

Lene H. Petersen, Ph.D
Department of Marine Biology,
Texas A & M University at Galveston
200 Seawolf Parkway, Bldg. 3029
Galveston, TX, 77551
Phone: 409-740-4786
Email: petersel@tamug.edu

Employment

- 2015- **Instructional Assistant Professor.** Department of Marine Biology, Texas A&M University at Galveston, TX. USA.
- 2014- **Laboratory Coordinator.** Wildlife International. EAG. Easton, MD. USA.
2015
- 2013- **Laboratory Assistant Professor.** Department of Biology, University of North Texas. USA.
2014
- 2011- **Instructional Lab Supervisor.** Department of Biology, University of North Texas. USA.
2014
- 2009- **Post Doctoral Research Associate.** Department of Biology, University of North Texas. USA.
2010 Advisor Dr. Duane Huggett.
- 2008 **Post Doctoral Fellow.** Institute of Applied Science, University of North Texas. USA. Advisor: Dr. Duane Huggett. Funded by International Life Sciences Institute – Human and Environmental Sciences Institute (ILSI-HESI)

Education

- 2010 **Ph.D. Biology.** Department of Biology, Ocean Sciences Centre, Memorial University. Canada. Dissertation: The effect of chronic hypoxia on the cardiorespiratory physiology of Atlantic cod (*Gadus morhua*). Advisor: Dr. A. Kurt Gamperl.
- 2001 **M.S. Biology.** Institute of Biology, University of Southern Denmark (SDU). Denmark. Thesis: Studies on the Starling response of the isolated trout (*Oncorhynchus mykiss*) heart. Advisors: Dr. T. Mustafa (SDU) and Dr. Claudio Agnisola (University of Naples, Italy).
- 1997 **B.S. Biology.** Institute of Biology, University of Southern Denmark. Denmark. Thesis: Metabolic regulation in hibernating mammals. Advisor: Dr. T. Mustafa.

Teaching Experience

2015- **Instructional Assistant Professor (Texas A&M University at Galveston).**

Lecture courses taught:

MARB Undergraduate Elective courses:

Marine Parasitology (MARB 405). 3 credit hours. 24 (S17) students

Animal Behavior (MARB 410). 3 credit hours. 69 (S16), 80 (S17), 57 (18) students.

Fish Physiology (MARB 335). 3 credit hours. 27 (F15) students. 30 (F17), 32 (S19) students.

Pathology of Marine Animals. (MARB 437). 3 credit hours. 34 (F16), 32 (F18) students.

Seminar (MARB 482). 1 credit hour. 14 (S16) students.

MARB Undergraduate Required courses:

Comparative Physiology (MARB 420). 4 credit hours. Every fall. ~ 50 students.

Natural History of Vertebrates. (MARB 315). 4 credit hours. 100 students (F16). (substituted fall 2016)

Undergraduate research advising:

MARB 491- Undergraduate Research Experience (laboratory research).

2019 Olivia Thibault, Chris Gunn, Jessica Quillen, Mikeelee Brink, Taylor Cabbage (S19).

2018 Zoe Cross, Taylor Cabbage, Nicolette Lozano, Jessica Quillen, Sara Ryan (fall + spring).

2017 Rachel Johnson, Seth Reichert, Zoe Cross, Taylor Cabbage, Sara Ryan, Anna Covarubias (fall + spring).

2016 Brittney Lacy and Nicole Morgan (spring, fall).

MARB 484 Internship (weekly journals and 5 page reflection paper).

2019 Kylee Groh. Moody Gardens. (S19). 4CR. 3 months.

Kacie Swift. Texas Wildlife Rehabilitation Coalition. (sum19). 4 CR. 3 months.

Kirsten Newbrough. Moody Gardens. (sum19). 4CR. 3 months.

2018 Ashley Boland. Moody Gardens Rainforest, (S18) 4CR. 3 months.

Christina Enriquez. Galveston Veterinary Clinic (S18). 4CR. 3 months.

Emma Halter-Mann. San Diego Navy Marine Mammal Program (18). 2CR. 3 months.

Emma Halter-Mann. Indianapolis Zoo internship. (sum18) 2CR. 3 months.

Desiree Harman. Sea World San Antonio. (sum 18) 1CR. 2 weeks.

Kaitlyn Rosenbaum. Moody Gardens. (sum 18) 2CR. 3 months.

2017 Alex Tushup. Dolphin Plus, Florida (Sum17). 4CR. 3 months.

Kathryn Moffitt. Moody Gardens, Galveston, TX (Sum17). 4CR. 3 months

Taylor Cabbage. Texas Parks and Wildlife. TX (Sum 17). 4CR. 3 months.

