

**María S. Sepúlveda, DVM, PhD**  
General Information  
<http://web.ics.purdue.edu/~mssepulv>  
<http://www.researcherid.com/rid/P-3598-2014>

## **EDUCATION**

- Ph.D., Toxicology and Veterinary Sciences, University of Florida (1998-2000)
- M.S., Wildlife Ecology, University of Florida (1993-1997)
- D.V.M., Universidad de Chile (1985-1991)

## **PROFESSIONAL EXPERIENCE**

- Professor, Department of Forestry & Natural Resources, Purdue University (August 2014)
- Adjunct Professor, School of Health Sciences, Purdue University (August 2014)
- Courtesy Professor, School of Civil Engineering, Purdue University (August 2014)
- Adjunct Associate Professor, School of Health Sciences, Purdue University (November 2011)
- Associate Professor, Department of Forestry & Natural Resources and School of Civil Engineering, Purdue University (August 2009)
- Assistant Professor, Department of Forestry & Natural Resources and School of Civil Engineering, Purdue University (October 2004-August 2009)
- Assistant Scientist, Center for Environmental and Human Toxicology, Department of Physiological Sciences, College of Veterinary Medicine, University of Florida (2002-September 2004)
- Assistant Instructor, Department of Physiological Sciences, College of Veterinary Medicine, University of Florida (2000-2002)
- Graduate Research Assistant, Georgia-Pacific Corporation Project: "Effects of Paper Mill Effluents on Health and Reproduction of Largemouth Bass" (1997-2000)
- Graduate Assistant Fellow, Florida Department of Environmental Protection Project: "Effects of Elevated Mercury on Reproductive Success of Long-legged Wading Birds in the Everglades" (1993-1997)
- Field Research Assistant, National Geographic Society Division of Television Project: "Fur Seals" and Smithsonian Institution Projects: "Biological Studies of the Juan Fernández Fur Seal with Implications for Management and Conservation" and "Lactation Strategies of the Juan Fernández Fur Seal" (1990-1992)

## **HONORS AND AWARDS**

- Appointed Member at Large of the Great Lakes Fishery Sea Lamprey Research Board (2015-present)
- Purdue University Faculty Scholar (2015)
- Purdue University Showalter Scholar (2015)
- Excellence in Graduate Mentoring, Department of Forestry and Natural Resources, Purdue University (2014)
- Western Region Excellence in Multistate Research Award (2013)

- TEAM Award, College of Agriculture (2012)
- Board Member of the North American Society of Environmental Chemistry (2009-2012)
- University of Florida, Office of International Studies and Programs (OISP) and College of Veterinary Medicine, Award for outstanding academic achievement (1998, 1999, and 2000)
- Southeastern Society of Toxicology (SESOT), Award for Best Platform Presentation (1998)
- Colonial Waterbird Society, Award for Best Platform Presentation (1997)
- Animal Disease Research Workers in Southern States, Award for Best Platform Presentation (1995)
- Colonial Waterbird Society, Award for Best Platform Presentation (1994)
- Tropical and Conservation Development Program, University of Florida, Two-year Fellowship (1993-1995)

### **PROFESSIONAL MEMBERSHIPS**

- National Association of Professional Women (2014-present)
- International Association for Great Lakes Research (2010-present)
- Indiana Academy of Sciences (2010-present)
- Society of Environmental Toxicology and Chemistry Ohio Valley Chapter (2005-present)
- Indiana Biological Survey, Aquatic Research Center (2005-present)
- American Fisheries Society (2000-present)
- Society of Environmental Toxicology and Chemistry (1998-present)
- Wildlife Disease Association (1992-present)

### **SUMMARY OF ACHIEVEMENTS AND IMPACTS**

Dr. Sepúlveda is a national and international leader in the area of ecotoxicology and aquatic animal health. Her research efforts have significantly advanced the use of molecular tools for understanding how animals respond to contaminants, diseases and other environmental stressors. One of Dr. Sepúlveda's main strengths is her ability to cross disciplinary boundaries and to adapt different tools to address applied problems in environmental sciences. Listed below are some of Dr. Sepúlveda's most significant achievements and impacts:

- She completed a 3-yr term (2009 – 2012) as a Board Member of the most important scientific society in her field, the Society of Environmental Toxicology and Chemistry (SETAC)
- She holds a courtesy appointment in the School of Civil Engineering (since 2004) and is an adjunct faculty in the School of Health Sciences (since 2011), Purdue University
- She has published 118 peer-reviewed articles: 103 journal articles, 6 book chapters and 9 refereed proceedings. Of these, her graduate students have published 32 articles and 4 book chapters
- She has an h factor of 28 and an i10-index of 54 (Google Scholar)
- Over the past five years, Google Scholar reported that other authors referenced Dr. Sepúlveda's journal articles an average of 250 times per year
- She has produced over 250 published research abstracts
- She has been invited to present her research at professional audiences on 65 occasions, including 12 countries

- Since obtaining her PhD, she has published articles or submitted successful grant proposals with 137 collaborators, 87 of whom represent collaborations with 52 institutions or agencies external to Purdue University, including 10 universities outside the U.S.
- She has been a PI or co-PI on over \$10 million dollars in grants and contracts since she joined Purdue in 2004
- She has successfully completed 9 PhD and 4 MS students in the past nine years and currently serves as the major advisor or co-advisor for 4 PhD and 2 MS students
- She has served/serves on the graduate advisory committees of 32 students in the past decade
- She has supervised 3 postdoctoral researchers and 8 research technicians in the past eight years
- She has hosted five international Ph.D. exchange students
- She has involved 30 undergraduates in her research program since joining Purdue in 2004
- She serves in 5 editorial boards and has served as *ad hoc* reviewer for over 30 peer-reviewed journals
- She has regularly served as an external reviewer or panel member for granting agencies, including federal programs administered by the EPA, NOAA, and a variety of state agencies and foundations
- She serves in the Board of Directors for the Purdue Water Community and in the Graduate Admissions Committee for PULSe
- She served as the faculty advisor for the Purdue Student Chapter of The American Fisheries Society
- She served at Purdue's University Senate between 2009-2011
- She has organized symposia or technical sessions at four national/international scientific meetings

**PUBLICATIONS – (125 total)** <http://web.ics.purdue.edu/~mssepulv/>

**Refereed Journal Papers – (110)**

*Google Scholar h index = 28, i10-index = 56.* (Underlined = graduate student; *Underlined italics* = undergraduate student; \* = post-doctoral researcher/senior scientist).

1. Mahapatra CT\*, Damayanti NP, Guffey SC, Serafin SS, Irudayaraj J, **Sepúlveda MS**. (2016) Comparative in vitro toxicity assessment of perfluorinated carboxylic acids. *Journal of Applied Toxicology*. In Press.
2. Gao J, Mahapatra CT\*, Mapes CD, Khlebnikova M, Wei A, **Sepúlveda MS**. (2016) Vascular toxicity of silver nanoparticles to developing zebrafish (*Danio rerio*). *Nanotoxicology* 10:1363-1372.
3. Wirbisky SE, Weber GJ, Schlotman KE, **Sepúlveda MS**, Freeman JL. (2016). Embryonic atrazine exposure alters zebrafish and human miRNAs associated with angiogenesis, cancer, and neurodevelopment. *Journal Food and Chemical Toxicology*. In Press.
4. Chen S, Nichols KM, Poynton HC, **Sepúlveda MS**. (2016). MicroRNAs are involved in cadmium tolerance in *Daphnia pulex*. *Journal of Aquatic Toxicology* 175:241-248.
5. Wirbisky SE, **Sepúlveda MS**, Weber GJ, Jannasch AS, Horzemann K, and Freeman JL. (2016). Embryonic atrazine exposure elicits alterations in genes associated with neuroendocrine function in adult male zebrafish. *Toxicological Sciences* 153:149-164.

6. Pirro V, Guffey SC, **Sepúlveda MS**, Mahapatra MT\*, Ferreira CR, Jarmusch AK, Cooks RG. (2016). Lipid dynamics in zebrafish embryonic development observed by DESI-MS imaging and nanoelectrospray-MS. *Journal of Molecular BioSystems* 12:2069-2079.
7. Wirbisky SE, Damayanti NP, Mahapatra CT\*, **Sepúlveda MS**, Irudayaraj J, Freeman JL. (2016). Mitochondrial dysfunction, disruption of F-actin polymerization, and transcriptomic alterations in zebrafish larvae exposed to trichloroethylene. *Journal of Chemical Research in Toxicology* 29:169-179.
8. Wirbisky SE, Weber GJ, **Sepúlveda MS**, Tsang-Long L, Jannasch AS, Freeman JL. (2016). An embryonic atrazine exposure results in reproductive dysfunction in adult zebrafish and morphological alterations in their offspring. *Nature Scientific Reports* 6.
9. Coulter D, Höök T, Mahapatra C\*, Guffey S, **Sepúlveda MS**. (2016) Fluctuating water temperatures affect development, physiological responses and cause sex reversal in fathead minnows. *Environmental Science and Technology* 49:1921-1928.
10. Chen S, McKinney GJ, Nichols KM, Colbourne JK, **Sepúlveda MS**. (2015) Novel cadmium responsive microRNAs in *Daphnia pulex*. *Environmental Science and Technology* 49:14605-14613.
11. Fuentes D, Reyes J, **Sepúlveda MS**, Kinsella M, Mironov S, Cicchino A, Moreno L, Landaeta-Aqueveque C, Troncoso I, Gonzalez-Acuña. (2015) Gastrointestinal and external parasites of the white-crested elaeni *Elaenia albiceps chilensis* (Aves, Tyrannidae) in Chile. *Brazilian Journal of Veterinary Parasitology* 24:276-282.
12. Abdel-Moneim A, Coulter DP, Mahapatra CT\*, **Sepúlveda MS**. (2015) Intersex in fishes and amphibians: population implications, prevalence, mechanisms and molecular biomarkers. *Journal of Applied Toxicology* 35:1228-1240.
13. Abdel-Moneim A, Mahapatra CT\*, Hatf A, **Sepúlveda MS**. (2015) Ovarian structure protein 1: A sensitive molecular biomarker of gonadal intersex in female Japanese medaka after androgen exposure. *Environmental Toxicology and Chemistry* 34:2087-2094.
14. Coulter DP, **Sepúlveda MS**, Troy CD, Höök TO. (2015) Species-specific effects of subdaily temperature fluctuations on consumption, growth and stress responses in two physiologically similar fish species. *Ecology of Freshwater Fish* DOI: 10.1111/eff.12227.
15. Gao J, **Sepúlveda MS**, Klinkhamer C, Gao Y, Wei A, Mahapatra C\*. (2015) Nanosilver-coated socks and their toxicity to zebrafish (*Danio rerio*) embryos. *Chemosphere* 119:948-952.
16. Leet JK, Sassman S, Amberg JJ\*, Olmstead AW, Lee LS, Ankley GT, **Sepúlveda MS**. (2015) Environmental hormones and their impacts on sex differentiation in fathead minnows. *Aquatic Toxicology* 158:98-107.
17. Wirbisky SE, Weber GJ, **Sepúlveda MS**, Xiao C, Cannon JR, Freeman JL. (2015) Developmental origins of neurotransmitter and transcriptome alterations in adult female zebrafish exposed to atrazine during embryogenesis. *Toxicology* 333:156-167.
18. Madenjian CP, Ebener MP, **Sepúlveda MS**. (2015) PCB concentrations of lake whitefish (*Coregonus clupeaformis*) vary by sex. *Journal of Great Lakes Research* 41:1185-1190.

19. Zenobio JE, Sanchez BC, Leet JK, Archuleta LC, **Sepúlveda MS**. (2015) Presence and effects of pharmaceutical and personal care products on the Baca National Wildlife Refuge, Colorado. *Chemosphere* 120:750-755.
20. Chen S, McKinney JG, Nichols KM, **Sepúlveda MS**. (2015) *In silico* prediction and *in vivo* validation of *Daphnia pulex* microRNAs. *PLoS ONE* 9: e83708.
21. Coulter DP, **Sepúlveda MS**, Troy CD, Höök TO. (2014) Thermal habitat quality of aquatic organisms near power plant discharges: potential exacerbating effects of climate warming. *Fisheries Management and Ecology* 21:196-210.
22. Foley CJ, Bowen GJ, Nalepa TF, **Sepúlveda MS**, Höök TO. (2014) Stable isotope patterns reveal shared resource use by native and invasive species in areas of co-occurrence. *Canadian Journal of Fisheries and Aquatic Sciences* 71:1-12.
23. Middaugh CR, **Sepúlveda MS**, Höök TO. (2014) Growth and behavioral effects of the lampricide TFM on non-target fish species. *Journal of Great Lakes Research* 40:1010-1015.
24. **Sepúlveda MS**, Gonzalez-acuña D. (2014) Comparison of heavy metals from resident *Larus dominicanus* and migratory *Leucophaeus pipixcan* from Talcahuano, Chile. *Archivos de Medicina Veterinaria* 46:299-304.
25. Stensberg MC, Zeitchek MA, Inn K, McLamore ES, Porterfield DM, **Sepúlveda MS**. (2014). Comparative study of non-invasive methods for assessing *Daphnia magna* embryo toxicity. *Environmental Science and Pollution Research* 18:10803-10814.
26. Stensberg MC, Madangopal R, Yale G, Wei Q, Ochoa-Acuña H, Wei A, McLamore ES, Rickus J, Porterfield DM, **Sepúlveda MS**. (2014) Silver nanoparticle-specific mitotoxicity in *Daphnia magna*. *Nanotoxicology* 8:833-842.
27. Zenobio JE, Sanchez BC, Archuleta LC, **Sepúlveda MS**. (2014) Effects and mechanisms of toxicity of triclocarban, DEET and a mixture of other pharmaceuticals on fathead minnows (*Pimephales promelas*). *Environmental Toxicology and Chemistry* 33:910-919.
28. Amberg JJ\*, Goforth R, **Sepúlveda MS**. (2013) Next-generation sequencing reveals sex-specific expression of antagonists to the WNT-cascade in sexually mature shovelnose sturgeon. *Sexual Development* 7:308-315.
29. Ardiles K, González-Acuña D, **Sepúlveda MS**, Vargas P, Guglielmone A. (2013) Biological cycle of *Argas (persicargas) keiransi* fed on hen's blood under laboratory conditions. *Entomological News* 123:174-177.
30. Hewson I, Eaglesham J, LaBarre BA, Thompson PD, Watkins J, Rudstam L, Höök TO, **Sepúlveda MS**. (2013) Investigation of viruses associated with *Diporeia* spp. from the Laurentian Great Lakes and Owasco Lake, NY as a potential stressor of declining populations. *Journal of Great Lakes Research* 39:499-506.
31. Leet JK, Schoenfuss HL, Olmstead AW, Amberg JJ\*, Ankley GT, **Sepúlveda MS**. (2013) Sex-specific gonadal and gene expression changes throughout development in fathead minnow. *Sexual Development* 7:303-307.
32. Maity S, Jannasch A, Adamec J, Watkins JM, Nalepa TF, Höök TO, **Sepúlveda MS**. (2013). Elucidating causes of *Diporeia* decline in the Great Lakes via metabolomics: Physiological responses after exposure to different stressors. *Physiological and*

Biochemical Zoology 86:213-223.

