

MARY L. HAASCH

Senior Scientist

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Education:

B.S., Microbiology and Public Health, University of Wisconsin – Oshkosh, Oshkosh, WI, 1976

Ph.D., Biological Sciences, University of Wisconsin – Milwaukee, Milwaukee, WI, 1989

Employment:

2005-Present NRC Research Associate Senior Scientist, USEPA, MED, ORD
2001-2005 Research Associate Professor, University of Mississippi, School of Pharmacy, Research Institute of Pharmaceutical Sciences, National Center for Natural Products Research, Coordinator: Environmental Toxicology Research Program
2001-2005 Associate Professor, University of Mississippi, School of Pharmacy, Pharmacology
1994-2001 Assistant Professor, University of Maryland College Park, Center for Environmental Science
1990-1994 Research Assistant Professor, Medical College of Wisconsin, Pharmacology & Toxicology

Research Interests and Skills:

Environmental toxicology, aquatic toxicology, endocrine disruption/reproductive toxicology, nanotoxicology, developmental toxicology, physiological and biochemical adaptation to anthropogenic stress, biotransformation, lower vertebrate and invertebrate models of human disease, regulation of gene expression and biomarkers of xenobiotic exposure

Professional Societies:

Society of Environmental Toxicology and Chemistry

Society of Toxicology

Member of Editorial Board, Comparative Hepatology (2004 - now)

Member of Editorial Board, Environmental Toxicology and Chemistry (2002-2005)

Selected Appointments/Honors/Major Awards:

Victor Drill Award for Meritorious Research in Toxicology, ASPET/SOT, 1992

Molecular Biology Section Student Award, SOT-Molecular Biology Section, 1990

Student Travel Award, SOT, 1989

Selected Publications:

Spencer, H., Wahome, J. and Haasch, ML. (In Preparation) Toxicity evaluation of acrylamide on the early life stages of zebrafish (*Danio rerio*) embryos, Archives of Environmental Contamination and Toxicology
Zhu, S., Codi King, S. and Haasch, ML. (In Press) Biomarker induction in tropical fish species on the Northwest Shelf of Australia by produced formation water, Marine Environmental Research
Oberdörster, E., Zhu, S., Blickley, TM, McClellan-Green, P. and Haasch, ML. (2006) Ecotoxicology of carbon-based engineered nanoparticles: Effects of fullerene (C60) on aquatic organisms, Carbon, 44: 1112-1120
Zhu, S., Oberdörster, E., Haasch, ML. (2006) Toxicity of an engineered nanoparticle (fullerene, C60) in two aquatic species, *Daphnia* and fathead minnow, Marine Environmental Research, 62: S5-S9
Zhu, S., Codi King, S. and Haasch, ML. (2006) Environmental induction of CYP1A-, CYP2M1- and CYP2K1-like proteins in tropical fish species by produced formation water on the Northwest Shelf of Australia, Marine Environmental Research, 62: S322-S326
Wang, X., Williams, E., Haasch, ML and Dasmahapatra, AK. (2006) Japanese medaka (*Oryzias latipes*): Developmental model for the study of alcohol teratology, Birth Defects Research (Part B), 77, 29-39
Dasmahapatra, AK., Wang, X. and Haasch, ML. (2005) Expression of Adh8 mRNA Is Developmentally Regulated in Japanese Medaka (*Oryzias latipes*), Comparative Biochemistry and Physiology, 140: 657-664
Codi King, S., Johnson, JE., Haasch, ML., Ryan, DAJ., Ahokas, JT. and Burns, KA. (2005) Summary results from a pilot study conducted around an oil production platform on the Northwest Shelf of Australia, Marine Pollution Bulletin, 50: 1163-1172
Haasch ML, Ford AW. (2004) Combined effects of ethanol and cinnamaldehyde in the Japanese medaka embryonic larval assay (MELA), Marine Environmental Research, 58: 175-9