Breana Kitchen. Mission:Wolf. Colorado (Sum 17). 2CR. 2 weeks.

2016 Kelsey Malan. Artist Boat, Galveston (S16). 2CR.3 months.

Nicolette Lozano. Kemah Aquarium (Sum16). 4CR. 3 months.
Jason Moore. Philadelphia Zoo (Sum16). 4CR. 3 montsh.

Honor's students (weekly meetings and 10 page paper + oral presentation).

- 2019 Kirsten Newbrough. Honor's project+thesis. Contracting MARB 410 (S19). Project title: Social behavior of African elephants at San Diego Zoo.
Calley Nixon. Honor's project+thesis. Contracting MARB 410 (S19). Project title: Parental care strategies in captive African elephants at San Diego Zoo.
Hayley York. Honor's project+thesis. Contracting MARB 410 (S19). Project title: Preening behavior in chinstrap and rockhopper penguins at Moody Gardens.
- 2018 Olivia Taylor, honor's thesis. Contracting MARB 410 (S18). Thesis title: Social Behavior of Chimpanzees at the Houston Zoo.
Danielle Roberts, honor's thesis. Contracting MARB 410 (S18). Thesis title: Humpback whale behavior: Altruistic or antipredator?
Jessica Quillen, Honor's thesis. Contracting MARB 410 (S18). Thesis title: A Look into the parental care strategies of Asian elephants observed at the Houston Zoo.
- 2017 Jessica Shimskie (S17). Contracting MARB 410. Research Project: Studying behavioural changes in salinity exposed juvenile alligators.
Zoe Cross. Contracting MARB 410 (S17). Thesis: Parental care behavior in the Orangutan at San Diego Zoo.
Zoe Cross. Contracting MARB 335 (F17). Research Project: Test swim tunnel respirometers.
Emma Halter-Mann. Contracting MARB 405 (S17). Thesis: How can parasites use the host's immune system to their advantage.
Emma Halter-Mann. Contracting MARB 420 (F17). Thesis: Beta adrenergic receptors and their effects on the cardiovascular system.
Jessica Quillen. Contracting MARB 335. (F17). Thesis: An overview of the sensory systems of fishes.
- 2016 Taylor Cabbage. Contracting MARB 315 (F16). Thesis: Impacts of recreational catch and release angling on aquatic vertebrates.
Sara Ryan. Contracting MARB 315. (F16). Thesis: Chemical interactions in aquatic and terrestrial vertebrates.

Undergraduate Research Scholar Faculty Advisor

- 2018-2019 Taylor Cabbage. Research and Thesis Project title: Effects of environmental and anthropogenic stressors on fish physiology.

ACES Scholarship Faculty Advisor

- 2018-2019 Taylor Cabbage. Research and Thesis Project title: Effects of environmental and anthropogenic stressors on fish physiology.

NSF-REU-Summer 2018.

Justine McCarthy. Research Project: Effects of anthropogenic (prednisone) and environmental (salinity) stressors on sheepshead minnow swimming performance and metabolism. 10 weeks research project. Justine has kept working with us after she left as she is analyzed behavioral data from swim trials through-out 2018-2019.

2016- **Graduate Student Committees**

Present

Co-chair:

Patricia Faulkner (Ph.D. student). Chair Dr. David Hala.
 Joshua LeLeaux (M.S. student). Chair Dr. David Hala.

Committee member:

Lauren Simonitis (Ph.D. student). Chair Dr. Chris Marshall.
 Candace Grimes (Ph.D. student). Chair Dr. Anja Schulze.
 Yu Umeki (Ph.D. student). Chair Dr. Randall Davis.
 Corinne Meinert (M.S. fall 2018). Chair Dr. Jay Rooker.
 Jossette Mccurrin (M.A. spring 2018). Chair Dr. John Schwarz.
 Megan Howson (M.A. summer 2019). Chair Dr. John Schwarz.

2011- **Instructional Lab Supervisor (University of North Texas).**

2014

Lab supervisor for:

Environmental Science (Biol 1132),
Stream Ecology (Biol 4440/5440),
Aquatic Botany (Biol 4280/5280),
Aquatic Toxicology (Biol 4380/53280),
Techniques in Environmental Analysis (Biol 6390),
Aquatic Insects of North America (Biol 4560/5070),
Insect Biology (Biol 4070/5070),
Plant Ecology (Biol 4000/5040).

