



AUSTRALASIAN SOCIETY OF CLINICAL AND  
EXPERIMENTAL PHARMACOLOGISTS AND TOXICOLOGISTS

## ANNUAL SCIENTIFIC MEETING

*Innovation in therapeutics:  
Fundamental research to clinical impact*

**27–30 November 2018**

ADELAIDE CONVENTION CENTRE

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**POSTER PROGRAM**

Wednesday 28 November 2018 09:30 – 10:25 and 12:30 – 13:25

Clinical Pharmacology	
400	<b>The role of UGT enzymes in cytotoxic drug resistance in breast cancer cells and cancer stem cells</b> Mr Radwan Ansaar, Flinders University
401	<b>Tacrolimus dosing and monitoring in lung transplant patients</b> Dr Jane Carland, St Vincent's Hospital
402	<b>The effect of splitting a pill on dose accuracy: a systematic review</b> Miss Kanika Chaudhri, The George Institute for Global Health
403	<b>Does statin use affect cognition in older adults? A pilot N-of-1 deprescribing trial</b> Mr Alexander Clough, The University of Sydney
404	<b>How are we using immunosuppressant medicines in Australasian elderly renal transplant recipients?</b> Ms Amelia Cossart, The University of Queensland
405	<b>Supporting junior doctor prescribers' learning through self-assessment and feedback: positive impact of a mixed methods study</b> Dr Peter Donovan, Royal Brisbane and Women's Hospital
406	<b>The effect of the Wuzhi tablet on the metabolism of dabrafenib in human liver microsomes: a herb-drug interaction</b> Ms Alia Fahmy, The University of Sydney
407	<b>NMBA-mediated anaphylaxis: can sugammadex act as an antidote?</b> Ms Nithya Fernandopulle, The University of Melbourne
408	<b>Effect of chronic polypharmacy and the Drug Burden Index (DBI) on muscle function and structure in aged mice</b> Miss Gizem Gemikonakli, The University of Sydney
409	<b>Update of perpetrators in the pharmacokinetic interaction screening (PKIS) database</b> Miss Georgia Glass, Flinders University
410	<b>Tacrolimus dosing and monitoring: a retrospective cohort study</b> Ms Ranita Kirubakaran, University of New South Wales
411	<b>Predictive performance of tacrolimus precision dosing software in heart transplant</b> Ms Ranita Kirubakaran, University of New South Wales
412	<b>Vancomycin – effects of obesity on drug exposure and outcome with Guideline based dosing</b> Dr Mari Koyanagi, John Hunter Hospital
413	<b>Potential cytochrome-mediated drug interactions with cannabinoids</b> Dr Catherine Lucas, The University of Newcastle
414	<b>Combination therapy with an SGLT2 inhibitor as initial treatment for type 2 diabetes: a systematic review and meta-analysis</b> Dr Tamara Milder, St Vincent's Hospital
415	<b>Modulation of T-type Calcium Channels by Phytocannabinoids</b> Mrs Somayeh Mirlohi, Macquarie University
416	<b>Preferred language for communicating deprescribing decisions in the discharge summary: a qualitative study</b> Dr Brendan Ng, The University of Sydney
417	<b>Medication use in older inpatients with and without dementia</b> Miss Thu Jessica Nguyen, The University of Sydney
418	<b>Microsampling as an alternative collection method to venous blood to quantify capecitabine and its metabolites by LC-MS/MS</b> Ms Mirjana Radovanovic, University of Newcastle
419	<b>Investigation of the potentially beneficial CNS-activity of cystic fibrosis modulator drugs</b> Dr Elena Schneider-futschik, The University of Melbourne
420	<b>Comparison of vancomycin area-under-the-curve using one and two-compartment pharmacokinetic models</b> Ms Rashmi Shingde, St Vincent's Hospital
421	<b>Frailty and medication use in older inpatients: potentially inappropriate medications and polypharmacy</b> Ms Meggie Zhang, Kolling Institute of Medical Research, Royal North Shore Hospital and The University of Sydney
422	<b>Simultaneous determination of the phenotyping cocktail drugs and their cytochrome P450-specific probe metabolites in human plasma and urine by liquid chromatography/tandem mass spectrometry</b> Dr Mei Zhang, University of Otago
423	<b>Association between drug burden index and geriatric syndromes in a large, single-centre general medicine cohort</b> Dr Christopher McMaster, Austin Health
424	<b>Vancomycin Therapeutic Drug Monitoring in Paediatrics</b> Dr Joanne Patel, John Hunter Hospital
425	<b>Using population pharmacokinetics to guide vancomycin dosing in high flux haemodialysis; analysis of data from the VANISH study</b> Dr Sam Salman, University of Western Australia

