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Department of Marine Biology
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Professional Experience:

2015 - Present **Texas A&M University at Galveston, TX, U.S.**
- Assistant Professor in Marine Biology.

2014 - 2015 **Wildlife International (Evans Analytical Group), Easton, MD, U.S.**
- Senior Biologist in Aquatic Toxicology.

2008 - 2014 **Department of Biology, University of North Texas, Denton, TX, U.S.**
- Postdoctoral Research Scientist in Environmental Toxicology.

2007 - 2008 **Institute for the Environment, Brunel University, London, U.K.**
- Research Assistant in Environmental Chemistry.

Education:

2002 - 2007 **Institute for the Environment, Brunel University, London, U.K.**
PhD: The reproductive effects of endocrine disrupting compounds (EDCs) on fish.

2001 - 2002 **University of Plymouth, Plymouth, U.K.**
Masters in Research (MRes) in Aquatic Ecotoxicology: The DNA-damaging potential of EDCs on the rainbow trout gonad (RTG-2) cell line.

1998 - 2001 **University of Wales, Bangor, U.K.**
Bachelor of Science (BSc) in Marine Biology and Oceanography

Peer-Reviewed Publications (# indicates TAMUG graduate students):

Faulkner P. C.[#], **Hala D.**, Rahman M. S. and Petersen L. H., (2019) Short-term exposure to 12$^{o}/_{oo}$ brackish water has significant effects on the endocrine physiology of juvenile American alligator (*Alligator mississippiensis*), *Comparative Biochemistry and Physiology Part A: Molecular & Integrative Physiology*, Vol. 236, 110531.

Cullen J. A.[#], Marshall C. and **Hala D.**, (2019) Integration of multi-tissue PAH and PCB burdens with biomarker activity in three coastal shark species from the northwestern Gulf of Mexico, *Science of the Total Environment*, Vol. 650, 1158-1172.

Hala D., Cullen J. A.[#], Hernout B. and Ivanov I., (2018) *In silico* Predicted Transcriptional Regulatory Control of Steroidogenesis in Spawning Female Fathead Minnows (*Pimephales promelas*), *Journal of Theoretical Biology*, Vol. 455, 179-190.

Faulkner P. C.[#], Burleson M. L., Simonitis L.[#], Marshall C. D., **Hala D.** and Petersen L. H., (2018) Effects of Chronic Exposure to 12 $^{o}/_{oo}$ Saltwater on the Endocrine Physiology of Juvenile American Alligator (*Alligator mississippiensis*), *Journal of Experimental Biology*, jeb181172.doi:10.1242/jeb.181172

Bacosa H. P., Kamalanathan M., Chiu M-H., Tsai S-M., Sun L., Labonte J., Schwehr K. A., **Hala D.**, Santschi P. H., Chin W-C. and Quigg A., (2018) Extracellular polymeric substances (EPS) producing and hydrocarbon degrading bacteria isolated from the northern Gulf of Mexico, *PLoS One*, Vol. 13, No. 12, e0208406

Hala D., (2017) *In silico* Predicted Reproductive Endocrine Transcriptional Regulatory Networks during Zebrafish (*Danio rerio*) Development, *Journal of Theoretical Biology*, Vol. 417, 51-60.

Carty D., **Hala D.** and Huggett D. B., (2017) The Effects of Sertraline on Fathead Minnow (*Pimephales promelas*) Growth and Steroidogenesis, *Bulletin of Environmental Contamination and Toxicology*, Vol. 98, 753-757.

Hala D., Petersen L. H., Martinović D. and Huggett D. B., (2015) Constraints-Based Flux Balance Analysis of Perturbed Steroidogenesis and Gonad Growth in Fathead Minnows (*Pimephales promelas*) Exposed to 17α-Ethynylestradiol, *Systems Biology in Reproductive Medicine*, Vol. 61, No. 3, 122-138.

Petersen L. H., **Hala D.**, Carty D., Cantu M., Martinović D. and Huggett D. B., (2015) Effects of Progesterone and Norethindrone on Female Fathead Minnow (*Pimephales promelas*) Steroidogenesis, *Environmental Toxicology and Chemistry*, Vol. 34, No. 2, 379-390.

Hala D. and Huggett D. B., (2014) *In Silico* Predicted Structural and Functional Robustness of Piscine Steroidogenesis, *Journal of Theoretical Biology*, Vol. 345, 99-108.