2009- **Adjunct Lecturer (during Post-doc) (University of North Texas).**

2014

Lecture courses taught:

- 2013 *Human Anatomy and Physiology I Lab*. BIOL 2311.515. Majors. 3 credit hr. 24 students
Contemporary Biology. BIOL 1112.001. Undergrad. Non-major. 3 credit hr. 105 students.
 2011 *Biochemistry Lab Recitation*. BIOC 4560. Undergrad/grad. 1 credit hr. 40 students.
 2009 *Cardiovascular Physiology*. BIOL 4005.010/5005.10. Undergrad/grad 3 credit hr. 20 students.
 New course offered and developed in collaboration with Dr. Ho, Dr. Dzialowski at UNT.
Pathophysiology. BIOL. 4005.01/5005.10 Undergrad/grad 2 credit hr. 25 students. New course
 offered and developed in collaboration with Dr. Huggett at UNT.

Student research advising (during post-doc)

- 2013 Wendy Pace – M.S. student at University of North Texas.
 2012 Shelby Needham – awarded Undergraduate Research Fellowship. Spring 2012. UNT.
 2011 Shelby Needham – awarded a Howard Hughes Medical Internship, UNT.
 2010 Vanessa O’Leary – undergraduate student at University of North Texas.

2003- **Graduate Teaching Assistant (Memorial University of Newfoundland).**

2007

Freshman Biology. *Principles of Biology 1001 and 1002*, 4 semesters.
 (2 three hour labs per semester). 36 undergraduate students/lab slot.

- 2004- **Laboratory Instructor (Memorial University of Newfoundland).**
 2006 *Principles of Biology 1001 and 1002*, 3 semesters, 2-3 lab slots/week.

Student research advising (during Ph.D.)

- 2006 Glenn Lurman - trained visiting Ph.D. student from Alfred Wegener Institute of Polar and Marine Research. Germany. Memorial University.
 2004 Joanne Burry – lab technician, Ocean Sciences Centre, Memorial University.

Research Experience

Receptor Binding and Gene expression: Radiolabeled receptor binding assays; PCR.

Physiological Studies: *In Vivo studies (swim tunnel respirometry, cannulation, blood sampling); In vitro/in situ studies (Isolated Heart Preparations).*

Toxicological/Pharmacological Studies: *acute and chronic exposure studies; cannulation.*

Behavioral studies. *Ethovision XT; swimming performance of fish, alligator behavior, embryo/larval fish.*

Laboratory Animal Species. *Mammals: Wistar Rats, Swiss Webster Mice; Fish (Atlantic cod, rainbow trout, common carp, fathead minnows, channel catfish); Reptiles (American Alligator).*

Publications

- 2019 Faulkner, P. C., Hala, D., Rahman, M.S., and **Petersen, L.H.** Short-term exposure to 12‰ saltwater has significant effects on the endocrine physiology of juvenile American alligator (*Alligator mississippiensis*). Accepted. Comp. Biochem. Physiol.

Faulkner, P. C., **Petersen, L.H.** and Hala, D. “Steroids in tank water correlate positively with blood plasma levels in American alligators (*Alligator mississippiensis*). To be submitted July to Conservation Physiology.

- 2018 Faulkner, P. C., Burleson, M. L., Simonitis, L., Marshall, C., Hala, D., and **Petersen, L.H.** Effects of chronic exposure to 12‰ saltwater on the endocrine physiology of juvenile American alligator (*Alligator mississippiensis*). J. Exp. Biol., jeb-181172. 2018.

Petersen, L.H. and A.K. Gamperl, Integrated Responses of the Circulatory System to Hypoxia, In Reference Module in Life Sciences, Elsevier, ISBN: 978-0-12-809633-8, <http://dx.doi.org/10.1016/B978-0-12-809633-8.03152-6>. 2018.

- 2017 **Petersen, L.H.** and Gamperl, A.K. Integrated control and responses of the circulatory system to hypoxia. Encyclopedia of Fish Physiology, edited by A.P. Farrell, Academic Press, San Diego. In review.

Motyka, R., Norin, T., **Petersen, L.H.**, Huggett, D.B. and Gamperl, A.K. Long-Term hypoxia exposure alters the cardiorespiratory physiology of steelhead trout (*Oncorhynchus mykiss*), but does not affect their upper thermal tolerance. J. Therm. Biol. 68:149-161.

- 2015 Hala, D., **Petersen, L.H.**, Martinović, D. and Huggett, D.B. *In Silico* analysis of perturbed steroidogenesis and gonad growth in fathead minnows (*P. promelas*) exposed to 17 α -ethynylestradiol. Syst. Biol. Reprod. Med. 61: 122-138.

Petersen, L.H. Burleson, M.L and Huggett, D.B. Temperature and species-specific effects on β_3 -adrenergic receptor cardiac regulation in two freshwater teleosts: channel catfish (*Ictalurus punctatus*) and common carp (*Cyprinus carpio*). *Comp. Biochem. Physiol. A* 185: 132-141.