426	<b>Improving the understanding of an old drug to treat the youngest patients: population pharmacokinetics of pentoxifylline and its metabolites in critically ill, very pre-term infants</b> Dr Sam Salman, University of Western Australia
427	<b>Designed with kids in mind: pharmacokinetic and clinical assessment of a novel, palatable paediatric oral formulation of midazolam</b> Dr Sam Salman, University of Western Australia
428	<b>A population pharmacokinetic study of benzylpenicillin following benzathine benzylpenicillin administration in children and adolescents with rheumatic heart disease: new insights for improved secondary prophylaxis strategies</b> Dr Sam Salman, University of Western Australia
429	<b>Suboptimal prediction of serum vancomycin concentrations with Bayesian forecasting software using a 1-compartment model in haemodialysis patients</b> Dr Maurizio Stefani, St Vincent's Hospital

## Drug Discovery

434	<b>Concatenated <math>\gamma</math>-aminobutyric acid type A receptors: creating order in chaos</b> Assoc Prof Philip Kiaer Ahring, The University of Sydney
435	<b>Elucidating the structural basis of bias at the adenosine A1 receptor</b> Dr Jo-Anne Baltos, Monash University
436	<b>Investigating G protein-coupled receptor (GPCR) signalling using novel G protein biosensors</b> Prof Ross Bathgate, Florey Institute of Neuroscience and Mental Health
437	<b>Expression of calcium pumps, channels and channel regulators in a model of therapy resistance in melanoma</b> Ms Chia Chua, The University of Queensland
438	<b>Towards developing a high throughput assay for Glycine receptors</b> Mrs Morgane Mazzarino, The University of Sydney
439	<b>Characterisation of fluorescent ligands for use with NanoBRET technology</b> Miss Natasha Dale, Harry Perkins Institute of Medical Research
440	<b>Probing the binding and function of polyamines at the calcium-sensing receptor</b> Miss Jiayin Diao, Monash University
441	<b>Exploring the structural basis of biased allosteric modulation of metabotropic glutamate receptor 5</b> Dr Karen Gregory, Monash Institute of Pharmaceutical Sciences
442	<b>Development of novel automated epifluorescence microscopy based assays for calcium signalling in breast cancer cells</b> Miss Ellen Janke, The University of Queensland
443	<b>Probing calcium sensing receptor negative allosteric modulator binding sites</b> Dr Tracy Josephs, Monash Institute of Pharmaceutical Sciences
444	<b>How ZCZ011 compares to its analogues in modulating and activating cannabinoid CB1 receptor</b> Dr Marina Junqueira Santiago, Macquarie University
445	<b>A structure-function approach to determine global and ligand-specific activation mechanisms in Class C G Protein-Coupled Receptors</b> Dr Andrew Keller, Monash University
446	<b>Calcium sensing receptor negative allosteric modulators differentially stimulate parathyroid hormone release</b> Dr Katie Leach, Monash University
448	<b>In vitro synergism of Wnt inhibitor niclosamide and pyrvinium in combination with chemotherapy in colorectal cancer DLD-1 and SW620 cells</b> Dr Johnson Liu, University of New South Wales
449	<b>Exploring subtype differences in <math>\alpha</math>1-adrenoceptor ligand residence time</b> Miss Samantha Miles, University of New South Wales
450	<b>Inhibition of human breast cancer cells MCF-7 and MDA-MB-231 growth and proliferation by allyl isothiocyanate from cruciferous vegetables</b> Dr Suong Ngo, The University of Adelaide
451	<b>Measurement of ligand-receptor interactions and internalisation of the CXCR4 chemokine receptor using high affinity Nanoluciferase complementation</b> Assoc Prof Kevin Pflieger, The University of Western Australia
452	<b>Upregulation of cyclooxygenase-2 (COX-2) in MDA-MB-231 breast cancer cells by the arylurea-fatty acid CTU</b> Mr Md Khalilur Rahman, The University of Sydney
453	<b>Cancer associated fibroblasts undergo a calcium channel switch</b> Dr Francisco Sadras, The University of Queensland
454	<b>Automated epifluorescence microscopy based imaging of breast cancer cells with fixed cellular geometry</b> Ms Choon Leng So, The University of Queensland