Overturf M., Overturf C., Carty D., **Hala D.** and Huggett D.B., (2014) Levonorgestrel Exposure to Fathead Minnows (*Pimephales promelas*) alters Survival, Growth, Steroidogenic Gene Expression and Hormone Production, *Aquatic Toxicology*, Vol. 148, 152-161.

Thiele I., Swainston N., Fleming R., Hoppe A., Gudmunsson S., Haraldsdottir H., Mo M., Rolfsson O., Stobbe M., Thorleifsson S., Agren R., Aurich M., Bölling C., Bordel S., Chavali A., Dobson P., Dunn W., Endler L., Goryanin I., **Hala D.**, Hucka M., Hull D., Jameson D., Jamshidi N., Jones J., Jonsson J., Juty N., Keating S., Ma H., Nookaew I., Novère N., Malys N., Mazein A., Papin J., Patel Y., Price N., Selkov E., Sigurdsson M., Simeonidis E., Sonnenschein N., Smallbone K., Sorokin A., Van Beek H., Weichart D, Westerhoff H., Kell D., Mendes P. and Palsson B., (2013) A Community-Generated Reconstruction of the Human Metabolic Network and its use for the Analysis of Omics Data, *Nature Biotechnology*, Vol. 31, 419-425.

Scrimshaw M., **Hala D.**, Okiemute A., Cartmell E. and Lester J., (2013) Removal Processes for Tributyltin During Municipal Wastewater Treatment, *Water Air Soil Pollution*, doi 10.1007/s11270-012-1400-5

Hala D., Huggett D. B. and Burggren W. W., (2012) Environmental Stressors and the Epigenome. *Drug Discovery Today: Technologies*. http://dx.doi.org/10.1016/j.ddtec.2012.05.004

Hala D., Petersen L. H., Martinović D. and Huggett D. B., (2012) Constraints-based Stoichiometric Analysis of Hypoxic Stress on Steroidogenesis in Fathead Minnows (*Pimephales promelas*). *Journal of Experimental Biology*, Vol. 215, 1753-1765.

Overturf M. D., Overturf C. L., Baxter D., **Hala D. N.**, Constantine L., Venables B. and Huggett D. B., (2012) Early Life-Stage Toxicity of Eight Pharmaceuticals to the Fathead Minnow, *Pimephales promelas*, *Archives of Environmental Contamination and Toxicology*, Vol. 62, No. 3, 455-464.

Hala D., Overturf M. D., Petersen L. H. and Huggett D. B., (2011) Quantification of 2-Hydrazinopyridine Derivatized Steroid Hormones in Fathead Minnow (*Pimephales promelas*) Blood Plasma using LC-ESI+/MS/MS, *Journal of Chromatography B*, Vol. 879, 591-598.

Hala D., Amin A., Mikler A. and Huggett D.B., (2010) A Constraint-Based Stoichiometric Model of the Steroidogenic Network of Zebrafish (*Danio rerio*), *Journal of Biological Systems*, Vol. 18, 669-685.

Hala D., Bristeau S., Dagnac T. and Jobling S., (2010) The Unexpected Sources of Organotin Contamination in Aquatic Toxicological Laboratory Studies, *Aquatic Toxicology*, Vol. 96, 314-318.

Hala D., Van Look K., Holt W. and Jobling S., (2009) Validation of a Method for Measuring Sperm Quality and Quantity in Reproductive Toxicity with Pair-Breeding Male Fathead Minnows (*Pimephales promelas*), *Institute of Laboratory Animal Research*, Vol. 50, No. 4,E1-10.

Ziolko D., **Hala D.**, Lester J. and Scrimshaw M., (2009) The Effectiveness of Conventional Trickling Filter Treatment Plants at Reducing Concentrations of Copper in Wastewaters, *Science of The Total Environment*, Vol. 407, 6235-6241.

Runnalls T., **Hala D.** and Sumpter J., (2007) Preliminary Studies into the Effects of the Human Pharmaceutical Clofibric Acid on Sperm Parameters in Adult Fathead Minnow, *Aquatic Toxicology*, Vol. 84, No. 1, 111-118.

Schulte-Oehlmann U., Albanis T., Allera A., Bachmann J, Berntsson P., Beresford N., Carnevali D.C., Ciceri F., Dagnac T., Falandysz J., Galassi S., **Hala D.**, Janer G., Jeannot R., Jobling S., King I., Klingmüller D., Kloas W., Kusk K. O., Levada R., Lo S., Lutz I., Oehlmann J., Oredsson S., Porte C., Rand-Weaver M., Sakkas V., Sugni M., Tyler C., van Aerle R., van Ballegoy C. and Wollenberger L., (2006) COMPRENDO: Focus and Approach, *Environmental Health Perspectives*, Vol. 114, 98-100.

