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AUSTRALASIAN SOCIETY OF CLINICAL AND EXPERIMENTAL
PHARMACOLOGISTS AND TOXICOLOGISTS



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Queenstown, New Zealand
25-29 November 2019

Joint scientific meeting

Shared horizons: Optimising drug response to improve patient outcomes
#ASCEPTPAGANZ2019

**Poster
Program**

Wednesday 27 November 2019, 10:30 – 11:10 and 13:15 – 14:10**Clinical Pharmacology**

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| 437 | Pharmaceutical Benefits Scheme (PBS) subsidised opioid medicines Dr Christina Abdel Shaheed, Institute For Musculoskeletal Health, The University of Sydney, Australia |
| 438 | Health consumers' perspectives of Saudi pharmacists' roles in cardiovascular disease prevention Mr Hadi Almansour, The University of Sydney, Australia |
| 439 | The effect of immunosuppressant prescribing patterns on patient outcomes in elderly Australasian kidney transplant recipients Ms Amelia Cossart, The University of Queensland, Australia |
| 440 | Intensive rheumatoid arthritis therapy using a methotrexate loading dose schedule Mrs Dala Daraghmeh, University of South Australia, Australia |
| 441 | Selection of suitable probe substrates to determine drug-metabolising enzyme activity in extracellular vesicles Ms Alia Fahmy, Flinders University, Australia |
| 442 | Chronic polypharmacy and the Drug Burden Index (DBI) effects muscle function and structure in aged mice: Association with gut microbiome Ms Gizem Gemikonakli, Kolling Institute of Medical Research; The University of Sydney, Australia |
| 443 | NSW Cannabis Medicines Advisory Service (CMAS) methodology and evolution Ms Myfanwy Graham, NSW CMAS, Australia |
| 444 | Evaluation of fixed versus weight-based dosing regimens of intravenous vancomycin in patients receiving high-flux haemodialysis Dr Katrina Hui, Monash University, Australia |
| 445 | Evaluation of data sharing statements within the top ten general and internal medical journals Ms Navkiran Kaur, Flinders University, Australia |
| 446 | Population pharmacokinetic models of tacrolimus in adult transplant recipients: A systematic review Ms Ranita Kirubakaran, University of New South Wales, Australia |
| 447 | External evaluation of published population pharmacokinetic models of tacrolimus in adult heart transplant recipients Ms Ranita Kirubakaran, University of New South Wales, Australia |
| 448 | Population pharmacodynamic modeling of sevoflurane as a bioequivalence test Dr Seong-heon Lee, Chonnam National University Medical School, South Korea |
| 449 | Prescribing practices of secondary stroke prevention medications at discharge from a large tertiary hospital Miss Dorsa Maher, University of South Australia, Australia |
| 450 | Medication adherence in gout: Identifying high-risk patient groups in an Australian clinical setting Mr Chi Mao, University of New South Wales, Australia |
| 451 | Unbound mycophenolic acid exposure is significantly higher prior to kidney transplantation, stabilizing over the first 2 post-transplant weeks Dr David Metz, The University of Melbourne, Australia |
| 452 | Validity and reliability of clinical resources on adverse effects of medicines: Drug-induced liver injury Mrs Marie-claire Morahan, Canterbury District Health Board, New Zealand |
| 453 | Development of an optimal sampling schedule for neonates and infants undergoing propofol infusions Mr James Morse, University of Auckland, New Zealand |
| 454 | Simultaneous quantification of four beta-Lactams in human plasma for therapeutic drug monitoring Miss Janni Mortensen, University of Copenhagen, Denmark |
| 455 | Development of a novel LC-MS method to measure CYP2D6 activity in extracellular vesicles Ms Reham Mounzer, Flinders University, Australia |
| 456 | Optimal design for the estimation of cefuroxime population parameters in the paediatric intensive care setting Mr Conor O'Hanlon, University of Auckland, New Zealand |
| 457 | Opioid exposure and cancer outcome Assoc Prof Marie-Odile Parat, The University of Queensland, Australia |
| 458 | Accuracy of documented administration times for intravenous antimicrobial drugs Ms Steph Roydhouse, University of New South Wales; St Vincent's Hospital, Sydney, Australia |
| 459 | Real-world efficacy and safety outcomes of imatinib treatment in patients with Chronic Myeloid Leukemia: An Australian experience Miss Josephine Touma, The University of Sydney, Australia |
| 460 | Proteomic analysis of drug metabolising enzymes in extracellular vesicles Dr Madel  Van Dyk, Flinders University, Australia |
| 461 | Diabetic complications prevalence among patients treated with oral hypoglycemic agents and/or insulin at Suva Diabetic Hub from 2015 – 2017 Mr Napolioni Vulakouvaki, Fiji National University, Fiji |
| 462 | Barriers and facilitators to user acceptance of a pilot therapeutic drug monitoring advisory service for vancomycin Miss Rachel Yager, University of New South Wales, Australia |