Petersen, L.H., Hala D., Carty D., Cantu M. and Huggett D.B. Effects of Progesterone and Norethindrone on Female Fathead Minnow (*Pimephales promelas*) Steroidogenesis. *Environ. Toxicol.Chem.* 34:379-390.

2013 **Petersen, L.H.**, Needham, S.L., Burleson, M.L., Overturf, M.D. and Huggett, D.B. Involvement of β_3 -adrenergic receptors in *in vivo* cardiovascular function in rainbow trout (*Oncorhynchus mykiss*). *Comp. Biochem. Physiol. A.* 164: 291-300.

2012 Lurman, J.G., **Petersen, L.H.** and Gamperl, A.K. Atlantic cod (*Gadus morhua*) *in situ* cardiac performance at cold temperatures: long-term acclimation, acute thermal challenge and the role of adrenaline. *J. Exp. Biol.* 215: 4006-4014.

Petersen, L.H., King, M.K., Paulos, P., La Point, T. and Thompson, R. Environmental Science. Laboratory and field activities. Kendall Hunt Publishing. Dubuque, IW, USA.

Hala, D.N., **Petersen, L.H.**, Martinovic, D., Huggett, D.B. Constraints-based stoichiometric analysis of hypoxic stress on steroidogenesis in fathead minnows (*Pimephales promelas*). *J. Exp. Biol.* 215: 1753-1765.

2011 Hala, D.N., Overturf, M.D., **Petersen, L.H.**, Huggett, D.B. Quantification of 2-hydrazinopyridine derivatized steroid hormones in fathead minnow (*Pimephales promelas*) blood plasma using LC-ESI+/MS/MS. *J. Chrom. B.* 879: 591-598.

Petersen, L.H. and Gamperl, A.K. Cod (*Gadus morhua*) cardiorespiratory physiology and hypoxia following acclimation to low-oxygen conditions. *Physiol. Biochem. Zool.* 84: 18-31.

Petersen, L.H., Dzialowski, E. and Huggett, D.B. The interactive effects of a gradual temperature decrease and long-term food deprivation on cardiac and hepatic blood flow in rainbow trout (*Oncorhynchus mykiss*). *Comp. Biochem. Physiol. A.* 160: 311-319.

2010 **Petersen, L.H.** and Gamperl, A.K. Effects of acute and chronic hypoxic effects on the swimming performance, metabolic capacity and cardiac function of Atlantic cod (*Gadus morhua*). *J. Exp. Biol.* 213: 808-819.

Petersen, L.H. and Gamperl, A.K. *In situ* cardiac function in Atlantic cod (*Gadus morhua*): Effects of acute and chronic hypoxia. *J. Exp. Biol.* 213: 820-830.

2009 Hall, J.R., Short, C.E., **Petersen, L.H.**, Stacey, J., Gamperl, A.K. and Driedzic, W.R. Expression levels of genes associated with oxygen utilization, glucose transport and glucose phosphorylation in hypoxia exposed Atlantic cod (*Gadus morhua*). *Comp. Biochem. Physiol. D.* 4: 128-138.

Petersen, L.H. and Gamperl, A.K. A comprehensive examination of the effects of chronic hypoxia on the cardiorespiratory physiology of Atlantic cod (*Gadus morhua*). *Comp. Biochem. Physiol.* S61.

Petersen, L.H., Overturf, M.D. and Huggett, D.B. Functional role of β_3 -adrenergic receptors on *in vivo* cardiac function in freshwater teleosts. *Comp. Biochem. Physiol.* S106.

- 2007 Lurman G., **Petersen, L.H.** and A.K. Gamperl. Cardiac function in Atlantic cod (*Gadus morhua*): Influence of acclimation temperature and acute thermal challenges. *Comp. Biochem. Physiol. A* 146: S167-S167.
- 2006 Gollock, M.J., Currie, S., **Petersen, L.H.** and Gamperl, A.K. Cardiovascular and haematological responses of Atlantic cod (*Gadus morhua*) to acute temperature increase. *J. Exp. Biol.* 209: 2961-2970.
- Deitch, E., Fletcher, G.L., **Petersen, L.H.**, Costa, I.A.S.F., Shears, M.A., Driedzic, W.R. and Gamperl, A.K. Cardiorespiratory modifications, and limitations, in post-smolt growth hormone transgenic Atlantic salmon *Salmo salar*. *J. Exp. Biol.* 209: 1310- 1325.
- 2003 Agnisola, C., **Petersen, L.H.** and Mustafa, T. Effect of coronary perfusion on the basal performance, volume loading and oxygen consumption in the isolated resistance-headed heart of the trout (*Oncorhynchus mykiss*). *J. Exp. Biol.* 206: 4003-4010.

