

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 | PGx Workshop (10:00 – 12:00) | Lipidic Cubic Phase (LCP) Workshop |
| | Room: Clarendon Room C, Level 2 | Room: Clarendon Room D, Level 2 | Room: Clarendon Room E, Level 2 |
| | | Chair: Prof Andrew Somogyi | Asst Prof Andrew Kruse, Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School |
| | | Presenters: Dr Katie Leach, Monash University Prof Patrick Kwan, Royal Melbourne Hospital Assoc Prof Les Sheffield, GenesFX Health | Supported by  GeneWorks |
| | | Student/ECR short presentations Pharmacogenomics SIG AGM | |
| 14:00–16:00 | Clinical Pharmacology Workshop | Careers Workshop | Education Workshop |
| | Room: Clarendon Room C, Level 2 | Room: Clarendon Room D, Level 2 | Room: Clarendon Room E, Level 2 |
| | Chair: Dr Ingrid Hopper | Chair: Dr Nicole Jones | Chair: Dr Anna-Marie Babey |
| | Presenters: Dr Tilenka Thynne, Flinders Medical Centre Assoc Prof Matt Doogue, Otago University, New Zealand Dr Joel Iedema, Redland Hospital | 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 | 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



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

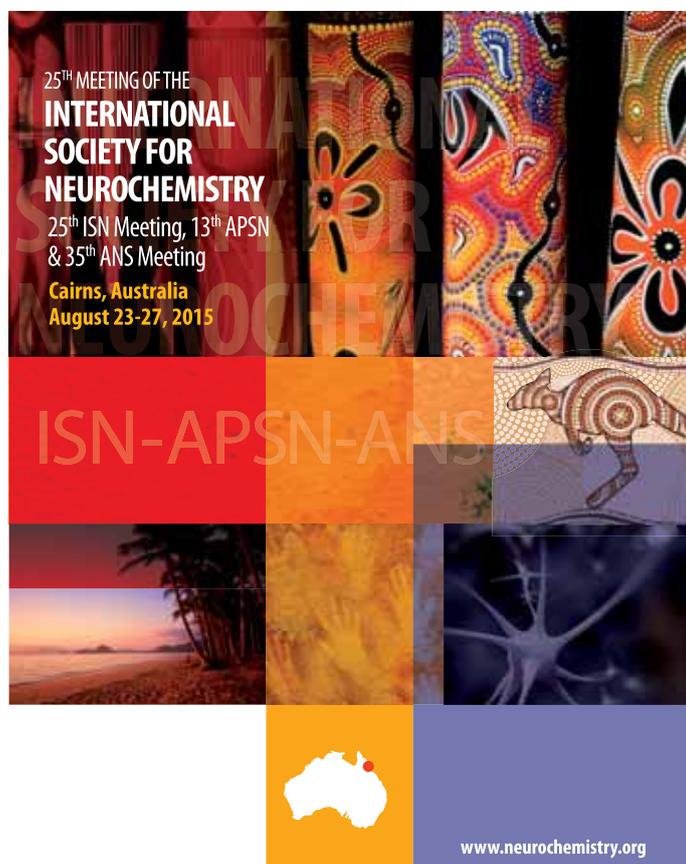
Tuesday 9 December, 2014

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|-------------|--|---|---|
| 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  COMPOUNDS AUSTRALIA | |
| 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 Pflieger, 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  Pfizer | |
| | | SIG meeting: Pharmacoepidemiology | |
| | | Room: Clarendon Room A, Level 5 | |
| 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 | |

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| 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, Roberts 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 | (Symposium finishes at 17:45) |
| 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 | Sponsored by  |
| 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 | | |

25TH MEETING OF THE
INTERNATIONAL SOCIETY FOR NEUROCHEMISTRY
25th ISN Meeting, 13th APSN & 35th ANS Meeting
Cairns, Australia
August 23-27, 2015