33. Meyer JL, Rogers-Burch S, Leet JK, Villeneuve DL, Ankley GT, **Sepúlveda MS**. (2013) An evaluation of reproductive physiology in common snapping turtles (*Chelydra serpentina*) exposed to runoff from a concentrated animal feeding operation. *Journal of Wildlife Diseases* 49:996-999.
34. Soto M, Salas LM, **Sepúlveda MS**, Kinsella MJ, Mironov S, González-Acuña D. (2013) First record of parasites from the long-tailed meadowlark *Sturnella loyca* (Molina 1782) from the Biobío Region, Chile. *Revista Mexicana de Biodiversidad* 84:1316-1320.
35. Weber GJ, **Sepúlveda MS**, Lewis SS\*, Peterson SM, Freeman JL. (2013) Transcriptome alterations following developmental atrazine exposure are associated with disruption of neuroendocrine and reproductive system function, cell cycle, and carcinogenesis. *Toxicological Sciences* 132:458-466.
36. Weston DP, Poynton HC, Wellborn GA, Lydy MJ, Blalock BJ, **Sepúlveda MS**, Colbourne JK. (2013) Variation in sensitivity to pyrethroid insecticides in the amphipod, *Hyalella azteca*. *Proceedings of the National Academy of Sciences* 110:16532-16537.
37. Baumgarner BL, Riley CP, **Sepúlveda MS**, Brown PB, Meyer JL, Adamec J. (2012) Increased expression of GAPDH protein is not indicative of nitrosative stress or apoptosis in liver of starved rainbow trout (*Oncorhynchus mykiss*). *Fish Physiology and Biochemistry* 38:379-398.
38. Leet JK, Lee LS, Gall HE, Goforth RR, Sassman S, Gordon DA, Lazorchak JM, Smith ME, Javfert CT, **Sepúlveda MS**. (2012) Assessing impacts of land-applied wastes from concentrated animal feeding operations on fish populations and communities. *Environmental Science and Technology* 46:13440-13447.
39. Maity S, Jannash A, Adamec J, Gribskov M, Nalepa TF, Höök TO, **Sepúlveda MS**. (2012a) Metabolite profiles in starved *Diporeia* spp. using liquid chromatography-mass spectrometry (LC-MS) based metabolomics. *Journal of Crustacean Biology* 32:239-248.
40. Maity S, Jannasch A, Adamec J, Nalepa TF, Höök TO, **Sepúlveda MS**. (2012b) Starvation causes disturbance in amino acid and fatty acid metabolism in *Diporeia* spp. *Comparative Biochemistry and Physiology Part B Biochemistry and Molecular Biology* 161:348-355.
41. Moraga P, Kinsella JM, **Sepúlveda MS**. (2012) Helminth parasites of Eastern box turtles (*Terrapene carolina carolina*) from Southern Indiana, USA. *Journal of Helminthology* 86:38-40.
42. Nutile S, Amberg JJ\*, **Sepúlveda MS**, Goforth RR. (2012) Effects of multiple electrical field exposures on Cyprinid embryo survival. *North American Journal of Fisheries Management* 32:875-879.
43. Ryan DJ, **Sepúlveda MS**, Nalepa TF, Höök TO. (2012) Spatial variation in RNA:DNA ratios of *Diporeia* spp. in the Great Lakes region. *Journal of Great Lakes Research* 38:187-195.
44. **Sepúlveda MS**, Patrick HK, Sutton TM. (2012a) A single sea lamprey attack causes acute anemia and mortality in lake sturgeon. *Journal of Aquatic Animal Health* 24:91-99.
45. **Sepúlveda MS**, Sutton TM, Patrick HK, Amberg JJ\* (2012b) Blood-chemistry values for shovelnose and lake sturgeon. *Journal of Aquatic Animal Health* 24:135-140.

46. **Sepúlveda MS**, Kinsella JM. (2012). Helminth collection and identification from wildlife. *Journal of Visualized Experiments* 82.
47. Johns SM, Denslow ND, Kane MD, Watanabe KH, Orlando EF, **Sepúlveda MS**. (2011) Effects of estrogens and antiestrogens on gene expression of fathead minnow (*Pimephales promelas*) early life stages. *Environmental Toxicology* 26:195-206.
48. Leet J, Gall H, **Sepúlveda MS**. (2011) A review of studies on androgen and estrogen exposure in fish early life stages: effects on gene and hormonal control of sexual differentiation. *Journal of Applied Toxicology* 31:379-398.
49. Li Z, Kroll KJ, Jensen KM, Villeneuve DL, Ankley GT, Brian JV, **Sepúlveda MS**, Orlando EF, Lazorchak JM, Kostich M, Armstrong B, Denslow ND, Watanabe KH. (2011) A computational model of the hypothalamic: pituitary: gonadal axis in female fathead minnows (*Pimephales promelas*) exposed to 17 $\alpha$ -ethynylestradiol and 17 $\beta$ -trenbolone. *BMC Systems Biology* 5:63.
50. McLamore ES, Stensberg M, **Sepúlveda MS**, Zhang W, Banks MK, Porterfield DM. (2011) A self-referencing electrode for real time measurements of ionic silver flux. *Sensors and Actuators (B: Chemistry)* 153:445-452.
51. Ralston-Hooper KJ, Adamec J, Jannash A, Mollenhauer R, Ochoa-Acuña H, **Sepúlveda MS**. (2011a) Use of GCxGC/TOF-MS and LC/TOF-MS for metabolomic analysis of *Hyalella azteca* chronically exposed to atrazine and its primary metabolite, desethylatrazine. *Journal of Applied Toxicology* 31:399-410.
52. Ralston-Hooper K, Sanchez BC, Jannash A, Adamec J, **Sepúlveda MS**. (2011b) Proteomics in aquatic amphipods: Can it be used to determine mechanisms of toxicity and interspecies responses after exposure to atrazine? *Environmental Toxicology and Chemistry* 30:1197-1203.
53. Sanchez BC, Carter BJ, Hammers HR, **Sepúlveda MS**. (2011a) Transcriptional response of hepatic largemouth bass (*Micropterus salmoides*) mRNA upon exposure to environmental contaminants. *Journal of Applied Toxicology* 31:108-116.
54. Sanchez BC, Ralston-Hooper K, **Sepúlveda MS**. (2011b) A review of recent proteomic applications in aquatic toxicology. *Environmental Toxicology and Chemistry* 30:274-282.
55. Stensberg M, McLamore ES, Porterfield DM, Wei Q, Wei A, **Sepúlveda MS**. (2011). Toxicological studies on silver nanoparticles: challenges and opportunities in assessment, monitoring and imaging. *Nanomedicine* 6:879-898.
56. Carlson-Bremer D, Norton TM, Gilardi KV, Dierenfeld ES, Winn B, Sanders FJ, Cray C, Oliva M, Chen TC, Gibbs SE, **Sepúlveda MS**, Johnson CK. (2010) Health assessment of American oystercatchers (*Haematopus palliatus palliatus*) in Georgia and South Carolina. *Journal of Wildlife Diseases* 46:772-780.
57. Laban G, Nies LF, Turco RF, Bickham JW, **Sepúlveda MS**. (2010) The effects of silver nanoparticles on development of fathead minnow (*Pimephales promelas*) embryos. *Ecotoxicology* 19:185-195.
58. Muir AM, Sutton TM, Arts MT, Claramunt RM, Ebener MP, Fitzsimons JD, Johnson TB, Kinnunen RE, Koops MA, Blukacz AE, **Sepúlveda MS**. (2010) Does condition of lake whitefish spawners effect physiological condition of juveniles? *Journal of Great Lakes Research* 36:92-99.

59. **Sepúlveda MS**, Stefanavage T, Goforth R. (2010) First record of *Polypodium* sp. parasitizing eggs from female shovelnose sturgeon from the Wabash River, Indiana. *Journal of Aquatic Animal Health* 22:36-38.
60. Yin-Ming K, **Sepúlveda MS**, Hua I, Ochoa-Acuña HG, Sutton TM. (2010a) Biomagnification and trophic transfer of polybrominated diphenyl ethers (PBDEs) in a food web of Lake Michigan. *Ecotoxicology* 19:623-634.
61. Yin-Ming K, **Sepúlveda MS**, Sutton TM, Ochoa-Acuña HG, Muir AM, Miller B, Hua I. (2010b) Bioaccumulation and biotransformation of decabromodiphenyl ether in juvenile lake whitefish (*Coregonus clupeaformis*). *Ecotoxicology* 19:751-760.
62. Amberg JJ\*, Goforth R, Stefanavage T, **Sepúlveda MS**. (2009) Sexually dimorphic gene expression in the gonad and liver of shovelnose sturgeon (*Scaphirhynchus platyrhynchus*). *Fish Physiology and Biochemistry* 36:923-932.
63. Baker S, **Sepúlveda MS**. (2009) An evaluation of the effects of persistent environmental contaminants on the reproductive success of great blue herons (*Ardea herodias*) in Indiana. *Ecotoxicology* 18:271-280.
64. Garcia-Reyero N, Kroll KJ, Liu L, Orlando EF, Watanabe KH, **Sepúlveda MS**, Villeneuve DL, Perkins EJ, Ankley GT, Denslow ND. (2009a) Gene expression responses in male fathead minnows exposed to binary mixtures of an estrogen and antiestrogen. *BMC Genomics* 10:308.
65. Garcia-Reyero N, Villeneuve DL, Kroll KJ, Liu L, Orlando EF, Watanabe KH, **Sepúlveda MS**, Ankley GT, Denslow ND. (2009b) Expression signatures for a model androgen and antiandrogen in the fathead minnow (*Pimephales promelas*) ovary. *Environmental Science and Technology* 43:873-880.
66. Johns SM, Kane MD, Denslow ND, Watanabe KH, Orlando EF, Villeneuve D, Ankley G, **Sepúlveda MS**. (2009) Characterization of ontogenetic changes in gene expression in the fathead minnow (*Pimephales promelas*). *Environmental Contamination and Toxicology* 28:873-880.
67. Martyniuk CJ, Sanchez BC, Szabo NJ, Denslow ND, **Sepúlveda MS**. (2009) Contaminant effects on male largemouth bass: brain transcripts with a role in reproduction. *Aquatic Toxicology* 95:1-9.
68. Ralston-Hooper K, Hardy J, Hahn L, Ochoa-Acuña H, Lee LS, Mollenhauer R, **Sepúlveda MS**. (2009) Acute and chronic toxicity of atrazine and its metabolites deethylatrazine and deisopropylatrazine on aquatic organisms. *Ecotoxicology* 18:899-905.
69. Rauschenberger HR, **Sepúlveda MS**, Wiebe JJ, Wiebe JE, Honeyfield DC, TS Gross. (2009) Nutrient and organochlorine pesticide concentrations in American alligator eggs and their associations with decreased clutch viability. *Journal of Aquatic Animal Health* 21: 249-261.
70. Sanchez BC, Ralston-Hooper K, Kowalski KA, Inerowicz HD, Adamec J, **Sepúlveda MS**. (2009) Liver proteome response of largemouth bass (*Micropterus salmoides*) exposed to several environmental contaminants: potential insights into biomarker development. *Aquatic Toxicology* 95:52-59.
71. Watanabe KH, Li Z, Kroll KJ, Villeneuve DL, Garcia-Reyero N, Orlando EF, **Sepúlveda**