Wednesday 27 November 2019, 10:30 – 11:10 and 13:15 – 14:10**Clinical Pharmacology Trainee**

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| 463 | Single-centre retrospective audit on the use of tapentadol and discharge communication Dr Arushi Madan, Royal Brisbane & Women's Hospital, Australia |
| 464 | Monitoring for phenytoin toxicity in patients with hypoalbuminemia Dr Arushi Madan, Royal Brisbane & Women's Hospital, Australia |

Wednesday 27 November 2019, 10:30 – 11:10 and 13:15 – 14:10**Drug Discovery**

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| 476 | Development of a cell-based assay for screening of P2X1-purinoceptor antagonists for use in male contraception Mr Felix Bennetts, Monash University, Australia |
| 477 | Developing Cannabinoids to target T-type calcium channels involved in epilepsy Dr Christopher Bladen, Macquarie University, Australia |
| 478 | Orai channel alterations as a consequence of differentiation in a human neural progenitor cell line Ms Silke Chalmers, The University of Queensland, Australia |
| 479 | Investigating the role of the calcium-sensing receptor in airway contraction using mouse precision cut lung slices Miss Jiayin Diao, Monash University, Australia |
| 480 | Using untargeted metabolomics to discover the killing mechanism of Ceftazidime-avibactam against multidrug resistant <i>K. pneumonia</i> Ms Drishti Ghelani, The University of Melbourne, Australia |
| 481 | Dissecting mechanisms of fenestration dynamics in liver sinusoidal endothelial cells Mr Christopher Florian Holte, University of Tromsø, Norway |
| 482 | Live cell imaging: An assessment tool for breast cancer cell death Ms Trinh Hua, The University of Queensland, Australia |
| 483 | Nanomedicine based delivery of metformin and nicotinamide mononucleotide (NMN) to single cell types of the liver via oral administration Dr Nicholas Hunt, The University of Sydney, Australia |
| 484 | Unravelling signalling mechanism of peptide mimetic at the relaxin receptor RXFP1 in human cardiovascular cells Dr Martina Kocan, Florey Institute; Melbourne University, Australia |
| 485 | Oxidative stress and calcium signalling in breast cancer and human fibroblast cell co-cultures Ms Karman Lee, The University of Queensland, Australia |
| 486 | Interleukin-18: A novel target for drug discovery to treat hypertension? Dr Maggie Lieu, Clarivate Analytics, Australia |
| 487 | Assessment of Ca²⁺ channels and pumps in brain-seeking breast cancer cell lines Mr Darren Lim, The University of Queensland, Australia |
| 488 | Expression of Wnt signalling components and cytotoxicity of Wnt inhibitors in colorectal cancer HCT-15 and HCT116 cells Dr Johnson Liu, University of New South Wales, Australia |
| 489 | Developing a systematic efficient method to determine synergistic 3 herb combinations in the search for osteoarthritis treatments Dr Mitchell Low, Western Sydney University, Australia |
| 490 | Development of a safe and effective painkiller from the spider venom peptide Pn3a Mr Alexander Mueller, The University of Queensland, Australia |
| 491 | AG-OX, a potent inhibitor of interactions between S100A9 and RAGE/TLR4, selectively inhibits S100A9-positive triple-negative breast cancer Mr Kyung Yul Oh, Sungkyunkwan University, South Korea |
| 492 | Biased agonism at chemokine receptors: critical role for the chemokine N-terminal region Assoc Prof Martin Stone, Monash University, Australia |
| 493 | Development of a luciferase complementation method to investigate extracellular CXCR4 conformational changes Dr Carl White, University of Nottingham, UK; University of Western Australia, Australia |
| 494 | A traditional anti-inflammatory from Tasmania and Southern NZ: Mutton Bird Oil (MBO) Prof Michael Whitehouse, Griffith University, Australia |

