

# Speakers

## Michal Schwartz



Michal Schwartz is a Professor of Neuroimmunology, incumbent of The Maurice and Ilse Katz Professorial Chair in Neuroimmunology, at the Weizmann Institute of Science, Rehovot, Israel, and the incoming elected president of the International Society of Neuroimmunology (ISNI) for the years 2016-2018. Schwartz received a BSc (with distinction) in chemistry, from the Hebrew University, Jerusalem, Israel, and a PhD in Immunology from the Weizmann Institute of Science. She performed postdoctoral research in the neuroscience department at the University of Michigan, Ann Arbor, studying nerve regeneration. Schwartz's research is focused on the role of innate and adaptive immunity in central nervous system (CNS) plasticity in health and disease, and on developing methodologies to manipulate the immune system for the benefit of the CNS under acute injuries, chronic neurodegenerative conditions, mental dysfunction, and brain aging. Her team's multidisciplinary research program encompasses molecular and cellular neuroscience and immunology, as well as functional studies in animal experimental models. Schwartz was the world pioneer in demonstrating that blood macrophages and T cells are needed for spinal cord repair. She pioneered the concept of "Protective autoimmunity" and its role in the preserving life-long brain plasticity, including cognitive and mental functions, and neurogenesis from adult neural stem/progenitor cells, in the healthy brain and in disease. Her group identified specific sites within the brain's territory that serve as immunological interfaces between the brain and the immune system, and demonstrated a functional role for this neuroimmunological crosstalk for supporting immune surveillance of the healthy brain, and recruitment of immune cells which participate in CNS repair. Recent works of Schwartz's group describe dysregulation of this neuroimmunological crosstalk in brain aging and neurodegenerative diseases, with critical implications to ageand disease-associated brain's functional decline. A major current focus of Schwartz's group is in developing novel approaches for harnessing the immune system to fight brain pathologies.

## Graeme Stewart



Professor Graeme Stewart AM was appointed as founding head of Immunology at Westmead Hospital in 1980. He is the Inaugural Director of the Institute for Immunology and Allergy Research, one of the four founding research groups of the Westmead Millennium Institute. Professor Stewart was the Inaugural President of the Australasian Society for HIV Medicine and has played a role at a national and international level in HIV policy, medical education and research. He is a member of the board of Multiple Sclerosis Research Australia, Chair of the Clancey Donald Foundation and on the governing council of the Global Health Institute. His research group focuses on the genetics of autoimmune disease, particularly multiple sclerosis, HIV and allergies.

## Russell Dale



Professor Dale is a paediatric neurologist. His clinical interests are brain inflammation syndromes including acute disseminated encephalomyelitis and multiple sclerosis; autoimmune encephalitis such as anti-NMDAR encephalitis and basal ganglia encephalitis; autoimmune movement disorders such as Sydenham's chorea; and childhood movement disorders including Tourette syndrome and genetic movement disorders. His laboratory interests are acute onset brain inflammation and brain autoimmunity, including: the role of novel autoantibodies in autoimmune encephalitis; the role of anti-MOG antibodies in demyelination syndromes such as acute disseminated encephalomyelitis (ADEM); and neuromyelitis optica spectrum disorders. He is interested in therapeutic decision making in autoimmune brain disease.

## Gila Moalem-Taylor



Dr Moalem-Taylor leads the Neuropathic Pain Research group at the UNSW Translational Neuroscience Facility. She is an expert neuroimmunologist with particular focus on chronic pain research. Her research focuses on the mechanisms underlying neuropathic pain, with particular emphasis on how immune cells and inflammatory mediators influence chronic pain following peripheral nerve injury or autoimmune inflammation in the nervous system. Damage to the nervous system is often associated with chronic neuropathic pain symptoms including spontaneous pain, increased sensitivity to painful stimuli, and pain perceived in response to normally non-painful stimuli. Her recent work demonstrated that immune mechanisms play a critical role in neuropathic pain.

## Gerald Muench



Professor Gerald Muench started work at the University of Würzburg, Germany in 1995 and was then appointed Lecturer in the Department of Child and Adolescent Psychiatry in 1999. In 2000, he joined the Interdisciplinary Center for Clinical Research at the University of Leipzig. He left in 2004 to take up a position as Senior Lecturer at James Cook University in Townsville. In 2008 Gerald was appointed as Associate Professor of Pharmacology in the School of Medicine at the University of Western Sydney, and he was promoted to Professor in 2012. His major project focus is on Alzheimer's disease with a special emphasis on carbonyl stress in age-related and neurodegenerative processes, and also looking at brain inflammation as a major progression factor in Alzheimer's disease, now widely accepted. Gerald is also looking to discover and identify novel anti-inflammatory and neuroprotective compounds from marine macroorganisms and tropical rainforest plants.

## Margaret Morris



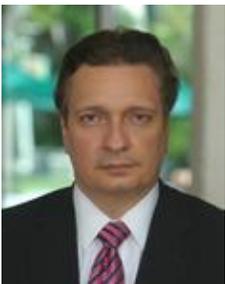
Professor Margaret Morris is currently Head of Pharmacology at UNSW Australia, and leads the environmental determinants of obesity research group within Medical Sciences. Her research addresses critical questions concerning the impact of adverse early life events and lifestyle factors on chronic disease risk. The impact of parental obesity and early childhood events has been a key focus, exploring offspring metabolic and cardiovascular risk, and options for intervention. Current work includes intergenerational transmission of obesity and the psychology of eating, e.g. how does provision of a varied, energy rich diet override the regulatory control mechanisms that should maintain body weight? Her lab is investigating the impact of sugar, and fat, on cognition and the gut microbiota.

## Rick Richardson



Professor Rick Richardson is based in the School of Psychology at UNSW. His research interests focus on: Development of emotion, attention, learning, and memory in the rat; developmental analysis of fear inhibition at the behavioural, neural, and pharmacological levels; behavioural and neural analyses of memory; effects of early life trauma.

## Julio Licinio



Professor Julio Licinio is Deputy Director, Translational Medicine and Head, Mind and Brain Theme at the South Australian Health and Medical Research Institute and Professor of Psychiatry, Flinders University. Professor Licinio is originally from Brazil and lived previously in the United States, where for over 20 years he had positions of leadership at Yale, NIH, UCLA, and University of Miami. He is founding and Chief Editor of three Nature Publishing Group journals, *Molecular Psychiatry* (Impact Factor: 14.496, number 1 worldwide), *The Pharmacogenomics Journal* (Impact Factor 4.229) and *Translational Psychiatry* (Impact Factor 5.620). His translational and genomics research spans the lab and clinic examining obesity, depression, and their interface.

## **Rohan Walker**



Associate Professor Rohan Walker is part of a growing international band of scientists whose work is challenging conventional thinking about the neurochemical causes of depression. Walker leads a research group investigating brain cell inflammation as a primary cause of psychological disorders. Their research looks into the role of microglia cells, a key part of the immune defence of the central nervous system, and how those cells can be manipulated to mediate the effects of chronic stress.

## **Cyndi Shannon Weickert**



Professor Cyndi Shannon Weickert's research is focused on the molecular developmental neurobiology of schizophrenia. She earned a PhD in Biomedical Science at Mount Sinai School of Medicine, New York City and completed postdoctoral training at the National Institute of Mental Health rising to the level of Unit Chief of Molecules in the Neurobiology and Development of Schizophrenia Unit. Her awards include the Eli Lilly Young Investigator Award, NIH Fellows Award for Research Excellence, Independent Investigator Award and two Young Investigator Awards from NARSD. She has lectured throughout the world and contributed to over 150 publications.