

## 2009 Summer Symposium Review

by Ryan Weidling

The Genetic and Environmental Toxicology Association's late spring/early summer 2009 afternoon symposium was held at the Elihu M. Harris Building on June 24, 2009. The topic was "Science and GETA in the Future", and a wide range of topics illustrated emerging areas of research and directions for the future.

Dr. Nina T. Holland, Professor at the University of California, Berkeley School of Public Health, presented on biomarkers, environment, and children's health. She spoke about the main categories of biomarkers (exposure, effect, and susceptibility) and used specific case studies to discuss each type, particularly in studies involving children. Dr. Holland's presentation illustrated the great potential for uses of biomarkers in research.

Dr. Rupa Basu, Research Scientist and Epidemiologist in the Air Pollution Epidemiology Section of the Office of Environmental Health Hazard Assessment, gave a presentation on epidemiologic studies of temperature and mortality in California. She outlined the study designs and results of case-crossover and hospitalization studies aimed at understanding the effects of heat on mortality and morbidity in California. Dr. Basu's presentation illustrated work that has increasing relevance due to climate change.

Dr. David Schaffer, Professor of Chemical Engineering, Bioengineering & the Helen Wills Neuroscience Institute and Associate Director of the Berkeley Stem Cell Center at the University of California, Berkeley, gave a talk on the use of stem cells for engineering therapies for the future. His presentation included a background on the history and science of stem cells, and potential uses in medicine and pharmacological/toxicological research. Dr. Scofield's presentation illustrated the great potential and challenges that stem cell research offers.

Dr. Kent Pinkerton, Professor and Director for the Center for Health and the Environment at the University of California, Davis, and Amy Madl, of ChemRisk and the Graduate Group in Pharmacology and Toxicology at UC Davis, presented on the health effects of inhaled engineered and incidental nanoparticles. Their talk included an overview of the research and discussion of the characteristics that dictate the toxicity of nanoparticles. Dr. Pinkerton and Amy Madl's presentation illustrated the current state of knowledge and future research needs on the emerging technology of engineered nanoparticles.

Interspersed through the main presentations Dr. Regine Goth-Goldstein (1989), Dr. Rob Scofield (1997), and Dr. Steve DiZio, all past Presidents of GETA, gave short reflections on GETA topics of the past and directions for the future.

An overflow crowd was present for this fascinating symposium that explored how changes in technology and our environment will affect how scientists will address questions of exposure and risk in the future.