**Symposium 1: Airway inflammation & remodelling**

**Dr Christine Keenan, The University of Melbourne**

Dr Christine Keenan is an Early Career Researcher in the Department of Pharmacology and Therapeutics, University of Melbourne. She completed her PhD in 2014 examining the molecular mechanisms of epithelial steroid resistance in severe asthma. She has a particular interest in the pleiotropic roles of transforming growth factor-β in promoting fibrosis, immunosuppression, and steroid resistance in the airways. Her ongoing research is aimed at developing novel approaches to treat chronic inflammation and fibrosis, either through restoring sensitivity to steroid therapy, or through developing novel anti-fibrotic and anti-inflammatory drugs.

**A/Prof Ross Vlahos, RMIT University**

Associate Professor Ross Vlahos is a Principal Research Fellow and Head of the Respiratory Research Group in the School of Health Sciences, RMIT University. His research aims to identify novel strategies for the prevention and treatment of COPD and its co-morbidities with a focus on the cellular and molecular pathways that underpin cigarette smoke-induced lung inflammation and damage. Ross has co-authored more than 75 publications in peer reviewed journals, has had continuous NHMRC funding since 2001 and has played a major role in commercially funded work that has confidentiality/patent agreements. He has served on NHMRC Grant Review Panels, various conference committees and Chaired sessions at international meetings.

**Dr Graham McKay, The University of Melbourne**

Graham Mackay is a Senior Lecturer in the Department of Pharmacology and Therapeutics at The University of Melbourne. He studied Pharmacology in the UK at both The University of Glasgow and University College London. He then completed postdoctoral training at Kings College London, UK and at The University of New Mexico, USA, before moving to Australia. His main areas of research interest are in allergic inflammatory disease and in better understanding what mast cells do and how their activity can be controlled. He teaches broadly in the discipline of Pharmacology to both undergraduate and postgraduate students.

**Prof Reynold Panettieri, Rutgers University, USA**

Reynold A. Panettieri, Jr., MD, received his medical degree from the University of Pennsylvania, where he also completed his internship and residency. After 20 years as director of the comprehensive asthma program at the University of Pennsylvania Health System, Dr. Panettieri has transitioned to Rutgers University is now the inaugural director of the Rutgers Institute for Translational Medicine and Science, Professor of Medicine and Vice Chancellor for Translational Medicine and Science. Dr. Panettieri is widely published with over 400 peer-reviewed articles and is currently the principal investigator or co-investigator of National Institutes of Health and extramural grants totaling 12 million dollars. He is a member of American Society of Clinical Investigation and the Association of American Physicians. His interests range from cellular/molecular mechanisms and cytosolic signaling pathways to comprehensive clinical programs for the care of patients with asthma and COPD.
Symposium 2: Therapeutic targeting of exposure and effect in oncology

Prof Gerd Mikus, Heidelberg University, Germany

Gerd received his degrees in Physics (MSc) and Medicine (MD) from the University of Bonn, Germany. He has worked as a clinical pharmacology researcher in institutes (IKP, Stuttgart), universities (Adelaide, Basle) and university hospitals (Heidelberg, Basle). In 1999, Gerd moved to the University of Heidelberg to become the head of the Department’s Clinical Research Unit (KiiPS). Since then he has conducted more than 80 clinical trials as principle investigator and more than ten first-in-human studies have been successfully carried out in patients and volunteers since 2007. He is a member of the Executive Editorial Board of the British Journal of Clinical Pharmacology. He is an active member of several societies, also a long term member and now deputy head of the Ethics Committee of the State Chamber of Physicians (Baden-Württemberg).

A/Prof Michael Sorich, Flinders University

Dr Sorich is a pharmacist, clinical epidemiologist and biostatistician with a primary interest in precision medicine and evidence-based medicine. His current research aims to develop and evaluate evidence supporting the use of clinical and biological markers to better guide the use of medicines used to treat cancer, rheumatic, and cardiovascular disorders. This involves working as part of a collaborative and multidisciplinary research team with a view to promoting clinical translation of research findings where applicable. He is currently employed as an Associate Professor in Pharmacology at the School of Medicine, Flinders University.

A/Prof Richard Upton, University of South Australia

Richard Upton is a pharmacometric consultant to industry and Professor of Pharmacometrics at the University of South Australia. His primary interest is the use of modelling and simulation approaches to improve the development, regulation and use of pharmaceuticals, with experience in therapeutic areas including anesthesia, analgesia, rheumatoid arthritis, cancer and inflammatory bowel diseases. More recently, he has worked on using web applications to present model results to clinicians in real time, including Bayes updating of models with patient data. He lives in Adelaide, South Australia.

Dr Daniel Barratt, University of Adelaide

Dr Barratt completed his PhD at the University of Adelaide in 2010. Together with Prof Andrew Somogyi and Dr Janet Coller, he is a leader in the Clinical Pharmacogenomics and Drug Metabolism and Pharmacokinetics Laboratories of the Discipline of Pharmacology, and is a member of the Centre for Personalised Cancer Medicine, of the University of Adelaide. He is currently a NHMRC Postdoctoral Research Officer investigating personalised medicines for Aboriginal people with Prof Somogyi. In addition, he leads research integrating clinical and experimental pharmacokinetics, pharmacogenomics and drug resistance markers, for the personalised dosing of tyrosine kinase inhibitors. He also collaborates on international projects investigating the clinical pharmacogenetics of opioid pharmacokinetics, and the neuroimmune genetics of pain and analgesia.
Symposium 3: Calcium permeable ion channels: links to GPCRs, drug toxicity pathways and disease

Prof Masamitsu Iino, The University of Tokyo, Japan

Dr. Masamitsu Iino is Project Professor at Nihon University School of Medicine as well as Professor Emeritus of The University of Tokyo. He serves as Second Vice President of IUPHAR and Secretary General of the 18th World Congress of Basic and Clinical Pharmacology to be held in Kyoto in July 2018. He has been studying the mechanism of intracellular Ca\textsuperscript{2+} signaling, which is one of the important biosignals regulating numerous cell functions. His discovery, regenerativity of intracellular Ca\textsuperscript{2+} mobilization, is fundamental to the versatility of Ca\textsuperscript{2+} signals. He is now trying to identify new (patho)physiological cell functions that are regulated by Ca\textsuperscript{2+} signals in the brain, using cuttingedge methods including Ca\textsuperscript{2+} imaging in living animals.

