

CURRICULUM VITAE

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EDUCATION:

Bachelor of Fisheries Science **1990-1994**

- College of Fisheries, Orissa University of Agriculture and Technology, Berhampur, India.

Master of Fisheries Science (Aquaculture) **1995-1997**

- College of Fisheries, Kerala Agricultural University, Cochin, India.
- Thesis title: Larval rearing of Angel fish, *Pterophyllum scalare* on artificial diets. (Supervisor: Dr. P.M. Mathew)

Master of Science **1999-2001**

- College of Fishery Science, University of Tromso, Norway.
- Thesis title: Effect of Aroclor 1254 on physiological stress response in Arctic Charr (*Salvelinus alpinus*): modulation by nutritional status. (Supervisor: Dr. Even H. Jorgensen)

Doctor of Philosophy (Ph.D) in Biology **2001- 2005**

- Department of Biology, University of Waterloo, Ontario.
- Thesis title: Impact of Aryl hydrocarbon receptor activation on the cortisol response to stress in rainbow trout. (Supervisor: Dr. M.M.Vijayan)

PROFESSIONAL EXPERIENCE:

1. Assistant Scientist, Biology Department, Woods Hole Oceanographic Institution (June 2012 – on going).
2. Visiting Investigator, Biology Department, Woods Hole Oceanographic Institution (April 2010 – June 2012; Under the supervision of Dr. Mark E. Hahn, Senior Scientist, Biology Department, WHOI).
3. Woods Hole Oceanographic Institution Postdoctoral Scholar (October 2008 – March 2010; Under the supervision of Dr. Mark E. Hahn, Senior Scientist, Biology Department, WHOI).

4. National Science and Engineering Research Council (NSERC) Postdoctoral Fellow (May 2006 – August 2008): Department of Biomedical Sciences, Ontario Veterinary College, University of Guelph, Ontario, Canada (Under the supervision of Dr. John F. Leatherland).
5. Visiting Postdoctoral Fellow (February 2008): Columbia River Research Laboratory, Western Fisheries Research Center, United States Geological Survey, Biological Resources Division, Cook, Washington, USA. (Under the supervision of Dr. Alec G. Maule).
6. Postdoctoral Fellow (May 2005- April 2006): Department of Biology, University of Waterloo, Waterloo, Ontario, Canada (Under the supervision of Dr. M.M. Vijayan).
7. Visiting postdoctoral fellow (July-August 2005): Tropical Biosphere Research Center, University of the Ryukyus, Okinawa, Japan. (Under the supervision of Dr. Akihiro Takemura).

AWARDS:

1. Woods Hole Oceanographic Institution Postdoctoral Scholarship (October 2008-March 2010)
2. NSERC postdoctoral fellowship (May 2006-April 2008)
3. W.B. Pearson Medal for best creative research in Biology (Ph.D., 2004)
4. University of Waterloo graduate scholarship (2001-2004)
5. Norwegian state educational fund scholarship (1999-2001)
6. Indian Council of Agricultural Research (ICAR) – Senior Research Fellow (1998-1999)
7. Indian Council of Agricultural Research (ICAR) – Junior Research Fellow (1995-1997)

PROFESSIONAL AFFILIATIONS:

1. Member, Society of Toxicology, 2009-2015
2. Member, Society of Integrative and Comparative Biology, 2013-2015
3. Member, Endocrine Society, 2014

RESEARCH INTERESTS:

1. Studies of long-term consequences of developmental exposure to toxicants
2. Epigenetic mechanisms of action (DNA methylation and non-coding RNAs)
3. Mechanisms of action of harmful algal bloom toxins and anthropogenic toxicants
4. Targeted mutagenesis
5. Vertebrate endocrinology

PROFESSIONAL ACTIVITIES:

WHOI:

WHOI Institutional Animal Care and Use Committee, 2012 to present.
Biology Department Seminar Series Co-ordinator

Joint Program Admissions Advisory Committee (Jan 2015 - Dec 2017)
WHOI Coastal Ocean Institute Advisory Committee (April 2015- present)

NIH:

Ad hoc member, Systemic Injury to Environmental Exposure (SIEE) study section panel (2015).

