

Mark E. Hahn

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Web of Science Researcher ID: AAV-7516-2020

EXPERIENCE

- 1992- Senior Scientist (2005-present),
Chair, Biology Department (2011-2016),
Tenured Associate Scientist (2000-2005),
Associate Scientist (1996-2000),
Assistant Scientist (1992-1996), Department of Biology, Woods Hole
Oceanographic Institution, Woods Hole, MA, U.S.A.
- 1987-1991 Postdoctoral Fellow/Postdoctoral Investigator, Department of Biology, Woods
Hole Oceanographic Institution, Woods Hole, MA, U.S.A.
Supervisor: John J. Stegeman

EDUCATION

- 1988 Ph.D., Toxicology. University of Rochester, School of Medicine and Dentistry,
Rochester NY, U.S.A. Thesis title: Studies on the Role of the Ah Receptor in
Hexachlorobenzene-Induced Porphyria. Advisor: Thomas A. Gasiewicz
- 1980 B.S., Biological Sciences. Harpur College, State University of New York,
Binghamton, NY, U.S.A.

ACADEMIC AND PROFESSIONAL HONORS

- 2010 Arnold B. Arons award from WHOI for excellence in teaching, advising, and
mentoring.
- 2006-2011 Walter A. and Hope Noyes Smith Senior Scientist Chair
- 2003-2005 J. Seward Johnson Chair and Education Coordinator, Biology Department,
WHOI.
- 1991 New Investigator Award, Society of Environmental Toxicology and Chemistry
(SETAC) / Air Force Office of Scientific Research (AFOSR)
- 1989-1991 Individual National Research Service Award (NRSA) in Environmental Toxicology
from the National Institute of Environmental Health Sciences (NIEHS).
- 1988 Harold C. Hodge Award, Toxicology Training Program, University of Rochester
- 1987-1988 Surdna Foundation Postdoctoral Fellowship in Marine Biomedical Research
- 1987 First Place, Society of Toxicology Graduate Student Awards for Meritorious
Research in Mechanisms of Toxicology
- 1981-1986 National Research Service Award in Environmental Toxicology from NIEHS
- 1979 Phi Beta Kappa

MEMBERSHIP IN PROFESSIONAL SOCIETIES

American Association for the Advancement of Science (AAAS), Society of Toxicology (SOT), Society of Environmental Toxicology and Chemistry (SETAC), American Society for Biochemistry and Molecular Biology (ASBMB), Society for Marine Mammalogy (SMM), The Oceanography Society, Developmental Neurotoxicology Society

RESEARCH INTERESTS

Comparative biochemistry and molecular mechanisms of chemical effects; receptor-mediated mechanisms of gene regulation and toxicity; mechanisms of adaptation and evolved resistance; aquatic animal models in toxicology; molecular evolution of transcription factors involved in environmental sensing; mechanisms of response to oxidative stress; biological effects of marine natural products; impacts of early life exposure; developmental neurotoxicity; harmful algal bloom toxins; toxicology of marine microplastics and nanoplastics.

REFEREED PUBLICATIONS (~200 total)

(*undergraduate students, #graduate students, §postdoctoral researchers advised or co-advised)

Google Scholar:

https://scholar.google.com/citations?hl=en&user=L393gDQAAAJ&view_op=list_works&sortby=pubdate

NCBI Bibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/mark.hahn.1/bibliography/public/>

