

## **ad hoc Planning Committee's List of High-Priority Data Needs**

The ad hoc Workshop Planning Committee met immediately after the Acrylamide in Food Workshop to discuss additional research needs identified by each of the six Working Groups. The needs, identified as high-priority, represent areas of critical data needs not being addressed through current research activities. The Planning Committee focused on discussing and refining the prioritization of these data gaps for future development of research projects. The Priority needs identified are listed below in approximate order of the priority identified within each Working Group. No systematic prioritization of all the needs identified was attempted.

Priority needs:

1. *Mechanisms of Formation and Methods of Mitigation:*

- Determine the mechanism of formation of acrylamide in retorted baby foods.
- Determine precursor levels, intermediates, and rate-limiting steps in the formation of acrylamide for development of approaches for reduction and mitigation.

2. *Methods of Analysis:*

- Reference standards
- Methods validation
- Develop methods to determine precursors (low level) in screening raw material

3. *Exposure and Biomarkers:*

- Expand the database of acrylamide levels in foods to include foods consumed seasonally (e.g., Christmas ginger cakes), specialty items (e.g., diabetic diet foods), baby foods, and ethnic foods.

4. *Toxicology and Metabolic Consequences:*

- Determine dose-response relationship in the low dose range reflective of exposure through food.
- Develop dose metrics and methods of analysis.
- Develop and conduct appropriate perinatal studies in animals.
- Develop and conduct studies to determine the kinetics of acrylamide in humans.

5. *Risk Communication:*

- Develop guidance for consumers and food service on formation of acrylamide during cooking.
- Monitor global research efforts and develop accompanying communications
- Develop a one-page acrylamide “review” for periodic update and development of communication pieces.

6. *Risk Characterization:*

- Evaluate the utility of a margin-of-exposure approach for characterizing potential risks of acrylamide in food.