

## FOUNDATION GRANTS – 2016

### BRAIN SCIENCES RESEARCH: PSYCHIATRY AND NEUROLOGY

**Dr Hana Burianova**

The University of Queensland

*Identifying biomarkers of preclinical degeneration*

**Dr Trevor Chong**

Monash University

*The objective quantification and treatment of cognitive fatigue in Parkinson's disease: A novel neurocomputational approach*

**Dr Erin Cvejic**

University of New South Wales

*Sleeping, but your heart's not in it: Heart rate variability during slow wave sleep in chronic fatigue syndrome.*

**Dr Jean Giacomotto**

Queensland Brain Institute

*Using the Zebrafish to fight psychiatric disorders. From proof-of-principle to new insights and treatments*

**Dr Erin Godecke**

Edith Cowan University

*Prediction of language outcome after stroke using clinically available acute brain imaging*

**Dr Mark Graham**

Children's Medical Research Institute

*Phosphoproteomic profiling of activity-dependent presynaptic signalling*

**Dr Luke Johnson**

Translational Research Institute

*Novel pharmacological strategies to alleviate and treat PTSD*

**A/Prof Tim Karl**

University of Western Sydney

*To gain a deeper understanding of the molecular origins of dementia and to develop new therapeutic compounds*

**Dr Huazheng Liang**

Neuroscience Research Australia

*Brain control over the spinal cord during voluntary movement: a study using CLARITY/CUBIC technique*

**Dr Ashleigh Lin**

Telethon Kids Institute

*Understanding neurobiological markers for schizophrenia and autism to support diagnosis and treatment of these disorders*

**Prof Ingrid Scheffer**

The University of Melbourne

*Gene Discovery in Families with High-Functioning Autism Spectrum Disorder*

**Dr Daniel Scott**

The Florey Institute of Neuroscience and Mental Health

*Establishment of a structure-based drug discovery platform*

**Dr Bridgette Semple**

The University of Melbourne

*Slice electrophysiology to investigate acquired epilepsy after paediatric traumatic brain injury*

**Dr Janette Tong**

Monash University

*Developing a patho-physiological model for ADHD*

**Dr Tamsyn Van Rheenen**

University of Melbourne

*Understanding brain structural and functional contributions to emotion processing in bipolar disorder*

**ENDOCRINOLOGY AND DIABETES**

**Dr Ria Arnold**

University of New South Wales

*Investigating the effect of glucose variability on the nervous system in diabetes*

**Dr Tara Brennan-Speranza**

University of Sydney

*Identifying the cellular and structural basis for skeletal fragility in Type 2 Diabetes*

**Prof Maria Craig**

The Children's Hospital at Westmead; University of New South Wales; Prince of Wales Hospital

*Virome detection during pregnancy and early life of Australian infants at risk of developing type 1 diabetes using Next Generation Sequencing*

**Assoc. Prof. Rachel Davey**

The University of Melbourne

*The action of the hormone, calcitonin, to regulate bone formation.*

**Prof Peter Fuller**

Hudson Institute of Medical Research

*Mechanisms of hormone action through nuclear receptors and TGFbeta superfamily*

**Assoc. Prof. Mark Gorrell**

Centenary Institute

*Developing an improved therapy for type 2 diabetes*

**Assoc. Prof. Martha Lappas**

The University of Melbourne

*Dietary phytochemicals as novel therapeutics to prevent gestational diabetes*

**Dr Ruth Meex**

Monash University

*Identification of a novel liver-secreted factor that improves glucose metabolism*

**Prof Kerry-Anne Rye**

University of New South Wales

*Preservation of Pancreatic Beta Cells in Type 2 Diabetes Mellitus by High Density Lipoproteins*

**Prof Ann Simpson**

University of Technology Sydney

*Rapid isolation and purification of nucleic acids and proteins from engineered liver cells*

**Assoc. Prof. Emmanuel Stamatakis**

University of Sydney

*The metabolic benefits of increased physical activity and reduced sedentary behaviour in the office-based workplace*

**Dr Aaron Sverdlow**

The University of Adelaide

*Metabolic heart disease: markers and mechanisms*

**Dr Charmaine Tam**

The University of Sydney

*Does yo-yo dieting have detrimental effects on whole-body and fat tissue metabolism?*

**GERIATRICS**

**Prof Derek Hart**

ANZAC Research Institute

*The compelling need for new therapeutic antibodies targeting acute myeloid leukaemia*

**Dr Rosetta Martiniello-Wilks**

University of Technology Sydney

*Transcriptome Interrogation of Stem Cell-Based Gene Therapy for Osteoporosis*

**Dr Kylie Quinn**

University of Melbourne

*Finding Fuel for Aged Killer T cells*

**Dr Ann-Maree Vallence**

Murdoch University  
*Strengthening functional connectivity in the aging brain to improve voluntary movement*

**Prof Hala Zreiqat**  
University of Sydney  
*Novel 3D printed scaffolds for intervertebral fusion*

## **LUNG DISEASE (OTHER THAN CANCER)**

**Dr Jane Bourke**  
Biomedicine Discovery Institute, Monash University  
*Improving lung health for life in preterm babies*

**Prof Warwick Britton**  
Centenary Institute  
*Imaging Mycobacterium tuberculosis-specific tissue resident memory T cells in the lung*

**Assoc. Prof. Timothy Cole**  
Monash University  
*Analysis of Novel Selective Steroid Compounds for Treating Respiratory Distress Syndrome in Preterm Babies*

**Dr Emmanuelle Fantino**  
University of Queensland  
*Linking childhood asthma and obesity through macrophages*

**Dr Joanna Groom**  
The Walter and Eliza Hall Institute of Medical Research  
*Harnessing T cell responses for development of a universal influenza vaccine*

**Assoc. Prof Peter Middleton**  
Westmead Millennium Institute, Sydney Medical School  
*Rapid screening of breath samples for detection of cystic fibrosis lung disease*

**Assoc. Prof. John Miles**  
QIMR Berghofer Medical Research Institute  
*Understanding immune dysfunction in mycobacterial infection*

**Dr Samantha Passey**  
RMIT University  
*Can antioxidant therapy to reduce oxidative stress in COPD improve lung disease and muscle function?*

## **RHEUMATOLOGY**

**Dr Michelle Hall**  
University of Melbourne  
*Targeted effect of neuromuscular and quadriceps strengthening exercise on knee joint structure for knee osteoarthritis: a pilot study*

**Prof P Mark Hogarth**

Burnet Institute

*Developing novel therapeutics to target a new pathway in rheumatoid arthritis*

**Prof Nicholas Manolios**

Westmead Hospital; University of Sydney

*Determining the scope of action of a novel immunomodulatory peptide*

**VISIONS SCIENCES**

**Dr Samantha Dando**

Monash University

*Are there functional antigen presenting cells in the mouse retina and brain?*

**Assoc. Prof. Anandwardhan Hardikar**

University of Sydney

*DETECT Study: Diagnosing Early for (sight) Threatening Eye Complications*

**Prof Michael Ibbotson**

Australian College of Optometry

*Creating The Next Generation of Bionic Eyes*

**Prof Kathryn Rose**

University of Technology Sydney

*Prevention of myopia in school-age children*