFS and LC.

5th Griffith ECR Cross-Institute Symposium – Australia, 16 April

Latest findings in our ME/CFS, LC and GWI research from the NCNED were recently presented at Griffith University's 5th annual Early Career Researcher Symposium. Research Fellows, Dr Natalie Eaton-Fitch, Dr Kiran Thapaliya and Dr Etienne Martini Sasso, as well as HDR Candidates, Ms Chandi Magawa, Ms Maira Inderyas and Ms Jessica Dwyer, shared novel findings from their recent research projects (Dr Kiran Thapaliya, Dr Natalie Eaton-Fitch, Chandi Magawa and Jessica Dwyer featured below).



CONFERENCES/SYMPOSIUMS CONTINUED

Excitingly, NCNED took out the two top research awards:

Ms Jessica Dwyer, Master of Medical Research Candidate, was awarded **Best Research Poster** for sharing preliminary findings from a longitudinal study of impaired Natural Killer cell function among people with GWI.

Dr Natalie Eaton Fitch was awarded **Best Oral Presentation** for outlining preliminary results from an investigation into the altered expression of genes involved with immune cell function among people with GWI.

Dr Kiran Thapaliya's presentation discussed findings from a recent NCNED publication in PLOS One, which documented enlarged hippocampal volumes among people with ME/CFS and people with LC when compared with healthy controls. Read the full publication here: <https://doi.org/10.1371/journal.pone.0316625>

Dr Etienne Martini Sasso's poster reported Low-Dose Naltrexone (LDN) restored Transient Receptor Potential Melastatin 3 (TRPM3) ion channel function in Natural Killer cells from people with LC, later published in Frontiers in Molecular Sciences: <https://www.frontiersin.org/journals/molecular-biosciences/articles/10.3389/fmolb.2025.1582967/full>

Ms Chandi Magawa's poster outlined the findings of one of the studies contributing to her PhD project. This study observed impaired functioning of the TRPM3 calcium ion channel in the cells and cell organelles of people with ME/CFS when compared with healthy controls.

Ms Maira Inderyas' poster investigated BOLD differences between people with long COVID and people who had recovered from COVID-19 (Cov-RHC) using 7 Tesla (7T) fMRI. More about this research to come soon!

NCNED 2025 ME/CFS, LONG COVID & GULF WAR ILLNESS INTERNATIONAL CONFERENCE

*NCNED welcomes you to our biennial **RID** (Research Innovation and Discovery) Conference at Tweed Heads, NSW on 12-13 November 2025. The 4th ME/CFS, long COVID and Gulf War International Conference invites leading experts, clinicians, peers and consumers to participate in this two day conference. Please refer to our Facebook page for details or telephone (07) 5678 9283 for further information. A special scheduled event: HDR and Early Career Researchers have an opportunity to showcase their work and network with top researchers, clinicians and people with lived experience of these conditions. Please register for the conference via the link:*

Registration link. The link for abstract submission is available here https://l.facebook.com/abstract_submission

