

APPLICATIONS INVITED: PhD FELLOWSHIPS 2019

DEPARTMENT OF NEUROSCIENCE, MS AND NEUROIMMUNOLOGY, CENTRAL CLINICAL SCHOOL,
MONASH UNIVERSITY & DEPARTMENT OF NEUROLOGY, ALFRED HEALTH

PhD / Masters Project: Altered Vitamin D responsiveness in Multiple Sclerosis Immune Cells

•**SUPERVISORS: Prof Helmut Butzkueven, Dr Jim Stankovich, Dr Vilija Jokubaitis**

- This project will explore the hypothesis that people with Multiple Sclerosis (MS) have an altered immune cell response to Vitamin D compared to healthy individuals. Preliminary data from our group suggests that the relationship between endogenous Vitamin D serum level and expression of many RNA species is different between MS and HC, sometimes even inverted. This project may create new fundamental knowledge to understand the immune cascade of MS pathogenesis.

PhD Project: The use of multi-modal computerized assessments to detect subclinical decline in progressive multiple sclerosis.

•**SUPERVISORS: A/Prof Anneke van der Walt, Prof Helmut Butzkueven, A/Prof Adam Vogel.**

- This project will prospectively validate the use of computerised, web-based testing platforms of cognition, speech production, and upper limb function to detect subclinical decline in patients with moderate to advanced MS. We aim to demonstrate the sensitivity of these tests as compared to standard markers of progression in MS. This project may create new knowledge that could be used to define as outcome measures in clinical phase II and III studies in progressive MS and remove the “walking-barrier” that currently excludes many advanced MS patients from clinical trials.

PhD Project: Women’s Health in multiple sclerosis: Investigating the impact of pregnancy on MS outcomes and the impact of MS therapies on cervical dysplasia risk.

•**SUPERVISORS: Dr Vilija Jokubaitis, A/Prof Anneke van der Walt, Prof Helmut Butzkueven**

- This PhD project will build on our group’s work on the impact of pregnancy on long term MS outcomes using data from the MSBase registry. In addition, this project will involve the development of statistical models utilising clinical outcomes data and environmental data derived from the international MSBase Registry, and the Victorian Cervical Cytology Registry. This project may generate information that will allow evidenced based counselling of women with MS regarding family planning and define safety signals relating to cervical dysplasia associated with the use of disease-modifying therapies for MS. This project will suit someone with a strong interest in women's health, pregnancy and drug safety. The candidate should have a strong statistical background and/or interest