- Haasch ML. (2002) Effects of vehicle, diet and gender on the expression of PMP70- and CYP2K1/2M1-like proteins in the mummichog, *Marine Environmental Research*, 54: 297-301
- Ackers JT, Johnston MF, Haasch ML (2000) Immunodetection of hepatic peroxisomal PMP70 as an indicator of peroxisomal proliferation in the mummichog, *Fundulus heteroclitus*, *Marine Environmental Research*, 50: 361-5
- Haasch ML, Henderson MC, Buhler DR (1998) Induction of lauric acid hydroxylase activity in catfish and bluegill by peroxisome proliferating agents, *Comparative Biochemistry and Physiology. Part C, Pharmacology, Toxicology & Endocrinology.*, 121: 297-303
- Haasch, M.L. (1998) Book Review: Techniques in aquatic toxicology, *Aquatic Toxicology*, 41: 355-356
- Haasch, M.L., M.C. Henderson, and D.R. Buhler (1998) Induction of CYP2M1 and CYP2K1 lauric acid hydroxylase activities by peroxisome proliferating agents in certain fish species: Possible implications, *Marine Environmental Research*, 46: 37-40
- Haasch, M.L (1996) Induction of anti-trout lauric acid hydroxylase immunoreactive proteins by peroxisome proliferators in bluegill and catfish, *Marine Environmental Research*, 42: 287-291
- Haasch ML, Graf WK, Quardokus EM, Mayer RT, Lech, JJ (1994) Use of 7-alkoxyphenoxazones, 7-alkoxycoumarins and 7-alkoxyquinolines as fluorescent substrates for rainbow trout hepatic microsomes after treatment with various inducers, *Biochemical Pharmacology*, 47: 893-903
- Lee PC, Yoon HI, Haasch ML, Lech, JJ (1993) Negative control of cytochrome P450 1A1 (CYP1A1) by glucocorticoids in rainbow trout liver, *Comparative Biochemistry and Physiology. C, Comparative Pharmacology and Toxicology.*, 104: 457-61
- Haasch, M.L., R. Prince, P.J. Wejksnora, K.R. Cooper, and Lech, JJ. (1993) Caged and wild fish: Induction of hepatic cytochrome P450 (CYP1A1) as an environmental biomonitor, *Environmental Toxicology and Chemistry*, 12: 885-895
- Myers, C.R., L.A. Sutherland, M.L. Haasch, and J.J. Lech (1993) Antibodies to a synthetic peptide that react specifically with rainbow trout hepatic cytochrome P450 1A1, *Environmental Toxicology and Chemistry*, 12: 1619-1626
- Haasch ML, Quardokus EM, Sutherland LA, Goodrich MS, Lech JJ (1993) Hepatic CYP1A1 induction in rainbow trout by continuous flowthrough exposure to beta-naphthoflavone, *Fundamental and Applied Toxicology* 20: 72-82
- Haasch ML, Sutherland LA, Wejksnora PJ, Lech JJ (Jun 1992) Effect of acrylamide monomer on hepatic CYP1A1 monooxygenase induction in rainbow trout., *Comparative Biochemistry and Physiology. C, Comparative Pharmacology and Toxicology.*, 102 (2), 281-6
- Haasch, M.L., E.M. Quardokus, L.A. Sutherland, M.S. Goodrich, R. Prince, K.R. Cooper, and J.J. Lech (1992) CYP1A1 protein and mRNA in teleosts as an environmental bioindicator: Laboratory and environmental studies, *Marine Environmental Research*, 34: 139-145
- Kleinow KM, Haasch ML, Williams DE, Lech JJ (1990) A comparison of hepatic P450 induction in rat and trout (*Oncorhynchus mykiss*): delineation of the site of resistance of fish to phenobarbital-type inducers, *Comparative Biochemistry and Physiology. C, Comparative Pharmacology and Toxicology.*, 96: 259-70
- Haasch ML, Wejksnora PJ, Stegeman JJ, Lech JJ (1989) Cloned rainbow trout liver P(1)450 complementary DNA as a potential environmental monitor, *Toxicology and Applied Pharmacology*, 98: 362-8
- Haasch ML, Kleinow KM, Lech JJ (1988) Induction of cytochrome P-450 mRNA in rainbow trout: in vitro translation and immunodetection, *Toxicology and Applied Pharmacology*, 94: 246-53
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- Gray RW, Haasch ML, Brown CE (1983) Regulation of plasma 1,25-(OH)₂-D₃ by phosphate: evidence against a role for total or acid-soluble renal phosphate content, *Calcified Tissue International*, 35: 773-7