A/Prof Grigori Rychkov, The University of Adelaide

Grigori Rychkov obtained his PhD in Neuroscience and Biophysics at Armenian Academy of Science. In 1994 Dr Rychkov immigrated to Australia and started a post-doctoral position in University of South Australia investigating skeletal muscle Cl\textsuperscript{-} channels. In 2002 he was awarded ARC Research Fellowship and in 2007 NHMRC Senior Research Fellowship. Currently, A/Prof Rychkov is the leader of Ion Channels/Liver Metabolism Research Group in School of Medicine in University of Adelaide. His research is focused on defining the basic molecular mechanisms that control the store-operated and the TRP channels in non-excitable cells and excitable cells, establishing their roles in generating responses to hormones and neurotransmitters, oxygen sensing and mechanosensation.

Prof Peter McIntyre, RMIT University

Peter McIntyre is a molecular pharmacologist in the School of Health and Biomedical Sciences at RMIT University. He studies the molecular receptors of physical and chemical stimuli, particularly Transient Receptor Potential (TRP) ion channels. He has experience in both academic and industrial sectors, where his team identified and characterized TRPV3, TRPM8 and TRPA1, and he directed the Novartis TRPV1 antagonist discovery program. He published the first account of analgesic activity of a TRPV1 antagonist in animal models of chronic inflammatory and neuropathic pain. His current research focus is on signaling pathways that sensitize and open TRP channels.

Dr Iman Azimi, The University of Queensland

Dr. Iman Azimi obtained his PhD in 2011 from The Lowry Cancer Research Centre, The University of New South Wales, where he worked on the role of allosteric disulfide bonds on the function of HIV coat protein during HIV entry. After completion of his PhD, Dr Azimi pursued postdoctoral studies in the laboratory of Prof. Gregory Monteith and Prof. Sarah Roberts-Thomson at the School of Pharmacy, the University of Queensland. His research is mainly focused on the role of calcium signalling and oxidative stress in epithelial-mesenchymal transition (EMT) in breast cancer cells using hypoxia and growth factor models of EMT. Dr Azimi is also undertaking research for the development of monoclonal antibodies and small molecule regulators of a protein involved in breast cancer.
Symposium 4: ISN Symposium on translational neuroscience of GPCRs

Prof P. Jeffrey Conn, Vanderbilt University, USA
Dr. Conn is the Lee E. Limbird Professor of Pharmacology at Vanderbilt University and Director of the Vanderbilt Center for Neuroscience Drug Discovery (VCNDD). He received the Ph.D. from Vanderbilt and postdoctoral training at Yale University before joining the faculty at Emory University in 1988. He served as head of the Department of Neuroscience at Merck and Company from 2000 – 2003 then moved to Vanderbilt as the founding director of the VCNDD. Dr. Conn’s research is focused on understanding pathophysiology changes that contribute to brain disorders, and using this understanding to develop novel therapeutic strategies.

Prof Anissa Abi-Dargham, Columbia University, USA
Anissa Abi-Dargham, MD, is Professor of Psychiatry and Vice Chair for research at Stony Brook University. Most of her career has focused on the development of tools to image neurochemical alterations in the brains of patients with schizophrenia and addictions. This research has resulted in findings describing the complex alterations of dopamine transmission in schizophrenia and their relationship to clinical symptoms, cognition and response to treatment, as well as their interrelatedness to glutamate dysfunction. More recently she has expanded the work in her Division into multimodal imaging by building a multidisciplinary team with expertise in neurocomputational and neurocognitive disciplines to examine the functional impact of altered dopaminergic signaling on basic cognitive processes. She has received funding from NIMH, NIDA and NIAAA, as well as NARSAD, Lilly, BMS, GSK, Forest, Pierre-Fabre. She has over 160 publications and is recognized internationally as an expert in the area of Imaging and Psychopharmacology.

Prof Stan Skafidas, The University of Melbourne
Professor Stan Skafidas, is the inaugural Clifford Chair of Neural Engineering and leads the Centre for Neural Engineering at the University of Melbourne. Professor Skafidas’ current research is focused on brain in a dish systems, and new ways to interface, interrogate and understand complex neuronal systems from molecule to complex brain structures. Professor Skafidas received a PhD from The University of Melbourne in 1997. He was Chief Technology Officer at Bandspeed (1998-2004), a company he co-founded, which designs and manufactures semiconductor products for enterprise class wireless systems. At Bandspeed, Professor Skafidas co-invented Adaptive Frequency Hopping – an important standard component in Bluetooth devices. In 2008 a team led by Professor Skafidas developed the world’s first completely integrated 60GHz transceiver on CMOS. The technology and products based on this technology have been the recipient of multiple industry awards, including the 2015 CES Innovation award. Professor Skafidas joined the University of Melbourne in 2010, and in 2012 he was elected as Fellow to the Australian Academy of Technological Sciences and Engineering (ATSE).
Symposium 5: Inflammation: The key to much pathology

A/Prof Steven Bozinovski, RMIT University

A/Prof Bozinovski is an ARC future fellow and Head of the Airways Inflammation research group at RMIT University. His research is focused on discovering new molecular targets for the treatment of chronic lung diseases including COPD (or emphysema). A hallmark feature of COPD is persistent and damaging lung inflammation. He has driven translational research efforts involving the molecular screening of COPD patients and this work has identified the ALX/FPR2 receptor ligand, SAA as a major mediator of steroid resistant lung inflammation. His team is currently investigating the actions of alternative pro-resolving ALX/FPR2 agonists for their ability to switch off damaging inflammation in chronic and acute lung diseases.

A/Prof Brian Oliver, University of Technology Sydney

A/Prof Brian Oliver is a full time translational researcher, and leads the Molecular Pathogenesis group (Woolcock Institute, and University of Technology Sydney). His team investigates the pathophysiology and treatment of respiratory diseases. A/Prof Oliver’s scientific training began in the UK. However, his pharmacological training began during his PhD (University of Sydney - supervised by Prof Judith Black). He was then a fellow within the CRC for asthma and airways, where they discovered 3 patented drug targets for asthma. He has since had two consecutive industry NH&MCR Career Development Fellowships working alongside side Phramaxis where he has developed a deep appreciation of preclinical drug development.

Dr Lauren May, MIPS, Monash University

Dr. Lauren T. May is a mid-career researcher (PhD 2007) with expertise in the molecular pharmacology of G protein-coupled receptors (GPCRs). In 2008, Dr. May obtained a NHMRC CJ Martin Fellowship for postdoctoral research with Prof. Stephen Hill, University of Nottingham, a world leader in GPCR molecular pharmacology. In 2013, she was awarded an ARC DECRA fellowship and successfully secured 2015 NHMRC project support (CIA and CIB). Dr. May currently co-directs the ‘Cardiac G Protein-Coupled Receptor Pharmacology’ laboratory at the Monash Institute of Pharmaceutical Sciences, Monash University. Her research focuses on emerging paradigms in adenosine receptor pharmacology, such as allosterism, biased agonism and dimerisation, and their role in cardiac (patho)physiology. Dr. May has 21 peer-reviewed original research papers (e.g. Proc. Natl. Acad. Sci. USA, FASEB J. Mol. Pharmacol.), 10 invited reviews (e.g. Annu. Rev. Pharmacol. Toxicol., Pharmacol. & Ther.) and 1 book chapter. One publication is currently listed in the Thomson ISI “Highly Cited - Last 10 years” and her work is cited in the latest edition of the prestigious textbook, “Rang & Dale’s Pharmacology”.