455	<b>ZST316, a novel dimethylarginine dimethylaminohydrolase-1 (DDAH1) inhibitor, reduces angiogenic capacity in cultured endothelial cells</b> Ms Negara Tajbakhsh, Flinders University
456	<b>The AKT activator SC79 promotes Ca<sup>2+</sup> influx in MDA-MB-231 breast cancer cells</b> Ms Yin Yi Tan, The University of Queensland
457	<b>The receptor-effector interactions underpinning adenosine A2B receptor signal transduction</b> Miss Bui San Thai, Monash University
458	<b>Investigating potential functional crosstalk of co-located metabotropic glutamate receptor 5 and adenosine A1 receptors in primary neurons and glia</b> Miss Nguyen Hong Phuc Trinh, Monash University
459	<b>Exploration of tricyclic TSP0 ligands to overcome binding sensitivity to the A147T TSP0 polymorphism</b> Dr Eryn Werry, The University of Sydney

## Education

471	<b>Pharmacy intern vaccination training</b> Prof Peter Carroll, The University of Sydney
472	<b>Delivery of flexible and effective curricula in pharmacology to diverse student cohorts</b> Dr Elvan Djouma, La Trobe University
473	<b>Relationship between entry requirements and academic outcomes in pharmacology for nursing students</b> Dr Sheila Doggrell, Queensland University of Technology
474	<b>Student attitudes towards pharmacology practicals</b> Dr Lynette Fernandes, University of Western Australia
475	<b>Work integrated learning: interdisciplinary, project-based learning as a means of developing employability skills</b> Dr Joanne Hart, The University of Sydney
476	<b>Introducing project-based learning into the Pharmacology major at the University of Sydney: a case study</b> Dr Joanne Hart, The University of Sydney
477	<b>Transforming education through cloud-based technologies for authentic and adaptive learning</b> Assoc Prof Tina Hinton, The University of Sydney
478	<b>Design and development of a new oncology unit of study in the new integrated pharmacy curriculum</b> Dr Rebecca Roubin, The University of Sydney
479	<b>Experiential training courses for medical technology and pharmaceutical translation</b> Ms Ruth Seeber, Accelerating Australia

## Pharmacoepidemiology

486	<b>Body mass impacts survival in non-small cell lung cancer patients</b> Assoc Prof Kellie Charles, The University of Sydney
487	<b>Effect of early adverse events on response and survival outcomes of advanced melanoma patients treated with vemurafenib or vemurafenib plus cobimetinib: a pooled analysis of clinical trial data</b> Dr Ashley Hopkins, Flinders University
488	<b>The risk of head trauma associated with antipsychotic use among community dwellers with Alzheimer's disease</b> Dr Marjaana Koponen, University of Eastern Finland
489	<b>Trajectories of work disability before and after opioid initiation for non-cancer pain: 10-year population-based study</b> Ms Samanta Lalic, Monash University
490	<b>Prevalence and incidence of prescription opioid analgesic use in Australia</b> Ms Samanta Lalic, Monash University
491	<b>Validation and implementation of three new medicines-related quality indicators in residential aged care facilities</b> Ms Leonie Picton, Monash University
492	<b>The 'Talking about deprescribing' resource to facilitate conversations about medicines discontinuation in residential aged care</b> Ms Leonie Picton, Monash University
493	<b>An assessment of the safety and quality of nurse-initiated and pro re nata (PRN) medication use in Victorian aged care services: a study protocol</b> Ms Leonie Picton, Monash University
494	<b>Attitudes towards deprescribing: results of a nationally representative sample of older adults in the United States</b> Dr Emily Reeve, The University of Sydney; Dalhousie University
495	<b>Proton pump inhibitor use in residential aged care services: does it pass the acid test?</b> Dr Janet Sluggett, Monash University