- 1986 **M.E. Hahn**, T.A. Gasiewicz, J.A. Goldstein, and P. Linko. Effect of hexachlorobenzene on the specific binding of 2,3,7,8-TCDD to the hepatic Ah receptor. *Chemosphere* **15**: 1691-1698.
- 1986 Goldstein, J. A., P. Linko, **M. E. Hahn**, T. A. Gasiewicz and H. N. Yeowell (1986). Structure-activity relationships of chlorinated benzenes as inducers of hepatic cytochrome P-450 isozymes in the rat. *IARC Sci Publ* **77**: 519-526.
- 1988 **M.E. Hahn**, T.A. Gasiewicz, P. Linko, and J.A. Goldstein. The role of the Ah locus in hexachlorobenzene-induced porphyria: studies in congenic C57BL/6J mice. *Biochemical Journal* **254**: 245-254.
- 1989 **M.E. Hahn**, J.A. Goldstein, P. Linko, and T.A. Gasiewicz. Interaction of hexachlorobenzene with the receptor for 2,3,7,8-tetrachlorodibenzo-*p*-dioxin *in vitro* and *in vivo*. Evidence that hexachlorobenzene is a weak Ah receptor agonist. *Archives of Biochemistry and Biophysics* **270**: 344-355
- 1989 J.W. Gooch, A.A. Elskus, P.J. Kloepper-Sams, **M.E. Hahn**, and J.J. Stegeman. Effects of *ortho* and non-*ortho* substituted polychlorinated biphenyl congeners on the hepatic monooxygenase system in scup (*Stenotomus chrysops*). *Toxicology and Applied Pharmacology* **98**: 422-433
- 1989 **M.E. Hahn**, B.R. Woodin, and J.J. Stegeman. Induction of cytochrome P450E (P450IA1) by 2,3,7,8-tetrachlorodibenzofuran (2,3,7,8-TCDF) in the marine fish scup (*Stenotomus chrysops*). *Marine Environmental Research* **28**: 61-65

- 1991 **M.E. Hahn** and T.A. Gasiewicz. Determination of individual porphyrins in rodent urine using high-performance liquid chromatography following cleanup by anion exchange chromatography. *Journal of Chromatography* **563**: 363-368
- 1991 R.M. Smolowitz, **M.E. Hahn**, and J. J. Stegeman. Immunohistochemical localization of cytochrome P450IA1 induced by 3,3',4,4'-tetrachlorobiphenyl and by 2,3,7,8-tetrachlorodibenzofuran in liver and extrahepatic tissues of the teleost *Stenotomus chrysops* (scup). *Drug Metabolism and Disposition* **19**: 113-123
- 1991 J. J. Stegeman, R.M. Smolowitz, and **M.E. Hahn**. Immunohistochemical localization of environmentally induced cytochrome P450IA1 in multiple organs of the marine teleost *Stenotomus chrysops* (scup). *Toxicology and Applied Pharmacology* **110**: 486-504
- 1992 **M.E. Hahn** and J.J. Stegeman. Phylogenetic distribution of the Ah receptor in non-mammalian species: implications for dioxin toxicity and Ah receptor evolution. *Chemosphere* **25**: 931-937
- 1992 **M.E. Hahn**, A. Poland, E. Glover, and J.J. Stegeman. The Ah receptor in marine animals: Phylogenetic distribution and relationship to cytochrome P450IA inducibility. *Marine Environmental Research* **34**: 87-92
- 1993 **M.E. Hahn**, T.M. Lamb*, M.E. Schultz, R.M. Smolowitz, and J.J. Stegeman. Cytochrome P4501A induction and inhibition by 3,3',4,4'-tetrachlorobiphenyl in an Ah receptor-containing fish hepatoma cell line (PLHC-1). *Aquatic Toxicology* **26**: 185-208.
- 1994 Stegeman, J.J. and **M.E. Hahn**. Biochemistry and molecular biology of monooxygenases: Current directions in forms, functions, and regulation of cytochrome P450 in aquatic species, in *Aquatic Toxicology: Molecular, Biochemical and Cellular Perspectives*, Malins, D.C. and Ostrander, G.K., Editors, CRC/Lewis, pp. 87-206
- 1994 **M.E. Hahn**, A. Poland, E. Glover, and J.J. Stegeman. Photoaffinity labeling of the Ah receptor: phylogenetic survey of diverse vertebrate and invertebrate species. *Archives of Biochemistry and Biophysics* **310**: 218-228
- 1994 R.D. White, **M.E. Hahn**, W.L. Lockhart, and J.J. Stegeman. Catalytic and immunochemical characterization of hepatic microsomal cytochromes P450 in beluga whales (*Delphinapterus leucas*). *Toxicology and Applied Pharmacology* **126**: 45-57
- 1994 P. Lindstrom-Seppa, P.J. Korytko*, **M.E. Hahn**, and J.J. Stegeman. Uptake of waterborne 3,3',4,4'-tetrachlorobiphenyl and organ and cell-specific induction of cytochrome P4501A in the fathead minnow *Pimephales promelas*. *Aquatic Toxicology* **28**: 147-167
- 1994 **M.E. Hahn** and J.J. Stegeman. Regulation of cytochrome P4501A1 in teleosts: Sustained induction of CYP1A1 mRNA, protein, and catalytic activity by 2,3,7,8-tetrachlorodibenzofuran in the marine fish *Stenotomus chrysops*. *Toxicology and Applied Pharmacology* **127**: 187-198
- 1995 J.J. Stegeman, **M.E. Hahn**, R. Weisbrod, B.R. Woodin, J.S. Joy, S. Najibi, and R.A. Cohen. Induction of cytochrome P4501A1 by Ah-receptor agonists in porcine aorta endothelial cells in culture, and CYP1A1 activity in intact cells. *Molecular Pharmacology* **47**: 296-306.

