

Evaluating immune-mediated contributors to inflammatory ophthalmological presentations

Supervisors:

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Degree:

Masters by Research

Location:

Sydney Eye Hospital, Save Sight Institute, and Westmead Hospital; University of Sydney

Start:

2021

Project Outline:

Neuroimmunology is a rapidly evolving and exciting field - in recent years there has been significant momentum in identifying patients with antibodies targeting certain antigenic targets in the central nervous system, which results in inflammatory damage of the optic nerve, spinal cord, and brain. Some of these antibodies result in demyelination and serve as essential diagnostic biomarkers to distinguish these patients from those with multiple sclerosis, which responds to different treatments. The critical role of immune-mediated processes contributing to inflammatory ophthalmological presentations such as optic neuritis is well established. Early recognition and effective treatment with immunotherapy in these patients improves outcomes.

Our research team will explore the role of specific immune mediated mechanisms in inflammatory ophthalmological presentations including uveitis and optic perineuritis. The student undertaking this project will perform detailed analysis of the patients in this cohort with a focus on the clinical, radiological, immunophenotypic, and therapeutic characterisation of these disorders.

This project will be ideally suited as a Masters by research degree for a medical trainee with a commitment to building expertise in neuroimmunology, neuro-ophthalmology, and/or ophthalmology.

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