Dr Joanne Hart, RMIT University

Dr Joanne Hart is a Senior Lecturer in Pharmacology at RMIT University. Her major research focus is to examine novel signalling mechanisms in blood vessel regulation. She is internationally recognised for her research into hydrogen sulfide (H2S) biology. Recently, her work has examined the role of H2S in the regulation of blood vessel function and its potential role in protecting the vasculature from the effects of oxidative stress. She is a long-term member of ASCEPT and is currently the Co-chair of the Cardiovascular SIG.
Symposium 6: The Legacy of Henry Krum – making clinical trials fit practice

Dr Ingrid Hopper, Alfred Hospital

Ingrid Hopper is a clinical pharmacologist at Monash University and Alfred Hospital in Melbourne. She studied medicine at Monash University, and after obtaining her FRACP, went to complete her doctoral studies in 2015 as an NHMRC postgraduate scholar under the supervision of the late Professor Henry Krum in cardiovascular therapeutics, examining the issue of polypharmacy and drug withdrawal in heart failure. In 2016 she took up a position as Head, Drug and Device Registries at the Monash University School of Public Health and Preventive Medicine, and will take up an NHMRC Early Career Fellowship in 2017. She has published widely on cardiovascular therapeutics, is principal investigator in a number of cardiovascular clinical trials, and maintains clinical and teaching commitments at the Alfred Hospital.

Assoc Prof Noel Cranswick, The University of Melbourne

Noel Cranswick is a General Paediatrician at the Royal Children’s Hospital. He is also the Director of Clinical Pharmacology and the Australian Paediatric Pharmacology Research Unit as well as an Associate Director of the Melbourne Children’s Trials Centre. He is fully trained in both paediatrics and clinical pharmacology and a legal graduate. Noel has extensive clinical trial experience in both adult and children. He has been an investigator on over 180 clinical drug trials and is familiar with early phase trial methodology and ICH GCP requirements. He has been an advisor to both Government and Industry and continues to evaluate new drug applications for the Australian Therapeutic Drugs Administration. He has also been a member of the Committee for the selection of Essential Medicines for the World Health Organisation.

Prof Danny Liew, Monash University

Professor Danny Liew is the Chair of Clinical Outcomes Research at Monash University and a consultant physician at the Alfred Hospital in Clinical Pharmacology and General Medicine. Danny’s research capacity and interests lie in epidemiology, clinical trials, health services research and health economics. His research productivity is highlighted by over 170 peer-reviewed journal articles, 7 book chapters and over $40 million in NHMRC, ARC and CRC research funding.

Prof Jennifer Martin, The University of Newcastle

Professor Jennifer Martin is Chair of Clinical Pharmacology at Newcastle University, is a dual accredited clinical pharmacologist and general physician and holds an MA in politics and economics from Oxford University. Her basic science PhD is from the AMREP facility at the Alfred Hospital (Monash University) and postdoctoral fellowship from St Vincent’s Hospital and Walter and Eliza Hall. She has held clinical and research posts in clinical pharmacology since 2000 and has had 15 years of experience on national (both Australian and New Zealand) state and local bodies in the area of pharmacovigilance, pharmacoeconomics, pharmaceutical pricing and regulation. She has also worked for Bristol Myers Squibb in the pharmacoeconomic and regulatory departments. Her recent research focuses on individualised dosing in cancer and infectious diseases.
Symposium 7: Using visualisation in pharmacology education: Right task, right response, better learning

Dr Russell Anderson, Monash University
Dr Russell Anderson is a lecturer in the School of Physics & Astronomy at Monash University. Russell understands the universe – from soap bubbles to quantum physics – by simulating it. By demonstrating live programming and interactive visualisations in undergraduate physics, Russell seeks to demystify scientific computing and impel students toward their own visualisations.

Dr Anna-Marie Babey, University of New England
Anna-Marie has a PhD from McGill University and undertook post-doctoral work with Prof Gavril Pasternak at the Memorial Sloan-Kettering Cancer Center and with Prof Ping-Yee Law at the University of Minnesota prior to joining James Cook University in Townsville QLD where she contributed to the development of the Pharmacy, Medicine, Dentistry and Veterinary Medicine degrees and the expansion of the Nursing degree to external delivery. She is currently Acting Course Coordinator for the Pharmacy program at the University of New England in Armidale NSW. Her area of research interest is the development of cellular tolerance to psychoactive drugs.

Dr Janet Coller, The University of Adelaide
Dr Janet Coller is a Senior Lecturer and co-head of the Clinical Pharmacogenomics Laboratory in the Discipline of Pharmacology, and member of the Cancer Treatment Toxicities Group, Adelaide Medical School at the University of Adelaide. Her research interests investigate the impact of patient genetics on drug response and toxicity and combines traditional pharmacogenetics with immunogenetics, with applications for therapeutics in several clinical fields including cancer treatment. As a University Research and Teaching Academic she has also conducted research into the use of e-learning tools for undergraduate courses and integrates novel teaching styles to compliment diversity of student learning.
Symposium 8: MPGPCR Beyond the bench

Prof Burns Blaxall, Cincinnati Children’s Hospital Medical Center, USA
Burns C. Blaxall, PhD, FAHA, FACC, FAPS is a Professor of Pediatrics in the Heart Institute at Cincinnati Children’s Hospital Medical Center, where he serves as Director of Translational Science and Co-Director of the Heart Institute Research Core and Biorepository. Dr. Blaxall received his PhD in Pharmacology from the University of Colorado Health Sciences Center and completed his postdoctoral fellowship at Duke University Medical Center. He has received numerous academic honors, including the Early Career Investigator Award from the American Heart Association (AHA) and the Outstanding Achievement Award from the Founder’s AHA Affiliate. He has extensive peer review service and chaired the Cardiomyopathy and Congestive Heart Failure NIH peer-review panel. His laboratory is focused on understanding the molecular signals associated with the onset and progression of heart failure and myocardial and renal fibrosis, with a particular emphasis on identifying novel therapeutic approaches.

Prof Rajesh Thakker, University of Oxford, UK
Rajesh Thakker is the May Professor of Medicine at the University of Oxford. His main research interests include the molecular basis of disorders of calcium homeostasis and he has authored over 350 publications, which have included peer-reviewed papers in the New England Journal of Medicine, Nature, Nature Genetics, Journal of Clinical Investigation and Lancet Journals. He has been the recipient of many prizes which include: the Louis V Avioli Founder's Award from the ASBMR (USA) (2009); and the Dale Medal from the Society for Endocrinology (UK) (2015). He was elected Fellow of the Royal Society (FRS) in 2014.

