Title:	**AOPs & Biomarkers: Bridging High Throughput Screening and Regulatory Decision Making**
Abstract: ATTENTION: Your abstract must use Microsoft Word document and Arial 12 pt in the title and names; use Arial 10 for the affiliation of the first author only (the name of the institution and city, state). Use Arial 11 pt in the body, which must fit into this space using no more than 250 words total. Please include: A topical introduction, materials & methods, results, summary and conclusions. Any figure, tables or references must fit into this space.	Stephen Edwards, [1]Integrated Systems Toxicology Division, NHEERL, U.S. EPA, Research Triangle Park, NC As high throughput screening (HTS) approaches play a larger role in toxicity testing, computational toxicology has emerged as a critical component in interpreting the large volume of data produced. Computational models for this purpose are becoming increasingly more sophisticated requiring additional data sources to complement the HTS testing results. Biomarkers of effect can provide measurable data connecting the magnitude of perturbation from the in vitro system to a level of concern at the organism or population level. The adverse outcome pathway (AOP) concept provides an ideal framework for combining these two complementary data sources and providing a link between HTS results and the adverse outcomes that are typically used in regulatory decision making. An AOP Knowledgebase has been developed to organize and disseminate AOP-related information. In addition, systematic efforts to define AOPs and identify informative biomarkers for monitoring these AOPs in humans and other target organisms have resulted in several case studies showing the potential utility of this framework. [This is an abstract or a proposed presentation and does not necessarily reflect EPA policy. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.]