Neuroscience & Non-Communicable Diseases

Friday 5th April, 4pm
Wallace Wurth LG02

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**Neuroimmune interactions and the development of disabling neuropathic pain states**

The research conducted during Dr Fiore’s PhD, under the supervision of Dr Paul Austin, at the University of Sydney, examined both peripheral neuroimmune and central neuroplastic processes that contribute to the debilitating behavioural disturbances associated with neuropathic pain. It is increasingly clear that inflammatory mediators such as pro-inflammatory cytokines and chemokines can act on both peripheral and central neurons to alter their functioning, and may be linked with neuropsychiatric diseases. Using a peripheral nerve injury model, individual changes in cognitive and affective-motivational behaviour and neuroimmune interactions in the hippocampus and medial prefrontal cortex were investigated. Changes in peripheral immune cell populations and immune activation in chronic pain patients who have depression and anxiety via mass cytometry (CyTOF) were assessed. Overall, this work highlights that a distinct neuroimmune signature contributes to the development of behavioural disabilities in neuropathic pain states.

**All welcome. Drinks and nibbles from 3:30pm, seminar starts, 4pm.**

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