Symposium 3: Emerging trends in dose individualisation in clinical practice

Assoc Prof Jennifer Martin, The University of Queensland

A/Prof Martin is a practising clinical pharmacologist and academic physician in Brisbane. Her physician and pharmacology training was undertaken in Christchurch and Melbourne, health economic training in Oxford and and a PhD and postdoctoral employment at St Vincent's Hospital and the Walter and Eliza Hall Institute. Her research interests are quality use of medicines, dosing in obesity, pharmacogenetics and quality use of medicines.

Prof Elizabeth Phillips, Institute for Immunology and Infectious Diseases

Elizabeth Phillips, MD, FRCPC, FRACP is a researcher and clinician who runs programs in drug hypersensitivity at the Institute for Immunology and Infectious Diseases, Murdoch University and Royal Perth Hospital, Sir Charles Gairdner Hospital, Perth, Western Australia. She earned her MD from the University of Alberta with fellowships in Internal Medicine, Infectious Diseases, Clinical Pharmacology and Medical Microbiology from the University of Toronto. Research has focused on drug hypersensitivity, HIV pharmacology and the widespread application of pharmacogenetic testing to clinical practice. The research on abacavir hypersensitivity which has created a road map for the application of pharmacogenetic tests from discovery through to clinical translation. Current research is focusing on elucidating the immunopathogenesis of drug hypersensitivity reactionspre-clinical pharmacogenomic screening strategies to inform drug development and design.

Dr Paul Chin, University of Otago, NZ

I am completing advanced training in clinical pharmacology with the RACP as at December 2012. As part of this, I have been awarded a HRC Clinical Research Fellowship to undertake a PhD. The overarching goal is to find the best ways of utilising drug clearance for clinical dosing individualisation. Particular drugs of interest include dabigatran etexilate and gentamicin, which are renally eliminated.

Assoc Prof Michael Neely, University of Southern California, USA

Dr. Neely is an Associate Professor of Pediatrics at the University of Southern California (USC). Dr. Neely's research and clinical interests are in personalized medicine, including population pharmacokinetic and pharmacodynamic modeling, simulation, pharmacogenomics, developmental pharmacology, and most importantly, use of models to optimize therapy for individual patients. Although Dr. Neely primarily works in the therapeutic area of infectious diseases on antiviral, antiretroviral and antifungal compounds, he has experience with other therapeutic areas. He is currently the Director of the USC Laboratory of Applied Pharmacokinetics, working with multidisciplinary faculty collaborators in the Departments of Pediatrics, Medicine, Preventive Medicine, Mathematics, Pharmacology and Pharmaceutical Sciences, and the National Aeronautical and Space Association's Jet Propulsion Laboratory. He recently earned a Master's of Science in Clinical and Biomedical Investigations at USC, with a focus on applied Bayesian approaches to clinical trial design and pharmacokinetic modeling, and he serves on the United States Food and Drug Administration Anti-infective Drug Advisory Committee. He is a member of the prestigious Society for Pediatric Research. Dr. Neely has just completed an NIH career development award, and is the principle investigator on two new NIH R01 awards to develop new pharmacokinetic modeling techniques and trial designs, and to investigate dose optimization of vancomycin and voriconazole for individual patients. He is also a recipient of a 2011 Ideas Empowered grant from the USC Stevens Institute to join his lab's dose optimization software with electronic medical record systems on the road to a fully commercial product. He has over 60 publications in peer-reviewed journals, and has presented his work at numerous conferences worldwide.