

# ASCEPT-MPGPCR JOINT SCIENTIFIC MEETING


Melbourne Convention & Exhibition Centre

7–11 December 2014









[www.ascept-mpgpcr2014.com](http://www.ascept-mpgpcr2014.com)

## Scientific Program

**Sunday 7 December, 2014**

09:30–19:00	Registration desk open		
10:00–13:00	<b>ASCEPT Council Meeting</b>	<b>PGx Workshop (10:00 – 12:00)</b>	<b>Lipidic Cubic Phase (LCP) Workshop</b>
	Room: Clarendon Room C, Level 2	Room: Clarendon Room D, Level 2	Room: Clarendon Room E, Level 2
		<b>Chair:</b> Prof Andrew Somogyi <b>Presenters:</b> Dr Katie Leach, Monash University Prof Patrick Kwan, Royal Melbourne Hospital Assoc Prof Les Sheffield, GenesFX Health <b>Student/ECR short presentations</b> <b>Pharmacogenomics SIG AGM</b>	Asst Prof Andrew Kruse, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School  Supported by
14:00–16:00	<b>Clinical Pharmacology Workshop</b>	<b>Careers Workshop</b>	<b>Education Workshop</b>
	Room: Clarendon Room C, Level 2	Room: Clarendon Room D, Level 2	Room: Clarendon Room E, Level 2
	<b>Chair:</b> Dr Ingrid Hopper <b>Presenters:</b> Dr Tilenka Thynne, Flinders Medical Centre Assoc Prof Matt Doogue, Otago University, New Zealand Dr Joel Iedema, Redland Hospital	<b>Chair:</b> Dr Nicole Jones <b>Presenters:</b> Dr Jane Bourke, Monash University Dr Tamara Paravicini, The University of Queensland; RMIT Dr Justin Hamilton, Australian Centre for Blood Diseases Dr Michelle Halls, Monash University	<b>Chair:</b> Dr Anna-Marie Babey <b>Presenters:</b> Cindy O'Malley, RMIT University Dr David Foster, University of South Australia
16:30–17:30	<b>Opening session and plenary presentation</b>		
	Room: Clarendon Auditorium, Level 2		
	<b>Chair:</b> Assoc Prof Peter Molenaar		
17:30–19:00	<b>Therapeutic agents and drug targets: GPCRs and beyond, opportunities and challenges – 101</b>		
	Prof Daniel Hoyer, The University of Melbourne		
	<b>Welcome Reception</b>		
	Clarendon Auditorium foyer, Level 2, Melbourne Convention and Exhibition Centre		

