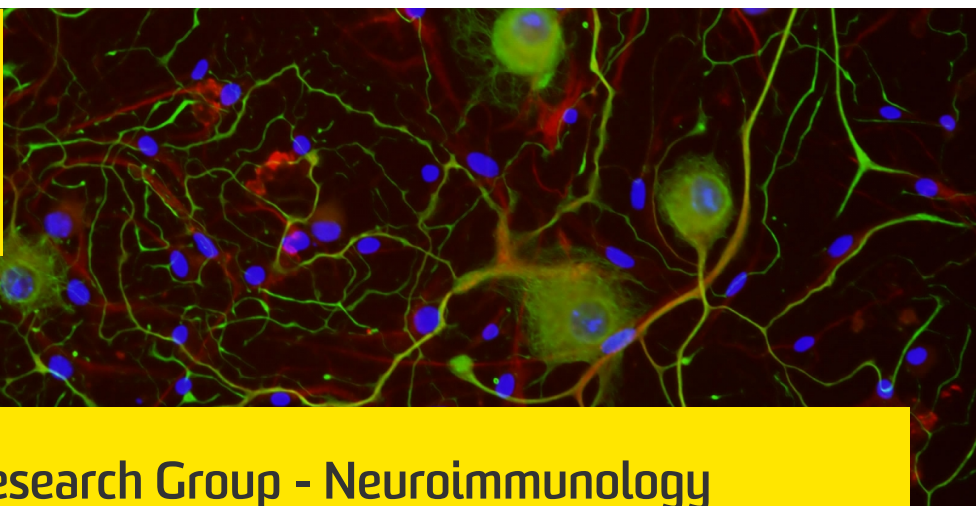




UNSW
SYDNEY



Neuropathic Pain Research Group - Neuroimmunology Research

Specialising in neuroimmune interactions in health and disease, particularly in chronic neuropathic pain and understanding the role of neuroinflammation in chronic pain conditions. Identifying targets and mechanisms in reducing pain and disability through immunomodulatory treatments.

Competitive advantage

- Long-term experience in animal models of nervous system damage, such as peripheral neuropathy and multiple sclerosis (MS)
- Expertise in in vitro culturing systems of whole dorsal root ganglion explants, dissociated sensory neurons, microglia and T cells
- Expertise in using anti-inflammatory mediators and immune cell therapies in vivo
- Capacity to perform immunotherapies in animal models

Impact

- Testing neuroprotective candidate drugs for the treatment of peripheral neuropathy
- Developing novel immunotherapeutic approaches for the treatment of neurological disorders and neuropathic pain

Successful outcomes

- Identified neuroimmune responses in neuropathic pain caused by peripheral nerve injury, autoimmune diseases such as MS, and chemotherapy-induced peripheral neuropathy
- Tested multiple drug candidates for the treatment of peripheral neuropathy in vitro and in vivo
- Developed adoptive cell therapy in pre-clinical models of MS and neuropathic pain

Capabilities and facilities

- A range of behavioural assays, animal surgery, and primary cell culture setups for the assessment of neurological disease/pain states
- A range of molecular and biochemical assays for the assessment of neuroinflammation in blood/tissues

Our partners

- Multiple national and international collaborations with researchers and clinicians at universities and hospitals
- Relationship with various industry partners (successfully completed several research contracts)

More Information

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