- MS**, Collette TW, Ekman DR, Ankley GT, Denslow ND. (2009) Computational model of the hypothalamic-pituitary-gonadal axis in male fathead minnows exposed to 17 $\alpha$ -ethinylestradiol and 17 $\beta$ -estradiol. *Toxicological Sciences* 109:180-192.
72. Kane MD, Stringer JA, Iannotti NV, Gough E, Johns SM, Schlueter SD, **Sepúlveda MS**. (2008) Identification of development and tissue-specific gene expression in the fathead minnow (*Pimephales promelas*) using computational and DNA microarray methods. *Journal of Fish Biology* 72:2341–2353.
73. Ralston-Hooper K, Jannasch A, Oh C, Zhang X, Adamec J, **Sepúlveda MS**. (2008) Development of GCxGC/TOF-MS metabolomics for use in future invertebrate ecotoxicological studies. *Aquatic Toxicology* 88:48-52.
74. Sanchez BC, Ochoa-Acuña H, Porterfield M, **Sepúlveda MS**. (2008) Oxygen flux as an indicator of physiological stress in fathead minnow embryos: a real-time biomonitoring system of water quality. *Environmental Science and Technology* 42:7070-7017.
75. Diaz JI, **Sepúlveda MS**, Kinsella JM. (2007) A new genus of acuarioid nematode (Acuariidae: Seuratiinae) from the petrels *Pterodroma externa* and *P. neglecta* from the Juan Fernández Islands, Chile. *Journal of Parasitology* 93:650-654.
76. Johnson KG, Muller JK, Price B, Ware A, **Sepúlveda MS**, Borgert CJ, Gross TS. (2007) Influence of seasonality and duration of exposure on the accumulation and reproductive effects of p,p'-dichlorodiphenyldichloroethylene and dieldrin in largemouth bass. *Environmental Toxicology and Chemistry* 26:927-934.
77. Lee LS, Carmosini N, Sassman SA, Dion HM, **Sepúlveda MS**. (2007) Agricultural contributions of antimicrobials and hormones on soil and water quality. *Advances in Agronomy* 93:2-69.
78. Muller JK, Scarabough JE, **Sepúlveda MS**, Gross TS, Borgert CJ. (2007) Dose verification after topical treatment of Alligator (*Alligator mississippiensis*) eggs. *Environmental Toxicology and Chemistry* 26:908-913.
79. Rauschenberger RH, Wiebe JJ, **Sepúlveda MS**, Scarabough JE, Gross TS. (2007) Parental exposure to pesticides and poor clutch viability in American alligators. *Environmental Science and Technology* 41: 5559-5563.
80. Garcia-Reyero N, Barber DS, Gross TS, Johnson KG, **Sepúlveda MS**, Szabo NJ, Denslow ND. (2006) Dietary exposure of largemouth bass to OCPs changes expression of genes important for reproduction. *Aquatic Toxicology* 78:358-369.
81. **Sepúlveda MS**, Del Piero F, Wiebe JJ, Rauschenberger HR, Gross TS. (2006) Necropsy findings in American alligator late stage embryos and hatchlings from North-Central Florida lakes contaminated with organochlorine pesticides. *Journal of Wildlife Diseases* 42:56-73.
82. Muller JK, **Sepúlveda MS**, Borgert CJ, Gross TS. (2005) Absorption of p,p'-dichlorodiphenyldichloroethylene and dieldrin in largemouth bass from a sixty-day slow-release pellet and detection using a novel Enzyme-Linked-Immunosorbent-Assay method for blood plasma. *Environmental Toxicology and Chemistry* 24:1979-1983.
83. Denslow ND, Kocerha J, **Sepúlveda MS**, Gross TS, Holm S. (2004) Gene expression fingerprints of largemouth bass (*Micropterus salmoides*) exposed to pulp and papermill effluents. *Mutation Research* 552:19-34.

84. Muller KG, Johnson KG, **Sepúlveda MS**, Borgert CJ, Gross TS. (2004) Accumulation of dietary DDE and Dieldrin by largemouth bass, *Micropterus salmoides floridanus*. Bulletin of Environmental Contamination and Toxicology 73:1078-1085.
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3. Sanchez BC, Yale G, Chatni R, Ochoa-Acuña HG, Porterfield DM, McLamore ES, **Sepúlveda MS**. (2009) Oxygen flux as an indicator of physiological stress in aquatic organisms: A real-time biomonitoring system of water quality. *Chemical, Biological, Radiologica, Nuclear, and Explosives (CBRNE) Sensing X*, edited by Augustus W. Fountain III, *Proceedings of SPIE-International Society of Optical Engineering, Defense, Security, and Sensing Conference*, Orlando, FL. Paper No. 7304, 730405-1-730405-8.
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5. Gross TS, **Sepúlveda MS**, Wieser CM, Wiebe JJ, Schoeb TR, and Denslow ND. (2002) Characterization of annual reproductive cycles for pond-reared Florida largemouth bass (*Micropterus salmoides floridanus*). *American Fisheries Society Symposium* 31:205-212.

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3. Gross TS, **Sepúlveda MS**, Grosso JA, and Fazio A. (2009) An evaluation of the bioaccumulation of organochlorine pesticides in great egrets (*Casmerodius albus*): Laboratory model for the North Shore Restoration Area at Lake Apopka Report #: SJ2009-SP05. Report for the St. Johns River Water Management District, Palatka, Florida. 74 pp.
4. Sanchez BC, Yale G, Chatni R, Ochoa-Acuña HG, Porterfield DM, McLamore ES, **Sepúlveda MS**. (2009) Oxygen flux as an indicator of physiological stress in aquatic organisms: A real-time biomonitoring system of water quality. *Chemical, Biological, Radiologica, Nuclear, and Explosives (CBRNE) Sensing X*, edited by Augustus W. Fountain III, *Proceedings of SPIE-International Society of Optical Engineering, Defense, Security, and Sensing Conference*, Orlando, FL. Paper No. 7304, 730405-1-730405-8.
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6. Rauschenberger RH, **Sepúlveda MS**, Gross TS, Ross PJ, Honeyfield DC. (2004) An evaluation of the role of thiamine deficiency and organochlorine pesticides on alligator embryo mortality on lakes in north-central Florida. Report for the Lake County Water Authority, Tavares, Florida. 31 pp.
7. Rauschenberger R, Wiebe J, **Sepúlveda M**, Buckland J, Smith T, Wieser C, Kernaghan N, Monck E, Gross T.S. (2003) Summary report on alligator studies conducted at the USGS-Florida Caribbean Science Center Ecotoxicology Laboratory: 2003. Report for the Florida Fish and Wildlife Conservation Commission, Gainesville,

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8. **Sepúlveda MS**, Gross TS. (2003) Characterization of atrazine exposures and potential effects in Florida ecosystems dominated by sugarcane agriculture: A reconnaissance survey of amphibians in South Florida for the assessment of potential atrazine effects. Ferndale (WA): Ecorisk. Technical Report no. UFL-02.
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  10. **Sepúlveda MS**, Holm SE, Schoeb TR, Denslow ND, Gallagher EP, Gross TS. (1998) Effects of paper mill effluents on health and reproduction of Florida largemouth bass (*Micropterus salmoides*): Field and Laboratory studies. Internal Report to Georgia-Pacific Corporation, Atlanta, Georgia. 80 pp.
  11. Frederick PC, Spalding MG, **Sepúlveda MS**, Williams GE, Bouton S, Lynch H, Arrecis J, Loerzel S, Hoffman D. (1997) Effects of environmental mercury exposure on reproduction, health, and survival of wading birds in the Florida Everglades. Final Report for the Department of Environmental Protection, Tallahassee, Florida and the U. S. Fish and Wildlife Service, Atlanta, Georgia. 131 pp.
  12. **Sepúlveda MS**, Spalding MG, Frederick PC, Williams GE, Loerzel SM, Samuelson DA. (1995) Effects of mercury in the reproduction of long-legged wading birds. Annual Report to the Department of Environmental Protection, Tallahassee, Florida and the U. S. Fish and Wildlife Service, Atlanta, Georgia. 53 pp.
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**Published Research Abstracts – (> 250, only last 8 years shown)**

Underlined = graduate student; *Underline italics* = undergraduate student; \* = post-doctoral researcher

1. Guffey SC, Gao Y, Serafin J, Mahapatra CT\*, **Sepúlveda MS**. (2015) Toxicity of perfluorinated compounds in vitro versus in vivo in a zebrafish model. 75<sup>th</sup> Midwest Fish and Wildlife Conference, February 8-11, Indianapolis, IN.
2. Thurner K, Goforth RR, Mahapatra C\*, **Sepúlveda MS**. (2015) Identifying potential pathogens for biological control of invasive Silver Carp (*Hypophthalmichthys molitrix*) and Bighead Carp (*H. nobilis*). 75<sup>th</sup> Midwest Fish and Wildlife Conference, February 8-11, Indianapolis, IN.
3. Van Balen L, Vroom R, Bosker T, De Guise S, Perkins C, **Sepúlveda MS**, Griffitt RJ. (2015) The combined effect of environmental and anthropogenic stressors on fish health. Gulf of Mexico Oil Spill & Ecosystem Science Conference, February 16-19, Houston, TX.
4. Abdel-moneim A, Degan D, Mahapatra CT\*, **Sepúlveda MS**. (2015) Relationship between prevalence of gonadal intersex in smallmouth bass *Micropterus dolomieu* in northern Indiana and estrogen contaminant levels. The Purdue University Chapter of Sigma XI Graduate Student Research Awards Competition, February 18, Purdue University, West Lafayette, IN.
5. Abdel-moneim A, Coulter DP, Mahapatra CT\*, **Sepúlveda MS**. (2015) General patterns and research gaps in studies investigating intersex in wild populations of fish and

- amphibians. Health and Disease Conference, March 5, Purdue University, West Lafayette, IN.
6. Thompson KM, Gao Y, Mahapatra CT\*, **Sepúlveda MS**, Freeman JL. (2015) Comparative survival of zebrafish whole embryos to embryonic fibroblasts exposed to PFOA and its derivatives. 54<sup>th</sup> Annual Meeting of the Society of Toxicology, March 22-26, San Diego, CA.
  7. Mapes C, Gao J, **Sepúlveda MS**. (2015) Studying the effects of silver nanoparticles on fish embryo development. Undergraduate Research Symposium, April 14, Purdue University, West Lafayette, IN.
  8. Abdel-moneim A, Degan D, Mahapatra C\*, **Sepulveda M**. (2015) Gonadal intersex in Indiana smallmouth bass *Micropterus dolomieu*: Prevalence and molecular biomarkers. Forestry and Natural Resources Research Symposium, April 17, Purdue University, West Lafayette, IN.
  9. Chen S, Nichols KM, McKinney GJ, **Sepúlveda MS**. (2015) Microarray-based analysis identifies key cadmium responsive microRNAs in *Daphnia pulex*. Forestry and Natural Resources Research Symposium, April 17, Purdue University, West Lafayette, IN.
  10. Houser J, Malinich T, Höök T, **Sepúlveda MS**. (2015) Potential effects of micro-plastic ingestion on growth and survival of larval freshwater fish. Forestry and Natural Resources Research Symposium, April 17, Purdue University, West Lafayette, IN.
  11. Almeida LZ, Guffey SC, **Sepúlveda MS**, Höök TO. (2015) The effects of hypoxia on yellow perch (*Perca flavescens*) foraging behavior and physiology. 58<sup>th</sup> Annual Conference of the International Association for Great Lakes Research, May 25-29, Burlington, VE.
  12. Thurner K, Goforth RR, Mahapatra C\*, **Sepúlveda MS**. (2015) Pathogens and biological control of invasive Silver Carp (*Hypophthalmichthys molitrix*) and Bighead Carp (*H. nobilis*). 145<sup>th</sup> Annual Meeting of the American Fisheries Society, August 16-20, Portland, OR.
  13. Flores A, Smith C, Ready Z, Abdel-moneim A, Mashtare M, **Sepúlveda MS**. (2015) Tracking decomposition rates using a model mammal for wildlife forensic studies. 9<sup>th</sup> Annual Ecological Sciences and Engineering, September 21, Purdue University, West Lafayette, IN. Awarded First Prize for Undergraduate Poster.
  14. Abdel-moneim A, Deegan D, Guffey SC, Mahapatra CT\*, **Sepúlveda MS**. (2015) Gonadal intersex in smallmouth bass *Micropterus dolomieu* in northern Indiana: prevalence, severity, molecular biomarkers and novel screening methods. 36<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry, November 1-5, Salt Lake City, UT.
  15. Gao J, Mahapatra CT\*, Mapes CD, **Sepúlveda MS**. (2015) Cardiovascular toxicity of nanoparticles to zebrafish (*Danio rerio*) embryos. 36<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry, November 1-5, Salt Lake City, UT.
  16. Simning D, Perkins C, Bosker T, **Sepúlveda M**, De Guise S, Griffitt RJ. (2015) Impacts of oil exposure during early life development stages in sheepshead minnows (*Cyprinodon variegatus*) under different environmental factors. 36<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry, November 1-5, Salt Lake City, UT.
  17. Sanchez BC, Archuleta L, Zenobio J, **Sepúlveda MS**. (2013) Emerging contaminants on the Baca National Wildlife Refuge: presence and effects on native fish. 34<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry, November 17-21, Nashville, TN.
  18. Abdelbein A, Mahapatra C\*, **Sepulveda M**. (2013) mRNA expression across developmental stages in Japanese medaka (*Oryzias latipes*). 56<sup>th</sup> International