Monday 8 December, 2014

07:00–18:00	Registration desk open		
08:30–09:30	<b>Plenary presentation: British Pharmacological Society visitor</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Assoc Prof Peter Molenaar <b>Translating G-protein coupled receptors from chemistry to clinic: Apelin and biased signalling in the cardiovascular system – 102</b> Dr Anthony Davenport, University of Cambridge, UK Sponsored by 		
09:30–10:25	<b>Morning tea with exhibitors</b> Clarendon Auditorium foyer, Level 2 Poster presentations: Drug Disposition and Response, Clinical Pharmacology, Drug Discovery, Pharmacoeconomics	Sponsored by 	<b>SIG meeting: Toxicology</b> Room: Clarendon Room B, Level 5 <b>SIG meeting: Education Forum</b> Room: Clarendon Room A, Level 5
10:30–12:30	<b>Symposium 1: Novel GPCR targets for the treatment of CVD</b> Room: Clarendon Auditorium, Level 2 <b>Chairs:</b> Dr Lauren May; Dr Tamara Paravicini <b>Orphan GPCRs in the development of cardiovascular disease – 103</b> Dr Nicola Smith, Victor Chang Cardiac Research Institute <b>Targeting protease-activated receptors for prevention of arterial thrombosis: Current and future approaches – 104</b> Dr Justin Hamilton, Monash University <b>Protecting the heart through opioid receptor activation – 105</b> Dr Jason Peart, Griffith University <b>Formyl Peptide Receptors – Novel GPCR targets for the treatment of cardiovascular diseases – 106</b> Assoc Prof Rebecca Ritchie, Baker IDI Heart and Diabetes Institute Sponsored by 	<b>Symposium 2: Prescribing for people with dementia</b> Room: Clarendon Room A, Level 5 <b>Chair:</b> Assoc Prof Simon Bell <b>The blood-brain barrier: Is it more of a barrier to CNS access in Alzheimer's disease? – 107</b> Dr Joseph Nicolazzo, Monash University <b>Prescribing considerations for people with dementia – 108</b> Assoc Prof Sarah Hilmer, University of Sydney <b>Drug use in dementia: Patterns and outcomes – 109</b> Assoc Prof Simon Bell, Monash University; Dr Danijela Gnjidic, University of Sydney <b>Patterns of drug use among people with dementia: A Nordic example – 110</b> Assoc Prof Kristina Johnell, Karolinska Institutet and Stockholm University, Sweden Supported by  <b>Ability of older people with dementia or cognitive impairment to manage medicine regimens – 111</b> Assoc Prof Susan Koch, Royal District Nursing Service	<b>Student 1 minute poster session</b> Room: Clarendon Room B, Level 5 <b>Chair:</b> Prof Dom Geraghty Student poster presenters will each give a 1 minute poster preview presentation to highlight the research to be presented in their poster. <b>Themes:</b> Education Toxicology Neuro- and Behavioural Pharmacology Drug Discovery MPGPCR
12:30–13:25	<b>Lunch with exhibitors</b> Clarendon Auditorium foyer, Level 2 Poster presentations: Drug Disposition and Response, Clinical Pharmacology, Drug Discovery, Pharmacoeconomics Sponsored by 	<b>SIG meeting: Urogenital and Gastrointestinal</b> Room: Clarendon Room B, Level 5	
13:30–15:30	<b>Symposium 3: Education symposium: Micro to macro and back again</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Dr Liz Davis <b>Reflections on teaching complex concepts – 112</b> Prof Arthur Christopoulos, Monash University <b>Teaching prescribing to undergraduate medical students – 113</b> Ms Anne Leversha, Monash University <b>Unrecognisable transparency for quality and productivity and smarter education – 114</b> Prof Hamish Coates, University of Melbourne <b>Panel discussion</b> Sponsored by 	<b>Symposium 4: Partners in crime: Regulation of cell signalling beyond GPCRs</b> Room: Clarendon Room A, Level 5 <b>Chair:</b> Dr Michelle Halls <b>The role of GPCR signalling via dual kinase receptor transactivation in cardiovascular disease – 115</b> Prof Peter Little, RMIT University <b>Angiotensin II-mediated EGFR transactivation: Identify new signalling mediators important for tissue remodelling in cardiovascular disease and cancer – 116</b> Prof Walter Thomas, The University of Queensland <b>Endosomal platforms for signaling pain – 117</b> Prof Nigel Bunnett, Monash University <b>Delineating the dynamics of mu-opioid receptor signalling and regulation – 118</b> Dr Meritxell Canals, Monash University Sponsored by 	<b>Student 1 minute poster session</b> Room: Clarendon Room B, Level 5 <b>Chair:</b> Dr Ian Musgrave Student poster presenters will each give a 1 minute poster preview presentation to highlight the research to be presented in their poster. <b>Themes:</b> Cardiovascular Inflammation/respiratory Urogenital and Gastrointestinal Pharmacogenomics Pharmacoeconomics Drug Disposition and Response Clinical Pharmacology
15:30–15:55	<b>Afternoon tea with exhibitors</b> Clarendon Auditorium foyer, Level 2 Sponsored by 	<b>SIG meeting: Cardiovascular</b> Room: Clarendon Room A, Level 5	

