

MICHAEL W. HORNUNG

Research Toxicologist

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Education:

Ph.D., Environmental Toxicology, University of Wisconsin, Madison, 1998

B.S., Biology, University of Wisconsin, Stevens Point, 1988

Experience:

2005-Present Research Toxicologist, US EPA, Duluth, MN
2000-2005 NHEERL Post-Doctoral Fellow, US EPA, Duluth, MN
1998-2000 National Research Council-Post-Doctoral Research Associate, US EPA, Duluth, MN
1991-1998 Research Assistant, University of Wisconsin, Madison, WI
1989-1990 Chemistry and Biology Teacher, Berlin High School, Berlin, WI
1989 General Science Teacher, Wausau School District "At Risk" Program, Wausau, WI

Research Interests and Skills:

My general research interests are on using *in vitro* and *in vivo* approaches to investigate the toxicity of xenobiotic chemicals on fish and wildlife. My current research focus is on the development of *in vitro* assays for assessing chemicals for thyroid hormone disruption, and on the adaptation of these bioassays for assessing water samples from the environment for thyroid hormone inhibiting activity. I am also interested in the use of structure activity relationships as predictive tools for understanding and prioritizing xenobiotic chemicals for testing for endocrine disrupting activity.

Professional Societies:

Society of Environmental Toxicology and Chemistry

Midwest Chapter of the Society of Environmental Toxicology and Chemistry

Society of Toxicology

Northland Chapter of the Society of Toxicology

Selected Appointments/Honors/Major Awards:

US EPA, Scientific Technological Achievement Award, Level I, 2008.

Associate Editor for Special Issue of *Journal of Aquatic Animal Health*: 2008

US EPA, Scientific Technological Achievement Award, Level III, 2007.

US EPA, Scientific Technological Achievement Award, Honorable Mention, 2004.

Editorial Board - *Environmental Toxicology and Chemistry*: 2000-2003

Selected Publications:

Tietge, J.E., B.C. Butterworth, J.T. Haselman, G.W. Holcombe, M.W. Hornung, J.J. Korte, P.A. Kosian, M. Wolfe, S.J. Degitz. 2010. Early temporal effects of three thyroid hormone synthesis inhibitors in *Xenopus laevis*. *Aquatic Toxicology*, In Press 25 Jan 2010.

Hornung, M.W., Cook, P.M., Fitzsimmons, P.N., Kuehl, D.W., Nichols, J.W. 2007. Tissue distribution and metabolism of benzo[a]pyrene in embryonic and larval medaka (*Oryzias latipes*). *Toxicological Sciences* 100:393-405

Hornung, M.W., Jensen, K., Korte, J., Kahl, M., Durhan, E., Henry, T., Denny, J., Ankley, G.T. 2004. Mechanistic basis for estrogenic effects of methyltestosterone in fathead minnow: Evidence for conversion of 17 α -methyltestosterone to 17 α -methyltestradinol. *Aquatic Toxicology* 66:15-23

Hornung, M.W., Schmieder, P.K., Ankley, G.T. 2001. Induction of an estrogen-responsive reporter gene in rainbow trout hepatoma cells (RTH 149) at 11 or 18°C. *Environmental Toxicology and Chemistry* 22:866-871.

Hornung, M.W., Spitsbergen, J.M. and Peterson, R.E. 1999. 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin alters cardiovascular and craniofacial development and function in sac fry of rainbow trout (*Oncorhynchus mykiss*). *Toxicological Sciences* 47:40-51.

Hornung, M.W., Zabel, E.W., and Peterson, R.E. 1996. Additive interactions between pairs of polybrominated dibenzo-*p*-dioxin, dibenzofuran, and biphenyl congeners in a rainbow trout early life stage mortality bioassay. *Toxicology and Applied Pharmacology* 140:345-355.