Prof Xinzong Dong, Johns Hopkins University School of Medicine, USA
Dr. Dong completed the Ph.D. program at UCLA and received his postdoctoral training at the California Institute of Technology. He recreated his own lab at Johns Hopkins University School of Medicine in 2004 and has made pioneer discoveries on understanding itch and pain mechanisms as well as immune cell-mediated drug toxicity. His lab has identified a family of G protein-coupled receptors, Mrgprs, as novel itch receptors and a subpopulation of nociceptors as itch-sensing neurons. In addition, his lab has generated genetic tools for classification and functional characterization of nociceptors. He has trained many successful young scientists. In his time at Hopkins he has risen to the rank of Professor in recognition of his teaching, mentorship, and research.
Symposium 9: Pharmacology of brain neurotransmission

Prof Graeme Henderson, University of Bristol, UK

Graeme Henderson is Professor of Pharmacology at the University of Bristol, Bristol UK. His research over the years has focussed on the molecular mechanisms by which opioid drugs exert their acute and chronic effects on the central nervous system. He is a past President of the British Pharmacological Society and is currently a Vice President of the International Union of Basic and Clinical Pharmacology (IUPHAR).

Dr S.J. Enna, University of Kansas Medical Center, USA

Dr. Enna is currently Associate Dean for Research and Graduate Education and Professor of Physiology and of Pharmacology at the University of Kansas Medical Center. He has authored over 300 research reports, reviews, and book chapters and authored or edited over three dozen books on topics ranging from neuropharmacology in general, to neurotransmitter receptors and GABA. A Past-President of ASPET, Dr. Enna has also served as Secretary-General and President of IUPHAR. He has received numerous awards for his research from organizations such as the NIH, ASPET, ACNP, and the PhRMA Foundation. His research interests include neuropharmacology, neurochemistry and neuropsychiatric disorders.

Dr James Barrett, Drexel University College of Medicine, USA

James E. Barrett is Professor in the Department of Pharmacology and Physiology and Founding Director of the Drug Discovery and Development Program and of the Clinical and Translational Research Institute at Drexel University College of Medicine. He received his Ph.D. from Pennsylvania State University followed by postdoctoral training in neuropsychopharmacology at the Worcester Foundation for Experimental Biology. He has been President of the Behavioral Pharmacology Society, of the American Society for Pharmacology and Experimental Therapeutics and the Association of Medical School Pharmacology Chairs. He is the recipient of the Solvay-Duphar Award for Research on Affective Disorders, the George B. Koelle Award for contributions to teaching and research, the P.B. Dews Lifetime Achievement Award for Research in Behavioral Pharmacology and the Torald Sollmann Award for significant contributions to the advancement and extension of knowledge in the field of pharmacology.

Prof Mark Hutchinson, The University of Adelaide

Professor Hutchinson is Professor within the School of Medicine at the University of Adelaide and is the Director of the ARC Centre of Excellence for Nanoscale BioPhotonics (CNBP). Professor Hutchinson returned to the University of Adelaide in 2009 as an NHMRC CJ Martin Research Fellow, and established the Neuroimmunopharmacology research laboratory. From 2005 to 2009 Mark worked in the world leading laboratory of Prof Linda Watkins in the Center for Neuroscience at the University of Colorado at Boulder. Here he pioneered with Prof Watkins the research which has led to the discovery of novel drug activity at innate immune receptors. He is now added Director of the CNBP to his roles. The CNBP is an ARC Centre of Excellence with $40M of funding committed for 7 years, headquartered at The University of Adelaide, with nodes at Macquarie University, Sydney and the RMIT, Melbourne.
Symposium 10: Role of fibrosis as a driver of, and a treatment target of, impaired cardiovascular and respiratory function

Dr Morag Young, Hudson Institute of Medical Research

Dr Morag Young completed a CJ Martin Postdoctoral Fellowship at the University of Texas Southwestern Medical Centre, USA and the Baker Institute of Medical Research and joined Prince Henry’s Institute (now the Hudson Institute) in 2002. She established the Cardiovascular Endocrinology Laboratory in 2005. Her work has redefined the role of the mineralocorticoid receptor (MR) in cardiac disease in particular and has brought about a major shift in the understanding of MR in cardiac pathophysiology and its role as a cortisol receptor. Dr Young received the Best Basic Research Paper published in Hypertension in 2009 from the American Heart Association for her work on MR actions in macrophages. She has been supported by NHMRC, NHF, Industry and philanthropic organisations and is a Senior Editor for several leading journals in the field of endocrinology.

Dr Miles De Blasio, Baker IDI Heart & Diabetes Institute

Dr Miles De Blasio is a Senior Research Officer at the Baker IDI Heart & Diabetes Institute and an Honorary Fellow of the School of BioSciences at the University of Melbourne. He completed his PhD at the University of Adelaide investigating the endocrine axes involved in development of diabetes. After a 4 year period in industry investigating ways to improve selective breeding and fetal growth of pigs by genetic manipulation for the Australian Pork Industry, Miles then moved to the University of Cambridge in the UK to investigate endocrine regulation of respiratory and cardiovascular fetal development in sheep. Miles has recently returned to Melbourne in 2014, to focus on cardiovascular physiology and treatments for diabetic cardiomyopathy using gene therapy technology and other approaches, at Baker IDI Heart & Diabetes Institute.

Dr Lauren May, MIPS, Monash University

Dr. Lauren T. May is a mid-career researcher (PhD 2007) with expertise in the molecular pharmacology of G protein-coupled receptors (GPCRs). In 2008, Dr. May obtained a NHMRC CJ Martin Fellowship for postdoctoral research with Prof. Stephen Hill, University of Nottingham, a world leader in GPCR molecular pharmacology. In 2013, she was awarded an ARC DECRA fellowship and successfully secured 2015 NHMRC project support (CIA and CIB). Dr. May currently co-directs the ‘Cardiac G Protein-Coupled Receptor Pharmacology’ laboratory at the Monash Institute of Pharmaceutical Sciences, Monash University. Her research focuses on emerging paradigms in adenosine receptor pharmacology, such as allosterism, biased agonism and dimerisation, and their role in cardiac (patho)physiology. Dr. May has 21 peer-reviewed original research papers (e.g. Proc. Natl. Acad. Sci. USA, FASEB J, Mol. Pharmacol.).