- 1995 **M.E. Hahn** and S.I. Karchner. Evolutionary conservation of the vertebrate Ah (dioxin) receptor: Amplification and sequencing of the PAS domain of a teleost Ah receptor cDNA. *Biochemical Journal* **310**: 383-387.
- 1995 N.W. Cornell, **M.E. Hahn**, and H.A. Martin. Characterization and use of isolated toadfish hepatocytes for studies of heme synthesis and utilization. *Biological Bulletin* **189**: 227-228.
- 1996 **M.E. Hahn**, B.L. Woodward, J.J. Stegeman, and S.W. Kennedy. Rapid assessment of induced cytochrome P4501A (CYP1A) protein and catalytic activity in fish hepatoma cells grown in multi-well plates: Response to TCDD, TCDF, and two planar PCBs. *Environmental Toxicology and Chemistry* **15**: 582-591.
- 1996 M. Celander, **M.E. Hahn**, and J.J. Stegeman. Cytochromes P450 (CYP) in the *Poeciliopsis lucida* hepatocellular carcinoma cell line (PLHC-1): Dose- and time-dependent glucocorticoid potentiation of CYP1A induction without induction of CYP3A. *Archives of Biochemistry and Biophysics* **329**: 113-122.
- 1996 **M.E. Hahn** and K. Chandran*. Uroporphyrin accumulation associated with cytochrome P4501A induction in fish hepatoma cells exposed to Ah receptor agonists, including 2,3,7,8-tetrachlorodibenzo-p-dioxin and planar chlorobiphenyls. *Archives of Biochemistry and Biophysics* **329**: 163-174.
- 1996 S.I. Karchner[§] and **M.E. Hahn**. A reverse transcription-polymerase chain reaction (RT-PCR) approach for cloning Ah receptors from diverse vertebrate species: partial sequence of an Ah receptor from the teleost *Fundulus heteroclitus*. *Marine Environmental Research* **42**: 13-17.
- 1996 S.W. Kennedy, A. Lorenzen, S.P. Jones, **M.E. Hahn**, and J.J. Stegeman. Cytochrome P4501A induction in avian hepatocyte cultures: a promising approach for predicting the sensitivity of avian species to toxic effects of halogenated aromatic hydrocarbons. *Toxicology and Applied Pharmacology* **141**: 214-230
- 1996 **M.E. Hahn**. Ah receptors and the mechanism of dioxin toxicity: Insights from homology and phylogeny, in *Interconnections Between Human and Ecosystem Health*, DiGiulio, R.D. and Monosson, E., (Eds.), Chapman and Hall Publishers, pp. 9-26.
- 1997 A. Lorenzen, S.W. Kennedy, L.J. Bastien, and **M.E. Hahn**. Halogenated aromatic hydrocarbon-mediated porphyrin accumulation and induction of P4501A in chicken embryo hepatocytes. *Biochemical Pharmacology* **53**: 373-384.
- 1997 M. Celander, J. Bremer, **M.E. Hahn**, and J.J. Stegeman. Glucocorticoid-xenobiotic interactions: Dexamethasone potentiation of cytochrome P4501A induction by b-naphthoflavone in a fish hepatoma cell line (PLHC-1). *Environmental Toxicology and Chemistry* **16(5)**: 900-907.
- 1997 **M.E. Hahn**, S.I. Karchner, M.A. Shapiro*, and S.A. Perera*. Molecular evolution of two vertebrate aryl hydrocarbon (dioxin) receptors (AHR1 and AHR2) and the PAS family. *Proceedings of the National Academy of Sciences U.S.A.* **94**: 13743-13748
- 1998 **M.E. Hahn**, S.I. Karchner, M.A. Shapiro*, and S.A. Perera*. The aryl hydrocarbon receptor in early vertebrates. *Marine Environmental Research* **46**: 41-44.
- 1998 S.E. Huuskonen[#], K. Koponen, O. Ritola, **M. Hahn**, and P.E. Lindstrom-Seppa. Induction of CYP1A and porphyrin accumulation in fish hepatoma cells (PLHC-1) exposed to