16:00–18:00	<b>Oral presentations 1: Drug Disposition and Response/Pharmacogenomics/Pharmacoepidemiology</b> Room: Clarendon Room A, Level 5 <b>Chair:</b> Dr David Foster	<b>Oral presentations 2: Drug Discovery</b> Room: Clarendon Room B, Level 5 <b>Chair:</b> Prof Patrick Sexton	<b>Symposium 5: ASCEPT Denis Wade Johnson &amp; Johnson New Investigators</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Assoc Prof Peter Molenaar
16:00-16:15	<b>UDP-glycosyltransferase 8 (UGT8) galactosidates bile acids and modulates FXR signalling – 123</b> Robyn Meech, Flinders University	<b>Structure-activity analysis of biased agonism at the adenosine A<sub>3</sub> receptor – 131</b> Jo-Anne Baltos, Monash University	<b>Molecular insights into metabotropic glutamate receptor allosteric modulation – 119</b> Dr Karen Gregory, Monash University  <b>Optimising medication use in people with dementia: Evidence and opportunities – 120</b> Assoc Prof Simon Bell, Monash University  <b>Novel inhibitors of glycine transporters – 121</b> Dr Jane Carland, University of Sydney
16:15-16:30	<b>Population pharmacokinetic modelling of colistin methanesulphonate and formed colistin in patients receiving intermittent haemodialysis – 124</b> Cornelia Landersdorfer, Monash University	<b>Structure of the M<sub>4</sub> muscarinic acetylcholine receptor and insights into its allosteric modulation – 132</b> David Thal, Monash University	
16:30-16:45	<b>Extremes of body size in the dosing of high-dose methotrexate chemotherapy for non-Hodgkin lymphoma – 125</b> Geeta Sandhu, The University of Queensland	<b>Ryanodine receptors: A novel target for cigarette smoking-related lung disease – 133</b> Chantal Donovan, University of Melbourne	
16:45-17:00	<b>Prostacyclin activates the IP-receptor to promote migratory behaviour in breast cancer cells that over-express cyclooxygenase-2 – 126</b> Sarah Allison, The University of Sydney	<b>A novel single chain H2 relaxin analogue causes biased signalling at the Relaxin Family Peptide Receptor 1 – 134</b> Martina Kocan, Monash University	
17:00-17:15	<b>Innate immune signalling genetics associated with cognitive dysfunction and adverse opioid effects in cancer pain patients on transdermal fentanyl – 127</b> Daniel Barratt, University of Adelaide	<b>miR-126 regulation in a mouse model of laser-induced choroidal neovascularisation – 135</b> Amy Lee, University of Melbourne	
17:15-17:30	<b>A multistate model for the role of multiple medication use and Drug Burden Index in frailty state transitions and death: The CHAMP study – 128</b> Kris Jansen, Monash University	<b>The role of the extracellular vestibule in <math>\beta</math>2 adrenoceptor orthosteric and allosteric ligand interactions – 136</b> Erica Leonar, The University of New South Wales	
17:30-17:45	<b>Prevalence of potential statin-drug interactions in frail and robust older inpatients – 129</b> Michele Thai, The University of Sydney	<b>Beta2-adrenoceptor signalling promotes invasion of human breast cancer cells – 137</b> Cindy Pon, Monash University	
17:45-18:00	<b>Psychotropic drug utilisation in older people in New Zealand from 2005 to 2013 – 130</b> Henry Ndukwe, University of Otago, New Zealand	<b>Novel positive allosteric modulators of the delta opioid receptor – 138</b> Holly Yeatman, Monash University	





**About CERA** [www.cera.edu.au](http://www.cera.edu.au)

The Centre for Education and Research on Ageing (CERA) is a multidisciplinary Centre that aims to expand and share knowledge of human ageing, so that the health and quality of life of older people can be improved.

CERA is a joint facility of the University of Sydney, Sydney Medical School and Concord Repatriation General Hospital, a teaching hospital within Sydney South West Area Health Service. CERA is located at Concord Repatriation General Hospital in the inner west of Sydney, Australia.

**CERA's Research Programs**

Research at CERA is concerned with the ageing process, and the disorders and diseases that are most likely to cause disability and reduced quality of life in old age. Our Research Program is multidisciplinary, linking laboratory, clinical, epidemiological and health services research and is primarily funded by the National Health and Medical Research Council and the Australian Research Council.



SUPPORTED BY: **AGEING AND ALZHEIMERS INSTITUTE**




Centre for Education and Research on Ageing is a joint facility of the University of Sydney Medical School and Concord Repatriation General Hospital