Abstracts/Conference Presentations (*denotes undergraduate student presentations)

- 2019 *McCarthy, J.R., Faulkner P.C. and **Petersen L.H.** Impact of salinity and sex on the swimming performance and metabolism of sheepshead minnows (*Cyprinodon Variiegatus*). Association of the sciences for limnology and oceanography (ASLO). San Juan, Puerto Rico. Feb 23-March 2nd.
- *Cubbage, T.L., Faulkner P.C. and **Petersen L.H.** The effects of salinity and pharmaceuticals on the physiology of the sheepshead minnow (*Cyprinodon variegatus*). TAMUG student symposium. Undergraduate student scholar presentation. 2nd place. TAMUG Galveston. April 16-17.
- *Capps, C., Grimes, C., **Petersen, L.H.** and Schulze, A. The fiery breath of a fireworm: Long-term resilience to chronic hypoxia in *Hermodice carunculata*. TAMUG student symposium. TAMUG Galveston. April 16-17.
- Grimes, C., **Petersen, L.H.** and Schulze, A. You CAN have fire without oxygen! How the bearded fireworm, *Hermodice carunculata*, reacts to hypoxic conditions. International Polychaete Conference. Long Beach, CA, USA. Aug. 4-9.
- 2017 *Shimskie, J.G., Johnson, R.R., Faulkner, P.C. and **Petersen, L.H.** Behavioral effects of salinity stress in juvenile American alligators (*Alligator mississippiensis*). TAMUG student symposium. TAMUG Galveston. April 18-19.
- Faulkner, P.C., **Petersen, L.H.**, Burroughs, L. and Hala, D. Physiological effects of salt stress on juvenile American alligators (*Alligator mississippiensis*). TAMUG student symposium. TAMUG Galveston. April 18-19.
- Faulkner, P., Hala, D. and **Petersen, L.H.** Physiological effects of salt stress in juvenile American alligators (*Alligator mississippiensis*). Joint Meeting of Ichthyologists and Herpetologists (JMIH). Austin, TX. July 12-16.
- 2016 **Petersen, L.H.**, Hala, D., Paulos, P. and Huggett, D.B. Transgenerational effects of a synthetic progestin, norethindrone, on fathead minnows (*Pimephales promelas*). International Congress on the Biology of Fish. San Marcos, TX. June 12-16.

- 2015 Hala, D., **Petersen, L.H.** Martinović, D. and Huggett, D.B. *In Silico* pathway analysis linking perturbed steroidogenesis with gonad growth in fathead minnows (*Pimephales promelas*) exposed to 17 α -ethynylestradiol. North American Society for Comparative Endocrinologists (NASCE). Ottawa, Canada. June 21-25.
- Petersen, L.H.**, Hala, D., Martinović, D. and Huggett, D.B. Effects of progesterone and norethindrone on female fathead minnow (*Pimephales promelas*) steroidogenesis. North American Society for Comparative Endocrinologists (NASCE). Ottawa, Canada. June 21-25. Invited speaker.
- 2013 **Petersen, L.H.**, Hala, D. Carty, D., Cantu, M., Martinovic, D. and Huggett, D.B. Effects of Progesterone and Norethindrone on Female Fathead Minnow (*Pimephales promelas*) Steroidogenesis. Society of Environmental Toxicology and Chemistry (SETAC-North America). Nashville, TN. Nov. 17-21.
- Cantu, M., Hala, D., **Petersen, L.H.** and Huggett, D.B. Development of an abbreviated *in vivo* bioconcentration factor test in common carp (*Cyprinus carpio*). SETAC - North America. Nashville, TN. Nov. 17-21.
- Hala, D., **Petersen, L.H.** Carty, D., Cantu, M., Martinović, D. And Huggett, D.B. *In silico* predicted adverse effects of progestins on steroidogenic function in female fathead minnows (*Pimephales promelas*). SETAC - North America. Nashville, TN. Nov. 17-21.
- 2012 *Needham, S., **Petersen, L.H.**, Burleson, M. and Huggett, D.B. Functional role of β_3 -adrenergic receptors on *in vivo* cardiovascular function in rainbow trout (*Oncorhynchus mykiss*). UNT Scholars Day, Denton, TX. Apr. 19.
- 2011 Hala, D.N., **Petersen L.H.** and Huggett, D.B. Development of an abbreviated bioconcentration test using carp (*Cyprinus carpio*). Society of Environmental Toxicology and Chemistry (SETAC-North America). Boston, MA. Nov. 13-17.
- Petersen, L.H.** and Huggett, D.B. Cardiac and hepatic blood flow in rainbow trout (*Oncorhynchus mykiss*). HESI Bioaccumulation Workshop. Washington DC. Feb. 8-10. Invited speaker.
- 2010 Pace, W.L., Hala, D.N., **Petersen, L.H.**, Hagan Hughes, M. and Huggett, D.B. The interaction of nicotine and menthol in mice: *In vitro* and *in vivo* studies. Society of Toxicology. Salt Lake City, UT. March 8-11.
- 2009 **Petersen, L.H.**, Dzialowski, E.M. and Huggett, D.B. Cardiac and hepatic blood flows in rainbow trout (*Oncorhynchus mykiss*), channel catfish (*Ictalurus punctatus*) and common carp (*Cyprinus carpio*). SETAC-North America. New Orleans, LA. Nov. 19-23.
- Petersen, L.H.**, Paulos, P.M. and Huggett, D.B. Effect of progesterone on reproductive success in fathead minnows (*Pimephales promelas*) and Japanese medaka (*Oryzias latipes*). SETAC-North America. New Orleans, LA. Nov. 19-23.
- Hala, D.N., **Petersen, L.H.** and D.B. Huggett. Effects of synthetic progestins on steroidogenic feedback regulation in fish – ‘local’ vs ‘global’ dysregulation. SETAC-North America. New Orleans, LA. Nov. 19-23.
- Hala, D.N. **Petersen, L.H.** and D.B. Huggett. The effect of hypoxia on cholesterol uptake and steroidogenesis in fathead minnow. SETAC-North America. New Orleans, LA. Nov. 19-23.