- sediment or water from a PCB-contaminated lake (Lake Kernaala, Finland). *Marine Environmental Research* **46**: 379-384.
- 1998 S.E. Huuskonen[#], **M.E. Hahn**, and P.E. Lindstrom-Seppa. A fish hepatoma cell line (PLHC-1) as a tool to study cytotoxicity and CYP1A induction properties of cellulose and wood chip extracts. *Chemosphere* **36**: 2921-2932.
- 1998 S.E. Huuskonen[#], T.E. Ristola, A. Tuvikene, **M.E. Hahn**, J.V.K. Kukkonen, and P.E. Lindstrom-Seppa. Comparison of two bioassays, a fish liver cell line (PLHC-1) and a midge (*Chironomus riparius*), in monitoring freshwater sediments. *Aquatic Toxicology* **44**: 47-67.
- 1998 H.T. Besselink, M.S. Denison, **M.E. Hahn**, S.I. Karchner, A.D. Vethaak, J.H. Koeman, and A. Brouwer. Low inducibility of CYP1A activity by polychlorinated biphenyls (PCBs) in flounder (*Platichthys flesus*): Characterization of the Ah receptor and the role of CYP1A inhibition. *Toxicological Sciences* **43**: 161-171.
- 1998 **M.E. Hahn**. Mechanisms of innate and acquired resistance to dioxin-like compounds. *Reviews in Toxicology. Series B - Environmental Toxicology* **2**: 395-443.
- 1998 **M.E. Hahn**, B.R. Woodin, J.J. Stegeman, and D.E. Tillitt. Aryl hydrocarbon receptor function in early vertebrates: Inducibility of cytochrome P4501A in agnathan and elasmobranch fish. *Comparative Biochemistry and Physiology* **120C(1)**: 67-75
- 1998 **M.E. Hahn**. The Aryl Hydrocarbon Receptor: A Comparative Perspective. *Comparative Biochemistry and Physiology* **121C(3)**:23-53.
- 1998 N.M. Fragoso, J.L. Parrott, **M.E. Hahn**, and P.V. Hodson. Chronic retene exposure causes sustained induction of CYP1A activity and protein in rainbow trout (*Oncorhynchus mykiss*). *Environmental Toxicology and Chemistry* **17(11)**: 2347-2354.
- 1999 W.H. Powell[§], S.I. Karchner, R. Bright^{*}, and **M.E. Hahn**. Functional diversity of vertebrate ARNT proteins: Identification of ARNT2 as the predominant form of ARNT in the marine teleost, *Fundulus heteroclitus*. *Archives of Biochemistry and Biophysics* **361**: 156-163.
- 1999 C.C. Abnet, R.L. Tanguay, **M.E. Hahn**, W. Heideman, and R.E. Peterson. Two forms of aryl hydrocarbon receptor type 2 in rainbow trout (*Oncorhynchus mykiss*): Evidence for differential expression and enhancer specificity. *Journal of Biological Chemistry* **274**: 15159-15166.
- 1999 K.K. Mann, R.A. Matulka, **M.E. Hahn**, A.F. Trombino, B.P. Lawrence, N.I. Kerkvliet, and D.H. Sherr. The Role of polycyclic aromatic hydrocarbon metabolism in dimethylbenzanthracene-induced Pre-B Cell Apoptosis. *Toxicology and Applied Pharmacology* , **161**: 10-22.
- 1999 S.I. Karchner, W.H. Powell[§], and **M.E. Hahn**. Structural and Functional Characterization of Two Highly Divergent Aryl Hydrocarbon Receptors in the teleost *Fundulus heteroclitus*. Evidence for a novel class of ligand-binding bHLH-PAS factors. *Journal of Biological Chemistry* **274**: 33814-33824.
- 2000 S.E. Huuskonen[#], A. Trapido, and **M.E. Hahn**. CYP1A induction and porphyrin accumulation in PLHC-1 fish cells exposed to sediment and oil shale extracts. *Archives of Environmental Contamination and Toxicology*, **38**: 59-69.