496	<b>Multiple antihypertensive use and the risk of mortality in residents of aged care services: a prospective cohort study</b> Dr Edwin Tan, Monash University
497	<b>Use of HMG-Co-A-reductase inhibitors (statins) and risk of fall-related hospital admissions in residents of aged care facilities: a case-control study</b> Miss Kate Wang, Monash University
498	<b>Treatment initiation for Type 2 Diabetes in Australia: Are the guidelines being followed?</b> Mr Stephen Wood, Monash University

### Inflammation/respiratory

504	<b>Dynorphin 3-14 modulation of peptidoglycan induced TNF-alpha release in macrophages</b> Miss Margaret Perona, The University of Queensland
505	<b>SOD off (or on?): mitotronics - powering inflammation and immunity</b> Mr Tim Shaw, The Peter Doherty Institute
506	<b>The use of non-steroidal anti-inflammatory drugs in an Australian elite athlete population</b> Assoc Prof Alison Shield, University of Canberra
507	<b>SMRT is essential for phospholipase D dependent glucocorticoid insensitivity</b> Prof Alastair Stewart, The University of Melbourne
508	<b>SULPHASALAZINE (SSZ, Salazopyrin), an enigmatic drug for chronic inflammation: some insights from antibacterial assays in vitro</b> Prof Michael Whitehouse, Griffith University
509	<b>Mechanism of human mast cell activation by polymyxins</b> Miss Stephanie Zhang, The University of Melbourne

Thursday 29 November 2018 09:30 – 10:25 and 12:30 – 13:25

**Cardiovascular**

430	<b>Systematic review with meta-analysis: risk of adverse cardiovascular events with proton pump inhibitors independent of clopidogrel</b> Dr Riley Batchelor, Monash University
431	<b>The impact of diabetes on cardiac remodelling and the hexosamine biosynthesis pathway (HBP) in the human heart</b> Mr David Nash, Baker Heart and Diabetes Institute
432	<b>Therapeutic role of rAAV6-BMP7 to limit diabetic cardiomyopathy in type 2 diabetic mice</b> Miss Nimna Perera, Baker Heart and Diabetes Institute
433	<b>The effect of long-term polypharmacy on cardiovascular functions and cardiac fibrosis in aged mice</b> Ms Trang Tran, The University of Sydney

**Drug Disposition and Response**

460	<b>Mechanistic population in vitro-in vivo pharmacokinetic model of the effect of omeprazole on itraconazole pharmacokinetics</b> Dr Ahmad Abuhelwa, University of South Australia
461	<b>Physiologically-based pharmacokinetic modelling of hyperforin to predict drug interactions with St John's wort</b> Mr Jeffry Adiwidjaja, The University of Sydney
462	<b>Role of MRGPRX2 and evidence of biased agonism in drugs that cause non-IgE mediated mast cell activation</b> Ms Nithya Fernandopulle, The University of Melbourne
463	<b>Stable isotope-labelled morphine to study in vivo central and peripheral morphine glucuronidation and brain transport in tolerant mice</b> Dr Yannick Goumon, CNRS UPR3212
464	<b>The magnitude and time-course of hepatic and intestinal Cytochrome P450 3A4 induction and de-induction</b> Ms Asha Kapetas, Flinders University
465	<b>Quantification of serum levels of 8 drugs (11 metabolites) commonly taken by older people with polypharmacy</b> Dr John Mach, NSLHD
466	<b>Characterising the functions of UDP-glucuronosyltransferase (UGT) 2B15 and 2B17 in breast cancer cells</b> Mr Quinn Martin, Flinders University
467	<b>Computational prediction of the sites of metabolism (SOM) of protein kinase inhibitors</b> Dr Pramod Nair, Flinders University
468	<b>Understanding variability in circulating extracellular nanovesicles: implications for biomarker analyses</b> Ms Lauren Newman, Flinders University
469	<b>Detection of hepatic cytochromes P450 protein in plasma derived extracellular nanovesicles (exosomes)</b> Mr Warit Ruanglertboon, Flinders University
470	<b>Identification of the caffeine to trimethyluric acid ratio as a dietary biomarker to characterise variability in Cytochrome P450 3A4 activity</b> Miss Madelé Van Dyk, Flinders University