- Association for Great Lakes Research, June 2-6, Purdue University, West Lafayette, IN.
19. Klinkhamer K, Mahapatra C\*, **Sepúlveda M**. (2013) Toxicity of the pharmaceuticals cotinine and triclocarban on green algae and diatoms. 56<sup>th</sup> International Association for Great Lakes Research, June 2-6, Purdue University, West Lafayette, IN.
  20. Leet JK, Sassman S, Amberg JJ\*, Olmstead AW, Lee LS, Ankley GT, **Sepúlveda MS**. (2013) Environmental hormones and their impacts on sex differentiation in fathead minnows. 56<sup>th</sup> International Association for Great Lakes Research, June 2-6, Purdue University, West Lafayette, IN.
  21. Zenobio J, Sanchez B, Archuleta L, Leet J, **Sepúlveda M**. (2013) PPCPs emerging contaminants on the Baca National Wildlife Refuge, Colorado: Presence and effects on native fish. 56<sup>th</sup> International Association for Great Lakes Research, June 2-6, Purdue University, West Lafayette, IN.
  22. Poynton H, Weston D, Wellborn G, Lydy M, Blalock B, Tuck P, **Sepúlveda M**, Colbourne J. (2013) Elucidating the mechanism of pesticide resistance in a non-target amphipod, *Hyalella azteca*: Genetic and Functional Genomic Approaches. 7<sup>th</sup> Annual Arthropod Genomics Symposium, June 12-15, University of Notre Dame, Notre Dame, IN.
  23. Coulter DP, **Sepúlveda MS**, Troy CD, Höök TO. (2013) The role of temperature variability on fish survival, growth, and egg embryo and larval development. 143<sup>rd</sup> American Fisheries Society, September 8-12, Little Rock, AK.
  24. Zenobio J, Sanchez BC, Archuleta L, Leet JK, **Sepúlveda MS**. (2013) Emerging contaminants on the Baca National Wildlife Refuge: presence and effects on native fish. 26<sup>th</sup> Annual Rocky Mountain SETAC Meeting, April 18-19, Denver, CO.
  25. Chen S, McKinney GJ, Nichols KM, **Sepúlveda MS**. (2013) *In silico* prediction and *in vitro* validation of *Daphnia pulex* miRNAs. Interdisciplinary Graduate Research Program Spring Reception, April 1, Purdue University, West Lafayette, IN.
  26. Abdel-moneim A, Mahapatra C\*, **Sepúlveda MS**. (2013) Development of molecular biomarkers for detection of gonadal sex reversal in Japanese medaka after exposure to synthetic estrogens and androgens. Annual Meeting of the Society of Toxicology Ohio Valley Chapter, September 23, Louisville, KY.
  27. Chen S, McKinney GJ, Nichols KM, **Sepúlveda MS**. (2013) *In silico* prediction and *in vivo* validation of *Daphnia pulex* microRNAs. Annual Meeting of the Society of Toxicology Ohio Valley Chapter, Louisville, KY September 23, 2013.
  28. Gao J, Klinkhamer C, **Sepúlveda MS**, Mahapatra C\*, Wei A. (2013) The effects of silver nanoparticles released from commercial products on zebrafish (*Danio rerio*) embryos. Annual Meeting of the Society of Toxicology Ohio Valley Chapter, September 23, Louisville, KY.
  29. Weber GJ, Peterson SM, Lewis SS, **Sepúlveda MS**, Freeman JL. (2013) Transcriptomic profiling of embryos and adult female brain tissue links a developmental origin of atrazine-induced reproductive alterations in zebrafish. 52<sup>nd</sup> Annual Meeting Society of Toxicology, March 10-14, San Antonio TX. **Awarded Best Student Poster.**
  30. Bosker T, Perkins C, Griffitt J, **Sepúlveda M**. (2013) The combined effect of environmental and anthropogenic stressors on fish health. Gulf of Mexico Oil Spill & Ecosystem Science Conference, January 21-23, New Orleans, LA.
  31. Leet JK, Amberg J\*, Olmstead A, Ankley G, Lee L, **Sepúlveda MS**. (2012) Sex-specific gene expression in early life stage fathead minnows (*Pimephales promelas*) throughout development and after exposure to synthetic estrogen and androgen. SETAC North America 32<sup>nd</sup> Annual Meeting, November 11-15, Long Beach, CA.



32. Stensberg M, Zeitchek M, Inn K, McLamore E, Porterfield DM, **Sepúlveda MS**. (2012) Oxygen consumption in *Daphnia magna* as a rapid bioindicator of changes in water quality. SETAC North America 32<sup>nd</sup> Annual Meeting, November 11-15, Long Beach, CA.
33. Weber GJ, Lewis SS\*, Peterson SM, **Sepúlveda MS**, Freeman JL. (2012) Genetic pathways underlying the immediate and lifespan impacts of a developmental exposure to the endocrine disrupting herbicide atrazine. SETAC North America 32<sup>nd</sup> Annual Meeting, November 11-15, Long Beach, CA.
34. Zenobio JE, Sanchez BC, Archuleta LC, Leet JK, **Sepúlveda MS**. (2012) Pharmaceuticals and personal care products on the Baca National Wildlife Refuge, Colorado, and their effects on native fish. SETAC North America 32<sup>nd</sup> Annual Meeting, November 11-15, Long Beach, CA.
35. Hatef A, Alavi SMH, **Sepulveda MS**, Linhart O. (2012) Effects of estrogenic and androgenic hormones on sexual differentiation in the medaka at embryonic developing stages. Fish and Amphibian Embryos as Alternative Models in Toxicology and Teratology, October 11-12, Aulnay-sous-Bois/Paris, France.
36. Hatef A, Mahapatra CT\*, **Sepulveda MS**, Alavi SMH, Linhart O. (2012) Alternation in sexual differentiation of medaka following exposure of fertilized eggs to estrogenic and androgenic hormones. Fish and Amphibian Embryos as Alternative Models in Toxicology and Teratology, October 11-12, Aulnay-sous-Bois/Paris, France.
37. Weber GJ, Peterson SM, Lewis SS\*, **Sepúlveda MS**, Freeman JL. (2012) Transcriptomic profiling of embryos and adult female brain tissue links a developmental origin of atrazine-induced reproductive alterations in zebrafish. Ohio Valley Chapter of the Society of Toxicology, September 28, Nationwide Children's Hospital, Columbus, OH. **Awarded Best Student Poster.**
38. Coulter DP, **Sepúlveda MS**, Troy CD, Höök TO. (2012) Impacts of thermal discharges and temperature on fish habitat suitability: A bioenergetics-based approach. American Fisheries Society 142<sup>nd</sup> Annual Meeting, August 19-23, Minneapolis, St. Paul, MN.
39. Chen S, McKinney GJ, Nichols KM, **Sepúlveda MS**. (2012) *In silico* identification of *Daphnia pulex* miRNAs. 10<sup>th</sup> International Congress on the Biology of Fish, July 15-19, Madison, WI.
40. Zenobio JE, Sanchez BC, Archuleta LC, Leet JK, **Sepúlveda MS**. (2012) Pharmaceuticals and personal care products on the Baca National Wildlife Refuge, Colorado, and their effects on native fish. 10<sup>th</sup> International Congress on the Biology of Fish, July 15-19, Madison, WI.
41. Coulter DP, Troy CD, **Sepúlveda MS**, Höök TO. (2012) Fish habitat suitability and growth response in dynamic environments of nearshore Lake Michigan. 156<sup>th</sup> Annual Conference of the International Association of Great Lakes Research, May 13-17, Cornwall, ON, Canada.
42. Foley CJ, Bowen GJ, Nalepa TF, Höök TO, **Sepúlveda MS**. (2012) Using stable isotopes to examine potential trophic overlap of *Diporeia* spp. and dreissenid mussels. 56<sup>th</sup> Annual Conference of the International Association of Great Lakes Research, May 13-17, Cornwall, ON, Canada.
43. Middaugh C, Ryan D, Leet K, Höök T, **Sepúlveda M**. (2012). Effects of lampricides on target and non-target species: From metabolite changes to ecological consequences. 56<sup>th</sup> Annual Conference of the International Association of Great Lakes Research, May 13-17, Cornwall, ON, Canada.
44. Zenobio J, Sanchez BC, Archuleta L, **Sepúlveda MS**. (2012) Emerging contaminants on the Baca National Wildlife Refuge: presence and effects on native fish. 22<sup>nd</sup> Annual Meeting of the Rocky Mountain Regional Chapter of the SETAC, April 23-24, Denver,

- CO.
45. Keller CEM, Zhou FC, Brown PB, Jannasch AS, Chan ASG, Roumani AM, **Sepúlveda MS**. (2012) Metabolomic insights from the zebrafish model of fetal alcohol spectrum disorders and the potential relationship to spontaneous abortion, preterm labor, and sudden infant death syndrome. The 5<sup>th</sup> Annual Zebrafish Disease Models Meeting, (<http://www.csh-asia.org/zebra12.html>) Fishing for Answers: Zebrafish Models of Human Development and Disease, April 16-20, Suzhou Dushu, China.
  46. Chen S, McKinney GJ, Nichols KM, **Sepúlveda MS**. (2012) *In silico* identification of *Daphnia pulex* miRNAs. Forestry and Natural Research Symposium, April 13, Purdue University, West Lafayette, IN.
  47. Coulter DP, **Sepúlveda MS**, Troy CD, Höök TO. (2012) Impacts of thermal pollution and temperature variability on fish. Forestry and Natural Research Symposium, April 13, Purdue University, West Lafayette, IN.
  48. Keller CM, Zhou FC, Brown PB, Jannasch AS, Chan ASG, Roumani AM, **Sepúlveda MS**. (2012) Metabolomic insights from the zebrafish model of fetal alcohol spectrum disorders and the potential relationship to spontaneous abortion, preterm labor, and sudden infant death syndrome. Forestry and Natural Research Symposium, April 13, Purdue University, West Lafayette, IN.
  49. Moore JW, Middaugh CR, Höök TO, **Sepúlveda MS**. (2012) Behavioral effects of 3-Trifluoromethyl-4-Nitrophenol (TFM) on non-target fish species. Forestry and Natural Research Symposium, April 13, Purdue University, West Lafayette, IN. **Awarded Third Place Student Poster.**
  50. Zenobio JE, Sanchez BC, Archuleta LC, Leet JK, **Sepúlveda MS**. (2012) Pharmaceuticals and personal care products on the Baca National Wildlife Refuge, Colorado, and their effects on native fish. Forestry and Natural Research Symposium, April 13, Purdue University, West Lafayette, IN.
  51. Butler LR, Doll J, Meyer JL, Leet JK, **Sepúlveda MS**. (2012) Impacts of sewage wastewater on feminization and vitellogenin expression in male fathead minnows (*Pimephales promelas*). Purdue University Undergraduate Research Symposium, April 10, West Lafayette, IN.
  52. Klinkhamer C, Mahapatra C\*, Stensberg M, **Sepúlveda M**. (2012) The effects of exposure to silver nanoparticles released from consumer products on zebrafish development and gene expression. Purdue University Undergraduate Research Symposium, April 10, West Lafayette, IN. **Awarded Third Place Student Poster, Life Sciences Category.**
  53. Zull A, Chen S, **Sepúlveda MS**. (2012) Clean hands and teeth kill *Daphnia*. Purdue University Undergraduate Research Symposium, April 10, West Lafayette, IN. **Awarded Best Student Poster, Life Sciences Category.**
  54. Nichols KM, Dehn L, **Sepúlveda MS**. (2012). Disease prevalence and links to metabolic condition in Chinook salmon during the marine migration phase. Alaska Marine Science Symposium, January 16-19, Anchorage, AK.
  55. Leet J, Amberg J\*, Olmstead A, Ankley G, Lee L, **Sepúlveda M**. (2011) Sex differentiation as a target of endocrine disrupting compounds in early life stage fathead minnows (*Pimephales promelas*). Society of Environmental Toxicology and Chemistry 32<sup>nd</sup> Meeting, November 13-17, Boston, MA.
  56. Maity S, Jannash A, Adamec J, Nalepa T, Höök T, **Sepúlveda M**. (2011) Physiology of declining *Diporeia* populations in the Laurentian Great Lakes using metabolomics. Society of Toxicology and Chemistry 32<sup>nd</sup> Annual Meeting, November 13-17, Boston, MA.
  57. Stensberg M, McLamore E, Wei Q, Wei A, Porterfield M, **Sepúlveda M**. (2011)