- 2000 E.V. Hestermann[#], J.J. Stegeman, and **M.E. Hahn**. Serum alters the uptake and relative potencies of halogenated aromatic hydrocarbons in a cell culture bioassay. *Toxicological Sciences* **53**: 316-325.
- 2000 R.D. White, D. Shea, J.J. Schlezinger, **M.E. Hahn**, and J.J. Stegeman. In vitro metabolism of polychlorinated biphenyl congeners by beluga whale (*Delphinapterus leucas*) and pilot whale (*Globicephala melas*) and relationship to cytochrome P450 expression. *Comparative Biochemistry and Physiology* **126**: 267-284
- 2000 S.A. Quadri, A.N. Qadri, **M.E. Hahn**, K.K. Mann, and D.H. Sherr. The Bioflavonoid Galangin Blocks Aryl Hydrocarbon Receptor (AhR) Activation and Polycyclic Aromatic Hydrocarbon-induced Pre-B cell Apoptosis. *Molecular Pharmacology* **58**: 515-525
- 2000 W.H. Powell[§], R. Bright^{*}, S.M. Bello[#], and **M.E. Hahn**. Developmental and Tissue-specific Expression of AHR1, AHR2, and ARNT2 in Dioxin-sensitive and -resistant Populations of the Marine Fish, *Fundulus heteroclitus*. *Toxicological Sciences* **57**: 229-239.
- 2000 S.I. Karchner, S.W. Kennedy, S. Trudeau, and **M.E. Hahn**. Towards a Molecular Understanding of Species Differences in Dioxin Sensitivity: Initial Characterization of Ah Receptor cDNAs in Birds and an Amphibian. *Marine Environmental Research* **50**: 51-56
- 2000 W.H. Powell[§] and **M.E. Hahn**. The evolution of aryl hydrocarbon signaling proteins: Diversity of ARNT isoforms among fish species. *Marine Environmental Research* **50**: 39-44
- 2000 E.V. Hestermann[#], J.J. Stegeman, and **M.E. Hahn**. Relative contributions of affinity and intrinsic efficacy to aryl hydrocarbon receptor ligand potency. *Toxicology and Applied Pharmacology* **168**: 160-172.
- 2000 M. Betka, A. Welenc, D.G. Franks, **M.E. Hahn**, and G.V. Callard. Characterization of Two Aryl hydrocarbon Receptor (AhR) mRNA Forms in *Squalus acanthias* and stage-specific expression during spermatogenesis. *Bulletin of the Mt. Desert Island Biological Laboratory* **39**: 110-112.
- 2000 **M.E. Hahn** and J.J. Stegeman (2000) Molecular Biology and Biotechnology in Marine Toxicology, in *Opportunities for Environmental Applications of Marine Biotechnology. (Proceedings of the Workshop on Opportunities for Advancement of Environmental Applications of Marine Biotechnology. October 5-6, 1999, Washington, DC)*, Board on Biology, Ocean Studies Board, National Research Council. National Academy Press: p. 112-125.
- 2001 B.H. Toomey, S. Bello[#], **M.E. Hahn**, S. Cantrell, P. Wright, D. Tillitt, and R.T. DiGiulio. TCDD induces apoptotic cell death and cytochrome P4501A expression in developing *Fundulus heteroclitus* embryos. *Aquatic Toxicology* **53**: 127-138.
- 2001 S.M. Bello[#], D.G. Franks, J.J. Stegeman, and **M.E. Hahn**. Acquired Resistance to Aryl Hydrocarbon Receptor Agonists in a Population of *Fundulus heteroclitus* from a Marine Superfund site: In Vivo and In Vitro Studies on the Induction of Xenobiotic Metabolizing Enzymes. *Toxicological Sciences* **60**: 77-91.
- 2001 R.B. Butler, M.L. Kelley, W.H. Powell[§], **M.E. Hahn**, and R.J. Van Beneden. An Aryl Hydrocarbon Receptor Homologue from the Soft-Shell Clam, *Mya arenaria*: Evidence that invertebrate AHR homologues lack TCDD and BNF binding. *Gene* **278**: 223-234.