Dr Jane Bourke, Monash University

Dr Jane Bourke is Senior Lecturer in Pharmacology at Monash University, where she leads the Respiratory Pharmacology Group. Jane’s research focuses on identify improved therapeutic strategies in chronic lung diseases. She has unique expertise in Australia with an innovative technique in which changes in intrapulmonary airway and artery lumen area and calcium signalling can be visualized in situ in lung slices. With numerous local and international collaborators, she has applied this approach in preclinical studies in mouse models of asthma, COPD, infection and bronchopulmonary dysplasia to study disease mechanisms and test novel therapeutic interventions.
**Symposium 10: Role of fibrosis as a driver of, and a treatment target of, impaired cardiovascular and respiratory function (continued)**

**Prof Philip Hansbro, The University of Newcastle; Hunter Medical Research Institute**

Professor Hansbro is chair in immunology and microbiology, and an NHMRC Principal Research Fellow at the Hunter Medical Research Institute and University of Newcastle, Australia. He is Associate Director of the Priority Research Centre for Lung Health there. He has established research programs in COPD, asthma and infection. His group has developed several novel mouse models of the important diseases (COPD, severe, steroid-insensitive asthma, early life infection & lung cancer). He has interrogated them (immune, histological, pathological, lung function & molecular analysis) to further our understanding of pathogenesis and develop novel therapies. He performs complimentary collaborative clinical and multi-disciplinary studies and collaborates widely. He publishes extensively (~160 pubs) in influential journals and is regularly invited to present internationally including as plenary and to chair sessions. He has a substantial funding record of obtaining nationally competitive grant that support his group. He undertakes substantial mentoring and supervision activities of junior researchers, regularly sits on grant review panels and is on the editorial board of 3 journals. He is an active advocate for respiratory research in lobby groups and is regularly in the press promoting research and funding.
Symposium 11: Evaluation and management of polypharmacy in older adults with multimorbidity and geriatric syndromes

Prof Darrell Abernethy, Johns Hopkins University School of Medicine; Food and Drug Administration, USA

Dr. Darrell R. Abernethy, M.D., Ph.D. is the lead for the biosimilars program in the Office of Clinical Pharmacology. In addition he is responsible for leading the development of a pharmacological mechanism based safety program in the Office of Clinical Pharmacology to work in synergy with efforts in the Office of Surveillance and Epidemiology and other Offices and Centers at FDA. Dr. Abernethy brings more than 25 years of experience in medicine and pharmacology, including positions in academia, practice and research. Prior to joining FDA he served as Chief Science Officer at USP. Dr. Abernethy earned his M.D. and Ph.D. from the University of Kansas School of Medicine in 1976. In addition to his work at FDA, he is currently a professor of medicine (geriatrics) and of pharmacology and molecular science (part–time) at the Johns Hopkins University School of Medicine.

Prof Petra Thuermann, University Witten; HELIOS University Hospital Wuppertal, Germany

Petra A. Thürmann is Director of the Philipp Klee-Institute of Clinical Pharmacology, Helios Klinikum Wuppertal in Wuppertal, Germany and also Chair of the Department of Clinical Pharmacology at the University of Witten/Herdecke. After Studies of Medicine at the Johann Wolfgang Goethe-University in Frankfurt/Main she received a board certified specialist’s degree in Clinical Pharmacology in 1992 and PhD (Habilitation) in 1997. 1997 appointment in Wuppertal and 1998 at the University of Witten/Herdecke. Member of the Advisory Council on the Assessment of Developments in the Health Care System and Treasurer of the International Union of Basic and Clinical Pharmacology (IUPHAR).

Prof David Le Couteur, The University of Sydney; Concord Hospital

Professor David Le Couteur is a clinical pharmacologist and geriatrician. His basic research focusses on aging biology and the aging liver and his clinical research focusses on multimorbidity, polypharmacy and deprescribing. For his contributions to geriatric pharmacology, he has been awarded the ASCEPT Rand Medal, Officer of the Order of Australia and the ASCPT William B Abrams award.

Prof Sarah Hilmer, Royal North Shore Hospital; The University of Sydney

Sarah Hilmer (MBBS FRACP PhD) is Head of Department of Clinical Pharmacology and Senior Staff Specialist in Aged Care at Royal North Shore Hospital and conjoint Professor of Geriatric Pharmacology at the University of Sydney. She leads a program of translational research in ageing and pharmacology at the Kolling Institute of Medical Research. She chairs the Geriatric Pharmacology Sub-Committee of the Clinical Division of the International Union of Basic and Clinical Pharmacology, chairs the Editorial Committee of NSW Therapeutics Advisory Group, and serves on the Economic Sub-Committee of the Pharmaceutical Benefits Advisory Committee. Her clinical, research and policy work all aim to optimise use of and outcomes from medicines for older people.
Symposium 12: MPGPCR: Cardio-metabolic disease

Assoc Prof Rebecca Ritchie, Baker IDI Heart & Diabetes Institute

A/Prof Rebecca Ritchie is Head of Heart Failure Pharmacology at Baker IDI Heart and Diabetes Institute in Melbourne. She holds an NHMRC Senior Research Fellowship, and an adjunct appointment at the Department of Medicine of Monash University. A/Prof Ritchie is internationally-recognised for her contributions to cardiac pharmacology, particularly with respect to understanding the causes of heart failure, and identifying new drug strategies for delaying or arresting its progression. Her research is aimed at achieving therapeutic breakthroughs for preserving myocardial function in response to diabetes, myocardial infarction and other causes of adverse cardiac remodelling.

Prof Laurence Miller, Mayo Clinic, USA

Laurence J. Miller, M.D. is Professor of Medicine, Biochemistry/Molecular Biology, and Pharmacology at Mayo Clinic College of Medicine, with a clinical appointment in Gastroenterology at Mayo Clinic Arizona, and Adjunct Professor in Drug Discovery Biology at Monash Institute of Pharmaceutical Science. He trained at Thomas Jefferson University School of Medicine and Mayo Graduate School of Medicine, with post-doctoral training in Cell Biology at Yale University. His investigative interests are in Gastrointestinal Endocrinology, with focus on GPCR structure, function, and regulation, and management of obesity and metabolic disease. Dr. Miller’s most novel contributions utilize photochemical and fluorescent approaches to the molecular basis of ligand-receptor interaction, receptor activation, and receptor regulation, with relevance to the rational design of receptor-active drugs.