PARTICIPATION IN EDUCATION PROGRAM:

Lecture on Marine Toxicology. WHOI-BP short course, 18th September 2012, Woods Hole, Massachusetts.

SUPERVISION AT WHOI:

1. Kristina Deak, WHOI Summer Student Fellow (Summer 2011)
2. Elizabeth Meyer, Wheaton College, Massachusetts (Winter Internship 2013)
3. Kate Crawford, School of Public Health, Boston University, Massachusetts (Spring 2013)
4. Elaine Kuo, Stanford University, California (Summer Student Fellow 2013)
5. Matthew Czarnecki, Belmont Hill High School, Massachusetts (Summer 2013)
6. Gale Clark, Research Assistant I (June 2012 – May 2013)
7. Mat Schetne, Research Assistant I (September 2013 – present)
8. Jennifer Panlilio, Joint Program Student (September 2013 - present; Co-supervisor)
9. Lilah Glazer, Postdoctoral Scholar (December 2013 – present; Co-supervisor)
10. Kate Armstrong, Falmouth Academy, Massachusetts (December 2013 – January 2014)
11. Lily Helfrich, Summer Student Fellow (Summer 2014)
12. Shaneese Mackey, Summer Student (Summer 2014)
13. Emma Stillman, Falmouth Academy, Massachusetts (October 2014 – January 2015)

PAPERS IN REFEREED JOURNALS AND BOOKS:

A. Peer-reviewed publications:

32. Aluru, N., Kuo, E., Helfrich, L.W., Karchner, S.I., Linney, E.A., Pais, J., Franks, D.G. **2015**. Developmental exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin alters DNA methyltransferase (*dnmt*) expression in zebrafish (*Danio rerio*). *Toxicology and Applied Pharmacology* (doi:10.1016/j.taap.2015.02.016).
31. Aluru, N., Karchner, S.I., Franks, D.G., Nacci, D., Champlin, D., Hahn, M.E. **2015**. Targeted mutagenesis of AHR2a and AHR2b genes in Atlantic Killifish (*Fundulus heteroclitus*). *Aquatic Toxicology* 158: 192-201.
30. Lopes-Marques, M., Ruivo, R., Delgado, I., Wilson, J.M., Aluru, N., Castro, L.F.C. **2014**. Basal gnathostomes provide unique insights into the evolution of vitamin B12 binders. *Genome Biology and Evolution* 7: 457-464.
29. Wang, L., Zhang, J., Duan, J., Gao, X., Zhu, W., Lu, X., Yang, L., Zhang, J., Li, G., Ci, W., Li, W., Zhou, Q., Aluru, N., Tang, F., He, C., Huang, X., Liu, J. **2014**. Programming and inheritance of parental DNA methylomes in mammals. *Cell* 157(4): 979-991.