- 2001 B.A. Jensen[#] and **M.E. Hahn**. cDNA cloning and characterization of a high affinity aryl hydrocarbon receptor in a cetacean, the beluga, *Delphinapterus leucas*. *Toxicological Sciences* **64**: 41-56.
- 2001 **M.E. Hahn**. Dioxin Toxicology and the Aryl Hydrocarbon Receptor: Insights from fish and other non-traditional models. *Marine Biotechnology* **3(Suppl.1)**: S224-S238.
- 2002 S.M. Bard, S.M. Bello[#], **M.E. Hahn**, and J.J. Stegeman. Expression of P-glycoprotein in killifish (*Fundulus heteroclitus*) exposed to environmental xenobiotics. *Aquatic Toxicology* **59**: 237-251
- 2002 E.V. Hestermann[#], J.J. Stegeman, and **M.E. Hahn**. Relationships Among the Cell Cycle, Cell Proliferation, and Aryl Hydrocarbon Receptor Expression in PLHC-1 Cells. *Aquatic Toxicology* **58**: 201-213.
- 2002 E.V. Hestermann[#], J.J. Stegeman, and **M.E. Hahn**. Serum Withdrawal Leads to Reduced Aryl Hydrocarbon Receptor Expression and Loss of Cytochrome P4501A Inducibility in PLHC-1 Cells. *Biochemical Pharmacology* **63**: 1405-1414.
- 2002 E.-Y. Kim[§] and **M.E. Hahn**. cDNA cloning and characterization of an aryl hydrocarbon receptor from the harbor seal (*Phoca vitulina*): A biomarker of dioxin susceptibility? *Aquatic Toxicology* **58**: 57-73
- 2002 W.H. Powell[§] and **M.E. Hahn**. Identification and Functional Characterization of Hypoxia-inducible factor 2a from the marine teleost, *Fundulus heteroclitus*: Interaction of HIF-2a with two ARNT2 splice variants. *Journal of Experimental Zoology - Molecular and Developmental Evolution* **294**: 17-29.
- 2002 **M.E. Hahn**. Biomarkers and Bioassays for Detecting Dioxin-like Compounds in the Marine Environment. *Science of the Total Environment* **289**: 49-69.
- 2002 S.I. Karchner, D.G. Franks, W.H. Powell[§], and **M.E. Hahn**. Regulatory Interactions Among Three Members of the Vertebrate Aryl Hydrocarbon Receptor Family: AHR Repressor, AHR1, and AHR2. *Journal of Biological Chemistry* **277**: 6949-6959.
- 2002 E.-Y. Kim[§], **M.E. Hahn**, H. Iwata, S. Tanabe, and N. Miyazaki. cDNA cloning of an aryl hydrocarbon receptor from Baikal Seals (*Phoca sibirica*). *Marine Environmental Research* **54**: 285-289.
- 2002 E.A. Andreasen, **M.E. Hahn**, W. Heideman, R.E. Peterson, and R.L. Tanguay. The zebrafish (*Danio rerio*) aryl hydrocarbon receptor type 1 (zfAHR1) is a novel vertebrate receptor. *Molecular Pharmacology* **62**: 234-249.
- 2002 **M.E. Hahn**. Aryl hydrocarbon receptors: Diversity and Evolution. *Chemico-Biological Interactions* **141**: 131-160
- 2002 S.M. Billiard, **M.E. Hahn**, D.G. Franks, R.E. Peterson, N.C. Bols, and P.V. Hodson. Binding of polycyclic aromatic hydrocarbons (PAHs) to teleost aryl hydrocarbon receptors (AHRs). *Comparative Biochemistry and Physiology B* **133**: 55-68.
- 2002 J. Song, M. Clagett-Dame, R.E. Peterson, **M.E. Hahn**, W.M. Westler, R.R. Sicinski, and H.F. DeLuca. A Novel Ligand for the Aryl Hydrocarbon Receptor Isolated from Lung. *Proceedings of the National Academy of Sciences U.S.A.* **99**: 14694-14699.