Dr Francis Willard, Eli Lilly and Company, USA

Francis S. Willard is a Principal Research Scientist at Eli Lilly and Company, Indianapolis, USA. Dr. Willard runs a preclinical drug discovery research laboratory with a strong focus on using pharmacology to discover novel therapeutics for diabetes. Francis earned a B.Sc. in Physiology at Victoria University, Wellington, New Zealand. He went on to complete a Ph.D. in Neuroscience at the Australian National University, then served as a Postdoctoral Fellow and Research Assistant Professor in the Department of Pharmacology at the University of North Carolina at Chapel Hill. Dr. Willard has contributed to the scientific literature with over 70 peer reviewed publications.
**MPGPCR invited ECR session**

**Dr Karen Gregory, Monash University**

Dr. Karen Gregory is an early career researcher (PhD, 2009) with a strong expertise in the pharmacology of G protein-coupled receptors (GPCRs), having established an international profile in the study of GPCR allosteric modulation and stimulus-bias. Together with Dr. Leach, she leads the Class C GPCR Biology laboratory in the Drug Discovery Biology theme at Monash Institute of Pharmaceutical Sciences. Her research focuses on metabotropic glutamate receptor 5, a promising therapeutic target for a variety of CNS disorders including schizophrenia, depression, autism and Alzheimer’s disease. She has authored 26 original research articles, 5 invited reviews and 8 book chapters.

**Dr David Thal, Monash University**

David Thal grew up in Texas, and received his B.S. in biochemistry from the University of Texas (2005). He received his Ph.D. in chemical biology from the University of Michigan (2010) under John Tesmer developing small molecule inhibitors of G protein coupled receptor kinases. He then moved to Melbourne to work as a post-doctoral fellow with Arthur Christopoulos and Patrick Sexton at Monash University. He spent a year in the lab of Brian Kobilka at Stanford University (2013), and is currently a post-doctoral fellow at Monash University researching structure and dynamics of muscarinic acetylcholine receptors.

**Dr Nicola Smith, Victor Chang Cardiac Research Institute; University of New South Wales**

Dr Nicola J. Smith is passionate about all things G protein-coupled receptor – the largest family of membrane proteins in the human genome. Nicola completed her undergraduate training in pharmacology and biochemistry at the University of Melbourne in 2002 (first class Honours) before commencing a PhD at the Baker Heart Research Institute with Profs Walter Thomas and Ross Hannan, where she studied the role of EGFR transactivation by the angiotensin II receptor in left ventricular hypertrophy (Uni Melb, 2003-7). In 2006, Nicola was awarded a joint NHMRC/NHF CJ Martin Overseas Fellowship to work in the laboratory of Prof Graeme Milligan, a world expert on G protein-coupled receptors (University of Glasgow, 2007-2011). In early 2011, Nicola returned to the Victor Chang Cardiac Research Institute to join the laboratory of Prof Robert Graham, a leader in the role of G protein-coupled receptors in cardiac physiology and pathophysiology, where she established a research program based upon orphan, or un-ligated, receptors (2011-2014).

**Dr Stephanie Simonds, Monash University**

Stephanie Simonds is a NHMRC early career fellow/ National Heart foundation of Australia postdoctoral fellow and member of the neurophysiology lab in the department of physiology Monash University. Stephanie conducted PhD research within this lab, examining the cause of cardiovascular disease development in obesity. She examined the role of the fat derived hormone, leptin in the development of hypertension in obesity, discovering that leptin acting on neurons in the Dorso Medial hypothalamic region of the brain contributed to the development of hypertension in obesity. Steph is currently continuing to research on the impact of obesity on cardiovascular diseases, additionally Stephanie is examining the role of obesity on the development of diabetes. Research present in this seminar will include new finding into how the leptin signalling pathways can be manipulated in obesity to act as protection against the development of hypertension following high fat feeding.
Dr A. J. Venkatakrishnan, Stanford University, USA

A. J. Venkatakrishnan completed his B.Tech in bioinformatics from VIT University (Tamil Nadu, India) in 2009. He completed his Ph.D. in biological sciences (focusing on computational biology) as a St. Johns College Benefactor Scholar and an LMB-Cambridge International Scholar from the University of Cambridge and the MRC Laboratory of Molecular Biology (Cambridge, UK) in 2013. His Ph.D. was advised primarily by Dr. M. Madan Babu and co-advised by Prof. Gebhard Schertler. He then worked as an investigator scientist at the MRC Laboratory of Molecular Biology supported by an MRC Early Career Award. Presently, he is a postdoctoral researcher at Stanford University (Stanford, CA) working jointly with Profs. Ron Dror and Brian Kobilka. His research interests are focused on the structure, dynamics, and design of G protein-coupled receptors.

Dr Bryony Winters, The University of Sydney

Bryony is a postdoctoral research associate in the Pain Management Research Institute at the University of Sydney. She completed her PhD at Bristol University (UK) and moved to the University of Sydney in 2013 to start her postdoctoral training at SOMS (Pharmacology). Initially, this was focused on understanding the role of endogenous opioids in amygdala/fear circuitry. Having recently changed positions, she is now working on researching the pharmaceutical potential of cannabinoids for the treatment of Chronic Pain and Epilepsy. Bryony’s key interests are synaptic physiology, receptor signaling and related neurological disorders.
Symposium 13: Safe prescribing: now and the future

Dr Arunima Jain, The Canberra Hospital
Dr Arunima Jain is currently a Junior Medical Officer at The Canberra Hospital. She completed her Doctor of Medicine and Surgery with Distinction at the Australian National University where she developed a keen interest in medical education through participation in teaching and academic committees. The experiences during her Bachelor of Science majoring in Pharmacology at the University of Melbourne and work experience at the Baker IDI Heart and Diabetes Institute have shaped her research interests in clinical pharmacology and health communication.

Prof Sarah Hilmer, Royal North Shore Hospital; The University of Sydney
Sarah Hilmer (MBBS FRACP PhD) is Head of Department of Clinical Pharmacology and Senior Staff Specialist in Aged Care at Royal North Shore Hospital and conjoint Professor of Geriatric Pharmacology at the University of Sydney. She leads a program of translational research in ageing and pharmacology at the Kolling Institute of Medical Research. She chairs the Geriatric Pharmacology Sub-Committee of the Clinical Division of the International Union of Basic and Clinical Pharmacology, chairs the Editorial Committee of NSW Therapeutics Advisory Group, and serves on the Economic Sub-Committee of the Pharmaceutical Benefits Advisory Committee. Her clinical, research and policy work all aim to optimise use of and outcomes from medicines for older people.

Dr Claire Harrison, Monash University
Dr Claire Harrison, Monash University

Assoc Prof Matt Doogue, The University of Otago, New Zealand
Matt Doogue is a physician passionate about applying Clinical Pharmacology principles to patient care. His interests include adverse drug reactions, applied pharmacokinetics and quality use of medicines. He is Chair of the Advanced Training Committee for Clinical Pharmacology of the RACP. He is leading the transition from paper to electronic prescribing in CDHB hospitals.
Symposium 14: IUPHAR and therapeutic targeting

Dr S.J. Enna, IUPHAR

Dr. Enna is currently Associate Dean for Research and Graduate Education and Professor of Physiology and of Pharmacology at the University of Kansas Medical Center. He has authored over 300 research reports, reviews, and book chapters and authored or edited over three dozen books on topics ranging from neuropharmacology in general, to neurotransmitter receptors and GABA. A Past-President of ASPET, Dr. Enna has also served as Secretary-General and President of IUPHAR. He has received numerous awards for his research from organizations such as the NIH, ASPET, ACNP, and the PhRMA Foundation. His research interests include neuropharmacology, neurochemistry and neuropsychiatric disorders.