ISN-APSN-ANS



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Wednesday 10 December, 2014

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| 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 Clarendon Auditorium foyer, Level 2 Poster presentations: MPGPCR ASCEPT student poster prize session Sponsored by  | SIG meeting: Neuropharmacology Room: Clarendon Room B, Level 5 | |
| | | SIG meeting: Clinical Pharmacology Room: Clarendon Room A, Level 5 | |
| 10:30–12:30 | Oral presentations 6: ASCEPT Garth McQueen Oral Prize Room: Clarendon Room B, Level 5 Chair: Dr Nicole Jones | MPGPCR Symposium 2: GPCRs in Cardio-Metabolic Disorders Room: Clarendon Auditorium, Level 2 Chair: Prof Roger Summers | Symposium 8: Cardiac safety vs efficacy: Focus on heart failure Room: Clarendon Room A, Level 5 Chairs: Dr Felicity Grzemski; Assoc Prof Rebecca Ritchie |
| | 10:30-10:45 AT₄ Receptor/Insulin Regulated Aminopeptidase (IRAP): A target for protection in cardiovascular disease – 311 Huey Wen Lee, Monash University | 10:30-10:45 Modulation of class B GPCR pharmacology by RAMPs: Insights from adrenomedullin and amylin receptors – 302 Dr Debbie Hay, University of Auckland, New Zealand | 10:30-10:45 Applying pharmacology principles to target selection and target safety assessment – 305 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 Carmen Klein Herenbrink, Monash University | 10:45-11:00 A function for bitter taste receptors in human heart – 303 Prof Walter Thomas, The University of Queensland | 10:45-11:00 Development of new in silico methods for assessing the pro-arrhythmic risk of drugs – 306 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 Elizabeth Vecchio, Monash University | 11:00-11:15 New GPCR targets for fibrosis: Relaxin family peptide receptor 1 (RXFP1)-angiotensin II (AT) receptor heterodimers – 304 Assoc Prof Chrisan Samuel, Monash University | 11:00-11:15 Development of cardiac failure models as translational pharmacology models for diabetic cardiomyopathy and diastolic heart failure – 307 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 John Mach, Kolling Institute of Medical Research | | 11:15-11:30 In silico prediction of Ames mutagenicity based on molecular descriptors – 308 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 Kylie Mills, Bond University | | 11:30-11:45 Augmented Caveolin 3 in cardiomyocytes limits age-related ischemic intolerance: Scaffolding hypothesis of aging – 309 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 Mohsin Sarwar, Monash University | | 11:45-12:00 Endogenous Annexin-A1 (ANX-A1) is cardioprotective against myocardial infarction(MI) in mice in vivo – 310 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 Lisa Kouladjian, University of Sydney | | 12:00-12:15 Panel discussion Sponsored by  | |
| 12:15-12:30 Quantification of the forgiveness of drugs to imperfect adherence – 318 Piyanan Assawasuwannakit, University of Otago, New Zealand | | | |
| 12:30–13:25 | Lunch with exhibitors Clarendon Auditorium foyer, Level 2 Poster presentations: MPGPCR ASCEPT student poster prize session Sponsored by  | | SIG meeting: Inflammation/respiratory Room: Clarendon Room B, Level 5 |

program continued on page 8





ASCEPT-BPS
JOINT SCIENTIFIC MEETING

Tomorrow's medicines: pharmacology, patients and populations

19-21 May 2015 - University of Hong Kong



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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 M_4 receptor regulation of psychosis-like behaviours induced by a dopamine D_1 receptor-selective agonist in mice - 334 Amy Nae-Yng Chen, Monash University | Coenzyme Q_{10} protects the heart against diabetes-induced diastolic dysfunction and structural remodelling in mice with diminished phosphoinositide 3-kinase $p110\alpha$ (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 ($p110\alpha$) 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 M_1 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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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 James Coleman, Victor Chang Cardiac Research Institute | Sponsored by  |
| 08:45–09:00 | Identification of the mechanisms which govern allosterism at the dopamine D₂ receptor – 402 Christopher Draper-Joyce, Monash University | |
| 09:00–09:15 | Structural basis for G protein-mediated high-affinity agonist binding to GPCRs – 403 Jacob Mahoney, University of Michigan, USA | |
| 09:15–09:30 | 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 Prof Roger Sunahara, University of Michigan, USA | | |
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| 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 Prof R. Scott Prosser, University of Toronto, Canada | Sponsored by  |
| 11:20–12:00 | Exploring GPCR ligand interactions through structural and biophysical studies – 407 Dr Robert Cooke, Heptares Therapeutics, UK | |
| 12:00–12:40 | 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 Clarendon Auditorium foyer, Level 2 | | |
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| 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 Prof Mark von Zastrow, The University of California, San Francisco | Sponsored by  |
| 14:10–14:50 | Receptor localisation shapes the spatiotemporal dynamics of GPCR signalling – 410 Dr Michelle Halls, Monash University | |
| 14:50–15:30 | 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 Dr Lauren May, Monash University | |
| 16:40–17:20 | Dualsteric GPCR modulators with engineered efficacy to fine-tune muscarinic receptor signaling – 413 Prof Klaus Mohr, University of Bonn, Germany | |
| 17:20–18:00 | 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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