Conference Presentations (Invited Talks):

Hala D., Integrated Transcriptional-Regulatory and Flux Analysis Models of Piscine Steroidogenesis, *SETAC North America*, Minneapolis, Minnesota, November 12th-16th 2017.

Hala D., Pharmaceuticals in the Environment: Sources, Fate and Impacts, *Clean Water Fund*, Dallas, September 17th 2016.

Hala D., Petersen L. H., Martinović D. and Huggett D. B., Stoichiometric Pathway Analysis of Steroidogenesis in Fathead Minnows (*Pimephales promelas*), *Canadian Ecotoxicity Workshop*, Saskatoon, Canada, October 4th-7th 2015.

Hala D. and Huggett D. B., Stoichiometry of Steroidogenesis: Towards Understanding Optimal Design and Function, *SIAM Conference on Parallel Processing for Scientific Computing*, Portland, Oregon, February 18th-21st 2014.

Hala D. and Huggett D. B., Systems Biology of the Steroidogenic Network in Zebrafish (*Danio rerio), SETAC North America*, Portland, Oregon, November 7th-11th 2010.

Teaching:

2015 – present **Texas A&M University at Galveston, TX, U.S.:**
Undergraduate Level (MARB#414): Toxicology (4 credit).
Undergraduate Level (MARB#406): Life in Extreme Environments (3 credit).
Undergraduate Level (MARB#482): Seminar (1 credit).
Graduate Level (MARB#668): Marine Evolutionary Biology (team-taught).
Undergraduate/Graduate Level (VTPP#489-689): Relational Biology Models and the Machine Metaphor (guest-lecture)

Teaching Innovation: Developed an interactive computer game using the NetLogo program to teach ecosystem population dynamics to visiting (Sea Camp) high school students (Summer 2019).

Student Mentorship (Graduate Level):

2016 – present	Patricia Faulkner, PhD, Chair
2016 – present	Joshua Cullen, PhD, Co-Chair (graduated 6/19)
2017 – 2018	Jeff Plumlee, Masters, Committee member (graduated 6/18)
2017 – 2018	Andrea Garcia, Masters (non-thesis), Committee member (graduated 6/18)

2018 – present	Joshua Leleux, Masters, Chair
2019 – present	Rayna Nolen, PhD, Chair
2019 – present	Yu Umeki, PhD, Chair
2020 – present	Olivia Thibault, PhD, Chair

Student Mentorship (Undergraduate Level):

2015	Candice Janecka, Undergraduate Research Hours (MARB#491)
2016	Whitney Jefferies, Undergraduate Research Hours (MARB#491)
2016 – 2017	Monica Dilley, Undergraduate Research (MARB#491 and MARS#460/461)
2016	Sydney Zetterberg, Bachelors Honors Project (MARB#414)
2017	Robin Beam, Bachelors Honors Project (MARB#406)
2017	Joshua Leleux, Undergraduate Research Hours (MARB#491)
2018	Kyle Donnelly, Bachelors Honors Project (MARB#414)
2018	Eleazar Hernandez II, NSF REU Program
2018	Andrew Turner, TPWD Summer Intern Program
2018 – 2019	Michael 'Chase' Lawson, ACES scholar (co-supervised with Dr. Gil Rowe)
2018 – 2019	Jordan Lynch, LSAMP scholar (co-supervised with Dr. Jay Rooker)
2019 – 2020	Mikelee Brink, Undergraduate Research Hours (MARB#491)
2019 – 2020	Kristina Simons, Undergraduate Research Hours (MARB#491)

Institutional Service:

2016 – present: Undergraduate student advising. ~2 hours per week for 4 weeks each semester.

2017 and 2018: Served as search committee member for two Instructional Assistant Professor positions in MARB.

2017: Served on organizing committee for the second Southeast Texas Evolutionary Genetics and Genomics (STEGG) symposium at TAMUG.

2018: Undergraduate research mentor for a minority (Hispanic) student, Eleazar Hernandez II, through the NSF-funded Research Experiences for Undergraduates (REU) program.

2018 – 2019: Served as search committee member for an Instructional Assistant Professor in Mathematics positions in Foundational Sciences.

2018 – present: Managing the Institutional Effectiveness assessment program (AEFIS) for reporting on educational learning outcomes for MARB programs.

2019: Committee member for the Marine Biology Graduate Program.