Wednesday 27 November 2019, 10:30 – 11:10 and 13:15 – 14:10**Pharmacogenomics**

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| 517 | CYP2D6 genotype distribution in Aboriginal and non-Aboriginal Australians Dr Daniel Barratt, University of Adelaide, Australia |
| 518 | Prediction of pharmacokinetics in lornoxicam by CYP2C9 genetic polymorphism: From in vitro to clinical studies Mr Chang-Keun Cho, Sungkyunkwan University, South Korea |
| 519 | Estimating concentration of venlafaxine and its metabolite in case of enzyme polymorphism and renal impairment Mr Chang-Keun Cho, Sungkyunkwan University, South Korea |
| 520 | Simulation of metoclopramide pharmacokinetic model according to CYP2D6 genotypes in adults and pediatric patients Ms Shin Hyo Bin, Sungkyunkwan University, South Korea |
| 521 | Prediction of flurbiprofen pharmacokinetics from using in vitro metabolism data in relation to CYP2C9 genetic polymorphism Ms Shin Hyo Bin, Sungkyunkwan University, South Korea |
| 522 | Should we be investigating inter-individual differences in biliary excretion of 5-Fluorouracil (5-FU) as a risk factor for 5-FU toxicity? Dr Soo Hee Jeong, University of Auckland, New Zealand |
| 523 | The effects of CYP2C19 genetic polymorphism on the pharmacokinetics of omeprazole using physiology and physicochemistry based pharmacokinetic predictions Mr Eui-hyun Jung, Sungkyunkwan University, South Korea |
| 524 | Physiology and physicochemistry based pharmacokinetic predictions: Effect of CYP2C9 genetic polymorphism on candesartan pharmacokinetics Mr Eui-hyun Jung, Sungkyunkwan University, South Korea |
| 525 | Prediction of propranolol pharmacokinetics changes according to the variation in genetic and non-genetic factors Mr Choong-min Lee, Sungkyunkwan University, South Korea |
| 526 | Prediction of metoprolol pharmacokinetics changes according to the variation in genetic and non-genetic factors Mr Choong-min Lee, Sungkyunkwan University, South Korea |
| 527 | Attitudes of healthy volunteers in phase I clinical trials to genetic testing Mr Sebastian Levesque, The University of Adelaide, Australia |
| 528 | Pharmacogenetic variants and psychological factors do not explain self-reported antidepressant side effects Dr Simran Maggo, University of Otago, Christchurch, New Zealand |
| 529 | The optimization of voriconazole dosing related to CYP2C19 major alleles in healthy Asian Mr Kyung Yul Oh, Sungkyunkwan University, South Korea |
| 530 | A QPCR-block assay for the detection of inter-individual differences in melphalan-induced DNA damage Miss Maia van Kan, University of Auckland, New Zealand |
| 531 | PNG HIV/AIDS patients have unique genetics Miss Helena Van Schalkwyk, University of Adelaide, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Cardiovascular**

