

## MURRAY & ASSOCIATES

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April 29, 2004

Dr. Michael Shelby  
Director, CERHR  
National Institute for Environmental Health Sciences  
79 T.W. Alexander Drive, Building 4401, Room 103  
Research Triangle Park, NC 27709

*Re: CERHR Draft Expert Panel Report on Acrylamide: Request for Public Comments*

Dear Dr. Shelby:

This comment on the CERHR Draft Expert Panel Report on Acrylamide is submitted on behalf of the following organizations: American Bakers Association, Grocery Manufacturers of America, National Food Processors Association, National Potato Council, and National Oil Processors Association

**Recommendation:** It is recommended that an additional sentence (noted below in bold italics) be included in the discussion of pup weight in the Wise et al. (1995) study (116) on p.104:

“... The decrease in offspring weight at exposure levels above 5 mg/kg/day was attributed to maternal toxicity. The decrease in pup weight in the 5 mg/kg/day group on days 3 and 7 was considered possibly not to have been treatment-related, given the transitory nature of this weight decrease, its confinement to one sex, and to lack of a similar effect on pup weight in the Field et al. study (113) at maternal acrylamide doses under *[up to]* 15 mg/kg/day. ***At any rate, the decrease in pup weight at 5 mg/kg/day is unlikely to be due to prenatal exposure to acrylamide since a similar effect on fetal body weight was not seen in the Field et al. study (113) when the pregnant rats were given prenatal (i.e., GD6-20) doses up to 15 mg/kg/day.*** The authors concluded ...”

**Rationale:** The additional sentence would clarify that the transient decrease in female pup weight on PND 3 and 7 at 5 mg/kg/day of acrylamide is not likely due to prenatal exposure. No effect on pup weight was observed on PND 0. In a conventional rat developmental toxicity study, no effect on fetal body weight was seen among the offspring of rats exposed to doses up to 15 mg/kg/day on GD 6-20. Therefore, prenatal

exposure to acrylamide at a dose of 5 mg/kg/day is an unlikely explanation for the reported decrease in pup weight on PND 3 and 7.

**Discussion:** It is important to convey that the decrease in pup weight is most likely due to postnatal exposure to acrylamide, if the effect is due to treatment. The preceding sentence indicates that this decrease may not be treatment-related. Both are important concepts.

If the NTP-CERHR Expert Panel is unable to agree that the decreased pup weight at 5 mg/kg/day is unlikely to be due to prenatal exposure, an alternative approach would be to simply state that the role of prenatal and postnatal exposure cannot be distinguished in this study. For example, the following sentence was used to describe the results of the Zenick et al. (1986) study:

”The authors concluded that acrylamide exposure of the dam at 50 or 100 ppm in drinking water results in a decrease in offspring weight due either to gestational or lactational exposure or both.”<sup>1</sup>

Of course, Zenick et al. (1986) did not have the benefit of the results of the Field et al. (1990) study when they drew their conclusion.

Thank you for your consideration.

Sincerely,

F. Jay Murray, Ph.D., DABT

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<sup>1</sup> Draft NTP-CERHR Expert Panel Report on the Reproductive and Developmental Toxicity of Acrylamide. March, 2004., p. 95.