The Charge to the Panel

- Review the scientific literature, and generate a statement about our level of concern about whether Bisphenol A is affecting human reproductive and developmental health, given the known exposures and the existing health effects data.
- We are free (and encouraged) to develop a list of studies which, if performed, would improve the evaluation or resolve uncertainties in the existing database.

Evaluation of the Developmental and Reproductive Toxicity Literature

- Panel developed criteria to determine the adequacy and utility of each study for the CERHR evaluation process.
- The Panel reviewed the literature and discussed each study and consensed on its value and utility.
- The Panel read and considered the public comments.
- Studies are classified as high utility, limited utility, or no utility
  - High Utility: Most useful for the evaluation process
  - Limited Utility / Supplemental : Considered by the panel but have less weight and impact
  - No Utility: Not useful for a CERHR evaluation

Key Criteria

- Route of exposure
  - Oral is most appropriate
  - Adequate non-oral studies without presenting parent/metabolite ratios are considered supplemental
- Appropriate experimental design and statistical analysis
  - Litter is the proper unit of analysis
  - Studies that did not account for potential litter effects are considered inadequate
- Adequate studies have sample size appropriate for the endpoint of interest and expected variability
- Vehicle
  - DMSO as a vehicle is a potential concern
- Positive controls
  - Studies that did not include a positive control were not downgraded
  - Negative studies that included a positive control which showed no effect were considered inadequate

Other Factors in Determining Utility

In addition to meeting key criteria, the most useful studies generally have one or more of these characteristics:

- Appropriate exposure period of life
- Multiple dose groups over a broad dose range
- Multiple endpoints including those suspected of being affected by low doses of BPA
- Clearly adverse endpoints as opposed to studies that examine only biochemical or molecular endpoints
- Adequate description of methods and reasonable quality assurance
- Dose formulation analysis

Comments on Studies Not Considered Useful in a CERHR Evaluation Process

- CERHR evaluation is designed to address potential risk to humans
- A study may be scientifically sound (i.e., adequate) but of no utility for the evaluation
  - *in vitro* studies or those using non-mammalian species
- Studies categorized as inadequate are automatically considered of no utility
- Inadequate studies are generally problematic with respect to multiple key criteria*

* The experimental results of inadequate studies are not summarized in the report. Also, inadequate studies are not included in the summary text or utility tables