Tuesday 9 December, 2014

07:30–18:00	Registration desk open		
08:30–09:30	<b>ASCEPT Plenary presentation</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Assoc Prof Peter Molenaar <b>From drug metabolism and Pharmacogenetics to diagnostics and drug discovery – 201</b> Prof Edith Sim, Kingston University and Department of Pharmacology, University of Oxford, UK		
09:30–10:25	<b>Morning tea with exhibitors</b> Clarendon Auditorium foyer, Level 2 Poster presentations: Cardiovascular, Inflammation/Respiratory, Education, Neuro- and Behavioural Pharmacology, Urogenital and Gastrointestinal, Pharmacogenomics, Toxicology	Sponsored by  <b>COMPOUNDS AUSTRALIA</b>	<b>SIG meeting: Drug Disposition and Response</b> Room: Clarendon Room B, Level 5
10:30–12:30	<b>Oral presentations 3: Clinical Pharmacology/Education</b> Room: Clarendon Room B, Level 5 <b>Chair:</b> Dr Andrew Dawson	<b>Symposium 6: Techniques to see into the world of GPCRs and beyond</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Dr Angela Finch	<b>Symposium 7: Novel targets for stroke and brain repair</b> Room: Clarendon Room A, Level 5 <b>Chairs:</b> Dr Nicole Jones; Dr Brad Broughton
10:30–10:45	<b>Trough concentrations of infliximab and adalimumab, and anti-drug antibodies, correlate with drug response in inflammatory bowel disease – 210</b> Murray Barclay, Christchurch Hospital, New Zealand	<b>Fragment screening of GPCRs – 202</b> Dr Robert Cooke, Heptares Therapeutics, UK	<b>Protective actions of ghrelin on cerebral vascular function and the brain post-stroke – 206</b> Dr Alyson Miller, RMIT University
10:45–11:00	<b>The ideal anticoagulant is a myth – 211</b> Stephen Duffull, University of Otago, New Zealand		
11:00–11:15	<b>Neprilysin inhibitors preserve renal function in heart failure – meta-analysis of randomised controlled trials – 212</b> Ingrid Hopper, Monash University	<b>Nanoscale Biophotonics, a window into the body – 203</b> Assoc Prof Mark Hutchinson, University of Adelaide	<b>Role of insulin-regulated aminopeptidase (IRAP) in mediating ischemic damage in the brain – 207</b> Dr Vi Pham, Monash University
11:15–11:30	<b>Insights into the pathophysiology of hyperuricaemia – 213</b> Diluk Kannangara, St Vincent's Hospital		
11:30–11:45	<b>The influence of imatinib on disease progression in patients with gastro-intestinal stromal tumour (GIST) – 214</b> Shaun Kumar, St Vincent's Hospital	<b>The use of BRET to study receptor complexes – 204</b> Assoc Prof Kevin Pflieger, The University of Western Australia	<b>Using Stem cells and targeting astrocytes to repair the injured brain after stroke – 208</b> Dr Carli Roulston, University of Melbourne
11:45–12:00	<b>Piperacillin pharmacokinetics in intensive care unit patients with anuria and acute kidney injury receiving sustained low efficiency dialysis – 215</b> Mahipal Sinnollareddy, The Queen Elizabeth Hospital; University of South Australia		
12:00–12:15	<b>Using peer-assisted learning in an Honours program to enhance student engagement and performance – 216</b> Barbara Kemp-Harper, Monash University	<b>The emerging importance of receptor kinetics in drug discovery: What goes (k)on must come (k)off – 205</b> Mr Darren Riddy, Monash University	<b>Hypoxia-inducible factor – 1 (HIF-1) as a novel target for brain repair – 209</b> Dr Nicole Jones, University of New South Wales
12:15–12:30	<b>Learning styles and blended learning strategies for teaching pharmacology – 217</b> Roselyn Rose-Meyer, Griffith University		
12:30–13:25	<b>Lunch with exhibitors</b> Clarendon Auditorium foyer, Level 2 Poster presentations: Cardiovascular, Inflammation/Respiratory, Education, Neuro- and Behavioural Pharmacology, Urogenital and Gastrointestinal, Pharmacogenomics, Toxicology	Sponsored by 	<b>SIG meeting: Drug Discovery</b> Room: Clarendon Room B, Level 5 <b>SIG meeting: Pharmacoeconomics</b> Room: Clarendon Room A, Level 5
13:30–14:30	<b>Molecular Pharmacology of GPCRs (MPGPCR) Opening plenary presentation</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Dr Chris Langmead <b>Single-molecule imaging of GPCR organization in living cells: The agony and the ecstasy</b> Prof Jonathan Javitch, Columbia University, USA		
14:30–15:15	<b>Oral presentations 4: Clinical Trainee/ Education</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Assoc Prof Matt Doogue	<b>Oral presentations 5: Respiratory and Inflammation/Urogenital and Gastrointestinal</b> Room: Clarendon Room A, Level 5 <b>Chairs:</b> Assoc Prof Ross Vlahos; Dr Stavros Selemidis	<b>MPGPCR Symposium 1: ISN Symposium: GPCRs as CNS drug target</b> Room: Clarendon Room B, Level 5 <b>Chair:</b> Prof Nigel Bunnett
14:30–14:45	<b>Antagonist actions at the N40D (A118G) polymorphism of the human <math>\mu</math> opioid receptor <i>in vitro</i> – 219</b> Jonathan Brett, Royal Prince Alfred Hospital	<b>Combining human bone marrow-derived mesenchymal stem cells with an anti-fibrotic more effectively reverses airway fibrosis in an experimental model of chronic allergic airways disease – 227</b> Matthew Shen, Monash University	<b>GPCR and beta-arrestins regulating gamma-secretases in Alzheimer disease – 235</b> Prof Bart De Strooper, University of Leuven, Belgium
14:45–15:00	<b>Clinical use of an aminoglycoside ward-based Therapeutic Drug Monitoring (TDM) service in a tertiary hospital – 220</b> Maneesha Dedigama, Flinders Medical Centre	<b>Bronchodilator responsiveness is impaired in a mouse model of COPD exacerbation – 228</b> Chantal Donovan, University of Melbourne	
15:00–15:15	<b>Has the availability of new oral anticoagulants (NOACs) changed the way older inpatients are selected for oral anticoagulation? – 221</b> Nicholas Farinola, Royal Adelaide Hospital	<b>TRPV4 mediates serotonin-induced oedema in airway but not non-airway tissues – 229</b> Megan Grace, RMIT University	

