Pacific Northwest 2010 Meeting: Integrative Toxicity Test Methods to Improve Hazard Identification

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The annual regional meeting of the Pacific Northwest chapter was held at Oregon State University (OSU) in Corvallis, October 14-16, and was well attended by trainees, academic researchers, and other professionals from industry and the government and non-profit sectors. This year’s theme brought together researchers using novel approaches to evaluate toxicity in diverse models and settings. The meeting was sponsored by the SOT, Amgen, Seattle Genetics, GeneTools, Rafael Ponce, Steve Gilbert, the OSU Environmental Health Sciences Center and the OSU Research Office.

Invited speakers included Dr. Elizabeth Walker, of the Critical Path Institute, and Dr. Camilla Leiske, of University of Alaska, Fairbanks, both of whom received travel funding from the SOT. Dr. Walker discussed progress made by industry-government coalitions focused on validation of new nonclinical safety biomarkers for pharmaceutical development. Dr. Leiske discussed research her team is doing to understand impacts of environmental contaminants in the diets of arctic animals and in villagers who rely upon harvests of fish, wild game, and native plants for their subsistence. Other symposium speakers included Dr. Robert Tanguay, on development of zebrafish models for high content toxicology assays; Dr. Bill Stubblefield, on the process of qualifying new ecotoxicology test methods; Dr. Richard Zanger, on use of plasma 3-nitrotyrosine adducts as biomarkers to support epidemiological studies of lung disease risk; Dr. Madeline Fort, on species differences in preclinical safety and efficacy assessment of a novel anti-cytokine antibody; and Dr. David Shepherd on the use of dendritic cells as an integrative model for immunotoxicology studies.

The inaugural Pacific Northwest Toxicology Achievement Award was presented to Dr. Jim Woods, in recognition of his outstanding research career, training of toxicologists, and contributions to the regional and national toxicology community. Dr. Woods’ research focused on mechanisms of metal toxicity, and he pioneered the use of urinary porphyrins as biomarkers for heavy metal exposure and...
intoxication. A synopsis of Dr. Woods’ scientific achievements leading to this award is posted on the PANWAT website. Dr. Woods’ work has informed the public health debate about effects of low level exposures to heavy metals such as lead, arsenic and mercury. He also served as the founding President of PANWAT in 1984, and helped to organize the first Pacific Northwest Toxicology Conference. At the award luncheon on Friday, Dr. Woods presented a keynote address emphasizing the benefits of collaboration for developing a fruitful scientific career and extending the impact of one’s own research through synergies with scientists of diverse backgrounds.

Students and post-doctoral fellows contributed 15 posters and eight platform sessions to the program, and outstanding presentations were recognized with cash awards. Best platform presentation was awarded to Chad Weldy of University of Washington, for his talk entitled “Diesel exhaust particulate (DEP)-exposed macrophages impair vascular function in aortic rings; investigation of the role of glutathione in mediating DEP-induced inflammation”. Ed O’Donnell of OSU was awarded 2nd place for “Identification of a novel ligand of the AHR that induces apoptosis in an AHR dependent manner”. The 3rd place was awarded to both Chris Horras of Boise State University for his talk, “Effects of TCDD exposure on innate immunity during liver regeneration” and Lisa Truong of OSU for her work, “Surface functionalities of gold nanoparticles impact embryonic gene expression responses”.

The best poster was from Jill Franzosa of OSU, entitled “Investigating the teratogenic role of microRNAs”. Runners-up for best poster were Tamara Tal of OSU, for “Ethanol regulation of vertebrate neurobehavioral development”, Katerine Saili of OSU, for “Estrogen related receptor gamma mediates hyperactivity ensuing neurodevelopmental bisphenol A exposure”, Anastasiya Berst of Corvallis High School, for “Nicotine-mediated neurobehavioral toxicity in zebrafish”, and Eva Amouzougan of Boise State University, for “Regulation of carbonyl reductase activity by Ah receptor ligands”. The large number of student awards given this year speaks to the overall high quality of the students’ work and
their skillful presentation of their research studies. The OSU Environmental Health Sciences Center sponsored the student presentation awards this year.

Dr. Tamara Tal mentored Ana Berst of Corvallis High School through the Saturday Academy, a program that encourages students interested in science, math, and technology to do apprenticeships at OSU. Ana won an award for the poster describing her research on nicotine mediated neurobehavioral toxicity.

An additional feature of this year’s Pacific Northwest Chapter meeting was our first regional Work-Shadow event, which was open to all trainees and featured job-site visits and discussions with scientists working in the Corvallis region. For more information about the Work-Shadow program, see accompanying story (http://www.toxicology.org/isot/rc/panwat/wrkShadowEvent.asp).