

ASCEPT-MPGPCR

JOINT SCIENTIFIC MEETING


Melbourne Convention & Exhibition Centre

7– 11 December 2014









www.ascept-mpgpcr2014.com

Scientific Program

Sunday 7 December, 2014

09:30–19:00	Registration desk open		
10:00–13:00	ASCEPT Council Meeting Room: Clarendon Room C, Level 2	PGx Workshop (10:00 – 12:00) Room: Clarendon Room D, Level 2 Chair: Prof Andrew Somogyi Presenters: Dr Katie Leach, Monash University Prof Patrick Kwan, Royal Melbourne Hospital Assoc Prof Les Sheffield, GenesFX Health Student/ECR short presentations Pharmacogenomics SIG AGM	Lipidic Cubic Phase (LCP) Workshop Room: Clarendon Room E, Level 2 Asst Prof Andrew Kruse, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School  Supported by
14:00–16:00	Clinical Pharmacology Workshop Room: Clarendon Room C, Level 2 Chair: Dr Ingrid Hopper Presenters: Dr Tilenka Thynne, Flinders Medical Centre Assoc Prof Matt Doogue, Otago University, New Zealand Dr Joel Iedema, Redland Hospital	Careers Workshop Room: Clarendon Room D, Level 2 Chair: Dr Nicole Jones Presenters: 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	Education Workshop Room: Clarendon Room E, Level 2 Chair: Dr Anna-Marie Babey Presenters: Cindy O'Malley, RMIT University Dr David Foster, University of South Australia
16:30–17:30	Opening session and plenary presentation Room: Clarendon Auditorium, Level 2 Chair: Assoc Prof Peter Molenaar Therapeutic agents and drug targets: GPCRs and beyond, opportunities and challenges – 101 Prof Daniel Hoyer, The University of Melbourne		
17:30–19:00	Welcome Reception 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	Plenary presentation: British Pharmacological Society visitor Room: Clarendon Auditorium, Level 2 Chair: Assoc Prof Peter Molenaar Translating G-protein coupled receptors from chemistry to clinic: Apelin and biased signalling in the cardiovascular system – 102 Dr Anthony Davenport, University of Cambridge, UK Sponsored by 		
09:30–10:25	Morning tea with exhibitors Clarendon Auditorium foyer, Level 2 Poster presentations: Drug Disposition and Response, Clinical Pharmacology, Drug Discovery, Pharmacoepidemiology Sponsored by 	SIG meeting: Toxicology Room: Clarendon Room B, Level 5 SIG meeting: Education Forum Room: Clarendon Room A, Level 5	
10:30–12:30	Symposium 1: Novel GPCR targets for the treatment of CVD Room: Clarendon Auditorium, Level 2 Chairs: Dr Lauren May; Dr Tamara Paravicini Orphan GPCRs in the development of cardiovascular disease – 103 Dr Nicola Smith, Victor Chang Cardiac Research Institute Targeting protease-activated receptors for prevention of arterial thrombosis: Current and future approaches – 104 Dr Justin Hamilton, Monash University Protecting the heart through opioid receptor activation – 105 Dr Jason Peart, Griffith University Formyl Peptide Receptors – Novel GPCR targets for the treatment of cardiovascular diseases – 106 Assoc Prof Rebecca Ritchie, Baker IDI Heart and Diabetes Institute Sponsored by 	Symposium 2: Prescribing for people with dementia Room: Clarendon Room A, Level 5 Chair: Assoc Prof Simon Bell The blood-brain barrier: Is it more of a barrier to CNS access in Alzheimer's disease? – 107 Dr Joseph Nicolazzo, Monash University Prescribing considerations for people with dementia – 108 Assoc Prof Sarah Hillmer, University of Sydney Drug use in dementia: Patterns and outcomes – 109 Assoc Prof Simon Bell, Monash University; Dr Danijela Gnjidic, University of Sydney Patterns of drug use among people with dementia: A Nordic example – 110 Assoc Prof Kristina Johnell, Karolinska Institutet and Stockholm University, Sweden Supported by  Ability of older people with dementia or cognitive impairment to manage medicine regimens – 111 Assoc Prof Susan Koch, Royal District Nursing Service	Student 1 minute poster session Room: Clarendon Room B, Level 5 Chair: 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. Themes: Education Toxicology Neuro- and Behavioural Pharmacology Drug Discovery MPGPCR
12:30–13:25	Lunch with exhibitors Clarendon Auditorium foyer, Level 2 Poster presentations: Drug Disposition and Response, Clinical Pharmacology, Drug Discovery, Pharmacoepidemiology Sponsored by 	SIG meeting: Urogenital and Gastrointestinal Room: Clarendon Room B, Level 5	
13:30–15:30	Symposium 3: Education symposium: Micro to macro and back again Room: Clarendon Auditorium, Level 2 Chair: Dr Liz Davis Reflections on teaching complex concepts – 112 Prof Arthur Christopoulos, Monash University Teaching prescribing to undergraduate medical students – 113 Ms Anne Leversha, Monash University Unrecognisable transparency for quality and productivity and smarter education – 114 Prof Hamish Coates, University of Melbourne Panel discussion Sponsored by 	Symposium 4: Partners in crime: Regulation of cell signalling beyond GPCRs Room: Clarendon Room A, Level 5 Chair: Dr Michelle Halls The role of GPCR signalling via dual kinase receptor transactivation in cardiovascular disease – 115 Prof Peter Little, RMIT University Angiotensin II-mediated EGFR transactivation: Identify new signalling mediators important for tissue remodelling in cardiovascular disease and cancer – 116 Prof Walter Thomas, The University of Queensland Endosomal platforms for signaling pain – 117 Prof Nigel Bunnnett, Monash University Delineating the dynamics of mu-opioid receptor signalling and regulation – 118 Dr Meritxell Canals, Monash University Sponsored by 	Student 1 minute poster session Room: Clarendon Room B, Level 5 Chair: 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. Themes: Cardiovascular Inflammation/respiratory Urogenital and Gastrointestinal Pharmacogenomics Pharmacoepidemiology Drug Disposition and Response Clinical Pharmacology
15:30–15:55	Afternoon tea with exhibitors Clarendon Auditorium foyer, Level 2 Sponsored by 	SIG meeting: Cardiovascular Room: Clarendon Room A, Level 5	