28. Aluru, N., Jenny, M.J., Hahn, M.E. **2014**. Knockdown of a Zebrafish Aryl Hydrocarbon Receptor Repressor (*ahrra*) Affects Expression of Genes Related to Photoreceptor Development and Hematopoiesis. *Toxicological Sciences* 139: 381-395.
27. Aluru, N., Deak, K.L., Jenny, M.J., Hahn, M.E. **2013**. Developmental exposure to valproic acid alters the expression of microRNAs involved in neurodevelopment in zebrafish. *Neurotoxicology and Teratology* 40:46-58.
26. Jenny, M.J., Aluru, N., Hahn, M.E. **2012**. Effects of short-term exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin on microRNA expression in zebrafish embryos. *Toxicology and Applied Pharmacology* 264: 262-273.
25. Barkataki, S., Aluru, N., Li, M., Vijayan, M.M., Leatherland, J.F. **2012**. Characteristics of ovarian follicle steroidogenesis during vitellogenesis in an asynchronously ovulating stock of rainbow trout *Oncorhynchus mykiss* *Journal of Fish Biology* 80: 741-751.
24. Aluru, N., Karchner S.I., Hahn M.E. **2011**. Role of AHR1 and AHR2 promoter DNA methylation in differential sensitivity to PCBs in Atlantic Killifish, *Fundulus heteroclitus*. *Aquatic Toxicology* 101: 288-294.
23. Shepherd, B., Aluru, N., Vijayan, M.M. **2010**. Acute handling disturbance modulates plasma insulin like growth factor binding proteins in Rainbow trout. *Domestic Animal Endocrinology* 40: 129-139.
22. Aluru, N., Leatherland, J.F., Vijayan, M.M. **2010**. Bisphenol A in oocytes leads to growth suppression and altered stress performance in juvenile Rainbow trout. *PLoS One* 5: e10741.
21. Alsop, D., Aluru, N. **2010**. Development of hypothalamus-pituitary-interrenal axis. *Encyclopedia of Fish Physiology: From Genome to Environment*. A.P. Farrell, Editor, Elsevier. ISBN: 978-0-12-374545-3.
20. Vijayan, M.M., Aluru, N., Leatherland, J.F. Organismal and cellular stress. In: *Fish diseases and disorders*. (Vol.2) Non-infectious disorders, Second edition. CABI, oxfordshire, United Kingdom.
19. Methling, C., Aluru, N., Vijayan, M.M., Steffensen, J.F. **2010**. Effect of moderate hypoxia at three acclimation temperatures on stress responses in Atlantic cod with different hemoglobin types. *Comparative Biochemistry and Physiology A. Molecular and Integrative Physiology* 156: 485-490.
18. Nikaido, Y., Aluru, N., McGuire, A., Park, Y.J., Vijayan, M.M., Takemura, A. **2010**. Effect of cortisol on melatonin production by the pineal organ of tilapia, *Oreochromis mossambicus*. *Comparative Biochemistry and Physiology A. Molecular and Integrative Physiology* 155: 84-90.
17. McGuire, A., Aluru, N., Takemura, A., Weil, R., Wilson, J.M., Vijayan, M.M. **2010**. Hyperosmotic shock adaptation by cortisol involves upregulation of branchial osmotic stress transcription factor 1 gene expression in Mozambique Tilapia. *General and Comparative Endocrinology* 165: 321-329.
16. Aluru, N., Vijayan, M.M. **2009**. Stress transcriptomics in fish: A role for genomic cortisol signaling. *General and Comparative Endocrinology* 164: 142-150
15. Aluru, N., Vijayan, M.M. **2008**. Molecular characterization, tissue specific expression and regulation of melanocortin 2 receptor in rainbow trout. *Endocrinology* 149: 4577-4588.
14. Aluru, N., Vijayan, M.M. **2008**. Brain transcriptomics in response to β -naphthoflavone treatment in rainbow trout: the role of aryl hydrocarbon receptor signaling. *Aquatic Toxicology* 87: 1-12.