Dr Michael Spedding, IUPHAR

Michael SPEDDING, PhD, FBPhS. Michael is secretary general, International Union of Pharmacology and President of Spedding Research Solutions (SRS, Paris). Interests: drug discovery and development (~40 compounds into preclinical research; 11 into Phase I, one to market; 3 ‘assists’ of marketed drugs); brain circuits, and how evolution, trophic factors, inflammation interact in disease. SRS runs research programs for ALS and glioblastoma. Michael lectured at Sunderland, worked at Merrell Dow in Strasbourg (calcium channels), Director of Pharmacology at Syntex, Edinburgh. Set up two research centres for Servier. H-index: 58. Competitive athlete for 54 years (>110,000 kms run).

Dr James Barrett, IUPHAR

James E. Barrett is Professor in the Department of Pharmacology and Physiology and Founding Director of the Drug Discovery and Development Program and of the Clinical and Translational Research Institute at Drexel University College of Medicine. He received his Ph.D. from Pennsylvania State University followed by postdoctoral training in neuropsychopharmacology at the Worcester Foundation for Experimental Biology. He has been President of the Behavioral Pharmacology Society, of the American Society for Pharmacology and Experimental Therapeutics and the Association of Medical School Pharmacology Chairs. He is the recipient of the Solvay-Duphar Award for Research on Affective Disorders, the George B. Koelle Award for contributions to teaching and research, the P.B. Dews Lifetime Achievement Award for Research in Behavioral Pharmacology and the Torald Sollmann Award for significant contributions to the advancement and extension of knowledge in the field of pharmacology.

Dr Bhagirath Patel, IUPHAR

Dr. Patel’s epidemiologic research studies contribute to generalizable knowledge by elucidating the causes of disease which are community based extending from demographics to socioeconomic variables extending to modifiable risk contributors like nutrition/diet/physical activity, besides disease specific variables which provide the basis for developing and evaluating health promotion and prevention procedures. His primary professional role of epidemiological research includes design and conduct of scientific research and the public health application of scientific knowledge. This includes reporting research results and maintaining and promoting health in communities through modification in nutrition and physical activity. Contribution to IUPHAR as an executive committee member will be an additional platform to commit to his work. Having worked as Executive secretary of Indian Pharmacological Society has widened his scope of research, education and administration.
Symposium 14: IUPHAR and therapeutic targeting (continued)

Dr Guanhua Du, Chinese Pharmacological Society
Guanhua Du is a professor of Pharmacology; President of the Chinese Pharmacological Society; a member of the Asia Pacific Federation of Pharmacologists Executive Committee; and Director of National Centre for Pharmaceutical Screening. Dr. Du got his Ph.D. degree from Peking Union Medical College in 1995, and conducted his postdoctoral research in University of Liege, Belgium from 1995 to 1998. Dr. Du is mainly engaged in drug discovery and development, screening methods and strategy, and drug effect and mechanism research incerebrovascular and neurodegenerative disease. He originated the national high-throughput drug screening system in China, and provided drug screening services for over 300 million numbers of samples for domestic pharmaceutical institutions or enterprises. In the recent 10 years, Dr. Du has published more than 400 papers, discovered more than 30 monographs, and applied for more than 60 patents. He has finished preclinical research of 3 new drugs.

Dr David Webb, IUPHAR
David J. Webb, MD, DSc, FRCP, FRSE, FMedSci, is Professor of Therapeutics and Clinical Pharmacology in the BHF Centre of Research Excellence at the University of Edinburgh, where he established its Centre for Cardiovascular Science. His research on endothelial function and arterial stiffness is recognised internationally. He is a Fellow of the Royal Society of Edinburgh and UK Academy of Medical Sciences, and was awarded the SKB Silver and Lilly Gold Medals from the British Pharmacological Society (BPS) for his research and contributions to pharmacology. Dr. Webb currently serves as the BPS president and the Vice-Chair of the IUPHAR Clinical Pharmacology Division.

Prof Darrell Abernethy, IUPHAR
Dr. Darrell R. Abernethy, M.D., Ph.D. is the lead for the biosimilars program in the Office of Clinical Pharmacology. In addition he is responsible for leading the development of a pharmacological mechanism based safety program in the Office of Clinical Pharmacology to work in synergy with efforts in the Office of Surveillance and Epidemiology and other Offices and Centers at FDA. Dr. Abernethy brings more than 25 years of experience in medicine and pharmacology, including positions in academia, practice and research. Prior to joining FDA he served as Chief Science Officer at USP. Dr. Abernethy earned his M.D. and Ph.D. from the University of Kansas School of Medicine in 1976. In addition to his work at FDA, he is currently a professor of medicine (geriatrics) and of pharmacology and molecular science (part–time) at the Johns Hopkins University School of Medicine.
Symposium 15: Ion channel function and dysfunction in the vascular, and gastrointestinal and urogenital tracts

Dr Paul Bertrand, RMIT University
Paul P Bertrand joined RMIT University as a senior lecturer in 2013. He is known internationally as an expert on the neuronal control of the gut. He received his PhD in Pharmacology/Toxicology from Michigan State University in 1994 and was awarded an NIH postdoc at the University of Melbourne. He established his independence with an RD Wright Fellowship in 2000 before moving to UNSW in 2008. His main research interests are in improving the diagnosis and treatment of bowel disorders and dysfunction by examining the gut-brain axis and the regulation of gut hormones such as serotonin.

Assoc Prof Stuart Brierley, Flinders University; South Australian Health and Medical Research Institute
A/Prof Stuart Brierley is an NHMRC R.D Wright Biomedical Fellow at Flinders University. He is head of the Visceral Pain Research Group, located at the South Australian Health and Medical Research Institute (SAHMRI). A/Prof Brierley is an international authority on the different afferent classes innervating the gut, the receptors/channels underlying their function, the interaction of these receptors/channels with inflammatory mediators, and how this changes in acute and chronic pain. A/Prof Brierley has a proven track record in coordinating multi-faceted research programs for high-impact publications in journal such as Nature, Nature Communications, Nature Reviews Gastroenterology and Hepatology, Gastroenterology, Gut, Pain and The Journal of Neuroscience.

