

R. Woodrow Setzer, Mathematical Statistician, in EPA's National Center for Computational Toxicology

[Mailing Address](#)

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Area of Expertise: Dr. Setzer develops and adapts statistical methods for characterizing uncertainty in the predictions from dynamic biological models (such as physiologically-based pharmacokinetic models), engages in various aspects of dose-response modeling for informing risk assessments of the effects on human health of environmental exposure, develops methodology for evaluating high-throughput exposure models, and serves as a general statistical consultant for the U.S. EPA National Center for Computational Toxicology.

Select Publications:

Garcia R, Ibrahim J, Wambaugh J, Kenyan EM, Setzer RW. (2015) [Identifiability of PBPK models with applications to dimethylarsinic acid exposure](#). Journal of Pharmacokinetics and Pharmacodynamics 42(6): 591-609. [Exit](#)

Slob W, Setzer RW. (2014) [Shape and steepness of toxicological dose-response relationships of continuous endpoints](#). Critical Reviews in Toxicology 44(3): 270-297. [Exit](#)

Wambaugh JF, Wang A, Dionisio KL, Frame A, Egeghy P, Judson R, Setzer RW. (2014) [High throughput heuristics for prioritizing human exposure to environmental chemicals](#). Environmental Science and Technology 48(21): 12760-12767. [Exit](#)

Wambaugh JF, Setzer RW, Reif DM, Gangwal S, Mitchell-Blackwood J, Arnot JA, Joliet O, Frame A, Rabinowitz J, Knudsen TB, Judson RS. (2013) [High-throughput models for exposure-based chemical prioritization in the ExpoCast project](#). Environmental science & technology 47(15):8479-88. [Exit](#)

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Education:

- B.A., University of Chicago, Chicago, IL; Mathematics, 1974
- Ph.D., SUNY at Stony Brook, Stony Brook, NY; Ecology and Evolution, 1983
- Post-doc, University of North Carolina, Chapel Hill; Biostatistics, 1987
- Post-doc, National Research Council Fellow, USEPA, RTP, NC; Biostatistics and Risk Assessment, 1989

Professional Experience:

- USEPA Scientific and Technological Achievement Award, Level I: Biologically-Based Dose-Response Modeling in Developmental Toxicology: Biochemical and Cellular Sequelae of 5-Fluorouracil Exposure in the Developing Rat, 1994
- USEPA Scientific and Technological Achievement Award, Level II: ExpoCast High Throughput Framework for Rapid Prioritization of Human Exposure to Environmental Chemicals, 2014
- USEPA Scientific and Technological Achievement Award, Level III: Use of Exposure Information to Focus Toxicological Evaluation of Mixtures, 2015

- USEPA Gold Medal for Exceptional Service “For extraordinary diligence and creativity in producing highly sophisticated human health risk assessments to protect public health, especially children’s, from the highly toxic pesticide, carbofuran, 2009.
- USEPA Silver Medal for Scientific Workgroups for EPA’s Guidelines for Carcinogen Risk Assessment and Supplemental Guidance for Assessing Susceptibility from Early-Life Exposure to Carcinogens, 2006
- USEPA Silver Medal for the Organophosphate Cumulative Risk Assessment, 2003
- Superior Accomplishment Award from the Office of Pesticide Programs, 2009

Additional Publications:

[National Center for Biotechnology Information](#) [Exit](#)