Petersen, L.H., Paulos, P.M. and Huggett, D.B. Effects of progestins in fish: Implications for the management of emerging contaminants. NAHMMA. Houston, TX. Nov. 9-13.

Petersen, L.H. and Gamperl, A.K. A comprehensive examination of the effects of chronic hypoxia on the cardiorespiratory physiology of Atlantic cod (*Gadus morhua*). Society of Experimental Biology. Annual meeting. Glasgow, Scotland. June 27-July 2.

Petersen, L.H. and Huggett, D.B. Functional role of β_3 -Adrenergic receptors on in vivo cardiac function in freshwater teleosts. Society of Experimental Biology. Annual meeting. Glasgow, Scotland. June 27-July 2.

2008 **Petersen, L.H.**, G.F. Gomez and Huggett, D.B. Effects of medroxyprogesterone and progesterone on larval growth and survival in fathead minnows (*Pimephales promelas*). SETAC-North America. Tampa, FL. Nov 16-20.

Petersen, L.H., Dzialowski, E.M. and Huggett, D.B. Novel cardiac and hepatic blood flow data in fish: critical information for bioconcentration/bioaccumulation modeling. SETAC-North America. Tampa, FL. Nov 16-20.

Petersen, L.H., Dzialowski, E.M. and Huggett, D.B. Cardiac and hepatic blood flow in fish: critical information for bioconcentration/bioaccumulation modeling. SETAC. Sydney, Australia. Aug 3-7.

Gamperl, A.K. and **Petersen, L.H.** Chronic hypoxic effects on the physiology of Atlantic cod (*Gadus morhua*): Adaptation of compromised function? International Congress on the Biology of Fish. Portland, OR. July 28-Aug 1.

Petersen, L.H., Dzialowski, E.M. and Huggett, D.B. Cardiovascular parameterization in fish: Essential information for bioconcentration/bioaccumulation modeling. Warsaw. Poland. May 25-29.

2007 Gamperl, A.K., Pérez-Casanova, J.C., Afonso, L.O.B., Currie, S., Canada, P., **Petersen, L.H.** and Gollock, M.J. The acute temperature tolerance of Atlantic cod *Gadus morhua*: A comprehensive examination using multiple indices. Aquaculture. San Antonio, TX. March 1-2.

Petersen, L.H. The effect of chronic hypoxia on swimming performance and cardiovascular function in Atlantic cod (*Gadus morhua*). Invited speaker. University of North Texas, Denton, TX. July 17.

Lurman, G., **Petersen, L.H.**, Pörtner, H.O. and Gamperl, A.K. Cardiac function in Atlantic cod (*Gadus morhua*): Influence of acclimation temperature and acute thermal challenges. Society of Experimental Biology. Annual General Meeting. Glasgow, Scotland. March 31- April 4.

2006 **Petersen, L.H.**, Gollock, M.J., Currie, S. and Gamperl, A.K. The heart of the matter: Cardio-respiratory responses to environmental challenges in Atlantic cod (*Gadus morhua*). American Physiological Society, Intersociety meeting: Comparative Physiology. Virginia Beach, VA. Oct 7-11.