15:15–15:40	Afternoon tea with exhibitors		
	Clarendon Auditorium foyer, Level 2		
15:45–17:00	Oral presentations 4: Clinical Trainee/ Education (continued)	Oral presentations 5: Respiratory and Inflammation/Urogenital and Gastrointestinal (continued)	MPGPCR Symposium 1: ISN Symposium: GPCRs as CNS drug target (continued)
	Room: Clarendon Auditorium, Level 2	Room: Clarendon Room A, Level 5	Room: Clarendon Room B, Level 5
15:45–16:00	An audit of the use of hydroxychloroquine for the treatment of systemic lupus erythematosus – 222 Andrew Finch, Royal Brisbane Hospital	Microenviromental determinants of glucocorticoid responsiveness in airway smooth muscle – 230 Amanda Wong, University of Melbourne	Neuropeptide receptors as targets for relapse-prevention – 236 Prof Andrew Lawrence, The Florey Institute of Neuroscience
16:00–16:15	A case report of yttrium 90 microsphere dosimetry to estimate hepatic tolerance of subsequent lutetium 177-DOTA-octreotate therapy for metastatic neuroendocrine tumour – 223 Catherine Lucas, Royal Brisbane and Women's Hospital	Expression and distribution of the delta opioid receptor is altered in acute colitis – 231 Daniel Poole, Monash University	Role of metabotropic glutamate receptor 5 in neurodegenerative diseases – 237 Dr Stephen Ferguson, Robarts Research Institute; University of Western Ontario, Canada
16:15–16:30	Implementation of a formalised medication review protocol applied to older general medical patients – 224 Mitchell McKean, Princess Alexandra Hospital	A polar compound present in stinging nettle leaf extract inhibits the purinergic component of contractility in the rat prostate gland – 232 Nicole Eise, Monash University	Novel approaches to the modulation of opioid receptor signaling: Implications for antinociception – 238 Dr John Traynor, University of Michigan
16:30–16:45	Warfarin-associated spontaneous haemarthrosis following use of complementary and alternative medicines – 225 Brendan Ng, Capital and Coast District Health Board, New Zealand	The effectiveness of current and emerging pharmacotherapy in a new model of human prostatic smooth muscle tone – 233 Basu Chakrabarty, Monash University	<div>Sponsored by </div>
16:45–17:00	Assessing patient knowledge and education techniques in order to improve safety with warfarin therapy: A review of the literature – 226 Basia Diug, Monash University	Developing kidney damage models using induced pluripotent stem cells from patients with inherited kidney disease – 234 John Haynes, Monash University	
17:15–18:15	ASCEPT Annual General Meeting		
	Clarendon Auditorium, Level 2		
19:30–22:30	Meeting dinner (pre-dinner drinks from 19:00)		
	Cargo Hall, 35 South Wharf Promenade, South Wharf		

25<sup>TH</sup> MEETING OF THE  
**INTERNATIONAL SOCIETY FOR NEUROCHEMISTRY**  
25<sup>th</sup> ISN Meeting, 13<sup>th</sup> APSN & 35<sup>th</sup> ANS Meeting  
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**Editor-in-Chief:** Professor Ian McGrath

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 **BRITISH PHARMACOLOGICAL SOCIETY**

