Response to Comments on Probabilistic Modeling of Dietary Arsenic Exposure and Dose and Evaluation with 2003-2004 NHANES Data

Jianping Xue[1*], Valerie Zartarian[1], Sheng-Wei Wang[2], Shi V. Liu[1], Panos Georgopoulos[3]

1 U.S. Environmental Protection Agency, Office of Research and Development, National Exposure Research Laboratory, Research Triangle Park, North Carolina, USA
2 Graduate Institute of Environmental Health, National Taiwan University, Taipei, Taiwan
3 Environmental and Occupational Health Sciences Institute, Piscataway, New Jersey, USA

* Address correspondence to J. Xue, U.S. EPA, 109 T.W. Alexander Dr., MD E205-02, Research Triangle Park, NC 27711 USA. Telephone: 919-541-7962. Fax: 919-541-4787. E-mail: xue.jianping@epa.gov

In our article (Xue et al. 2010) , we cited Boyce et al. (2008) based on their major conclusion, stated at the end of their abstract that, "typical and high-end background exposures to inorganic arsenic in U.S. populations do not present elevated risks of carcinogenicity." We agree with Petito Boyce et al. that we "missed an opportunity to provide additional support for" our overall conclusions, and very much appreciate that they have offered this detailed comparison showing the agreement between our modeling results.

Our discussion of Petito Boyce et al. (2008)'s conclusions was intended to bolster the need to develop a more comprehensive analysis of the sources of inorganic arsenic exposure, not to suggest that their exposure analysis was incomplete or inaccurate.

References

Boyce CP, Lewis AS, Sax SN, Eldan M, Cohen SM, Becj BD 2008. Probabilistic analysis of human health risks associated with background concentrations of inorganic arsenic: use of a margin of exposure approach. Hum Ecol Risk Assess 14: 1159–1201.

Boyce CP, Lewis AS, Sax SN, Eldan M, Cohen SM, Becj BD 2010. Comment on probabilistic modeling of dietary arsenic exposure and dose and evaluation with 2003-2004 NHANES data. Environ Health Perspect Under Consideration.

Xue J, Zartarian V, Wang SW, Liu, SV, Georgopoulos P 2010. Probabilistic modeling of dietary arsenic exposure and dose and evaluation with 2003-2004 NHANES data. Environ Health Perspect 118: 345-350.

Appendix