16:00–18:00	Oral presentations 1: Drug Disposition and Response/Pharmacogenomics/Pharmacoepidemiology	Oral presentations 2: Drug Discovery	Symposium 5: ASCEPT Denis Wade Johnson & Johnson New Investigators		
	Room: Clarendon Room A, Level 5	Room: Clarendon Room B, Level 5	Room: Clarendon Auditorium, Level 2		
	Chair: Dr David Foster	Chair: Prof Patrick Sexton	Chair: Assoc Prof Peter Molenaar		
16:00-16:15	UDP-glycosyltransferase 8 (UGT8) galactosidates bile acids and modulates FXR signalling – 123 Robyn Meech, Flinders University	Structure-activity analysis of biased agonism at the adenosine A₃ receptor – 131 Jo-Anne Baltos, Monash University	Molecular insights into metabotropic glutamate receptor allosteric modulation – 119 Dr Karen Gregory, Monash University		
16:15-16:30	Population pharmacokinetic modelling of colistin methanesulphonate and formed colistin in patients receiving intermittent haemodialysis – 124 Cornelia Landersdorfer, Monash University	Structure of the M₄ muscarinic acetylcholine receptor and insights into its allosteric modulation – 132 David Thal, Monash University			
16:30-16:45	Extremes of body size in the dosing of high-dose methotrexate chemotherapy for non-Hodgkin lymphoma – 125 Geeta Sandhu, The University of Queensland	Ryanodine receptors: A novel target for cigarette smoking-related lung disease – 133 Chantal Donovan, University of Melbourne		Optimising medication use in people with dementia: Evidence and opportunities – 120 Assoc Prof Simon Bell, Monash University	
16:45-17:00	Prostacyclin activates the IP-receptor to promote migratory behaviour in breast cancer cells that over-express cyclooxygenase-2 – 126 Sarah Allison, The University of Sydney	A novel single chain H2 relaxin analogue causes biased signalling at the Relaxin Family Peptide Receptor 1 – 134 Martina Kocan, Monash University			
17:00-17:15	Innate immune signalling genetics associated with cognitive dysfunction and adverse opioid effects in cancer pain patients on transdermal fentanyl – 127 Daniel Barratt, University of Adelaide	miR-126 regulation in a mouse model of laser-induced choroidal neovascularisation – 135 Amy Lee, University of Melbourne		Novel inhibitors of glycine transporters – 121 Dr Jane Carland, University of Sydney	
17:15-17:30	A multistate model for the role of multiple medication use and Drug Burden Index in frailty state transitions and death: The CHAMP study – 128 Kris Jansen, Monash University	The role of the extracellular vestibule in β2 adrenoceptor orthosteric and allosteric ligand interactions – 136 Erica Leonar, The University of New South Wales			
17:30-17:45	Prevalence of potential statin-drug interactions in frail and robust older inpatients – 129 Michele Thai, The University of Sydney	Beta2-adrenoceptor signalling promotes invasion of human breast cancer cells – 137 Cindy Pon, Monash University			Targeting synaptic adaptations in chronic pain – 122 Dr Wendy Imlach, University of Sydney
17:45-18:00	Psychotropic drug utilisation in older people in New Zealand from 2005 to 2013 – 130 Henry Ndukwe, University of Otago, New Zealand	Novel positive allosteric modulators of the delta opioid receptor – 138 Holly Yeatman, Monash University			