- 2003 **M.E. Hahn**. Chapter 14. Evolutionary and Physiological Perspectives on Ah Receptor Function and Dioxin Toxicity, in *Dioxins and Health (second edition)*, Schecter, A. and Gasiewicz, T.A., Editors. John Wiley & Sons. pp. 559-602.
- 2003 C.A. Hart[#], I.C.T. Nisbet, S.W. Kennedy, and **M.E. Hahn**. Gonadal feminization and halogenated environmental contaminants in common terns (*Sterna hirundo*): Evidence that ovotestes in male embryos do not persist to the prefledgling stage. *Ecotoxicology* **12**: 125-140.
- 2003 S.A. Tittlemier, S.W. Kennedy, **M.E. Hahn**, C.M. Reddy, and R.J. Norstrom. Naturally-Produced Halogenated Dimethyl Bipyrroles Bind to the Ah Receptor and Induce Cytochrome P4501A and Porphyrin Accumulation in Chicken Embryo Hepatocytes. *Environmental Toxicology and Chemistry* **22**: 1497-1506.
- 2003 J.N. Meyer, D.M. Wassenberg, S.I. Karchner, **M.E. Hahn**, and R.T. DiGiulio. Expression and inducibility of aryl hydrocarbon receptor (AHR) pathway genes in wild-caught killifish (*Fundulus heteroclitus*) from a creosote-contaminated site. *Environmental Toxicology and Chemistry* **22(10)**: 2337-2343.
- 2003 L. Wiesner, **M.E. Hahn**, S.I. Karchner, E.L. Cooper, and E. Kauschke. Does an aryl hydrocarbon receptor (AHR)-like molecule exist in earthworms? Some implications for immunity. *Pedobiologia* **47**: 646-650.
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- 2004 W.H. Powell[§], H.G. Morrison, E.J. Weil, S.I. Karchner, M.L. Sogin, J.J. Stegeman, and **M.E. Hahn**. Cloning and analysis of the CYP1A promoter from the Atlantic killifish (*Fundulus heteroclitus*). *Marine Environmental Research* **58**: 119-124.
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- 2005 B.R. Evans[#], S.I. Karchner, D.G. Franks, and **M.E. Hahn**. Duplicate aryl hydrocarbon receptor repressor genes (ahrr1 and ahrr2) in the zebrafish *Danio rerio*: Structure, function, evolution, and AHR-dependent regulation in vivo. *Arch. Biochem. Biophys.* **441**: 151-167.
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- 2006 **Hahn, M. E.**, Karchner, S. I., Evans, B. R.[#], Franks, D. G., Merson, R. R., and Lapseritis, J. M. Unexpected diversity of aryl hydrocarbon receptors in non-mammalian vertebrates: Insights from comparative genomics. *Journal of Experimental Zoology: Molecular and Developmental Evolution* **305A**: 693-706
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- 2024 #Ma L, **Hahn ME**, Karchner SI, Nacci D, Clark BW, Apprill A (2024) Environmental and Population influences on Mummichog (*Fundulus heteroclitus*) Gut Microbiomes. *Microbiology Spectrum* (accepted) (preprint: *bioRxiv*: 2024.2001.2026.577513.)