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| 400 | Naturally occurring polymorphisms in cardiac bitter taste receptors (T2Rs) dramatically alter receptor function Mr Conor Bloxham, The University of Queensland, Australia |
| 401 | The trends and opinions of Australian clinicians on the use of antihyperglycemic agents in heart failure patients Mrs Gina Chowdhury, University of New South Wales, Australia |
| 402 | Impact of diabetes on the murine cardiac cellular landscape and systemic leukocyte proportions Mr Charles Cohen, Baker Heart and Diabetes Institute, Australia |
| 403 | Defining the characteristics of an alternate mouse model of type-2 diabetes (T2D)-induced cardiomyopathy Dr Miles De Blasio, Baker Heart and Diabetes Institute, Australia |
| 404 | Diabetes impairs the contribution of nitric oxide (NO[•]) but not nitroxyl (HNO) to endothelium dependent relaxation in rat carotid arteries Miss Jasmin Li, Baker Heart and Diabetes Institute, Australia |
| 405 | Pharmacological activity of perhexiline enantiomers in an isoprenaline model of myocardial damage Dr John Licari, University of Adelaide, Australia |
| 406 | Adiponectin receptor gene therapy as a treatment for diabetic cardiomyopathy in mice Mr Michael Mah, Baker Heart and Diabetes Institute, Australia |
| 407 | The effects of cannabidiol on the contractions of rat isolated mesenteric arteries and other muscle tissues Ms Amna Mazeah, The University of Melbourne, Australia |
| 408 | Gene delivery targeting cardiac O-GlcNAc improves mitochondrial function in a model of diabetic cardiomyopathy Dr Darnel Prakoso, Baker Heart and Diabetes Institute, Australia |
| 409 | Reduced adenosine A2B receptor protein expression in adult rat primary cardiac myofibroblasts Assoc Prof Roselyn Rose'meyer, Griffith University, Australia |
| 410 | Targeting the NLRP3 inflammasome as a novel approach to treat pulmonary hypertension Mrs Tara Scott, Monash University, Australia |
| 411 | Investigating the impact of high glucose on adiponectin signalling in human iPSC-derived cardiomyocytes Ms Abhipree Sharma, Baker Heart and Diabetes Institute, Australia |
| 412 | Investigating the mechanisms of the inhibitory effects of relaxin on the NLRP3 inflammasome in myofibroblasts Mr Felipe Tapia, Monash University, Australia |
| 413 | The mitochondria-targeted methylglyoxal sequestering compound, MitoGamide, is cardioprotective in the diabetic heart Dr Mitchel Tate, Baker Heart and Diabetes Institute, Australia |
| 414 | Nitroxyl-based therapies to overcome nitric oxide resistance in the diabetic heart and vasculature Ms Anida Velagic, Baker Heart and Diabetes Institute, Australia |
| 415 | Post-stroke cognitive impairment is exacerbated in hypertensive mice Mr David Wong Zhang, La Trobe University, Australia |
| 416 | The M2 macrophage-derived chemokine, CCL18 is elevated in hypertension and promotes vascular fibrosis Miss Mingyu Zhu, Monash University, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Urogenital and Gastrointestinal**

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| 417 | The role of prostaglandin E2 in mediating urinary bladder contractions Miss Zane Stromberga, Bond University, Australia |
| 418 | Purinergic P2X7 receptor inhibition protects urothelial cells from acrolein-induced cell death, which is independent of oxidative stress Miss Zhinoos Taidi, University of New South Wales, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Toxicology**