About CERA

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.


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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	ASCEPT Plenary presentation		
	Room: Clarendon Auditorium, Level 2		
	Chair: Assoc Prof Peter Molenaar		
	From drug metabolism and Pharmacogenetics to diagnostics and drug discovery – 201 Prof Edith Sim, Kingston University and Department of Pharmacology, University of Oxford, UK		
09:30–10:25	Morning tea with exhibitors	SIG meeting: Drug Disposition and Response	
	Clarendon Auditorium foyer, Level 2	Room: Clarendon Room B, Level 5	
	Poster presentations: Cardiovascular, Inflammation/Respiratory, Education, Neuro- and Behavioural Pharmacology, Urogenital and Gastrointestinal, Pharmacogenomics, Toxicology	Sponsored by 	
10:30–12:30	Oral presentations 3: Clinical Pharmacology/Education	Symposium 6: Techniques to see into the world of GPCRs and beyond	Symposium 7: Novel targets for stroke and brain repair
	Room: Clarendon Room B, Level 5	Room: Clarendon Auditorium, Level 2	Room: Clarendon Room A, Level 5
	Chair: Dr Andrew Dawson	Chair: Dr Angela Finch	Chairs: Dr Nicole Jones; Dr Brad Broughton
10:30–10:45	Trough concentrations of infliximab and adalimumab, and anti-drug antibodies, correlate with drug response in inflammatory bowel disease – 210 Murray Barclay, Christchurch Hospital, New Zealand	Fragment screening of GPCRs – 202 Dr Robert Cooke, Heptares Therapeutics, UK	Protective actions of ghrelin on cerebral vascular function and the brain post-stroke – 206 Dr Alyson Miller, RMIT University
10:45–11:00	The ideal anticoagulant is a myth – 211 Stephen Duffull, University of Otago, New Zealand		
11:00–11:15	Nephrilysin inhibitors preserve renal function in heart failure – meta-analysis of randomised controlled trials – 212 Ingrid Hopper, Monash University	Nanoscale Biophotonics, a window into the body – 203 Assoc Prof Mark Hutchinson, University of Adelaide	Role of insulin-regulated aminopeptidase (IRAP) in mediating ischemic damage in the brain – 207 Dr Vi Pham, Monash University
11:15–11:30	Insights into the pathophysiology of hyperuricaemia – 213 Diluk Kannangara, St Vincent's Hospital		
11:30–11:45	The influence of imatinib on disease progression in patients with gastro-intestinal stromal tumour (GIST) – 214 Shaun Kumar, St Vincent's Hospital	The use of BRET to study receptor complexes – 204 Assoc Prof Kevin Pfeleger, The University of Western Australia	Using Stem cells and targeting astrocytes to repair the injured brain after stroke – 208 Dr Carli Roulston, University of Melbourne
11:45–12:00	Piperacillin pharmacokinetics in intensive care unit patients with anuria and acute kidney injury receiving sustained low efficiency dialysis – 215 Mahipal Sinnollareddy, The Queen Elizabeth Hospital; University of South Australia		
12:00–12:15	Using peer-assisted learning in an Honours program to enhance student engagement and performance – 216 Barbara Kemp-Harper, Monash University	The emerging importance of receptor kinetics in drug discovery: What goes (k) on must come (k) off – 205 Mr Darren Riddy, Monash University	Hypoxia-inducible factor – 1 (HIF-1) as a novel target for brain repair – 209 Dr Nicole Jones, University of New South Wales