PREPRINTS and PAPERS SUBMITTED

- 2024 Hidayat AS, Pitt JA, Fredricks H, Hahn ME, Aluru N (2024) Domoic acid induces developmental stage-specific effects on microglia in zebrafish. *Harmful Algae*: submitted Dec 2024.
- 2024 Xue Z, Zhang W, Ren A, Karchner SI, Franks DG, Zong Y, Ma Y, Wang J, Xu Y, Li J, Ding N, Liu C, Hahn ME, Zhao B (2024) Enhancing Ecological Risk Assessment of Dioxins in Aquatic Environments: AHR Diversity and Species Sensitivity Differences in Tiger Puffer (*Takifugu rubripes*). *Journal of Hazardous Materials*: submitted Dec 2024.

WHOI (and MBL) COMMITTEES AND ACTIVITIES (other than Education)

- WHOI Institutional Animal Care and Use Committee (IACUC), 1995-present (Chair, 2009-2011)
- Institutional Strategic Planning Committee (Research), 1996-97
- WHOI Isotope Users Committee (now Radiation Safety Committee), 1997-2011; 2021-present (Chair, 2022-present)
- WHOI Institutional Biosafety Committee (IBC), 1997-2011 (Chair, 1997-2008)

MBL Institutional Biosafety Committee (IBC), 2020-present
MBL-WHOI Library Users Committee, 2021- present
WHOI Institutional Safety Committee, 2003-2008
Biology Department Safety Committee, 2003-2008
Institute Advisory Committee, Ocean Life Institute, 2001-2003
Biology Department Chair Search Committee (1996, 2001, 2019 (chair))
Search Committee for VP for Finance and Administration (2012)
Search Committee for VP for Academic Programs and Dean (2005, 2017)
Search Committee for Deputy Director and Vice President for Research (DDVPR) (2019)

EDUCATION ACTIVITIES

COMMITTEES AND OTHER SERVICE:

Joint Committee on Biological Oceanography (JCBO),
WHOI/MIT Joint Graduate Program, 1996-2005; Chairman, 1997-2002
WHOI/MIT Joint Program Admissions Advisory Committee, 1993, 1994, 2003, 2004
Biological Oceanography Comprehensive Exam Committee (2002 [Chair]; 2003, 2004, 2006 [Chair])
J. Seward Johnson Chair and Education Coordinator in the Biology Department (2003-2005)
MIT-WHOI Joint Program Strategic Planning Committee (2010-2011)
Co-organized three workshops on Responsible Conduct of Research (2011)
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Dr. Connie Hart (Postdoctoral Investigator, 1998-1999)
Dr. Eun-Young Kim (Postdoctoral Guest Investigator, 1999)
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