13. Aluru, N., Vijayan, M.M. **2007**. Hepatic transcriptome response to glucocorticoid receptor activation in rainbow trout. *Physiological Genomics* 31: 483-491.
12. Moran, P.W., Aluru, N., Black, R. W., Vijayan, M.M. **2007**. Tissue contaminants and associated transcriptional response in trout liver from remote high elevation lakes of Western Washington. *Environmental Science and Technology* 41: 6591-6597.
11. Park, C.B., Takemura, A., Aluru, N., Park, Y.J., Kim, B.H., Lee, C.H., Lee, Y.D., Moon, T.W., Vijayan, M.M. **2007**. Tissue-specific suppression of estrogen, androgen and glucocorticoid receptor gene expression in feral vitellogenic male Mozambique tilapia. *Chemosphere* 69: 32-40.
10. Vijayan, M.M., Aluru, N., Maule, A.G., Jorgensen, E.H. **2006**. Fasting augments PCB impact on liver metabolism in anadromous Arctic charr. *Toxicological Sciences* 91: 431-439.
9. Aluru, N., Vijayan, M.M. **2006**. Resveratrol affects CYP1A expression in rainbow trout hepatocytes. *Aquatic Toxicology* 77: 291-297.
8. Aluru, N., Vijayan, M.M. **2006**. Ah receptor activation impairs cortisol response to stress in rainbow trout by disrupting the rate limiting steps in steroidogenesis. *Endocrinology* 147: 1895-1903.
7. Cara, J.B., Aluru, N., Moyano, F.J., Vijayan, M.M. **2005**. Food-deprivation induces HSP70 and HSP90 protein expression in larval gilthead sea bream and rainbow trout. *Comparative Biochemistry Physiology B. Biochemistry and Molecular Biology* 142: 426-431.
6. Jørgensen, E.H., Vijayan, M.M., Killie, J.E.A., Aluru, N., Aas-Hansen, O., Maule, A.G. **2005**. Toxicokinetics and effects of PCB in Arctic fish: A review of studies on Arctic charr. *J. Toxicology and Environmental Health, Part A*. 69: 37-52.
5. Aluru, N., Vuori, K., Vijayan, M.M. **2005**. Modulation of Ah receptor and CYP1A1 expression by alpha-naphthoflavone in rainbow trout hepatocytes. *Comparative Biochemistry Physiology C Toxicology Pharmacology* 141: 40-49.
4. Aluru, N., Renaud, R., Leatherland, J.F., Vijayan, M.M. **2005**. Ah receptor-mediated impairment of interrenal steroidogenesis involves StAR protein and P450scc gene attenuation in rainbow trout. *Toxicological Sciences* 84: 260-269.
3. Aluru, N., Jorgensen, E.H., Maule, A.G., Vijayan, M.M. **2004**. Aroclor 1254 disruption of the hypothalamus-pituitary-interrenal axis involves brain glucocorticoid receptor downregulation in anadromous Arctic charr. *American Journal of Physiology Integrative Comparative Physiology* 287: R787-R793.
2. Aluru, N. and Vijayan, M.M. **2004**. β -Naphthoflavone impacts cortisol production and glucocorticoid responsiveness in rainbow trout. *Aquatic Toxicology* 67: 273-285.
1. Jorgensen, E.H., Vijayan, M.M., Aluru, N., Maule, A.G. **2002**. Fasting modifies Aroclor 1254 impact on plasma cortisol, glucose and lactate responses to a handling disturbance in Arctic charr. *Comparative Biochemistry Physiology C Toxicology Pharmacology* 132: 235-245.

D. Conference Presentations (Oral):

1. Aluru, N. and M.M.Vijayan. 2002. Role of β -Naphthoflavone on interrenal steroidogenesis in Rainbow trout. Canadian Society of Zoologists, May 2002, Lethbridge, Alberta.