Wednesday 10 December, 2014

08:00–17:00	Registration desk open		
08:30–09:30	<b>Plenary presentation: ASCEPT Lecture</b> Clarendon Auditorium <b>Chair:</b> Assoc Prof Peter Molenaar <b>Controlling signalling of class B G protein-coupled receptors – 301</b> Prof Patrick Sexton, Monash Institute of Pharmaceutical Sciences, Monash University		
09:30–10:25	<b>Morning tea with exhibitors</b> Clarendon Auditorium foyer, Level 2 Poster presentations: MPGPCR ASCEPT student poster prize session Sponsored by 	<b>SIG meeting: Neuropharmacology</b> Room: Clarendon Room B, Level 5  <b>SIG meeting: Clinical Pharmacology</b> Room: Clarendon Room A, Level 5	
10:30–12:30	<b>Oral presentations 6: ASCEPT Garth McQueen Oral Prize</b> Room: Clarendon Room B, Level 5 <b>Chair:</b> Dr Nicole Jones	<b>MPGPCR Symposium 2: GPCRs in Cardio-Metabolic Disorders</b> Room: Clarendon Auditorium, Level 2 <b>Chair:</b> Prof Roger Summers	<b>Symposium 8: Cardiac safety vs efficacy: Focus on heart failure</b> Room: Clarendon Room A, Level 5 <b>Chairs:</b> Dr Felicity Grzemska; Assoc Prof Rebecca Ritchie
10:30–10:45	<b>AT<sub>4</sub> Receptor/Insulin Regulated Amino-peptidase (IRAP): A target for protection in cardiovascular disease – 311</b> Huey Wen Lee, Monash University	<b>Modulation of class B GPCR pharmacology by RAMPs: Insights from adrenomedullin and amylin receptors – 302</b> Dr Debbie Hay, University of Auckland, New Zealand	<b>Applying pharmacology principles to target selection and target safety assessment – 305</b> Dr Sian Ratcliffe, Pfizer Inc, USA
10:45–11:00	<b>Biased agonism in the 4<sup>th</sup> dimension: The contribution of binding kinetics to the bias profile of antipsychotic drugs at the dopamine D<sub>2</sub> receptor – 312</b> Carmen Klein Herenbrink, Monash University	<b>A function for bitter taste receptors in human heart – 303</b> Prof Walter Thomas, The University of Queensland	<b>Development of new in silico methods for assessing the pro-arrhythmic risk of drugs – 306</b> Prof Jamie Vandenberg, Victor Chang Cardiac Research Institute
11:00–11:15	<b>A switched on receptor – a role for adenosine A<sub>2B</sub> receptor constitutive activity in cancer cell proliferation – 313</b> Elizabeth Vecchio, Monash University	<b>New GPCR targets for fibrosis: Relaxin family peptide receptor 1 (RXFP1)-angiotensin II (AT) receptor heterodimers – 304</b> Assoc Prof Chrisan Samuel, Monash University	<b>Development of cardiac failure models as translational pharmacology models for diabetic cardiomyopathy and diastolic heart failure – 307</b> Assoc Prof Rebecca Ritchie, Baker IDI Heart and Diabetes Institute
11:15–11:30	<b>The effect of ageing on isoniazid pharmacokinetics and hepatotoxicity in Fischer 344 rats – 314</b> John Mach, Kolling Institute of Medical Research		<b>In silico prediction of Ames mutagenicity based on molecular descriptors – 308</b> Dr Slade Matthews, The University of Sydney
11:30–11:45	<b>Bladder sensory nerve activity is enhanced by the cytotoxic drugs cyclophosphamide and ifosfamide – 315</b> Kylie Mills, Bond University		<b>Augmented Caveolin 3 in cardiomyocytes limits age-related ischemic intolerance: Scaffolding hypothesis of aging – 309</b> Dr Melissa Reichert, The University of Queensland
11:45–12:00	<b>Serelaxin signalling in human primary vascular cells: G-proteins and their location determines the shape of the concentration-response relationship – 316</b> Mohsin Sarwar, Monash University		<b>Endogenous Annexin-A1 (ANX-A1) is cardioprotective against myocardial infarction(MI) in mice <i>in vivo</i> – 310</b> Siobhan Finlayson, Baker IDI Heart and Diabetes Institute
12:00–12:15	<b>Healthcare practitioners' perspectives on prescribing and deprescribing anticholinergic and sedative medications in older adults – 317</b> Lisa Kouladjian, University of Sydney		<b>Panel discussion</b> Sponsored by 
12:15–12:30	<b>Quantification of the forgiveness of drugs to imperfect adherence – 318</b> Piyanan Assawasuwannakit, University of Otago, New Zealand		
12:30–13:25	<b>Lunch with exhibitors</b> Clarendon Auditorium foyer, Level 2 Poster presentations: MPGPCR ASCEPT student poster prize session Sponsored by 	<b>SIG meeting: Inflammation/respiratory</b> Room: Clarendon Room B, Level 5	