Petersen, L.H., Gollock, M.J., Currie, S. and Gamperl, A.K. Is the cardiorespiratory system of Atlantic cod (*Gadus morhua*) a limiting factor for survival in extreme environments? International Congress on the Biology of Fish. St. John's, NL. July 18-22.

- 2005 **Petersen, L.H.** and Gamperl, A.K. Does the cardiorespiratory system of Atlantic cod (*Gadus morhua*) adapt to chronic hypoxia? Canadian Society of Zoologists, Annual Meeting. Kingston, ON. May 10-14.
- Costa, I.A.S.F., **Petersen, L.H.**, Gamperl, A.K. The metabolic physiology and stress response of north Atlantic teleost species. Canadian Society of Zoologists, Annual Meeting. Kingston, ON. May 10-14.
- Gollock, M.J., Currie, S., **Petersen, L.H.**, Gamperl, A.K. Cardiovascular and haematological responses of Atlantic cod (*Gadus morhua*) to acute temperature increase. Canadian Society of Zoologists, Annual Meeting. Kingston, ON. May 10-14.
- Currie, S., Gollock, M.J., **Petersen, L.H.** and Gamperl, A.K. Cardiac function and blood oxygen carrying capacity only limit cod (*Gadus morhua*) oxygen consumption at high temperatures. Society of Experimental Biology, Annual General Meeting. Barcelona, Spain. July 11-15.
- Gamperl, A.K., **Petersen, L.H.**, Costa, I.A.S.F., Deitch, E., Fletcher, G., and Shears, M. Cardiorespiratory limitations on performance in fish. Society of Experimental Biology, Annual General Meeting. Barcelona, Spain. July 11-15.
- 2004 Costa, I.A.S.F., **Petersen, L.H.** and Gamperl, A.K. The metabolic physiology and stress response of north Atlantic teleost species. International Congress on the Biology of fish. Manaus, Brazil. Aug 1-5.
- Deitch, E., Costa, I.A.S.F., **Petersen, L.H.**, Shears, M., Fletcher, G. and Gamperl, A.K. Cardiorespiratory modifications, and limitations, in growth hormone transgenic Atlantic salmon (*Salmo salar*). International Congress on the Biology of fish. Manaus, Brazil. Aug 1-5.
- Petersen, L.H.** The effect of chronic hypoxia on exercise capacity and cardiovascular function in marine fishes: An interspecific comparison. Graduate student seminar series. Ocean Sciences Centre, Memorial University. St. John's, NL. July 14.
- Petersen, L.H.** The effect of chronic hypoxia on exercise capacity and cardiovascular function in marine fishes: An interspecific comparison. Aldrich Interdisciplinary Conference, Memorial University. St. John's, NL. Feb 1-2.

Awards, Grants and Honours

- 2019 Texas Parks and Wildlife Department. Measurement of steroid hormones to determine southern flounder (*Paralichthys lethostigma*) reproductive status. January 1, 2020 – December 31, 2021. \$ 150,000. PI Dr. Hala, Co-PI L.H. Petersen.
- Texas Comprehensive Research Fund. Measurement of metabolism in embryo/larval fishes and determination of larval fish morphology, cardiac development and behavior. \$51,104.80. PI Petersen, Co-PIs Dr. Hala.
- 2018 Texas Sea Grant Scholars Program. Awarded to Undergraduate Research Scholar Taylor Cubbage. "Effects of anthropogenic and environmental stressors on fish physiology". \$1,000. PI-Petersen.
- Texas Sea Grant Grants-in Aid of Graduate Research Program. Awarded to Ph.D. student Patricia Faulkner. "Effects of salinity on alligator physiology". \$2,000. PI-Petersen.

ACES scholarship. TAMUG. Awarded to undergraduate research student Taylor Cubbage. “Effects of anthropogenic and environmental stressors on fish physiology”. \$500. PI-Petersen.

- 2017 Texas Comprehensive Research Fund. Swim tunnel respirometers for studying fish cardiac and swimming performance, kinematics and effects of contaminants on fish physiology. \$45,066.05. PI Petersen, Co-PIs Drs. Marshall and Hala.
- 2016 Seeds funds. Marine Biology Department and Research and Graduate Studies Office, TAMUG. \$ 35,000.
Texas Sea Grant Grants-in Aid of Graduate Research Program. Awarded to Ph.D. student Patricia Faulkner. “Effects of salinity on alligator physiology”. \$ 1,600. PI-Petersen.
- 2003-2007 School of Graduate studies, Graduate Fellowship in Biology, Memorial University, \$7,000/year.
- 2006 American Physiological Society, Abstract Travel Award. \$500. The heart of the matter: Cardio-respiratory responses to environmental challenges in Atlantic cod (*Gadus morhua*).
- 2006 Student Travel Award, Graduate Student Union, Memorial University, \$250.
2006,05 Student Travel Award, Ocean Sciences Centre, Memorial University, \$400.
2006,05 Student Travel Award, Dean of Science, Memorial University, \$400.
- 2005 Student Travel Award, School of Graduate Studies, Memorial University, \$200.
- 1990 Danish Ministry of Environment. High School Science Group Award for “Clean water to you but how about your children?” \$10,000.