- Comparing mechanisms of toxicity and effects of silver nanoparticles and ionic silver on *Daphnia magna* using non-invasive real-time methods. Society of Environmental Toxicology and Chemistry 32<sup>nd</sup> Annual Meeting, November 13-17, Boston, MA.
58. Weber GJ, Lewis SS\*, Peterson SM, **Sepúlveda MS**, Freeman JL. (2011) Genetic biomarkers of developmental atrazine exposure indicate disruption of neuroendocrine function, cell cycle regulation and carcinogenesis. Society of Environmental Toxicology and Chemistry 32<sup>nd</sup> Annual Meeting, November 13-17, Boston, MA.
  59. Coulter D, **Sepúlveda MS**, Troy C, Höök T. (2011) Bioenergetics-based habitat suitability along a thermal gradient. Third Thermal Ecology and Regulation Workshop, River Ecological Research Program, Electric Power Institute, October 11-12, 2011 Maple Grove, MN.
  60. Lewis SS\*, Weber GJ, Freeman JL, **Sepúlveda MS**. (2011) Persistent effects of a one-time embryonic exposure to the herbicide atrazine in adult zebrafish assessed using gene expression, gonad histology and life history traits. Ohio Valley Chapter of the Society of Toxicology, September 23, Wright State University, Dayton, Ohio.
  61. Weber GJ, Lewis SS\*, Peterson SM, **Sepúlveda MS**, Freeman JL. (2011) Genetic biomarkers of developmental atrazine exposure indicate disruption of neuroendocrine function, cell cycle regulation and carcinogenesis. Ohio Valley Chapter of the Society of Toxicology, September 23, Wright State University, Dayton, Ohio.
  62. Butler LR, Doll J, Meyer JL, Leet JK, **Sepúlveda MS**. (2011) Impacts of estrogen-containing domestic waste water on secondary sex characteristics and vitellogenin expression in male fathead minnows (*Pimephales promelas*). 28<sup>th</sup> Annual Meeting of the Ohio Valley Chapter of the Society of Environmental Toxicology and Chemistry, September 15-16, Cleveland State University, Cleveland, OH. **Awarded Monetary Price.**
  63. Leet JK, Amberg JJ\*, Lee LS, Olmstead AW, Ankley GT, **Sepúlveda MS**. (2011) Evaluation of responses to trenbolone acetate metabolites in early life-stage fathead minnows (*Pimephales promelas*) using molecular tools. 28<sup>th</sup> Annual Meeting of the Ohio Valley Chapter of the Society of Environmental Toxicology and Chemistry, September 15-16, Cleveland State University, Cleveland, OH. **Awarded Best Student Platform Presentation.**
  64. Leet KE, Ryan DJ, Middaugh CR, Höök TO, Sepúlveda MS. (2011) Effects of lampricides on non-target species: from protein expression to ecological consequences. 28<sup>th</sup> Annual Meeting of the Ohio Valley Chapter of the Society of Environmental Toxicology and Chemistry, September 15-16, Cleveland State University, Cleveland, OH. **Awarded Monetary Price.**
  65. Dehn L, Maity S, DeWitt A, **Sepúlveda M**, Nichols K. (2011) *Ichthyophonous* in Chinook salmon – the marine face of a freshwater problem. American Fisheries Society 141<sup>st</sup> Annual Meeting, September 4-8, Seattle, WA.
  66. **Sepúlveda MS**, Zhou FC, Polsuwan A, Adamec J, Hopf-Jannasch A. (2011) Metabolomic analyses in zebrafish embryos exposed to alcohol. 34<sup>th</sup> Annual Scientific Meeting of the Research Society on Alcoholism, June 25-29, Atlanta, GA
  67. Maity S, Jannasch A, Adamec J, Höök T, **Sepúlveda MS**. (2011) Changes in metabolome profiles of *Diporeia* in response to diatom diet and exposure to polychlorinated biphenyls. 55<sup>th</sup> Annual Conference of the International Association of Great Lakes Research, May 30-June 3, Duluth, MN. **Awarded Best Student Poster.**
  68. Ryan DJ, Höök TO, **Sepúlveda MS**. (2011) Non-lethal effects of lampricide exposure on non-target species. 55<sup>th</sup> Annual Conference of the International Association of Great Lakes Research, May 30-June 3, Duluth, MN.

69. Denslow N, Garcia-Reyero N, Kroll KJ, Orlando EF, Watanabe KH, **Sepúlveda MS**, Villeneuve DL, Perkins EJ, Ankley GT. (2011). Molecular endpoints and mixtures of EDCs in fish. Society of Toxicology 50<sup>th</sup> Annual Meeting, May 6-10, Washington, DC.
70. Weber GJ, **Sepúlveda MS**, Freeman JL. (2011) Enrichment of gene expression alterations associated with neuroendocrine development and carcinogenesis induced by developmental exposure to the commonly used herbicide atrazine. Center for Cancer Research, Purdue University, West Lafayette, IN.
71. Bang J, Leet JK, **Sepúlveda MS**. (2011) Culturing Japanese Medaka, *Oryzias latipes* of SK2MC and Tg SK2 strains for ecotoxicological research. Undergraduate Research Symposium, April 12, Purdue University, West Lafayette, IN.
72. Butler LR, Leet JK, **Sepúlveda MS**. (2011) Impacts of wastes from concentrated animal feeding operations on fish sex differentiation. Undergraduate Research Symposium, April 12, Purdue University, West Lafayette, IN. **Dean's First Choice Award.**
73. Butler LR, Leet JK, **Sepúlveda MS**. (2011) Impacts of wastes from concentrated animal feeding operations on fish sex differentiation. Forestry and Natural Research Symposium, April 8, Purdue University, West Lafayette, IN.
74. Leet JK, Amberg JJ\*, Lee LS, Olmstead AW, Ankley GT, **Sepúlveda MS**. (2011) Evaluation of responses to trenbolone acetate metabolites in early life-stage fathead minnows (*Pimephales promelas*) using molecular tools. Forestry and Natural Research Symposium, April 8, Purdue University, West Lafayette, IN. **Awarded Third Place Student Poster.**
75. Maity S, Jannash A, Adamec J, Höök T, Gribskov M, **Sepúlveda MS**. (2011) Study of nutritional physiology in *Diporeia* fed diatoms using metabolomics. Forestry and Natural Research Symposium, April 8, Purdue University, West Lafayette, IN.
76. Lewis SS\*, Weber GJ, Peterson SM, Freeman JL, **Sepúlveda MS**. (2011) Persistent life effects of atrazine exposure in zebrafish: a multigenerational study encompassing gene expression, fitness and epigenetic effects. Society of Toxicology 50<sup>th</sup> Annual Meeting, March 6–10, Washington, DC.
77. Weber GJ, Lewis SS\*, Peterson SM, **Sepúlveda MS**, Freeman JL. (2011) Early developmental exposure to the herbicide atrazine results in enrichment of gene expression alterations associated with neuroendocrine development and carcinogenesis. Society of Toxicology 50<sup>th</sup> Annual Meeting, March 6–10, Washington, DC. **Awarded Third Place Student Poster.**
78. Stensberg M, McLamore E, Telesnicki G, Yale G, Ochoa-Acuña H, **Sepúlveda MS**, Porterfield MD (2011) Comparing the physiological effects of ionic silver and nanosilver on *Daphnia magna* embryos. Annual Meeting of the Institute for Biological Engineering Annual Conference, March 3-5, Atlanta, GA. **Awarded Third Place Student Poster.**
79. Lewis SS\*, Weber GJ, Freeman JL, **Sepúlveda MS**. (2011) Harmful effects of the herbicide atrazine on early life stages using zebrafish as a vertebrate model of toxicity. Purdue Graduate Student Government, Purdue University, February 8, West Lafayette, IN.
80. Maity S, Jannash A, Adamec J, Höök T, **Sepúlveda MS**. (2011) Study of *Diporeia* physiology under starvation using GCXGC/MS-TOF based metabolomics. Sigma Xi Graduate Student Research Awards Competition, February 7, Purdue University, West Lafayette, IN.
81. Dehn L, Maity S, DeWitt A, **Sepúlveda M**, Nichols K. (2011) *Ichthyophonous* in Chinook salmon – the marine face of a freshwater problem. Alaska Marine Science Symposium, January 17-21, Anchorage, AK.
82. Amberg JJ\*, Marty R, Leet J, Brown PB, **Sepúlveda MS**. (2010) Pyrosequencing: A tool

- for discovery and biomarker development. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
83. Gall H, Jafvert C, Sassman S, Lee LS, Leet J, **Sepúlveda MS**. (2010) Spatial and temporal variation in the export of endocrine disrupting compounds from agricultural fields under various manure application practices. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR and 27<sup>th</sup> SETAC Ohio Valley Chapter Meeting, September 29-30, West Lafayette, IN.
  84. Leet JK, Amberg JJ\*, Olmstead A, Ankley G, Lee LS, **Sepúlveda MS**. (2010) Evaluation of sex-specific responses to trenbolone acetate metabolites in early life-stage fathead minnows (*Pimephales promelas*) using molecular tools. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
  85. Nyberg L, Royer LA, **Sepúlveda MS**, Nichols KM. (2010) Partnering with native Alaskan villages: Scientific salmon monitoring project. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
  86. Poynton HC, **Sepúlveda MS**, Smith M, Scanlan L, Vulpe C, Colbourne J. (2010) Development of an oligonucleotide microarray and transcriptomic analysis of PCB126 and Cd in the epibenthic amphipod *Hyaella azteca*. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
  87. Ralston-Hooper K, Sanchez BC, Adamec J, **Sepúlveda MS**. (2010) Proteomics in aquatic amphipods: Can it be used to determine mechanisms of toxicity and interspecies responses after exposure to atrazine? SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
  88. Sassman SA, Lee LS, Rao P, Stinson CA, **Sepúlveda MS**. (2010) A new passive flux meter for sampling environmental contaminants in surface waters. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
  89. **Sepúlveda MS**, Leet JK, Sassman S, Gall H, Jafvert CT, Villeneuve D, Ankley G, Meyer J, Rogers S, Goforth R, McAlexander A, Gordon D, Jensen K, Lazorchak, Lee LS. (2010) Impacts of land-applied wastes from concentrated animal feeding operations on aquatic organisms. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
  90. **Sepúlveda MS**, Stensberg M, Yale G, Ochoa-Acuña H, Porterfield MD, McLamore E. (2010) Nanosilver vs. ionic silver in *Daphnia* embryos: Using real-time biological sensing for testing differences in toxicity. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR.
  91. Riche MA, Pfeiffer TJ, Wills PS, Amberg JJ\*, **Sepúlveda MS**. (2010) Inland marine fish culture in low-salinity recirculating aquaculture systems. 39<sup>th</sup> Scientific Symposium of the UJNR Aquaculture Panel, October 25-26, Kagoshima, Japan.
  92. Coulter DP, Troy CD, **Sepúlveda MS**, Höök TO. (2010) Predicting fish growth rate and habitat suitability along a thermal gradient. 26<sup>th</sup> Annual Scientific Symposium of the Ohio River Basin Consortium for Research and Education (ORBCRE) October 17-19, Highland Heights, OH. **Awarded First Student Poster**.
  93. Leet JK, Lee LS, Goforth RR, McAlexander A, **Sepúlveda MS**. (2010) Impacts of land-applied wastes from concentrated animal feeding operations on fish communities. 31<sup>st</sup> Annual Indiana Water Resource Association, May 26-28, West Lafayette, IN and 27<sup>th</sup> SETAC Ohio Valley Chapter Meeting, September 29-30, West Lafayette, IN and Communities at the Crossroads XII, February 18, Indianapolis, IN.
  94. Leet K, Gonzalez-Acuña D, Ochoa-Acuña H, Doell A, Santerre CR, Freiser H, **Sepúlveda MS**. (2010) Heavy metal concentrations in *Larus dominicanus* and *Larus pipixcan* gulls collected from Talcahuano, Chile. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR and 27<sup>th</sup> SETAC Ohio Valley Chapter Meeting,

September 29-30, West Lafayette, IN.

95. Maity S, Jannash A, Adamec J, Höök T, Gribskov M, **Sepúlveda MS**. (2010) Using global metabolomic profiling to explore the causes of *Diporeia* spp. Declines in the Great Lakes. SETAC North America 31<sup>st</sup> Annual Meeting, November 7-11, Portland, OR and 27<sup>th</sup> SETAC Ohio Valley Chapter Meeting, September 29-30, West Lafayette, IN.  
**Awarded First Student Poster.**
96. McLamore E, Yale G, Ochoa-Acuña H, Porterfield MD, Stensberg M, **Sepúlveda MS**. (2010) Use of real-time biological sensing for evaluating mechanisms of toxicity of silver nanoparticles. Environmental Effects of Nanoparticles and Nanomaterials, August 22-26, Clemson University, Clemson, SC and and 27<sup>th</sup> SETAC Ohio Valley Chapter Meeting, September 29-30, West Lafayette, IN.
97. Weber GJ, **Sepúlveda MS**, Freeman JL. (2010) Enrichment of gene expression alterations associated with neuroendocrine development and carcinogenesis induced by developmental exposure to the commonly used herbicide atrazine. Purdue Cancer Center Annual Scientific Meeting, September 6 and 27<sup>th</sup> SETAC Ohio Valley Chapter Meeting, September 29-30, West Lafayette, IN.
98. Höök T, Nalepa TF, **Sepúlveda MS**. (2010) Mapping the condition of *Diporeia*. 53<sup>rd</sup> Annual Conference on Great Lakes Research, May 17-21, Toronto, CA.
99. Maity S, Jannash A, Gribskov M, Adamec J, Watkins J, Nalepa TF, Höök TO, Shultz K, **Sepúlveda MS**. (2010) Exploring the causes of *Diporeia* declines using metabolomics. 53<sup>rd</sup> Annual Conference on Great Lakes Research, May 17-21, Toronto, CA.
100. McCalla SG, Zanis MJ, Stott WL, **Sepúlveda MS**, Höök TO, Nalepa TF, Nichols KM. (2010) Patterns of genetic diversity in *Diporeia* in the Laurentian Great Lakes. 53<sup>rd</sup> Annual Conference on Great Lakes Research, May 17-21, Toronto, CA.
101. Ryan DJ, Höök TO, Nalepa TF, **Sepúlveda MS**. (2010) Short-term condition assessment and comparison of *Diporeia* spp. Populations in the Great Lakes Region. 53<sup>rd</sup> Annual Conference on Great Lakes Research, May 17-21, Toronto, CA.
102. McLamore ES, Yale G, Ochoa-Acuña HG, **Sepúlveda MS**, Porterfield DM. (2010) An optical imaging technique for monitoring real time changes in morphology within the cell, tissue, or whole organism spatial domain. SPIE Defense, Security and Sensing, 25-29 April, Orlando, FL.
103. Bock L, Goforth RR, Stefanavage T, **Sepúlveda MS**. (2009) Demography and diet of shovelnose sturgeon in the middle Wabash River, Indiana. 70<sup>th</sup> Midwest Fish and Wildlife Conference, December 6-9, Springfield, IL.
104. Leet JK, Lee LS, Goforth RR, McAlexander A, **Sepúlveda MS**. (2009) Impacts of land-applied wastes from concentrated animal feeding operations on fish communities. 70<sup>th</sup> Midwest Fish and Wildlife Conference, December 6-9, Springfield, IL.
105. Amberg JJ\*, Goforth R, Stefanavage T, **Sepúlveda MS**. (2009) Developing gene biomarkers for the identification of intersex shovelnose sturgeon (*Scaphirhynchus platorynchus*). SETAC North America 30<sup>th</sup> Annual Meeting, November 19-23, New Orleans, LA.
106. Leet JK, Amberg JJ\*, **Sepúlveda MS**. (2009) Gene expression markers of sex determination in fathead minnows (*Pimephales promelas*) larvae. SETAC North America 30<sup>th</sup> Annual Meeting, November 19-23, New Orleans, LA.
107. Li Z, Kroll KJ, Jensen K, Villeneuve D, Ankley GT, Ekman D, Collette T, Brian J, **Sepúlveda MS**, Orlando EF, Denslow ND, Watanabe KH. (2009) Development of a computational model for female fathead minnows exposed to 17 $\alpha$ -ethynylestradiol and 17 $\beta$ -trenbolone. SETAC North America 30<sup>th</sup> Annual Meeting, November 19-23, New Orleans, LA.