2. Aluru, N., Jorgensen, E.H., Maule, A.G. and Vijayan, M.M. 2003. Fasting modulates brain response to PCB exposure in anadromous Arctic charr, *Salvelinus alpinus*. Canadian Society of Zoologists, May 2003, Waterloo, Ontario, Canada.
3. Aluru, N. and M.M.Vijayan. 2004. Aryl hydrocarbon receptor activation impacts corticosteroidogenesis and tissue glucocorticoid responsiveness in rainbow trout. Canadian Society of Zoologists, May 2004, Acadia, Nova Scotia, Canada.
4. Aluru, N. 2005. Ah receptor activation and stress response: Insights from trout corticosteroidogenesis. Aquatic Toxicity Workshop, October 2005, Waterloo, Ontario, Canada.
5. Maule, A.G., Jorgensen, E.H., Vijayan, M.M., Killie, J.E.A., Aas-Hansen, O., Aluru, N. 2005. PCBs impair multiple physiological processes in fasted arctic charr leading to reduced fitness. 135th annual meeting of American Fisheries Society, September 2005, Anchorage, Alaska, USA.
6. Vijayan, M.M. and Aluru, N. 2005. Ah receptor activation impairs the rate limiting steps in steroidogenesis in rainbow trout. 26th Annual Meeting of SETAC North America. November 2005. Baltimore, Maryland, USA.
7. Aluru, N., Moran, P.W., Vijayan, M.M. 2005. Patterns of gene expression using cDNA microarray in trout collected from high alpine lakes in Washington state. 26th Annual Meeting of SETAC North America. November 2005. Baltimore, Maryland, USA.
8. Aluru, N., Vijayan, M.M. 2006. Aryl hydrocarbon receptor dependent transcriptional responses in the brain of rainbow trout. VII International Congress on the Biology of Fish. July 2006, St. John's, Newfoundland, Canada.
9. Vijayan, M.M., Wiseman, S.B., Aluru, N. 2006. Molecular responses to stress in fish: Role of cortisol. VII International Congress on the Biology of Fish. July 2006, St. John's, Newfoundland, Canada.
10. Moran, P.W., Black, R.W., Aluru, N., Vijayan, M.M. 2007. Contaminants and Associated Transcriptional Responses in Fish from Remote High Elevation Lakes of Western Washington, USA. Georgia Basin Puget Sound Research Conference, March 2007, Vancouver, British Columbia, Canada.
11. Aluru, N., Leatherland, J.F., Vijayan, M.M. 2007. Effect of maternal exposure to Bisphenol A on somatotrophic axis in early life stages of rainbow trout (*Oncorhynchus mykiss*). Canadian Society of Zoologists, May 2007, Montreal, Quebec, Canada.
12. Vijayan, M.M., Gravel. A., Aluru, N. 2007. Aiming for the StAR: Stress and Steroid Disruption in Rainbow Trout. Canadian Society of Zoologists, May 2007, Montreal, Quebec, Canada.
13. Vijayan, M.M., Aluru, N. 2007. Stress steroid disruption in fish: mechanisms and implications. 137th Annual Meeting of American Fisheries Society, September 2007, San Francisco, USA.
14. Maule, A.G., Jørgensen, E.H., Vijayan, M.M., Killie, J.A., Aas-Hansen, O., Aluru, N. 2007. PCBs reduce fitness of Arctic Charr by disrupting endocrine system functioning and impacting multiple physiological processes. 137th Annual Meeting of American Fisheries Society, September 2007, San Francisco, USA.
15. Aluru, N. 2007. Endocrine and developmental toxicity in fish: Mechanisms and Implications. Invited speaker at Department of Integrative Biology Fish and Loaves Seminar Series. 19th October 2007, University of Guelph, Guelph, Ontario, Canada.

16. Aluru, N., Vijayan, M.M. 2008. Genomic cortisol signaling and metabolic adjustments to stress in fish. 6th International symposium on fish endocrinology, June 2008, Calgary, Canada.
17. Aluru, N., Leatherland, J.F., Vijayan, M.M. 2008. Bisphenol A impacts embryogenesis and growth by disrupting the somatotropic axis in rainbow trout. 8th International Congress on the Biology of Fish. July 2008, Portland, Oregon, USA.
18. Vijayan, M.M., Aluru, N. 2008. Melanocortin 2 receptor and its role in the stress response. 8th International Congress on the Biology of Fish. July 2008, Portland, Oregon, USA.
19. Moran, P.W., Black, B., Aluru, N., Vijayan, M.M. 2008. Liver Transcriptomics in trout collected across a gradient of urbanization in Puget Sound, Washington State, USA. 26th Annual Meeting of Society of Environmental toxicology and chemistry (SETAC), 16-20 November 2008, Tampa, Florida, USA.
20. Aluru, N., Leatherland, J.F., Vijayan, M.M. 2008. Bisphenol A impacts embryogenesis and growth by disrupting the GH-IGF axis in rainbow trout. NUTMEG Conference. 6-7th October 2008, Woods Hole, Massachusetts, USA.
21. Aluru, N., Leatherland, J.F., Vijayan, M.M. 2009. Developmental and growth effects associated with acute exposure of eggs to bisphenol A in rainbow trout. 48th Annual Meeting of Society of Toxicology, 15-19 March 2009, Baltimore, Maryland, USA.
22. Aluru, N. 2009. Endocrine Physiology of stress response: Integrated effects of nutrition and persistent organic pollutants. 24th September 2009. Biology Seminar Series, Biology Department, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, USA.
23. Aluru, N., Jenny, M.J., Hahn, M.E. 2010. microRNA expression profiles after developmental exposure of zebrafish (*Danio rerio*) embryos to TCDD. NUTMEG Conference. 7-9th October 2010. Woods Hole, Massachusetts, USA.
24. Aluru, N. 2010. Endocrine Physiology of stress response: Long term effects of short-term exposures. Arnold School of Public Health, University of South Carolina. October 24th 2010, Columbia, South Carolina.
25. Aluru, N. 2011. Endocrine disruption in marine organisms. WHOI-BP short course, 22nd September 2011, Woods Hole, Massachusetts.
26. Aluru, N., Marsit, C.J. 2012. Overview of MicroRNA Quantification Methods. Annual Meeting of Society of Toxicology, March 2012. San Francisco, California.
27. Aluru, N. 2012. Lecture on Environmental Epigenetics. Summer Student Fellow Lecture Series, June 2012, Woods Hole, Massachusetts.
28. Aluru, N. 2012. Lecture on Marine Toxicology. WHOI-BP short course, 18th September 2012, Woods Hole, Massachusetts.
29. Aluru, N. Understanding the Mechanisms Associated with Developmental Exposure to Marine Toxins and Toxicants. Gordon Research Conference on Oceans and Human Health. June 1-6, 2014, University of New England, Maine.

