SESSION 6 Questions

1. Depending on the decision context the NexGen framework envisions using systems biology data of different sorts and in different ways – e.g., prioritizing chemicals for testing, setting toxicity values, supplementing in vivo evidence in standard setting.
   - Is this a good approach?
   - Are there applications for in environmental decision making that would that present particularly good opportunities for using systems biology information in the near term?
   - Can systems biology inform the Silver Book’s problem formulation step, and can the information be used to help tailor the testing and risk assessment process?

2. Are there some risk assessment problems particularly amenable to using systems biology data in the near term?
   - Which phases of risk assessment might be impacted immediately by systems biology: hazard identification, dose-response assessment, identifying susceptible groups, cumulative risk assessment?
   - How might systems biology data be used to support read across?
   - Which sources of uncertainty in the current risk assessment approaches might be most readily addressed and reduced by systems biology approaches?

3. How much systems biology data is sufficient to support common (or disparate) mode of action or common physiological process (as in the NRC phthalate cumulative risk phthalate)? Is microarray experimental evidence enough?

4. How might uncertainties in applying systems biology information be best managed? What are some paths forward in achieving validity in the use of systems biology information?

5. Should the move to NextGen risk assessment be evolutionary (i.e., gradual introduction of new methods and data streams) or revolutionary?