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| 419 | Preliminary validation and application of a LCMS/MS method to quantify plasma efavirenz and metabolites in Papua New Guinea HIV/AIDS patients Miss Natalia Bordin Andriqueti, University of Adelaide, Australia |
| 420 | Traditional Chinese herbs: The toxicity of polyherbacy in in vitro models of at-risk organ structures Ms Susan Britza, University of Adelaide, Australia |
| 421 | Assessing quantum mechanical chemical descriptors for modelling toxicological outcomes Mr Davy Guan, The University of Sydney, Australia |
| 422 | Optimising the methylthiol reaction model for predicting in vitro Direct Peptide Reactivity Assay results Mr Davy Guan, The University of Sydney, Australia |
| 423 | Hybrid toxicogenomic augmented structure activity relationships for chemical carcinogenicity prediction Mr Kerry Heffernan, The University of Sydney, Australia |
| 424 | The in vitro neurotoxicity of Indian cobra (Naja naja) venom: Efficacy of antivenom Mr Tam Huynh, Monash University, Australia |
| 425 | Multitask deep learning for metabolism-aware strain-specific assessment of Ames mutagenicity Mr Raymond Lui, The University of Sydney, Australia |
| 426 | The quality and potential toxicity of herbal medicines assessed via the two pronged approach of Metabolomics and Next Generation Sequencing Dr Ian Musgrave, University of Adelaide, Australia |
| 427 | Perhexiline limits both doxorubicin cardiotoxicity and cancer growth in a human osteosarcoma xenograft model Prof Benedetta Sallustio, The Queen Elizabeth Hospital, Australia |
| 428 | Developing techniques to isolate and characterise individual Russell's viper venom peptides and proteins Ms Rachael Thomas, University of South Australia, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Education**

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| 429 | Are there any relationships between student demographics or their lecture attendance and academic outcomes? Dr Sheila Doggrell, Queensland University of Technology, Australia |
| 430 | Designing and delivering a Biology Bridging unit to 1st year Pharmacy Dr Betty Exintaris, Monash Institute of Pharmaceutical Sciences, Australia |
| 431 | Development of scientific writing and referencing skills in pharmacology students Dr Lynette Fernandes, University of Western Australia, Australia |
| 432 | The IUPHAR Pharmacology Education Project: Opportunities and challenges Assoc Prof Clare Guilding, Newcastle University Medicine Malaysia, Malaysia |
| 433 | Evaluating Multiple Choice Question (MCQ)-based summative assessments in Pharmacy Education: An integrative review Dr Nilushi Karunaratne, Monash University, Australia |
| 434 | Medication reviews and geriatric medicine home visits Dr PK Loh, Edith Cowan University, Australia |
| 435 | Spaced education improves student performance in medical education Dr Slade Matthews, The University of Sydney, Australia |
| 436 | Conventional and complementary medicine health care practitioners' perspectives on interprofessional communication: A qualitative rapid review Miss Janet Nguyen, The University of Sydney, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Drug Disposition and Response**

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| 465 | The role of UGT enzymes in cytotoxic drug resistance in breast cancer Mr Radwan Ansaar, Flinders University, Australia |
| 466 | Impact of phenotype and pregnancy related induction of CYP2D6 expression on exposure to codeine and morphine following oral codeine dosing Miss Sarah Badaoui, Flinders University, Australia |
| 467 | Use of PBPK modelling to identify covariates driving variability in sunitinib exposure and predict optimal dosing Ms Bronwyn Beelders, Flinders University, Australia |
| 468 | Clinical study to assess the magnitude, time-course and variability of Human CYP3A4 induction by rifampicin in a healthy volunteer cohort Ms Asha Kapetas, Flinders University, Australia |
| 469 | Serum-derived small extracellular vesicles as diagnostic biomarkers for non-alcoholic fatty liver disease Ms Lauren Newman, Flinders University, Australia |
| 470 | Isothiocyanates from cruciferous vegetables and breast cancer: A systematic review Dr Suong Ngo, The University of Adelaide, Australia |
| 471 | Pharmacokinetics of Treosulfan in paediatric patients Mr Sebastian Rosser, The Children's Hospital, Westmead, Australia |
| 472 | Deconvolution of apparent CYP2D6 induction by rifampicin using an extracellular vesicle derived biomarkers Assoc Prof Andrew Rowland, Flinders University, Australia |
| 473 | Characteristics of extracellular vesicles secreted by HepaRG following removal of media component Mr Warit Ruanglertboon, Flinders University, Australia |
| 474 | The effect of chronic polypharmacy, monotherapy and deprescribing on the kidneys of aged mice Ms Ji Sang Ryu, Kolling Institute of Medical Research; The University of Sydney, Australia |
| 475 | Sulfasalazine: A controversial pro-drug to treat rheumatic diseases Prof Michael Whitehouse, Griffith University, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Neuro- and Behavioural Pharmacology**