Dr Marianne Tare, Monash University
Marianne Tare is a physiology lecturer at Monash Rural Health, Churchill, a Research Fellow in the Department of Physiology, Monash University, and President of the Australian and New Zealand Microcirculation Society. Her research focus is on the mechanisms that regulate the function of resistance arteries in health and disease. She also has a keen interest in the area of the developmental origins of health and disease where she investigates the mechanisms responsible for vascular dysfunction in models of early life insult ranging from nutritional deficiencies through to substance abuse.

Dr Tim Murphy, University of New South Wales
Dr Tim Murphy is a Senior Lecturer in Physiology at UNSW and a biomedical scientist with an interest in microvascular research. His particular focus is resistance artery function, their response to mechanical forces and functional artery changes in obesity and diabetes. Tim completed his PhD studies in the Pharmacology Dept. at the University of Melbourne. He was a Wellcome Trust (UK) Research Fellow at the Universities of Southampton and Bristol (1991-4) and NH&MRC Research Officer at Prince Henry's Institute, Monash University and later at RMIT University, both in Melbourne. He was Scientific Officer at RMIT Drug Discovery Technologies, a CRO, before commencing his current appointment at UNSW in 2005.
Symposium 16: MPGPCR Molecular neuroscience

Asst Prof Gregory Scherrer, Stanford University, USA

Dr. Scherrer received his PhD in cellular and molecular biology from the University of Strasbourg, France, in 2005. He then completed postdoctoral trainings at UCSF and Columbia University, studying the neurobiology of pain, and the physiology of the spinal cord dorsal horn, respectively. In 2012, Dr. Scherrer joined the faculty at Stanford University School of Medicine. His laboratory investigates the organization of the neural circuits and the molecular mechanisms underlying pain perception and opioid analgesia, combining mouse genetics, electrophysiology and optogenetics, with in vivo imaging and behavioral analysis.

Prof Karen O'Malley, Washington University School of Medicine, USA

Karen L O'Malley, Professor of Neuroscience at Washington University School of Medicine in St. Louis, has worked on glutamatergic systems for over 20 years. Her lab was the first to show that metabotropic glutamate receptor, mGlu5, is a disulfide-linked dimer. She then showed that CNS mGlu5 is primarily inside the cell on nuclear and ER membranes. Subsequent studies found that intracellular mGlu5 is functional with signaling cascades distinct from cell surface mGlu5 responses in striatal, hippocampal, and spinal cord dorsal horn neurons. Thus, her studies underscore a major role for intracellular mGlu5 signaling and more broadly, other intracellular GPCRs.

Dr Chris Langmead, Monash University

Chris Langmead is Head of the Servier Drug Discovery Program at the Monash Institute of Pharmaceutical Sciences (MIPS); prior to this he was Head of Pharmacology at Heptares Therapeutics, a UK-based biotechnology company (2009-2012) and a neuroscience researcher at GlaxoSmithKline (1998-2009). He has a degree and PhD in pharmacology from Queens' College, Cambridge and University College London, respectively. He is an acknowledged expert in GPCR drug discovery and has led neuroscience projects for Parkinson’s, ADHD, schizophrenia, sleep disorders and Alzheimer’s disease into late stage preclinical and early clinical development. Chris is also a Fellow of the British Pharmacological Society.
Symposium 17: MPGPCR Novel insights into structure and signalling

Dr Dmitry Veprintsev, Paul Scherrer Institute, Switzerland

Dmitry Veprintsev studied biophysics at the Lomonosov Moscow State University (MSc 1991), followed by a PhD in protein folding at the Institute of Biophysics, Puschino, Russia and Ohio State University, USA (1998). He joined Sir Alan Fersht at the MRC Centre for Protein Engineering, Cambridge, UK as Human Frontier Postdoctoral fellow in 1999, later becoming a staff scientist, to study the structure and function of the tumour suppressor p53. In 2007, he joined the MRC Laboratory of Molecular Biology, to study other tumour associated transcription factors. In 2010, he moved to the Paul Scherer Institute, Switzerland. The current research of his group is focused on understanding the molecular basis of biased signalling in G protein coupled receptors (GPCRs), using a combination of protein engineering, biophysics, NMR and X-ray crystallography.

Dr Denise Wootten, Monash University

Dr. Denise Wootten is a Career Development Fellow of National Health and Medical Research Council of Australia, Research Fellow working at the Monash Institute of Pharmaceutical Sciences in Melbourne, Australia. Her expertise is in the study of G-protein coupled receptors (GPCRs), particularly the Class B subfamily. The principal interest of her research is directed towards understanding the modes of their regulation in an effort to identify novel approaches for drug discovery. Her research efforts encompass differential signalling, interaction of receptors with regulatory accessory proteins, allosterism and the structure and mechanism by which these GPCRs are activated. More recently her work has focused on addressing the link between in vitro pharmacology and signal transduction with the physiological effects elicited in vivo following activation of these receptors.

Dr Qing Fan, Columbia University, USA

Qing R. Fan is Associate Professor of Pharmacology and Pathology at Columbia University. She obtained her bachelor, master and doctoral degrees from Harvard University. Her graduate thesis was completed in the laboratory of late Professor Don C. Wiley. She carried out her postdoctoral training under the guidance of Professor Wayne A. Hendrickson at Columbia University. Research in her group focuses on the structural studies of G-protein-coupled receptor, with the goal of understanding the ligand-dependent activation mechanisms of these receptors. She was a Pew Scholar in Biomedical Sciences, McKnight Scholar in Neuroscience, Irma T. Hirschl Career Scientist and Schaefer Research Scholar.
Dr Irina Kufareva, University of California, San Diego, USA

Irina Kufareva received a MS in Mathematics and a Ph.D. in Computer Science in 1994 and 1999, respectively, both from Tomsk State University, Russia, and trained in computational structural biology at the Scripps Research Institute, La Jolla, CA. She is currently employed at the position of a project scientist in UCSD Skaggs School of Pharmacy, La Jolla, CA. The focus of her work is on protein-ligand complex structure prediction with the particular emphasis on chemokine receptors and other GPCRs.

Prof Beili Wu, Shanghai Institute of Materia Medica, China

Beili Wu got her Ph. D. degree at Tsinghua University, Beijing in 2006, and worked as a postdoc fellow at The Scripps Research Institute in La Jolla, California from 2007 to 2011. She is currently a Professor of Shanghai Institute of Materia Medica, Chinese Academy of Sciences. Her current research is focused on a deep understanding of the structural basis of G protein-coupled receptor signaling transduction, leading to the development of new therapeutics for severe human diseases. Dr. Wu and her group have solved the crystal structures of human chemokine receptors CXCR4 and CCR5, and purinergic receptors P2Y1R and P2Y12R. These structures provide new clues about the molecular mechanisms about the interactions between the receptors and their ligands, as well as the inhibition mechanisms of several marketed drugs.