108. Maity S, Höök T, Nalepa T, Adamec J, Jannash A, Gribskov M, Shultz K, **Sepúlveda MS**. (2009) Investigating the causes of *Diporeia* declines in the Great Lakes basin using metabolomics. SETAC North America 30<sup>th</sup> Annual Meeting, November 19-23, New Orleans, LA.
109. Ralston-Hooper KJ, Adamec J, Hopf A, Mollenhauer R, Ochoa-Acuna H, **Sepúlveda MS**. (2009) Use of GCXGC/TOF-MS and LC/TOF-MS for metabolomic analysis of *Hyalella azteca* chronically exposed to atrazine and its metabolite desethylatrazine. SETAC North America 30<sup>th</sup> Annual Meeting, November 19-23, New Orleans, LA.
110. Rogers S, Meyer JL, Lee L, Villeneuve D, Ankley G, **Sepúlveda MS**. (2009) Vitellogenin and hormone levels in common snapping turtles from concentrated animal feeding operation (CAFO) ponds versus a reference site. SETAC North America 30<sup>th</sup> Annual Meeting, November 19-23, New Orleans, LA.
111. Sanchez BC, Carter BJ, Hammers HR, **Sepúlveda MS**. (2009) Transcriptional response of hepatic largemouth bass (*Micropterus salmoides*) mRNA upon exposure to environmental contaminants. SETAC North America 30<sup>th</sup> Annual Meeting, November 19-23, New Orleans, LA.
112. Piazza Y, Amberg J\*, Lo Nostro F, **Sepúlveda MS**. (2009) The use of gene expression as early biomarkers in larvae of *Cichlasoma dimerus* (Teleostei, Perciformes) exposed to the pesticide endosulfan. IX Congreso de la Sociedad de Química y Toxicología Ambiental de Latinoamérica (SETAC LA)--II Congreso SETAC Perú. October 7, Lima, Perú.
113. Maity S, Höök T, Nalepa T, Adamec J, Jannash A, Gribskov M, Shultz K, **Sepúlveda M**. (2009) Investigating the causes of *Diporeia* declines in the Great Lakes basin using metabolomics. Ecological Sciences and Engineering Symposium, September 25, Purdue University, West Lafayette, IN.
114. Nyberg L, Royer LA, Nichols KM, **Sepúlveda, M**. (2009) Partnering with native Alaskan villages: scientific salmon monitoring project. Ecological Sciences and Engineering Symposium, September 25, Purdue University, West Lafayette, IN.
115. Maity S, Höök T, Nalepa T, Adamec J, Jannash A, Gribskov M, Shultz K, **Sepúlveda M**. (2009) Investigating the causes of *Diporeia* declines in the Great Lakes basin using metabolomics. 26<sup>th</sup> Ohio Valley Chapter SETAC Meeting, September 17-18, Cincinnati, OH. **Awarded First Student Poster**.
116. McCalla S, Nichols K, **Sepúlveda M**, Höök T, Nalepa, T. (2009) Patterns of genetic diversity in *Diporeia* in the Laurentian Great Lakes. 139<sup>th</sup> AFS, August 30-September 3, Nashville, TN.
117. Orlando E, Thompson J, **Sepúlveda MS**, Ankley G, Villeneuve D, Watanabe KH, Denslow N. (2009) Short-term exposure effects of endocrine disrupting chemicals on the brain-pituitary-gonadal axis response of the fathead minnow. 42<sup>nd</sup> Annual Meeting of the Society for the Study of Reproduction, July 18–22, Pittsburgh, Pennsylvania.
118. Denslow ND, Garcia-Reyero N, Kroll KJ, Orlando EF, Watanabe KH, **Sepúlveda MS**, Villeneuve DL, Perkins EJ, Ankley GT. (2009) EE<sub>2</sub> changes gene expression in fathead minnow testis. PRIMO 15, May 17-20, Bordeaux, France.
119. Culver E, Goforth R, Lee L, McAlexander A, Leet J, Stefanovage T, **Sepúlveda M**. (2009) Impacts of concentrated animal feeding operations on gonadal development of creek chubs, *Semotilus atromaculatus*. Forestry and Natural Resources Research Symposium, April 17, and College of Agriculture Undergraduate Research Symposium, April 21, West Lafayette, IN.
120. Hoppel A, Goforth R, Bock L, Amberg J\*, Stefanovage T, **Sepúlveda M**. (2009)

Gonado and hepato analysis of the shovelnose sturgeon (*Scaphirhynchus platyrhynchus*) population in the Wabash River. Forestry and Natural Resources Research Symposium, April 17, and College of Agriculture Undergraduate Research Symposium, April 21, West Lafayette, IN.

121. Leet J, Amberg J\*, **Sepúlveda M**. (2009) Sex determination in fathead minnows (*Pimephales promelas*) larvae. Forestry and Natural Resources Research Symposium, April 17, West Lafayette, IN.
122. Maity S, Höök T, **Sepúlveda M**. (2009) Investigating the causes of *Diporeia* declines in the Great Lakes basin. Forestry and Natural Resources Research Symposium, April 17, West Lafayette, IN.
123. Rogers S, Meyer J, Lee L, **Sepúlveda M**. (2009) Plasma vitellogenin levels in common snapping turtles (*Chelydra serpentina*) from concentrated animal feeding operation (CAFO) ponds versus a reference site. Forestry and Natural Resources Research Symposium, April 17, and College of Agriculture Undergraduate Research Symposium, April 21, West Lafayette, IN.
124. Sanchez BC, Yale G, Chatni R, Ochoa-Acuña HG, Porterfield **DM**, **Sepúlveda MS**. (2009) Oxygen flux as an indicator of physiological stress in aquatic organisms: A real-time biomonitoring system of water quality. SPIE Defense, Security and Sensing, 13-17 April, Orlando, FL.
125. Li Z, Kroll KJ, Garcia-Reyero NG, Villeneuve D, **Sepúlveda M**, Orlando EF, Ankley GT, Denslow ND, Watanabe KH. (2009) Development of a computational model for fathead minnows exposed to two endocrine disrupting chemicals. Pacific Northwest SETAC meeting, April 16-18, Fort Worden, WA. **Awarded First Student Poster**.
126. Amberg JJ\*, Gadlage J, Benedict A, Goforth R, Stefanavage T, **Sepúlveda MS**. (2009) Toward understanding gender in shovelnose sturgeon (*Scaphirhynchus platyrhynchus*): Physiology of different genders. Joint Meeting of the Indiana Chapter of the American Fisheries Society and the Indiana Lake Management Society, January 29-31, Indianapolis, IN. **Awarded First Professional Poster**.
127. McAlexander A, Lee L, Goforth R, **Sepúlveda MS**. (2009) Impacts of concentrated animal feeding operations on fish communities. Joint meeting of the Indiana Chapter of the American Fisheries Society and the Indiana Lake Management Society, January 29-31, Indianapolis, IN. **Awarded First Student Poster**.
128. Amberg J\*, Goforth R, **Sepúlveda M**, Stefanavage T. (2009) Biology of the shovelnose sturgeon in the Wabash River: From the landscape to the genes. MICRA Paddlefish-Sturgeon Committee Meeting, January 20-21, Memphis, TN.
129. Carter BJ, Hammers HR, Sanchez BC, **Sepúlveda MS**. (2008) Using gene expression "fingerprints" from largemouth bass (*Micropterus salmoides*) to predict exposure to common environmental contaminants. SETAC 29<sup>th</sup> Annual Meeting, November 16-20, Tampa, FL.
130. Durhan E, Wilson V, **Sepúlveda M**, Martinović D, Lee L, Lazorchak J, Denslow ND, Martyniuk C, Garcia-Reyero N, Kroll KJ, **Sepúlveda MS**, Watanabe KH, Orlando EF, Villeneuve DL, Ankley GT. (2008) Comparison of transcriptomic and proteomic expression patterns in fathead minnows exposed to exposed to trenbolone and flutamide. SETAC 29<sup>th</sup> Annual Meeting, November 16-20, Tampa, FL.
131. Lambright C, Cavallin J, Blake L, **Sepúlveda M**, Ankley G. (2008) Newer analytical and fractionation approaches for detecting endocrine-active chemicals in CAFOs. SETAC 29<sup>th</sup> Annual Meeting, November 16-20, Tampa, FL.
132. Ralston-Hooper KJ, Ochoa-Acuna HG, Adamec J, **Sepúlveda MS**. (2008) Potential biomarkers of disruption due to chronic atrazine and DEA exposure in the



- freshwater amphipod *Hyalella azteca*. SETAC 29<sup>th</sup> Annual Meeting, November 16-20, Tampa, FL.
133. Sanchez BC, Carter B, Hammers HR, Ralston-Hooper KJ, Adamec J, **Sepúlveda MS**. (2008) Differential gene and protein expression profiles of largemouth bass (*Micropterus salmoides*) exposed to common environmental contaminants. SETAC 29<sup>th</sup> Annual Meeting, November 16-20, Tampa, FL.
  134. Johns SM, Kane MD, Denslow ND, Watanabe KH, Orlando EF, **Sepúlveda MS**. (2008) Effects of estrogenic compounds on fathead minnow (*Pimephales promelas*) early life stages. SETAC 29<sup>th</sup> Annual Meeting, November 16-20, Tampa, FL and SETAC Ohio Valley Chapter Meeting, October 3, Bloomington, IN.
  135. Johns SM, Kane MD, Denslow ND, Watanabe KH, Orlando EF, Villeneuve D, Ankley G, **Sepúlveda MS**. (2008) Effects of environmentally relevant concentrations of estrogenic compounds on individual fathead minnow larvae. Forestry and Natural Resources Research Symposium, April 11, West Lafayette, IN.
  136. Laban G, Nies L, Turco R, Bickham J, **Sepúlveda MS**. (2008) The effects of silver nanoparticles on the development of fathead minnow (*Pimephales promelas*) embryos. Forestry and Natural Resources Research Symposium, April 11, West Lafayette, IN.
  137. Muir AM, Sutton TM, Arts MT, Claramunt RM, Ebener MP, Fitzsimons JD, Johnson TB, Kinnunen RE, Koops MA, **Sepúlveda MS**. (2008) Impacts of reduced growth and condition on lake whitefish *Coregonus clupeaformis* recruitment potential. Forestry and Natural Resources Research Symposium, April 11, West Lafayette, IN.
  138. Ralston-Hooper K, Hopf A, Oh C, Zhang X, Adamec J, **Sepúlveda MS**. (2008) Development of GCxGC/TOF-MS metabolomics for use in ecotoxicological studies with invertebrates. Forestry and Natural Resources Research Symposium, April 11, West Lafayette, IN.
  139. Kuo Yin-Ming, **Sepúlveda MS**, Sutton T, Ochoa-Acuña H, Hua I. (2008) Congener distribution of polybrominated diphenyl ethers in chinook salmon, lake trout, and lake whitefish from Lake Michigan. 47<sup>th</sup> Annual Society of Toxicology Meeting, March 16-20, Seattle, WA.
  140. Laban G, Nies L, Turco R, Bickham J, **Sepúlveda MS**. (2008) The effects of silver nanoparticles on development of fathead minnow (*Pimephales promelas*) embryos. NanoEco conference, March 2-7, Monte Verità, Switzerland.

