

W. Mathew Henderson, Research Toxicologist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division

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Area of Expertise:

My current research interests include the mammalian metabolism, distribution and toxicology of perfluorinated chemicals, various endocrine-active chemicals (i.e. EE2), as well as fungicides and pesticides (conazoles). I conduct research in both *in vitro* and *in vivo* systems investigating the sex- and species-mediated routes of metabolism of these chemicals. I also utilize GC/MS and LC/MSⁿ-based metabolomic tools to elucidate how these chemicals disrupt the normal biological processes occurring *in vivo*, with emphasis on metabolic-biomarkers of developmental toxicity as well as alterations in steroidogenic pathways.

Select Publications:

Riffle, B., Matt Henderson, AND S. Laws. A Comparison of RIA and LC-MS/MS Methods to Quantify Steroids in Rat Serum and Urine Following Exposure to an Endocrine Disrupting Chemical. Presented at Society of Toxicology Meeting, March 10 - 14, 2013.

WASHINGTON, J. W., W. M. HENDERSON, J. J. ELLINGTON, T. JENKINS, AND J. J. EVANS. ANALYSIS OF PERFLUORINATED CARBOXYLIC ACIDS IN SOILS II: OPTIMIZATION OF CHROMATOGRAPHY AND EXTRACTION. JOURNAL OF CHROMATOGRAPHY A. Elsevier Science Ltd, New York, NY, 1181(1-2):21-32, (2008).

KENNEKE, J. F., W. M. HENDERSON, A. W. GARRISON, S. RITGER, AND C. S. MAZUR. APPLICATION OF ADVANCED IN VITRO TECHNIQUES TO MEASURE, UNDERSTAND AND PREDICT THE KINETICS AND MECHANISMS OF XENOBIOTIC METABOLISM. Presented at International Science Forum on Computational Toxicology, Research Triangle Park, NC, May 21 - 23, 2007.

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Education:

- Ph.D. Toxicology, University of Georgia, 2006
- B.S. Environmental Health, University of Georgia, 2002

Professional Experience:

- Research Toxicologist, USEPA, ORD, NERL-ERD, Athens, GA 2006–present

- Physical Science Technician/Research Biologist, USEPA, ORD, NERL-ERD, Athens, GA 1999–2006
- Developmental Toxicology Research Assistant, University of Georgia, Athens, GA 2003–2006