Service

- 2017-2019 Marine Biology Department Head Search Committee. TAMUG.
Honor’s Program Advisory Board. TAMUG.
Served on panel for Ocean Career Campers. Q&A session. June 26th 2018.
- 2016 Marine Mammalogist Search Committee. Marine Biology Department. TAMUG.
2015- Committee for Academic Program Review (APR).
Editorial board member – Journal of Marine Science and Research.
Reviewer for Comparative Biochemistry and Physiology, Fish Physiology and Biochemistry, Journal of Cardiology and Neurocardiovascular Diseases.
- 2013 Search committees for hiring of laboratory managers at University of North Texas.

Professional Development

- 2018 Active Learning In Engineering Program (ALEP) workshop. 2 Days, Galveston campus. August 23rd-24th.
- 2017 Teaching and Learning in Higher Education. Wakonse South Teaching Conference. March 31-April 2.

- 2011-2014 Hiring with PeopleAdmin; Making a good hire; Effective communication, Handling difficult conversations; FMLA: the mystery unravelled; Positive approach to conflict; Pcard guidelines and ePro coordinator. Courses offered by Human Resources Department.
- 2007 Teaching and Research: Dynamic Tensions. Instructional Development Office Workshop, Memorial University.
- 2006 From Syllabus to Final Grades: The Post-Secondary Learner in the Classroom. Instructional Development Office Workshop, Memorial University.
- Creating and Using a Teaching Portfolio. Instructional Development Office Workshop, Memorial University.
- Is PowerPoint™ Really Just “Eye Candy”? Instructional Development Office Workshop, Memorial University.
- Teaching Effectively In Large Classes. Instructional Development Office Workshop, Memorial University.
- Bridging the Gap: Enhancing Learning Outcomes for International Students. Instructional Development Office Workshop, Memorial University.
- Effective Facilitation of Online Learning. Instructional Development Office Workshop, Memorial University.
- Marine Areas Workshop. Canadian Parks and Wilderness Society, Newfoundland and Labrador Chapter. St. John's, NL.
- Grant Writing Workshop. Avalon Chapter of Sigma Xi and Dean of Science, Memorial University, St. John's, NL.
- Minisymposium, Danish Centre for Respiratory Adaptation at Department of Zoo Physiology, University of Aarhus, Denmark.

Synergistic Activities

- 2017 Invited speaker at NSF-REU luncheon, TAMUG. “Effects of environmental and anthropogenic stressors on animal physiology”.
- 2016 Invited speaker at Tri Beta Biological Society, TAMUG.
Undergraduate Student Research Symposium judge.
- 2008-2010 Volunteer for Texas Great Pyrenees Rescue (TGPR).
Volunteer for Denton Drug Disposal Day.
- 2007 Invited speaker. Women in Science and Engineering. Career night. Biology: A career in biology. Memorial University, St. John's, NL.
- 2006 Invited speaker. Women in Science and Engineering, Career night. Animal physiology: How animals work! Memorial University, St. John's, NL.
Volunteer at International Congress on the Biology of Fish. St. John's, NL.

Invited speaker. Shad Valley Memorial. Are animals limited by oxygen availability? Memorial University, St. John`s, NL.

2005 Demonstrator. Shad Valley Memorial. Demonstrated fish surgery and how to measure *in situ* cardiac function. Ocean Sciences Centre, Memorial University, St. John`s, NL.

2000 Head of Open House arrangement in Dr. Tariq Mustafa's laboratory in the ecophysiology group at Institute of Biology, SDU. Produced posters, automatic slide show and demonstrated the working trout heart preparation for the public.

Introduced prospective university students to research projects and facilities at the Institute of Biology, SDU.

Present and Past Professional Memberships

2016-	American Physiological Society (APS). American Heart Association (AHA)
2009-	Society of Experimental Biology (SEB).
2015	North American Society for Comparative Endocrinology (NASCE)
2011-2013	Association for Women in Science (AWIS)
2008-2015	Society of Environmental Toxicology and Chemistry (SETAC).
2005-2014	Canadian Society of Zoologists (CSZ)