2002 Fall Symposium Review

By Melanie Marty

On November 19, 2002, GETA hosted yet another interesting and provocative meeting at the Walnut Creek Embassy Suites, entitled "Contemporary Issues in Human Health Assessment". Svetlana Smorodinsky presented a talk on the East Bay Children's Respiratory Health Study. This project, being conducted by Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA), is evaluating the impacts of traffic-related pollutants on children's respiratory health, including asthma. The preliminary findings point to elevated adverse respiratory impacts in children attending schools near major roadways. Martha Sandy, also from OEHHA, presented a talk on the impacts of early-in-life exposures to carcinogens on the estimated carcinogenic potency. She provided a number of examples where early lifestage exposures result in higher tumor yield, lower latency to effect, and even different tumor types. This work is ongoing as part of Cal/EPA's children's environmental health initiative. David Ting, also from OEHHA, presented a talk on human health impacts of perchlorate exposure through drinking water. Perchlorate inhibits iodine uptake in the thyroid resulting in disruption of thyroid hormone synthesis and regulation. The developing mammalian fetus relies on maternal thyroid hormone for normal brain development. California is in the midst of developing a drinking water standard for perchlorate.

After a delicious buffet lunch, Lalitha Iyer from SRI International presented an intriguing paper on the pharmacogenetics of glucuronidation, and in particular its significance in oncology. Metabolism of therapeutic agents can determine the extent of serious side effects. Her work involves determining by genomics who is likely to suffer more serious side effects, which can aid in appropriate therapeutic choices. And lastly, Christine Erdmann from Lawrence Berkeley Labs provided an overview of their work looking at breast cancer and environmental contaminants and the role of metabolic variability in terms of activation of xenobiotics to the proximate carcinogen. This work involves determining the genetic variability in xenobiotic metabolizing enzymes in breast tissue from cancer patients and controls to determine if there is a significant difference influencing development of breast cancer.

If you missed the meeting and wish you hadn't, please join us for future meetings as we continue to provide interesting speakers on intriguing topics.