

National Toxicology Program CLARITY-BPA Research Program

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There is a large body of diverse and often difficult-to-interpret evidence on the potential health effects of endocrine active agents, and of Bisphenol A (BPA) in particular. NTP and NIEHS determined in 2010 that a new guideline-compliant study conducted in accordance with GLP was needed to reconcile uncertainties on the toxicity of BPA and offer risk assessors and risk managers a more comprehensive body of research to inform decision making. A previous NTP chronic toxicity study of BPA had not included developmental exposure, and many of the studies reporting effects by academic investigators following developmental exposures to low doses of BPA had not directly evaluated the potential long-term consequences of the reported effects. Thus, a chronic rodent toxicity study examining a wide dose range using a relevant long-term oral dosing protocol that included developmental exposure and new endpoints not typically assessed in guideline studies was considered to be of value. In addition, FDA's ongoing periodic re-reviews of BPA offered an opportunity to test a new, collaborative research model based on enhancing the links between academic and guideline-compliant research. In response, the NTP, NIEHS, and FDA developed a consortium-based research program to link more effectively academic and guideline-compliant research. An initial proof-of-concept collaboration, the Consortium Linking Academic and Regulatory Insights on the Toxicity of BPA (CLARITY-BPA), used BPA as a test chemical. The CLARITY-BPA program combined a core perinatal guideline-compliant 2-year chronic toxicity study with mechanistic studies/endpoints conducted by academic investigators. Fourteen extramural grantees were selected by NIEHS through a request for applications -based initiative to participate in the overall study design, and conduct disease-relevant investigations using tissues and animals from the core study.

The results of the guideline compliant “core” study performed at the National Center for Toxicological Research (NCTR) were recently released after undergoing a public peer review.

<https://ntp.niehs.nih.gov/results/areas/bpa/index.html>

Reports of studies performed by the academic investigators are appearing in the peer reviewed literature. The next step is to integrate these findings to provide a clearer picture of the potential associations between BPA and any health effects, and to place these findings in the context of prior publications on BPA from the academic investigators and NCTR scientists.

The purpose of this session is to lay out the approach being used to develop the integrated assessment of the findings from the CLARITY-BPA study and recommendations to strengthen our approaches to the study of endocrine active agents.