12:15–12:30	Learning styles and blended learning strategies for teaching pharmacology – 217 Roselyn Rose Meyer, Griffith University		
12:30–13:25	Lunch with exhibitors	SIG meeting: Drug Discovery	
	Clarendon Auditorium foyer, Level 2	Room: Clarendon Room B, Level 5	
	Poster presentations: Cardiovascular, Inflammation/Respiratory, Education, Neuro- and Behavioural Pharmacology, Urogenital and Gastrointestinal, Pharmacogenomics, Toxicology	Sponsored by 	
13:30–14:30	Molecular Pharmacology of GPCRs (MPGPCR) Opening plenary presentation		
	Room: Clarendon Auditorium, Level 2		
	Chair: Dr Chris Langmead		
	Single-molecule imaging of GPCR organization in living cells: The agony and the ecstasy Prof Jonathan Javitch, Columbia University, USA		
14:30–15:15	Oral presentations 4: Clinical Trainee/ Education	Oral presentations 5: Respiratory and Inflammation/Urogenital and Gastrointestinal	MPGPCR Symposium 1: ISN Symposium: GPCRs as CNS drug target
	Room: Clarendon Auditorium, Level 2	Room: Clarendon Room A, Level 5	Room: Clarendon Room B, Level 5
	Chair: Assoc Prof Matt Doogue	Chairs: Assoc Prof Ross Vlahos; Dr Stavros Selemidis	Chair: Prof Nigel Bunnett
14:30–14:45	Antagonist actions at the N40D (A118G) polymorphism of the human μ opioid receptor <i>in vitro</i> – 219 Jonathan Brett, Royal Prince Alfred Hospital	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 Matthew Shen, Monash University	GPCR and beta-arrestins regulating gamma-secretases in Alzheimer disease – 235 Prof Bart De Strooper, University of Leuven, Belgium
14:45–15:00	Clinical use of an aminoglycoside ward-based Therapeutic Drug Monitoring (TDM) service in a tertiary hospital – 220 Maneesha Dedigama, Flinders Medical Centre	Bronchodilator responsiveness is impaired in a mouse model of COPD exacerbation – 228 Chantal Donovan, University of Melbourne	
15:00–15:15	Has the availability of new oral anticoagulants (NOACs) changed the way older inpatients are selected for oral anticoagulation? – 221 Nicholas Farinola, Royal Adelaide Hospital	TRPV4 mediates serotonin-induced oedema in airway but not non-airway tissues – 229 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	Microenvironmental 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 style="border: 1px solid black; padding: 5px;"> <p>Sponsored by </p> </div> <p>(Symposium finishes at 17:45)</p>
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		

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Wednesday 10 December, 2014

08:00–17:00	Registration desk open		
08:30–09:30	Plenary presentation: ASCEPT Lecture		
	Clarendon Auditorium		
	Chair: Assoc Prof Peter Molenaar		
	Controlling signalling of class B G protein-coupled receptors – 301		
	Prof Patrick Sexton, Monash Institute of Pharmaceutical Sciences, Monash University		
09:30–10:25	Morning tea with exhibitors	SIG meeting: Neuropharmacology	
	Clarendon Auditorium foyer, Level 2	Room: Clarendon Room B, Level 5	
	Poster presentations: MPGPCR		
	ASCEPT student poster prize session	SIG meeting: Clinical Pharmacology	
	Sponsored by	Room: Clarendon Room A, Level 5	
			