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| 495 | Oxytocin-vasopressin ligand-receptor bias for Gq signalling: Man and mouse Mr Kiyam Afzali, The University of Sydney, Australia |
| 496 | Targeting spinal A1 adenosine receptors with allosteric modulators to reduce pain signalling Ms India Cowie-kent, Monash University, Australia |
| 497 | The orexins exhibit distinct pharmacological profiles at orexin receptor 2 Miss Natasha Dale, Harry Perkins Institute of Medical Research, Australia |
| 498 | The role of caveolae in osmotic pressure-induced glioblastoma invasiveness Assoc Prof Marie-Odile Parat, The University of Queensland, Australia |
| 499 | Brain activity in response to z-drugs: Role for GABAA γ1 and γ3 subunits Mr Grant Richter, The University of Sydney, Australia |
| 500 | Investigation of the specificity of cannabidiol signalling Miss Shivani Sachdev, Macquarie University, Australia |
| 501 | Rational replicons: A viral replication model for memory engrams Mr Tim Shaw, The Peter Doherty Institute, Australia |
| 502 | Divergent pathways mediate effects of a 5-HT1A receptor agonist on social interaction, grooming and aggression in mice: Involvement of oxytocin Mr Oliver Tan, The University of Sydney, Australia |
| 503 | Assessing assay bias in fluorescence-based high throughput screening of voltage-gated sodium channels Mr Bryan Tay, The University of Queensland, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Pharmacoepidemiology**

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| 504 | A prognostic model for advanced lung cancer patients treated with atezolizumab Dr Ashley Hopkins, Flinders University, Australia |
| 505 | Risk of falling and the use of falls risk medications in residents of aged care services Dr Jenni Ilomaki, Monash University, Australia |
| 506 | Prevalence of adverse drug events and adverse drug reactions in hospital among older patients with dementia: A systematic review Miss Marissa Sakiris, The University of Sydney, Australia |
| 507 | Caregivers' experiences of medication management advice for people with dementia at hospital discharge: A qualitative study Dr Mouna Sawan, The University of Sydney, Australia |
| 508 | Efficacy and safety of tapentadol immediate release for acute pain: A systematic review and meta-analysis Miss Xinyi Wang, The University of Sydney, Australia |

Thursday 28 November 2019, 10:40 – 11:10 and 13:15 – 14:10**Inflammation/Respiratory**

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| 509 | Viral infection exacerbates cigarette smoke-induced endothelial dysfunction in the mouse thoracic aorta Mr Kurt Brassington, RMIT University, Australia |
| 510 | Effects of prolonged exposure to paracetamol on late gestation rat placenta Miss Yifan Huang, The University of Melbourne, Australia |
| 511 | TLR4-dependent and -independent immune activation by cancer cell lysates Assoc Prof Marie-Odile Parat, The University of Queensland, Australia |
| 512 | Comparison of two mice models of non-alcoholic steatohepatitis Ms Cheng Peng, Baker Heart and Diabetes Institute, Australia |
| 513 | Glycolysis modulates NADPH oxidase 2 activity through the pentose phosphate pathway and Type I interferon-β Assoc Prof Stavros Selemidis, RMIT University, Australia |
| 514 | Living fast and dying young: Guanine oxidation and mitochondrial genomic GC content as regulatory factors Mr Tim Shaw, The Peter Doherty Institute, Australia |
| 516 | Therapeutic targeting of endosome and mitochondrial ROS protects mice from influenza infection Dr Eunice To, RMIT University, Australia |