#### **Invited Research Presentations - (last 7 years, of 65 total)**

**Bold = International; Italics = Out of state**

1. *“Use of Global Omic Tools for Assessing Chemical Resistance”, Lampricide Resistance and Next Generation Lampricide Workshop, Ypsilanti, MI, January 13-15*
2. *“Fish Health Research”, Great Lakes Fish Health Committee Meeting, Purdue University, West Lafayette, IN, February 3*
3. *“Impacts of Hormone Loads Associated with Concentrated Animal Feeding Operations on Fish Communities and Fish Sex Differentiation”, Aquaculture Soybean Meeting, Purdue University, West Lafayette, IN, February 7*
4. *“Evaluation of Multiple Stressors in Combination with Oil using Fundulus grandis”, Gulf of Mexico Oil Spill & Ecosystem Science Conference, Houston, TX, February 16-19.*
5. **“Natural and Synthetic Hormones: Mechanisms and Impacts on Gonadal Development in Gonochoristic Fish”, Utsunomiya University, Utsunomiya, Japan, March 10.**

6. "Natural and Synthetic Hormones: Mechanisms and Impacts on Gonadal Development in Gonochoristic Fish", Pennsylvania State University, State College, PA, March 20.
7. "Research with Aquatic Animals", Marine Biology Club, Purdue University, West Lafayette, IN, March 24.
8. "Impacts of Pollutants on Fish and Wildlife: A Decade of Research at Purdue", Showalter Selection Committee Visit, Purdue University, West Lafayette, IN, September 9.
9. "Development of Amphibian Poly- and Perfluoroalkyl Substances Toxicity Reference Values for use in Ecological Risk Assessment at Aqueous Film Forming Foam Sites", Strategic and Environmental Research Development Program (SERDP, DoD), Arlington, VA, September 16.
10. "Individual and Mixture Toxicity of Selected Pharmaceutical and Personal Care Products to Aquatic Organisms". Purdue Calumet, Hammond, IN, October 30.
11. "Hormones in Streams: Sources and Effects on Fish". ACI Leadership Program for young professional agribusiness, Purdue University, West Lafayette, IN, December 3.
12. **"Oxygen consumption in Daphnia magna as a rapid bioindicator of changes in water quality". 2013. 23<sup>rd</sup> SETAC Europe Annual Meeting, 12-16 May, Glasgow, Scotland.**
13. "Development of Real Time Sensing Techniques for Use in Nanotoxicology". 2012. Society of Hispanic Engineers, November 17, Fort Worth, TX.
14. "Applying Transcriptomics, Metabolomics and Real-Time Sensing for Studying Responses of Aquatic Organisms to Pollutants". 2012. College of Earth, Ocean and Environment, University of Delaware, October 26, Lewes, DE.
15. "21<sup>st</sup> Century Tools in Ecotoxicology". 2012. DuPont, October 17, Newark, DE.
16. "Using Real Time Sensing and Omic Tools for Determining Mechanisms of Toxicity of Pollutants". 2012. College of Veterinary Medicine, University of Georgia, September 26, Athens, GA.
17. "Using Real Time Sensing and Omic Tools for Determining Mechanisms of Toxicity of Pollutants". 2012. Savannah River Ecology Laboratory, September 25, Aiken, SC.
18. "Pharmaceuticals in the Environment: Facts and Challenges". 2012. Pharmaceutical Waste Product Stewardship, organized by University of Wisconsin Extension, June 7, Chicago IL.
19. **"Use of OMIC tools in Ecotoxicology". 2011. First International Conference on Environmental OMICS, November 9-12, Guangzhou, China.**
20. "Nanoparticles and Pharmaceuticals in the Environment: Should we Worry?" 2011. Health Sciences Seminar, October 25, Purdue University, West Lafayette, IN.
21. "Molecular Tool Box: Applications in Ecotoxicology". 2011. Department of Natural Resources & the Environment, University of Connecticut, October 21, Storrs, CT.
22. "Development of a High Throughput In Vivo System Using Zebrafish for the Evaluation of Fetal Alcohol Syndrome". 2011. Clinical and Translational Sciences Institute of Indiana, April 25, IU-PUI, Indianapolis, IN. *Selected as one of four "Research Highlights" of the year.*
23. **"Use of Omic Techniques in Aquatic Toxicology". 2011. Department of Biology, Mahidol University, February 15, Bangkok, Thailand.**
24. "Impacts of Land-applied Wastes from Concentrated Animal Feeding Operations on Aquatic Organisms". 2010. SETAC North America 31<sup>st</sup> Annual Meeting, November 7 – 11, Portland, OR.
25. "Nanosilver vs. Ionic Silver in Daphnia Embryos: Using Real-time Biological Sensing for Testing Differences in Toxicity". 2010. SETAC North America 31<sup>st</sup> Annual Meeting, November 7 – 11, Portland, OR.

26. "Using Global Metabolomic Profiling to Explore the Causes of *Diporeia* spp. Declines in the Great Lakes". 2010. SETAC North America 31<sup>st</sup> Annual Meeting, November 7 – 11, Portland, OR.
27. "Can we Use Molecular Markers to Determine the Impact of Environmental Stressors on *Hyalella*?" 2010. *Hyalella* Workshop, organized by USEPA Region 5, Chicago, IL.
28. "Use of Omic Tools for the Assessment of Environmental Stressors". 2010. *Beluga* Workshop, organized by NOAA, Seattle, WA.
29. "Molecular Tool Box: Applications in Ecotoxicology". 2010. University of Delaware, Department of Civil and Environmental Engineering, Newark, DE.
30. "Use of "Omic" Tools for the Evaluation of Environmental Stressors in Aquatic Organisms". 2010. University of Alaska, Fairbanks, AK.
31. "Use of Omic Tools for the Evaluation of Contaminant Effects in Aquatic Organisms". 2009. SETAC North America 30<sup>th</sup> Annual Meeting, November 19 – 23, New Orleans, LA.
32. **"Development of Gene Markers for Gender Identification in Fathead Minnows (*Pimephales promelas*) Larvae". 2009. IX Congreso de la Sociedad de Química y Toxicología Ambiental de Latinoamérica (SETAC LA)--II Congreso SETAC Perú, October 7, Lima, Perú.**
33. "Impacts of Pharmaceuticals and Personal Care Products on Fish and Wildlife". 2009. Purdue Green Week, September 24. Event sponsored by the Center for the Environment and presentation was in conjunction with Elizabeth Hinchey-Malloy and Susan Boehme from IL-IN Sea Grant. Purdue University, West Lafayette, IN.
34. "Effects of Nanosilver on Fathead Minnow Early Development". 2009. 26<sup>th</sup> Annual Meeting of the Society of Environmental Toxicology and Chemistry, Ohio Valley Chapter, September 18, Cincinnati, OH.
35. "Impacts of Contaminants on Amphibians". 2009. Ecological Sciences and Engineering Series Seminar, April 7, Purdue University, West Lafayette, IN.
36. "Majors in the Department of Forestry and Natural Resources". 2009. MANRRS Minorities in Agriculture and Natural Resources Sciences, March 26, Indianapolis, IN.
37. "Use of Omic Tools for the Evaluation of Contaminant Effects in Aquatic Organisms". 2009. Functional Genomics Consortium Spring Symposium, March 3-6, Manhattan, KS.
38. **"Aquatic Toxicology: Status and Research Needs in Aquatic Species". 2009. 3<sup>d</sup> International Scientific Conference, Benha University, Faculty of Veterinary Medicine, 29 Jan – 1 Feb, Ras Sudr, Egypt.**
39. "Use of Omic Techniques in Ecotoxicology". 2009. College of Veterinary Medicine, University of Illinois, Urbana-Champaign, IL.

## **STUDENTS AND POSTDOCTORATES ADVISED**

### Ph.D. Advisees

**Chen, Shuai**, FNR, Purdue University, co-chairing with Krista Nichols (successfully defended fall 2015)

Project Title: Epigenetics and ecotoxicology

Current Title: Postdoctoral Researcher, Washington University, St. Louis, MO

**Coulter, David**, FNR, Purdue University, co-chairing with Tomas Höök (successfully defended spring 2015)

Project Title: Bioenergetic approaches to evaluate potential positive and negative impacts of thermal discharge in Ohio River fishes

Current Title: Postdoctoral Researcher, Southern Illinois University, Carbondale, IL

**El-Mehrezy, Ahmed Mohamed**, FNR, Purdue University (active)

Project Title: Development of high throughput assays for testing endocrine disrupting chemicals using *in vivo* assays

**Gao, Jiejun**, FNR, Purdue University, co-chairing with Alex Wei (active)

Project Title: Nanotoxicology

**Hoover, Gary**, DVM-PhD, Purdue University (active)

Project Title: Immunotoxicity of oil contaminants

**Godfrey, Amy**, FNR-PULSe-IGERT, Purdue University (active)

Project Title: Impacts of e-waste on aquatic organisms

**Stensberg, Matthew**, ABE/ESE, Purdue University, co-chairing with Marshall Porterfield (graduated spring 2013)

Project Title: Development of real-time sensing techniques for ecotoxicology

Current Title: Postdoctoral Researcher, 3M

**Weber, Gregory**, HSC, Purdue University, co-chairing with Jennifer Freeman (successfully defended summer 2013)

Project Title: Molecular biomarkers of exposure to endocrine disrupting herbicides

Current Title: Postdoctoral Researcher, University of Louisville, Louisville, KY

**Leet, Jessica**, FNR, Purdue University (active, successfully defended fall 2012)

Project Title: Impacts of land-applied wastes from concentrated animal feeding operations on fish communities

Current Title: Toxicology Research Scientist, US Geological Survey, Columbia, MO

**Maity, Suman**, FNR/ESE, Purdue University (graduated fall 2011)

Project Title: Studying the physiology of declining *Diporeia* populations in the Laurentian Great Lakes using metabolomics

Current Position: Postdoctoral researcher at Baylor College of Medicine, Houston, TX

**Sanchez, Brian**, FNR, Purdue University (graduated fall 2009)

Project Title: Development of novel biomarkers of fish exposed to environmental contaminants

Current Position: Environmental Contaminant Specialist, US Fish and Wildlife Service, Lakewood, CO

**Ralston-Hooper, Kimberly**, FNR, Purdue University (graduated spring 2009)

Project Title: Development of proteomic and metabolomic tools for application to aquatic invertebrate ecotoxicological research

Current Position: Ecotoxicologist, DowAgro Sciences, Indianapolis, IN

**Muir, Andrew**, FNR, Purdue University (graduated fall 2008)

Project Title: Impacts of lake whitefish body condition on recruitment

Current Position: Science Program Manager, Great Lakes Fishery Commission

*Masters Advisees*

**Serafin, Jennifer**, FNR, Purdue University (active)  
Project Title: Oil pollution effects on fish development.

**Klinkhamer, Christopher**, FNR/ESE, Purdue University (graduated summer 2014)  
Project Title: Cumulative effects of multiple stressors on fish health  
Current Position: PhD Student, School of Civil Engineering, Purdue University

**Zenobio, Jenny**, FNR/ESE, Purdue University (graduated spring 2014)  
Project Title: Presence of endocrine disrupting compounds, pharmaceuticals, and personal care products on the Baca National Wildlife Refuge, Colorado and their effect on two species of imperiled fish  
Current Position: PhD Student, Department of Agronomy, Purdue University

**Johns, Sonia**, FNR Purdue University (graduated spring 2009)  
Project Title: The use of early life stage fathead minnows (*Pimephales promelas*) as a toxicological model for the study of endocrine disrupting compounds  
Current Position: Laboratory Technician, Cornell University

**Baker, Stephanie**, FNR Purdue University (graduated summer 2007)  
Project Title: Effects of persistent environmental contaminants on the reproductive success of great blue herons (*Ardea herodias*) in Indiana  
Current Position: Wildlife ecotoxicologist for GEI Consultants, Denver, CO

*Research Scientists and Postdoctoral Advisees*

**Mahapatra, Cecon** (2011-2015)

**Lewis, Solange**, (2010- 2011)  
Current Position: Biotechnology Professional, Bombai, India

**Amberg, Jon**, (2008 - 2010)  
Current Position: Research Fish Biologist, US Geological Survey, Upper Midwest Environmental Sciences Center, LaCrosse, WI

**FUNDING**: Visit my web page for more details about these projects  
<http://web.ics.purdue.edu/~mssepulv>

**Current External Grants**

Agency/Title of grant: **DOD-SERDP/ “Development of Amphibian Poly- and Perfluoroalkyl Substances Toxicity Reference Values for use in Ecological Risk Assessment at Aqueous Film Forming Foam Sites”**

Duration of funding: 09/16-08/21

Total amount of award: \$2,459,144

Your role: PI

Agency/Title of Grant: **NSF IGERT/“Global Traineeship in Sustainable Electronics”**

Duration of Funding: 07/12-06/17  
Total Amount of Award: \$ 3,373,677  
Your Role: Co-PI

Agency/Title of Grant: **Gulf of Mexico Research Restoration Initiative/“The Combined Effect of Environmental and Anthropogenic Stressors on Fish Health”**  
Duration of funding: 01/13-12/16  
Total amount of award: \$1,451,647  
Your role: Co-PI

Agency/Title of Grant: **Great Lakes Fishery Commission/“Assessing the Resistance of Sea Lampreys (*Petromyzon marinus*) to TFM”**  
Duration of funding: 01/16-12/18  
Total amount of award: \$199,724  
Your role: Co-PI

### **Current Internal Grants**

Agency/Title of Grant: **Purdue University Office of the Vice-President for Research/“Toxicology Pillar”**  
Duration of Funding: 10/15-12/18  
Total Amount of Award: \$300,000  
Your Role: Co-PI

### **Past External Grants**

Agency/Title of Grant: **Purdue University Office of the Vice-President for Research/“Environmental and Health Assessment of Perfluorinated Compounds”**  
Duration of Funding: 01/13-05/16  
Total Amount of Award: \$298,889  
Your Role: PI

Agency/Title of grant: **NIH-R15/ “Molecular Biomarkers of Exposure to Endocrine Disrupting Herbicides” (Renewal)**  
Duration of funding: 09/13-08/16  
Total amount of award: \$450,144  
Your role: Co-PI

Agency/Title of Grant: **Alternatives Research & Development Foundation/“Formulation of a Computational Model for Ovarian Development”**  
Duration of Funding: 05/13-05/15  
Total Amount of Award: \$40,000  
Your Role: Co-PI

Agency/Title of Grant: **American College of Laboratory Animal Medicine (ACLAM)/“Development of Fluorescent see-through Transgenic Fish for High Throughput Screening of Endocrine Disrupting Chemicals”**  
Duration of Funding: 04/14-12/15  
Total Amount of Award: \$20,000

Your Role: Co-PI

Agency/Title of Grant: **Indiana Clinical and Translational Science Institute (CTSI)“Molecular Mechanisms Governing the Developmental Origin of Atrazine Induced Cancer”**

