



Successful June 2008 Rapid Test Workshop emphasized ELISA and rapid format immunochemical kits, next-generation field portable instruments Our June, 2008 Rapid Test Workshop in Seattle, WA generated interest in new rapid tests, and feedback from the diverse group of 35 trainees on the two and a half day event from participants has been very positive.

Attending the Workshop were members of *federal and state agencies* of North America, Europe, and Africa, *private testing labs* in North America and abroad, from *food industry, research institutes, and universities*.

Toxins and other Contaminants covered were not restricted to phycotoxins, and the ELISAs and LFIC kits included those for histamine, paralytic shellfish toxins, domoic acid, okadaic acids, microcystins, DON, ochratoxins, aflatoxins, chloramphenicol, and fluoroquinolones, among others. Rather than choosing a narrow application area (as required to include top-to-bottom procedures like sample extraction) the workshop emphasized the flexibility, technology, and growing numbers of ELISAs and test strips now available for contemporary global trade-relevant contaminants. The target analytes were chosen based on recommendations from FDA, EPA, USDA, and the AOAC Contaminants Analytical Community.

Pre-lab Session on June 15 at the Hotel Nexus included banquet talks by seafood toxin subject matter experts Stacey Etheridge and Jim Hungerford of FDA, cyanotoxins expert

Jim Sinclair of EPA, and overviews of microTAS and SPR were given by Victoria VanderNoot of Sandia National Labs, and Clement Furlong of University of Washington/Medical Genetics. The Washington State Public Health Laboratory near Seattle hosted the laboratory portion and was an in-kind sponsor. This facility, also the site of the June 2006 training course on PSP-by-LC OMA 2005.06, has an excellent training facility and support staff, each year training more participants in multiple health-protection topics) than any other US state-run public health laboratory.

The Workshop was designed to provide expert instruction nearly one-on-one. This was accomplished using divided groups in half-day sessions, with 17 students at a time instructed by 5 vendor instructors from *Abraxis, Neogen, R-Biopharm, Jellett RT, and Rocky Mountain Diagnostics*, as well as 3 expert course instructors including Briggs and assisting instructors Mark Poli (USAMRIID) and Stacey Etheridge (FDA/CFSAN). Students worked at 4 microplate readers on ELISAs, and researchers Rick Stevens and Scott Soelberg of UW also showed them a uniquely *portable* surface plasmon resonance (SPR) instrument (University of Washington, Seattle Sensors) and VanderNoot showed Sandia National Lab's "lab on a chip" micro-total analytical system, the Unattended Water Sensor. On the second laboratory day each student was able to try their hand at a variety of immunochemical assays both ELISA and rapid formats, after testing and refining the consistency of their laboratory technique on the first lab day. The laboratory portion began with a demonstration of an example ELISA by instructor Lyn Briggs of AgResearch, New Zealand. When one of the two assigned groups was busy in the lab, the others were participating in lectures by vendors and related discussions. The technical basis of these tests was taught as well as critical techniques for success with these microplate-based methods. Emerging field instruments also gave a glimpse of the future in the workshop, which was conceived and organized by TF Chair and FDA research chemist Jim Hungerford. Future workshops will be focused on specific problems and innovative solutions to on-site analysis including sampling and extractions, on new official methods, and on validation issues.