program continued on page 8






**BRITISH PHARMACOLOGICAL SOCIETY**

## ASCEPT-BPS JOINT SCIENTIFIC MEETING

Tomorrow's medicines: pharmacology, patients and populations

19-21 May 2015 - University of Hong Kong



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**Drug Discovery Biology**

13:30–15:30	<b>Oral presentations 7: Neuro-Behavioural/ Toxicology</b>	<b>Oral presentations 8: Cardiovascular</b>	<b>MPGPCR Symposium 3: GPCRs in pain and inflammation</b>
	Room: Clarendon Room B, Level 5	Room: Clarendon Auditorium, Level 2	Room: Clarendon Room A, Level 5
	<b>Chair:</b> Dr Mark Hutchinson	<b>Chairs:</b> Prof Chris Sobey; Prof Rob Widdop	<b>Chair:</b> Dr Meri Canals
13:30–13:45	<b>Auditing adulterants: Toxicological assessment of herbal medicines sold in Australia during 2014 – 331</b> Claire Hoban, University of Adelaide	<b>Targeting G protein-coupled estrogen receptor in stroke – 319</b> Brad Broughton, Monash University	<b>Protease-activated-receptor signaling in the airway: The good, the bad and the proinflammatory – 327</b> Prof Kathryn DeFea, UC Riverside
13:45–14:00	<b>The effect of Saxitoxin on the differentiation of D3 embryonic stem cells into a neural lineage – 332</b> Katie O'Neill, University of Adelaide	<b>Role for endothelial cell mineralocorticoid receptors in aldosterone-induced oxidative stress and inflammation in the brain – 320</b> Sophocles Chrissobolis, Monash University	<b>Opioid Bias Receptor Signaling and Regulation: <math>\beta</math>-Arrestin1/2 Selectivity – 328</b> Dr Chris Evans, UCLA, USA
14:00–14:15	<b>Resveratrol and SIRT1 do not protect against paracetamol toxicity – 333</b> Alice Kane, Kolling Institute of Medical Research	<b>CC Chemokine receptor 2 inhibition exacerbates stroke outcome in a mouse model of Transient Middle Cerebral Artery Occlusion – 321</b> Hannah Chu, Monash University	<b>Developing opioid receptor signalling bias for improved pain relief – 329</b> Prof MacDonald Christie, The University of Sydney
14:15–14:30	<b>Muscarinic acetylcholine <math>M_4</math> receptor regulation of psychosis-like behaviours induced by a dopamine <math>D_1</math> receptor-selective agonist in mice – 334</b> Amy Nae-Yng Chen, Monash University	<b>Coenzyme <math>Q_{10}</math> protects the heart against diabetes-induced diastolic dysfunction and structural remodelling in mice with diminished phosphoinositide 3-kinase <math>p110\alpha</math> (PI3K) signalling – 322</b> Miles De Blasio, Baker IDI Heart and Diabetes Institute	<div>Sponsored by</div> 
14:30–14:45	<b>PITX3-eGFP dopaminergic neurons derived from human pluripotent stem cells: a versatile system for neurodegenerative modelling – 335</b> John Haynes, Monash University	<b>The DPP-4 inhibitor linagliptin and the GLP-1 receptor agonist exendin-4 prevent high glucose-induced impairment of endothelial function in rat mesenteric arteries – 323</b> Salheen Salheen, RMIT University	
14:45–15:00	<b>Functional expression of TRPV4 by satellite glial cells of mouse dorsal root ganglia – 336</b> Pradeep Rajasekhar, Monash University	<b>PDE3 and PDE4 reduce the occurrence of <math>\beta_2</math>- and <math>\beta_1</math>-adrenoceptor mediated spontaneous contractions in isolated human right ventricular trabeculae from patients with terminal heart failure – 324</b> Peter Molenaar, Queensland University of Technology	
15:00–15:15	<b>Exploring the synthetic cannabinome: Actions of PB-22 and 5F-PB-22 – 337</b> Jordyn Stuart, Macquarie University	<b>Phosphoinositide 3 kinase (<math>p110\alpha</math>) gene therapy attenuates diabetic cardiomyopathy in mice – 325</b> Darnel Prakoso, Baker IDI Heart and Diabetes Institute	
15:15–15:30	<b>Ghrelin receptor agonists to limit tissue loss after spinal cord injury – 338</b> Kevin Dong, University of Melbourne	<b>Cardiac dysfunction and ischaemic intolerance in murine type II diabetes mellitus is reversed by sustained ligand-activated preconditioning – 326</b> Louise See Hoe, Griffith University	
15:30–15:55	<b>Afternoon tea with exhibitors</b> Clarendon Auditorium foyer, Level 2		
16:00–16:40	<b>ASCEPT Awards</b>	<b>MPGPCR Keynote presentation</b>	
	Room: Clarendon Auditorium, Level 2	Room: Clarendon Room A, Level 5	
		<b>Chair:</b> Dr Chris Langmead	
		<b>Hypothalamic neurons regulate blood glucose</b> Prof Michael Cowley, Monash Obesity and Diabetes Institute – 330	
16:40–18:00	<b>MPGPCR Symposium 4: Early career research forum</b>		
	Room: Clarendon Room A, Level 5		
	<b>Chair:</b> Prof Steven Charlton		
	<b>Structural basis for activation and allosteric modulation of a muscarinic acetylcholine receptor – 339</b> Asst Prof Andrew Kruse, Harvard Medical School, USA		
	<b>Exploring Peptide Agonist-Specific Activity at the Glucagon-like Peptide-1 Receptor (GLP-1R) – 340</b> Dr Cassandra Koole, The Rockefeller University, USA		
	<b>Allosteric activation of the <math>M_1</math> muscarinic receptor rescues the cognitive deficit in prion neurodegenerative disease in mice – 341</b> Dr Sophie Bradley, MRC Toxicology Unit, University of Leicester		
	<b>Development of novel tools to target drugs to internalised receptors – 342</b> Dr Nick Veldhuis, Monash University		
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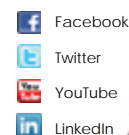
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Thursday 11 December, 2014