Duration of Funding: 09/12-08/14

Total Amount of Award: \$10,000

Your role: Co-PI

Agency/Title of Grant: **Indiana Department of Natural Resources/“A Reconnaissance of Pathogens of Silver and Bighead Carp (*Hypophthalmichthys* spp.) in the Wabash River Watershed, Indiana”**

Duration of Funding: 11/12-08/14

Total Amount of Award: \$ 112,125

Your Role: PI

Agency/Title of Grant: **Ohio River Ecological Research Program/“Bioenergetic Approaches to Evaluate Potential Positive and Negative Impacts of Thermal Discharge on Ohio River Fishes”**

Duration of Funding: 06/10-08/14

Total Amount of Award: \$196,518

Your Role: Co-PI

Agency/Title of Grant: **US Fish and Wildlife Service/“The Presence of Pharmaceuticals, Personal Care Products, and Other Wastewater Chemicals on the Baca National Wildlife Refuge and their Effect on Two Species of Imperiled Fish”**

Duration of Funding: 6/11-12/14

Total Amount of Award: \$206,600

Your Role: PI

Agency/Title of Grant: **IL-IN Sea Grant/“Estimating the Ecological Impacts of Pharmaceuticals in Lake Michigan”**

Duration of funding: 04/12-03/14

Total amount of award: \$21,000

Your role: PI

Agency/Title of Grant: **NIEHS-R15/“Development of Biomarkers of Exposure and Biological Response to Endocrine Disrupting Herbicides”**

Duration of Funding: 5/10-4/13

Total Amount of Award: \$495,000

Your Role: Co-PI

Agency/Title of Grant: **National Science Foundation/“Physiologically-coupled Biosensing Approaches for Real-time Monitoring of Environmental Contaminants”**

Duration of Funding: 09/09-07/13

Total Amount of Award: \$397,828

Your Role: PI

Agency/Title of Grant: **Great Lakes Fishery Commission/“Effects of Lampricides on**

**Target and Non-target Species: From Protein Expression to Ecological Consequences”**

Duration of Funding: 03/10-02/13  
Total Amount of Award: \$121,546  
Your Role: PI

Agency/Title of Grant: **Indiana Water Resources Research Center/ “A First Assessment of Pharmaceuticals and Personal Care Products in the Upper Wabash River, Indiana”**

Duration of Funding: 2/10-2/11  
Total Amount of Award: \$13,000  
Your Role: PI

Agency/Title of Grant: **The Indiana Clinical and Translational Sciences Institute/”Development of High Throughput Metabolomic Screening of Biomarkers in Zebrafish and Mouse for the Translational Evaluation of Fetal Alcohol Syndrome”**

Duration of Funding: 01/10-12/10  
Total Amount of Award: \$17,900  
Your Role: Co-PI

Agency/Title of Grant: **USDA (subcontract)/“Effects of Long-term Low Salinity Exposure on Physiological Parameters and Transcriptome of the Florida Pompano”**

Duration of Funding: 4/10-12/10  
Total Amount of Award: \$30,000  
Your Role: PI

Agency/Title of Grant: **IL-IN Sea Grant/“Utilization of Genomic Signatures from *Hyalella azteca* as a Way to Quickly Evaluate Toxicity and Need of Sediment Remediation in the Great Lakes Basin”**

Duration of Funding: 10/09-09/10  
Total Amount of Award: \$10,000

Your Role: PI Agency/Title of Grant: **North Pacific Research Board/“Disease Severity and Ties to Chinook Salmon Condition in the Marine Migration Phase”**

Duration of Funding: 12/09-09/12  
Total Amount of Award: \$99,998  
Your Role: Co-PI

Agency/Title of Grant: U.S. EPA/“**Fate of Hormones in Tile-drained Fields and Impact to Aquatic Organisms under Different Animal Waste Land-Application Practices”**

Duration of Funding: 04/07-08/10  
Total Amount of Award: \$700,000  
Your Role: Co-PI

Agency/Title of Grant: **Great Lakes Fishery Trust/“The Decline of *Diporeia* in the Great Lakes: A Molecular Biomarker Approach for the Establishment of Causality”**

Duration of Funding: 01/08-08/12  
Total Amount of Award: \$569,689

Your Role: PI Agency/Title of Grant: **The Indiana Clinical and Translational Sciences**



**Institute/”Development of Molecular Biomarkers of Exposure to Endocrine Disrupting Herbicides”**

Duration of Funding: 10/09-09/10

Total Amount of Award: \$10,000

Your Role: Co-PI

**Agency/Title of Grant: U.S. EPA Subcontracted by University of Florida/”Systems Biology Modeling of Fathead Minnow Response to Endocrine Disruptors”**

Duration of Funding: 08/04-07/08

Total Amount of Award: \$45,594

Your Role: PI

**Agency/Title of Grant: St. Johns River Water Management District/”Necropsy and Histopathology of Avian Wildlife from Emerald Marsh Conservation Area, Upper Ocklawaha River Basin Florida”**

Duration of Funding: 02/06-09/06

Total Amount of Award: \$1,910

Your Role: PI Agency/Title of Grant: **U.S. EPA-GLNPO/”Ecotoxicology of Brominated Flame Retardants in Great Lakes Biota”**

Duration of Funding: 09/05-08/07

Total Amount of Award: \$147,861

Your Role: Co-PI

Agency/Title of Grant: **U.S. EPA Region V/”Ecological Impacts of Remediation at the Grand Calumet River Superfund Site: A Preliminary Assessment of the Effects of Remediation on the Reproductive Success of Great Blue Herons”**

Duration of Funding: 10/04-09/07

Total Amount of Award: \$100,000

Your Role: PI

**Past Internal Grants**

Agency/Title of Grant: **Purdue University Department of Forestry and Natural Resources/”Quantitative Analysis of Silver Nanoparticle Uptake, Dissolution and Toxicity in Zebrafish”**

Duration of Funding: 01/14-12/14

Total Amount of Award: \$8,880

Your Role: PI

Agency/Title of Grant: **Bioinformatics Core Illumina Grant for RNA Sequencing/”Epigenetic Mechanisms of Low Dose Atrazine Exposure and Trans-generational Reproductive Alterations”**

Duration of Funding: 10/12-09/13

Total Amount of Award: \$10,000

Your Role: Co-PI

Agency/Title of Grant: **Purdue Center for Cancer Research/”Epigenetic Mechanisms Governing the Developmental Origin of Atrazine Induced Melanoma”**

Duration of funding: 05/12-12/13  
Total amount of award: \$17,500  
Your role: Co-PI

Agency/Title of Grant: **Purdue Instructional Innovation Fund/“Microscopy and Digital Imaging for Life Science Instruction”**  
Duration of funding: 2012  
Total amount of award: \$24,566  
Your role: PI

Agency/Title of Grant: **Forestry and Natural Resources, Purdue University/“Sustainable Land Use Systems Signature Area”**  
Duration of Funding: 01/07-12/10  
Total Amount of Award: \$146,502

Your Role: Co-PI Agency/Title of Grant: **Purdue University Instructional Equipment/“Acquiring Tagging and Tracking Equipment to Enhance Purdue Fish and Wildlife Undergraduate Education”**  
Duration of Funding: 2009  
Total Amount of Award: \$29,275  
Your Role: Co-PI

Agency/Title of Grant: **Purdue Research Foundation/“The Use of Standardized Toxicity Tests, “Omic” Technologies, and Field Evaluations to Determine Novel Biomarkers of Exposure and Effects in Freshwater Amphipods”**  
Duration of Funding: 06/07-05/08  
Total Amount of Award: \$14,628  
Your Role: PI

Agency/Title of Grant: **College of Engineering, Purdue University/“Building Vision, Communication, and Research Capacity in the Global Sustainable Industrial Systems Signature Area”**  
Duration of Funding: 04/08-05/09  
Total Amount of Award: \$10,000  
Your Role: Co-PI

Agency/Title of Grant: **Center for the Environment, Purdue University/“Nanoparticles in the Environment: Examining Exposure Pathways and Toxicological Effects”**  
Duration of Funding: 02/07-01/08  
Total Amount of Award: \$30,000  
Your Role: Co-PI

Agency/Title of Grant: **Purdue Research Foundation/“Development of Novel Biomarkers of Contaminant Exposure in Fish”**  
Duration of Funding: 06/08-05/09  
Total Amount of Award: \$16,375  
Your Role: PI

Agency/Title of Grant: **Indiana University/Purdue University Collaboration in Life**

**Sciences and Informatics Research Pilot Grant Program/“Construction of cDNA Libraries for the Development of Genomic Signatures of Sediment Toxicity”**

Duration of Funding: 01/06-01/07

Total Amount of Award: \$50,000

Your Role: Co-PI

**Agency/Title of Grant: Center for the Environment, Purdue University/“From Genomics to Physiomics: Development of Tools for Environmental Assessment and Real-Time Sensing of Contaminants”**

Duration of Funding: 01/06-12/07

Total Amount of Award: \$75,000

Your Role: PI

**Agency/Title of Grant: Purdue Alumni Association/“Establishment of a Captive Population of Fathead Minnows (*Pimephales promelas*) for Evaluating the Effects of Endocrine Disrupting Chemicals on Aquatic Ecosystems”**

Duration of Funding: 01/05-12/05

Total Amount of Award: \$1,000

Your Role: PI

**Agency/Title of Grant: Purdue International Travel Grant/ Attended SETAC Europe 16<sup>th</sup> Annual Meeting, The Hague, The Netherlands**

Duration of Funding: 05/06

Total Amount of Award: \$1,000

Your Role: PI

**Agency/Title of Grant: Agricultural Research Program/“An Evaluation of Environmental Factors and Application Practices Affecting the Rate of Transfer of Herbicides from Turf Grass to Wildlife”**

Duration of Funding: 06/05-06/07

Total Amount of Award: \$43,708

Your Role: PI

**TOTAL EXTERNAL FUNDING: \$8,968,437**

**TOTAL INTERNAL FUNDING: \$661,557**

**TOTAL FUNDING SINCE JOINING PURDUE: \$9,629,994**

## Service

### FNR Department

- Department Head Search Committee (2015-2016)
- Graduate Committee (2007-2014)
- Steering and Budget Committee (2006-2012)
- Active Participant of FNR Signature Areas “Partnering in Sustainable Land Use Systems” (2006-2010) and “Applied Ecological Genetics” (2008-2012)
- Primary Committee (2009-present)
- Judge for FNR Research Symposium (2009-present)
- Songlin Fei, Paris Collinworth, Mike Jenkins, Elizabeth Flaherty, Paula Pijut, Pat Zollner, Mentoring Committee (2010-present)
- Wildlife Ecology Search Committee (2012)
- Performance Evaluation Committee for Rob Swihart (2011)
- Outreach/Extension and Education Committee (2009)
- Fisheries and Aquatic Sciences Lab Manager, Chair (2008 and 2012)
- CE Global Sustainable Industrial Systems Search Committee (2005)
- Curriculum Outcomes Assessment Committee (2008)
- Outreach Education Committee (2008)
- Fisheries Biology Search Committee, Chair (2007-2008)
- Human Dimensions Search Committee (2007-2008)
- Aquatic Community Ecologist Search Committee, Chair (2005-2006; 2006-2007)
- Vertebrate Ecology Search Committee (2006-2007)
- Lab Manager (Aquaculture) Search Committee, Chair (2005)
- FNR Awards Committee (2005-2007)

### College of Agriculture and Purdue University

- Participated in the 2015 USA Biology Olympiad, Center for Excellence in Education and Purdue University. Four USA students obtained gold medals at Aarhus, Denmark.
- Participated in Purdue’s Council for Agricultural Research, Extension, and Training (PCARET) State Conference: Hosted tour to fisheries and aquatic science labs (~ 50 people)
- Advisory Board for Forensic Sciences Major (2015-present)
- Chair (2015-present) of Multistate Research Project (W2045): Agrochemical Impacts on Human and Environmental Health: Mechanisms and Mitigation (2005-present)
- Member of Purdue University Interdisciplinary Life Science Graduate Program (PULSe) (2008-present) and Graduate Admissions Committee (2014-present)
- Member of focus group/Advance Women STEM (2009-present)
- Participant of the Alliance for Graduate Education and the Professoriate (AGEP) Research program (2009-present)
- Purdue Water Community (PWC), Executive Board of Directors (2010-present)
- Global Council Education Committee (2011-present)
- Faculty Diversity Task Force (2011-2015)
- Production Agriculture Roundtable, hosted 15 stakeholders (2012)

- Served on the Purdue planning committee for the Minorities in Agriculture, Natural Resources and Related Sciences (MANNRS) national conference (2009)
- Proposal Reviewer: Hatch Projects, ARP Proposals, Andrews Travel Awards, and PULSe Outstanding Graduate Student Research Award
- Judge for CoA Undergraduate Research and Poster Symposium, ESE Graduate Research and Poster Symposium, and Graduate Student Career Fair

City, State and Other

- Working with Office of Public Works, City of Elkhart evaluating intersex in fish from Indiana (Daragh Deegan collaborator), 2013-present
- Worked with West Lafayette Waste Water Treatment Facility quantifying pharmaceutical concentrations in their influent vs. effluent to help them understand their “depuration” levels for these (Stephen Nelson collaborator), (2011-2013)
- Worked with Muncie’s Bureau of Water Quality to assess potential effects of pharmaceuticals on fish communities (Jason Doll collaborator) (2011-2013)
- Conducted a “Fish Health Workshop” in rural Alaska (Hooper Bay) (2007)