10:30–12:30	Oral presentations 6: ASCEPT Garth McQueen Oral Prize	MPGPCR Symposium 2: GPCRs in Cardio-Metabolic Disorders	Symposium 8: Cardiac safety vs efficacy: Focus on heart failure
	Room: Clarendon Room B, Level 5	Room: Clarendon Auditorium, Level 2	Room: Clarendon Room A, Level 5
	Chair: Dr Nicole Jones	Chair: Prof Roger Summers	Chairs: Dr Felicity Grzemeski; Assoc Prof Rebecca Ritchie
10:30-10:45	AT₄ Receptor/Insulin Regulated Aminopeptidase (IRAP): A target for protection in cardiovascular disease – 311	Modulation of class B GPCR pharmacology by RAMPs: Insights from adrenomedullin and amylin receptors – 302	Applying pharmacology principles to target selection and target safety assessment – 305
	Huey Wen Lee, Monash University	Dr Debbie Hay, University of Auckland, New Zealand	Dr Sian Ratcliffe, Pfizer Inc, USA
10:45-11:00	Biased agonism in the 4th dimension: The contribution of binding kinetics to the bias profile of antipsychotic drugs at the dopamine D₂ receptor – 312	A function for bitter taste receptors in human heart – 303	Development of new in silico methods for assessing the pro-arrhythmic risk of drugs – 306
	Carmen Klein Herenbrink, Monash University	Prof Walter Thomas, The University of Queensland	Prof Jamie Vandenberg, Victor Chang Cardiac Research Institute
11:00-11:15	A switched on receptor – a role for adenosine A_{2B} receptor constitutive activity in cancer cell proliferation – 313	New GPCR targets for fibrosis: Relaxin family peptide receptor 1 (RXFP1)-angiotensin II (AT) receptor heterodimers – 304	Development of cardiac failure models as translational pharmacology models for diabetic cardiomyopathy and diastolic heart failure – 307
	Elizabeth Vecchio, Monash University	Assoc Prof Chrisan Samuel, Monash University	Assoc Prof Rebecca Ritchie, Baker IDI Heart and Diabetes Institute
11:15-11:30	The effect of ageing on isoniazid pharmacokinetics and hepatotoxicity in Fischer 344 rats – 314		In silico prediction of Ames mutagenicity based on molecular descriptors – 308
	John Mach, Kolling Institute of Medical Research		Dr Slade Matthews, The University of Sydney
11:30-11:45	Bladder sensory nerve activity is enhanced by the cytotoxic drugs cyclophosphamide and ifosfamide – 315		Augmented Caveolin 3 in cardiomyocytes limits age-related ischemic intolerance: Scaffolding hypothesis of aging – 309
	Kylie Mills, Bond University		Dr Melissa Reichert, The University of Queensland
11:45-12:00	Serelaxin signalling in human primary vascular cells: G-proteins and their location determines the shape of the concentration-response relationship – 316		Endogenous Annexin-A1 (ANX-A1) is cardioprotective against myocardial infarction(MI) in mice <i>in vivo</i> – 310
	Mohsin Sarwar, Monash University		Siobhan Finlayson, Baker IDI Heart and Diabetes Institute
12:00-12:15	Healthcare practitioners' perspectives on prescribing and deprescribing anticholinergic and sedative medications in older adults – 317		Panel discussion
	Lisa Kouladjian, University of Sydney		
12:15-12:30	Quantification of the forgiveness of drugs to imperfect adherence – 318		Sponsored by 
	Piyanan Assawasuwannakit, University of Otago, New Zealand		
12:30–13:25	Lunch with exhibitors	SIG meeting: Inflammation/respiratory	
	Clarendon Auditorium foyer, Level 2	Room: Clarendon Room B, Level 5	
	Poster presentations: MPGPCR		
	ASCEPT student poster prize session		
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program continued on page 8