08:00–17:00	Registration desk open	
08:30–09:30	Room: Clarendon Auditorium, Level 2	
	<b>MPGPCR Symposium 5: MGPCR BPS Student Oral Prize</b>	
	<b>Chair:</b> Dr Karen Gregory	
08:30–08:45	<b>GPR37L1: An orphan G protein-coupled receptor with constitutive activity modulated by novel metalloprotease-mediated N-terminal cleavage – 401</b>	Sponsored by 
08:45–09:00	James Coleman, Victor Chang Cardiac Research Institute	
09:00–09:15	<b>Identification of the mechanisms which govern allosterism at the dopamine D<sub>2</sub> receptor – 402</b>	
09:15–09:30	Christopher Draper-Joyce, Monash University	
	<b>Structural basis for G protein-mediated high-affinity agonist binding to GPCRs – 403</b>	
	Jacob Mahoney, University of Michigan, USA	
	<b>Allosteric modulation of the mu opioid receptor – 404</b>	
	Kathryn Livingston, University of Michigan, USA	
09:30–10:10	<b>MPGPCR Symposium 6: Structure-function of GPCRs</b>	
	<b>Chair:</b> Prof Patrick Sexton	
	<b>Allostery in GPCR biology: Form, function and potential therapeutics – 405</b>	Sponsored by 
	Prof Roger Sunahara, University of Michigan, USA	
10:10–10:35	<b>Morning tea with exhibitors</b>	
	Clarendon Auditorium foyer, Level 2	
10:40–12:40	<b>MPGPCR Symposium 6: Structure-function of GPCRs (continued)</b>	
10:40–11:20	<b>Conformational dynamics in the allosteric regulation of <math>\beta_2</math>-adrenergic receptor signaling – 406</b>	Sponsored by 
	Prof R. Scott Prosser, University of Toronto, Canada	
11:20–12:00	<b>Exploring GPCR ligand interactions through structural and biophysical studies – 407</b>	
	Dr Robert Cooke, Heptares Therapeutics, UK	
12:00–12:40	<b>Crystal structure of rhodopsin bound to arrestin determined by femtosecond X-ray laser – 408</b>	
	Prof Eric Xu, Institute of Materia Medica, Shanghai	
12:40–13:25	<b>Lunch with exhibitors</b>	Sponsored by 
	Clarendon Auditorium foyer, Level 2	
13:30–15:30	<b>MPGPCR Symposium 7: Signalling in space and time</b>	
	<b>Chair:</b> Dr Rob Lane	
13:30–14:10	<b>GPCR-G protein signaling from endosomes – 409</b>	Sponsored by 
	Prof Mark von Zastrow, The University of California, San Francisco	
14:10–14:50	<b>Receptor localisation shapes the spatiotemporal dynamics of GPCR signalling – 410</b>	
	Dr Michelle Halls, Monash University	
14:50–15:30	<b>From biochemistry to molecular imaging of GPCRs – 411</b>	
	Prof Martin Lohse, University of Wurzburg, German	
15:30–15:55	<b>Afternoon tea with exhibitors</b>	
	Clarendon Auditorium foyer, Level 2	
16:00–18:00	<b>MPGPCR Symposium 8: Chemical Biology and Mechanistic Pharmacology</b>	
	<b>Chair:</b> Prof Arthur Christopoulos	
16:00–16:40	<b>A new approach to treat ischaemic heart disease: Adenosine receptor biased agonism – 412</b>	
	Dr Lauren May, Monash University	
16:40–17:20	<b>Dualsteric GPCR modulators with engineered efficacy to fine-tune muscarinic receptor signaling – 413</b>	
	Prof Klaus Mohr, University of Bonn, Germany	
17:20–18:00	<b>Observed drug-receptor association rates are strongly influenced by membrane affinity: The importance of establishing micro PK/PD relationships – 414</b>	
	Prof Steven Charlton, The University of Nottingham, UK	
18:00–18:30	<b>MPGPCR Awards and close</b>	
	<b>Chair:</b> Dr Chris Langmead	

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