Student Report on Pharmacogenetics & IUPHAR2006 Conferences

I have recently returned from two international conferences:

(1) The International Conference on Pharmacogenetics, Changsha, and

(2) The 15th World Congress of Pharmacology (IUPHAR 2006), Beijing,

of which both were organized by the International Union of basic and Clinical Pharmacology and both were located in China.

The International Conference on Pharmacogenetics, Changsha

With over 80 invited speakers the Pharmacogenetics meeting was additionally a joint conference with the 2006 annual meeting of the Pacific Rim Association for Clinical Pharmacogenetics (PRACP) and was also held as a collaborative meeting with the IUPHAR section of drug metabolism and the SEAWP (Asian and Western Pacific) Federation of Pharmacologists. The International Conference on Pharmacogenetics consisted of an exciting program that primarily covered pharmacogenetics-based individualized therapy and incorporated racial and ethnic diversity in drug response and disposition, pharmacogenetics in drug development and clinical trials, pharmacogenetics and genotype-guided tailored pharmacotherapy, pharmacogenetics in patient care, along with highlighting new technologies in genomics, drug discovery and development.

The extensive program covered many aspects of the enzyme super-family, cytochrome's P450 (CYPs). With my postgraduate studies utilizing the CYP1A1 enzyme, the International Conference on Pharmacogenetics was an ideal platform to introduce the results obtained from my postgraduate studies to the wider international/CYP research community.

The 15th World Congress of Pharmacology (IUPHAR 2006), Beijing

The World Congress of Pharmacology (IUPHAR 2006), which is held every four years, is the main international meeting for the discipline of pharmacology. The World Congress covered a broad range of topics, many of which are directly relevant to my thesis. These include two symposia on cancer therapy, three symposia and a plenary lecture on gene/cell/antibody-based therapies, and several symposia and plenary lectures on drug metabolism.

To be honest, it was hard to distinguish between those presentations that were distal to my research because there was always a "take-home message" from each presentation (eg. protocols, the way data was collected, the way data was presented etc.). Of particular interest were presentations held by Leaf Huang (USA) on *gene therapy and the next step for pharmacogenetics***,** Michel Eichelbaum (GER) on *pharmacogenomics and its present limitations*, Magnus Ingelman-Sundberg (SWE) on *how to integrate pharmacokinetics and molecular drug target genetic variation in study design,* Frank Gonzalez (USA) on *metabolomics f*or the analysis *and prediction of drug metabolism*, Nico Vermeulen (NED) on *P450 2D6 homology modelling as an in silico tool for predicting drug metabolism,* and of coarse my own supervisor Prof. John Miners (AUS) on *the genetic polymorphisms and structure function relationships of UGT's*. I was fortunate to speak with some of these researchers after their presentations, giving me an ideal opportunity to ask their personal opinions regarding my own research.

The presentation of my own research at both meetings (as two separate posters) was a great means to discuss pharmacological methodologies with those researchers at the cutting-edge of their prospective fields. The benefits of attending both meetings has already 'paid-off' with an invitation to exchange data between myself and Jing Lin, the senior principal scientist at Pfizer

Global research & development, and an offer of a post-doctoral fellowship at the University of North Carolina, working with Leaf Huang in the division of molecular pharmaceutics. These connections have enabled me to identify where my current research is placed in the overall scheme within Clinical Pharmacology and Therapeutic Departments around the world.

Along with highlighting recent advances in the pharmacology field and being exposed to current pharmacokinetic/pharmacogenetic techniques, the International Conference on Pharmacogenetics and the 15th World Congress of Pharmacology not only increased the enthusiasm I have for my own research but also identified to me that the field of pharmacology has a great future, one I hope to be a part of. Most importantly, it has identified that the area of structure-function relationships of drug metabolising enzymes is far from exhausted, therefore further highlighting a real need for the research that I conduct.

Since IUPHAR is the principal conference on Pharmacology world wide, this experience offered me the unique opportunity to network with the world leaders in my field and to finally put faces to those names continually present in the literature. This would not have been possible without the financial assistance kindly offered by ASCEPT.

Thank you.
Kind regards,

Benjamin C. Lewis