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13:30-15:30	Oral presentations 7: Neuro-Behavioural/ Toxicology Room: Clarendon Room B, Level 5 Chair: Dr Mark Hutchinson	Oral presentations 8: Cardiovascular Room: Clarendon Auditorium, Level 2 Chairs: Prof Chris Sobey; Prof Rob Widdop	MPGPCR Symposium 3: GPCRs in pain and inflammation Room: Clarendon Room A, Level 5 Chair: Dr Meri Canals
13:30-13:45	Auditing adulterants: Toxicological assessment of herbal medicines sold in Australia during 2014 - 331 Claire Hoban, University of Adelaide	Targeting G protein-coupled estrogen receptor in stroke - 319 Brad Broughton, Monash University	Protease-activated-receptor signaling in the airway: The good, the bad and the proinflammatory - 327 Prof Kathryn DeFea, UC Riverside
13:45-14:00	The effect of Saxitoxin on the differentiation of D3 embryonic stem cells into a neural lineage - 332 Katie O'Neill, University of Adelaide	Role for endothelial cell mineralocorticoid receptors in aldosterone-induced oxidative stress and inflammation in the brain - 320 Sophocles Chrissobolis, Monash University	Opioid Bias Receptor Signaling and Regulation: β-Arrestin1/2 Selectivity - 328 Dr Chris Evans, UCLA, USA
14:00-14:15	Resveratrol and SIRT1 do not protect against paracetamol toxicity - 333 Alice Kane, Kolling Institute of Medical Research	CC Chemokine receptor 2 inhibition exacerbates stroke outcome in a mouse model of Transient Middle Cerebral Artery Occlusion - 321 Hannah Chu, Monash University	Developing opioid receptor signalling bias for improved pain relief - 329 Prof MacDonald Christie, The University of Sydney
14:15-14:30	Muscarinic acetylcholine M₄ receptor regulation of psychosis-like behaviours induced by a dopamine D₁ receptor-selective agonist in mice - 334 Amy Nae-Yng Chen, Monash University	Coenzyme Q₁₀ protects the heart against diabetes-induced diastolic dysfunction and structural remodelling in mice with diminished phosphoinositide 3-kinase p110α (PI3K) signalling - 322 Miles De Blasio, Baker IDI Heart and Diabetes Institute	Sponsored by 
14:30-14:45	PITX3-eGFP dopaminergic neurons derived from human pluripotent stem cells: a versatile system for neurodegenerative modelling - 335 John Haynes, Monash University	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 Salheen Salheen, RMIT University	
14:45-15:00	Functional expression of TRPV4 by satellite glial cells of mouse dorsal root ganglia - 336 Pradeep Rajasekhar, Monash University	PDE3 and PDE4 reduce the occurrence of β_2- and β_1-adrenoceptor mediated spontaneous contractions in isolated human right ventricular trabeculae from patients with terminal heart failure - 324 Peter Molenaar, Queensland University of Technology	
15:00-15:15	Exploring the synthetic cannabinome: Actions of PB-22 and 5F-PB-22 - 337 Jordyn Stuart, Macquarie University	Phosphoinositide 3 kinase (p110α) gene therapy attenuates diabetic cardiomyopathy in mice - 325 Darnel Prakoso, Baker IDI Heart and Diabetes Institute	
15:15-15:30	Ghrelin receptor agonists to limit tissue loss after spinal cord injury - 338 Kevin Dong, University of Melbourne	Cardiac dysfunction and ischaemic intolerance in murine type II diabetes mellitus is reversed by sustained ligand-activated preconditioning - 326 Louise See Hoe, Griffith University	
15:30-15:55	Afternoon tea with exhibitors Clarendon Auditorium foyer, Level 2		
16:00-16:40	ASCEPT Awards Room: Clarendon Auditorium, Level 2	MPGPCR Keynote presentation Room: Clarendon Room A, Level 5 Chair: Dr Chris Langmead Hypothalamic neurons regulate blood glucose Prof Michael Cowley, Monash Obesity and Diabetes Institute - 330	
16:40-18:00	MPGPCR Symposium 4: Early career research forum Room: Clarendon Room A, Level 5 Chair: Prof Steven Charlton Structural basis for activation and allosteric modulation of a muscarinic acetylcholine receptor - 339 Asst Prof Andrew Kruse, Harvard Medical School, USA Exploring Peptide Agonist-Specific Activity at the Glucagon-like Peptide-1 Receptor (GLP-1R) - 340 Dr Cassandra Koole, The Rockefeller University, USA Allosteric activation of the M₁ muscarinic receptor rescues the cognitive deficit in prion neurodegenerative disease in mice - 341 Dr Sophie Bradley, MRC Toxicology Unit, University of Leicester Development of novel tools to target drugs to internalised receptors - 342 Dr Nick Veldhuis, Monash University		
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JOINT SCIENTIFIC MEETING 2015
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MONASH University **M8 Alliance**

