



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

426	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 Dr Sam Salman, University of Western Australia
427	Designed with kids in mind: pharmacokinetic and clinical assessment of a novel, palatable paediatric oral formulation of midazolam Dr Sam Salman, University of Western Australia
428	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 Dr Sam Salman, University of Western Australia
429	Suboptimal prediction of serum vancomycin concentrations with Bayesian forecasting software using a 1-compartment model in haemodialysis patients Dr Maurizio Stefani, St Vincent's Hospital

Drug Discovery

434	Concatenated γ-aminobutyric acid type A receptors: creating order in chaos Assoc Prof Philip Kiaer Ahring, The University of Sydney
435	Elucidating the structural basis of bias at the adenosine A1 receptor Dr Jo-Anne Baltos, Monash University
436	Investigating G protein-coupled receptor (GPCR) signalling using novel G protein biosensors Prof Ross Bathgate, Florey Institute of Neuroscience and Mental Health
437	Expression of calcium pumps, channels and channel regulators in a model of therapy resistance in melanoma Ms Chia Chua, The University of Queensland
438	Towards developing a high throughput assay for Glycine receptors Mrs Morgane Mazzarino, The University of Sydney
439	Characterisation of fluorescent ligands for use with NanoBRET technology Miss Natasha Dale, Harry Perkins Institute of Medical Research
440	Probing the binding and function of polyamines at the calcium-sensing receptor Miss Jiayin Diao, Monash University
441	Exploring the structural basis of biased allosteric modulation of metabotropic glutamate receptor 5 Dr Karen Gregory, Monash Institute of Pharmaceutical Sciences
442	Development of novel automated epifluorescence microscopy based assays for calcium signalling in breast cancer cells Miss Ellen Janke, The University of Queensland
443	Probing calcium sensing receptor negative allosteric modulator binding sites Dr Tracy Josephs, Monash Institute of Pharmaceutical Sciences
444	How ZCZ011 compares to its analogues in modulating and activating cannabinoid CB1 receptor Dr Marina Junqueira Santiago, Macquarie University
445	A structure-function approach to determine global and ligand-specific activation mechanisms in Class C G Protein-Coupled Receptors Dr Andrew Keller, Monash University
446	Calcium sensing receptor negative allosteric modulators differentially stimulate parathyroid hormone release Dr Katie Leach, Monash University
448	In vitro synergism of Wnt inhibitor niclosamide and pyrvinium in combination with chemotherapy in colorectal cancer DLD-1 and SW620 cells Dr Johnson Liu, University of New South Wales
449	Exploring subtype differences in α1-adrenoceptor ligand residence time Miss Samantha Miles, University of New South Wales
450	Inhibition of human breast cancer cells MCF-7 and MDA-MB-231 growth and proliferation by allyl isothiocyanate from cruciferous vegetables Dr Suong Ngo, The University of Adelaide
451	Measurement of ligand-receptor interactions and internalisation of the CXCR4 chemokine receptor using high affinity Nanoluciferase complementation Assoc Prof Kevin Pflieger, The University of Western Australia
452	Upregulation of cyclooxygenase-2 (COX-2) in MDA-MB-231 breast cancer cells by the arylurea-fatty acid CTU Mr Md Khalilur Rahman, The University of Sydney
453	Cancer associated fibroblasts undergo a calcium channel switch Dr Francisco Sadras, The University of Queensland
454	Automated epifluorescence microscopy based imaging of breast cancer cells with fixed cellular geometry Ms Choon Leng So, The University of Queensland

455	ZST316, a novel dimethylarginine dimethylaminohydrolase-1 (DDAH1) inhibitor, reduces angiogenic capacity in cultured endothelial cells Ms Negara Tajbakhsh, Flinders University
456	The AKT activator SC79 promotes Ca²⁺ influx in MDA-MB-231 breast cancer cells Ms Yin Yi Tan, The University of Queensland
457	The receptor-effector interactions underpinning adenosine A2B receptor signal transduction Miss Bui San Thai, Monash University
458	Investigating potential functional crosstalk of co-located metabotropic glutamate receptor 5 and adenosine A1 receptors in primary neurons and glia Miss Nguyen Hong Phuc Trinh, Monash University
459	Exploration of tricyclic TSP0 ligands to overcome binding sensitivity to the A147T TSP0 polymorphism Dr Eryn Werry, The University of Sydney

Education

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

Pharmacoepidemiology

486	Body mass impacts survival in non-small cell lung cancer patients Assoc Prof Kellie Charles, The University of Sydney
487	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 Dr Ashley Hopkins, Flinders University
488	The risk of head trauma associated with antipsychotic use among community dwellers with Alzheimer's disease Dr Marjaana Koponen, University of Eastern Finland
489	Trajectories of work disability before and after opioid initiation for non-cancer pain: 10-year population-based study Ms Samanta Lalic, Monash University
490	Prevalence and incidence of prescription opioid analgesic use in Australia Ms Samanta Lalic, Monash University
491	Validation and implementation of three new medicines-related quality indicators in residential aged care facilities Ms Leonie Picton, Monash University
492	The 'Talking about deprescribing' resource to facilitate conversations about medicines discontinuation in residential aged care Ms Leonie Picton, Monash University
493	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 Ms Leonie Picton, Monash University
494	Attitudes towards deprescribing: results of a nationally representative sample of older adults in the United States Dr Emily Reeve, The University of Sydney; Dalhousie University
495	Proton pump inhibitor use in residential aged care services: does it pass the acid test? Dr Janet Slugggett, Monash University

496	Multiple antihypertensive use and the risk of mortality in residents of aged care services: a prospective cohort study Dr Edwin Tan, Monash University
497	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 Miss Kate Wang, Monash University
498	Treatment initiation for Type 2 Diabetes in Australia: Are the guidelines being followed? Mr Stephen Wood, Monash University

Inflammation/respiratory

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

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

Cardiovascular

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

Drug Disposition and Response

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

Neuro- and Behavioural Pharmacology

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

Pharmacogenomics

499	Effects of cytokines, toll-like receptors and signal transduction receptor gene polymorphisms on acute rejection in kidney transplant patients Ms Rong Hu, The University of Adelaide
500	A narrative review of key stakeholder perspectives on the translation of pharmacogenomics into clinical practice Ms Priya Iyer, The University of Queensland
501	Pharmacogenomic considerations for the treatment of neonatal severe hyperparathyroidism (NSHPT) and familial hypocalcaemic hypercalcaemia (FHH) Dr Katie Leach, Monash University
502	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 Prof Andrew Somogyi, The University of Adelaide

Toxicology

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

Urogenital and Gastrointestinal

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