E. Poster presentations:

1. Aluru, N. and M.M.Vijayan. 2003. β -naphthoflavone impacts interrenal corticosteroidogenesis in rainbow trout, Society of Integrative and Comparative Biology, Toronto. January 2003. (Honourable mention in the Comparative endocrinology Division)

2. Aluru, N. and M.M.Vijayan. 2004. Dioxin stress and Red Wine: Insights from trout corticosteroidogenesis. Fifth International symposium on Fish Endocrinology, September 2004, Castellon, Spain.
3. Nikaido, Y., N. Aluru, A. McGuire, M.M. Vijayan and A. Takemura. 2006. Direct effect of cortisol on melatonin production in the pineal organ of tilapia, *Oreochromis mossambicus*. VII International Congress on the Biology of Fish. July 2006, St. John's, Newfoundland, Canada.
4. Vijayan, M.M., Aluru, N. 2008. Molecular characterization and regulation of melanocortin 2 receptor in rainbow trout. Canadian Society of Zoologists, May 2008, Halifax, Nova Scotia, Canada.
5. Hontela, A., Quinn, A., Friesen, C., Aluru, N., Vijayan, M.M. 2008. Adrenal toxicity of pesticide dimethoate in rainbow trout (*Oncorhynchus mykiss*) and fathead minnow (*Pimephales promelas*). 6th International symposium on fish endocrinology, June 2008, Calgary, Canada.
6. Henrickson, L.M., Aluru, N., Leatherland, J.F., Vijayan, M.M. 2008. Bisphenol A disrupts stressor induced cortisol and glucose response in rainbow trout. 26th Annual Meeting of Society of Environmental toxicology and chemistry (SETAC), 16-20 November 2008, Tampa, Florida, USA.
7. Aluru, N., Karchner, S. I., Hahn, M.E. 2009. Investigating the role of DNA methylation in differential sensitivity to PCBs in Atlantic Killifish, *Fundulus heteroclitus*. NUTMEG Conference. 5-6th October 2009, Woods Hole, Massachusetts, USA.
8. Aluru, N., Karchner, S. I., Hahn, M.E. 2010. Developmental exposure to PCB126 leads to short and long-term changes in gene expression patterns in zebrafish, *Danio rerio*. 9th International conference on zebrafish development and genetics. June 16-20. University of Wisconsin-Madison. Madison, Wisconsin, USA.
9. Aluru, N., Jenny, M.J., Hahn, M.E. 2011. MicroRNA expression profiles after developmental exposure of zebrafish (*Danio rerio*) embryos to TCDD. 50th Anniversary Society of Toxicology Annual Meeting, March 6-10, 2011, Washington D.C., USA.
10. Aluru, N., Jenny, M.J., Hahn, M.E. 2011. Knock-down of a zebrafish aryl hydrocarbon receptor repressor (AHRRa) affects transcription of genes related to photoreceptor development. 16th Pollutant Responses in Marine Organisms Conference, May 15-18, 2011, Long Beach, California, USA.
11. Aluru, N., Karchner, S.I., Franks, D.G., Timme-Laragy, A.R., Williams, L.M., Hahn. M.E. 2011. Targeted gene inactivation in Atlantic Killifish (*Fundulus heteroclitus*): Adaptation of the zinc finger nuclease (ZFN) approach. 16th Pollutant Responses in Marine Organisms Conference, May 15-18, 2011, Long Beach, California, USA.
12. Karchner, S.I., Aluru, N., Jenny, M.J., Welch, D.B.M., Hahn, M.E. 2011. mRNA and microRNA transcriptomes of Atlantic killifish (*Fundulus heteroclitus*) embryos from PCB-sensitive and PCB-resistant populations. 16th Pollutant Responses in Marine Organisms Conference, May 15-18, 2011, Long Beach, California, USA.
13. Aluru, N., Deak, K.L., Jenny, M.J. Hahn, M.E. 2012. MicroRNA expression profiling after developmental exposure of zebrafish embryos to valproic acid. 51st Annual meeting of Society of toxicology, March 2012, San Francisco, California, USA.
14. Aluru, N., Karchner, S.I., Jenny, M.J., Hahn, M.E. 2013. Understanding the physiological role of Aryl Hydrocarbon Receptor Repressor (AhRR) using gene knock-down and