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Thursday 11 December, 2014

08:00–17:00	Registration desk open	
08:30–09:30	Room: Clarendon Auditorium, Level 2	
	MPGPCR Symposium 5: MPGPCR BPS Student Oral Prize	
	Chair: Dr Karen Gregory	
08:30–08:45	GPR37L1: An orphan G protein-coupled receptor with constitutive activity modulated by novel metalloprotease-mediated N-terminal cleavage – 401	Sponsored by 
08:45–09:00	James Coleman, Victor Chang Cardiac Research Institute	
09:00–09:15	Identification of the mechanisms which govern allosterism at the dopamine D₂ receptor – 402	
09:15–09:30	Christopher Draper-Joyce, Monash University	
	Structural basis for G protein-mediated high-affinity agonist binding to GPCRs – 403	
	Jacob Mahoney, University of Michigan, USA	
	Allosteric modulation of the mu opioid receptor – 404	
	Kathryn Livingston, University of Michigan, USA	
09:30–10:10	MPGPCR Symposium 6: Structure-function of GPCRs	
	Chair: Prof Patrick Sexton	
	Allostery in GPCR biology: Form, function and potential therapeutics – 405	Sponsored by 
	Prof Roger Sunahara, University of Michigan, USA	
10:10–10:35	Morning tea with exhibitors	
	Clarendon Auditorium foyer, Level 2	
10:40–12:40	MPGPCR Symposium 6: Structure-function of GPCRs (continued)	
10:40–11:20	Conformational dynamics in the allosteric regulation of β_2-adrenergic receptor signaling – 406	Sponsored by 
11:20–12:00	Prof R. Scott Prosser, University of Toronto, Canada	
12:00–12:40	Exploring GPCR ligand interactions through structural and biophysical studies – 407	
	Dr Robert Cooke, Heptares Therapeutics, UK	
	Crystal structure of rhodopsin bound to arrestin determined by femtosecond X-ray laser – 408	
	Prof Eric Xu, Institute of Materia Medica, Shanghai	
12:40–13:25	Lunch with exhibitors	Sponsored by 
	Clarendon Auditorium foyer, Level 2	
13:30–15:30	MPGPCR Symposium 7: Signalling in space and time	
	Chair: Dr Rob Lane	
13:30–14:10	GPCR-G protein signaling from endosomes – 409	Sponsored by 
14:10–14:50	Prof Mark von Zastrow, The University of California, San Francisco	
14:50–15:30	Receptor localisation shapes the spatiotemporal dynamics of GPCR signalling – 410	
	Dr Michelle Halls, Monash University	
	From biochemistry to molecular imaging of GPCRs – 411	
	Prof Martin Lohse, University of Wurzburg, German	
15:30–15:55	Afternoon tea with exhibitors	
	Clarendon Auditorium foyer, Level 2	
16:00–18:00	MPGPCR Symposium 8: Chemical Biology and Mechanistic Pharmacology	
	Chair: Prof Arthur Christopoulos	
16:00–16:40	A new approach to treat ischaemic heart disease: Adenosine receptor biased agonism – 412	
16:40–17:20	Dr Lauren May, Monash University	
17:20–18:00	Dualsteric GPCR modulators with engineered efficacy to fine-tune muscarinic receptor signaling – 413	
	Prof Klaus Mohr, University of Bonn, Germany	
	Observed drug-receptor association rates are strongly influenced by membrane affinity: The importance of establishing micro PK/PD relationships – 414	
	Prof Steven Charlton, The University of Nottingham, UK	
18:00–18:30	MPGPCR Awards and close	
	Chair: Dr Chris Langmead	

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