**Neuro- and Behavioural Pharmacology**

480	<b>Characterisation of alcohol-seeking behaviour in galanin receptor-3 knockout mice</b> Miss Shannyn Genders, La Trobe University
481	<b>Paracetamol entry into the developing brain</b> Miss Yifan Huang, The University of Melbourne
482	<b>Neuroactive constituents of GABA-enriched oolong tea compared to regular oolong tea</b> Prof Graham Johnston, The University of Sydney
483	<b>MDMA-induced hyperthermia: the effects of minocycline on brain hyperthermia at high ambient temperature</b> Mr Stefan Musolino, The University of Adelaide
484	<b>Oxytocin and vasopressin inhibit hyper-aggressive behaviour in mice via actions at the V1A receptor</b> Mr Oliver Tan, The University of Sydney

## Pharmacogenomics

499	<b>Effects of cytokines, toll-like receptors and signal transduction receptor gene polymorphisms on acute rejection in kidney transplant patients</b> Ms Rong Hu, The University of Adelaide
500	<b>A narrative review of key stakeholder perspectives on the translation of pharmacogenomics into clinical practice</b> Ms Priya Iyer, The University of Queensland
501	<b>Pharmacogenomic considerations for the treatment of neonatal severe hyperparathyroidism (NSHPT) and familial hypocalcaemic hypercalcaemia (FHH)</b> Dr Katie Leach, Monash University
502	<b>Aboriginal Australians have higher frequencies of variant alleles for drug efflux transporters and lower frequencies for uptake transporters compared to Europeans: implications for drug efficacy and toxicity</b> Prof Andrew Somogyi, The University of Adelaide

## Toxicology

510	<b>Toxicity of herbal phytochemicals; the role of cytochrome induction</b> Miss Susan Britza, University of Adelaide
511	<b>The effects of chronic polypharmacy and deprescribing on the livers of aged mice</b> Miss Lydia Conti, The University of Sydney
512	<b>Evaluation of an early 20th century Afghan herbalist's preparations</b> Miss Rachael Farrington, The University of Adelaide
513	<b>Using single-ended transition state searching to mechanistically assess chemical skin sensitisation potential</b> Mr Davy Guan, The University of Sydney
514	<b>Using deep learning to improve chemical representation in skin sensitisation Quantitative Structure Activity Relationship (QSAR) models</b> Mr Davy Guan, The University of Sydney
515	<b>Strain-specific Ames mutagenicity modelling using multitask deep learning</b> Mr Raymond Lui, The University of Sydney
516	<b>Comparing molecular featurisation strategies for logP prediction</b> Mr Raymond Lui, The University of Sydney
517	<b>A fatal case of toxic leukoencephalopathy from organic solvent abuse</b> Dr Joanne Patel, John Hunter Hospital

## Urogenital and Gastrointestinal

518	<b>Mechanisms underlying purinergic P2X7 receptor antagonism in maintaining urothelial barrier function against acrolein-induced inflammation and cytotoxicity</b> Miss Zhinoos Taidi, University of New South Wales
519	<b>Differential expression of thromboxane synthase in human colon; upregulation in Crohn's disease and with age</b> Miss Lixin Zhang, University of New South Wales