- targeted mutagenesis in zebrafish. 52nd Annual meeting of Society of toxicology, March 2013, San Antonio, Texas, USA.
15. Kuo, E., Karchner, S.I., Yu, Z., Aluru, N. 2014. Effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) exposure on the expression of DNMT genes during development in zebrafish (*Danio rerio*). 53rd Annual meeting of Society of toxicology, March 2014, Phoenix, Arizona, USA.
16. Panlilio, J.M., Aluru, N., Hahn, M.E. Investigating the mechanisms that mediate the later life consequences of developmental exposure to domoic acid in zebrafish. Collaborative Workshop on Aquatic Models and 21st Century Toxicology: Leveraging Small Aquarium Fishes to Advance Understanding of Environmentally Influenced Human Disorders and Diseases. Raleigh, NC, May 2014.

OTHER PROFESSIONAL ACTIVITIES:

- A. Reviewer for the following journals in life sciences –
 Aquatic Toxicology
 Comparative Biochemistry and Physiology
 Journal of Fish Biology
 Transactions of American Fisheries Society
 The Environmentalist
 International Journal of Toxicology
 Fish Physiology and Biochemistry
 Environmental Science and Technology
 General and Comparative Endocrinology
 Molecular Biology Reports
 Aquaculture Research
 NeuroToxicology
 Toxicological Sciences
2. Organizing a continuing education course on “MicroRNAs in Biology and Toxicology” at 51st Annual Meeting of the Society of Toxicology (11-15th March 2012) in San Francisco, California.

TEACHING EXPERIENCE:

- A. Obtained **Certificate in University Teaching (CUT)** degree offered by Center for Teaching Excellence, University of Waterloo, Waterloo, Ontario.

- B. **Sessional Lecturer** – Department of Biology, University of Waterloo, Waterloo, Ontario.

Courses Taught	Term, Year	Total number of Students
Comparative Animal Physiology I (Biol 370)	Fall, 2005, 2006, 2008*	125; 118; 65
Comparative Animal Physiology II (Biol 371)	Winter, 2005	109
Principles of Human Physiology (Biol 273)	Winter, 2006	685

* Delivered first three lectures in the course as a guest lecturer.

C. Teaching assistant (2001-2004) - Department of Biology, University of Waterloo, Ontario. Teaching assistantship was held for the following courses: Cell Biology (Biol 130), Molecular Biology (Biol 330), Comparative Animal Physiology I (Biol 370), Principles of Human physiology II (Biol 373), Reproductive physiology (Biol 473) and Molecular Biology techniques (Biol 435L).