Curriculum vitae

JONE CORRALES, Ph.D.

CONTACT INFORMATION

Florida International University
Biscayne Bay Campus, AC – 211
3000 NE 151 ST, North Miami, FL 33181
305-919-4123, 305-919-5869
Email: jone.corrales@fiu.edu

DEMOGRAPHICS

Country of citizenship: USA
Ethnicity: Hispanic
Gender: Female

EDUCATION

Ph.D.

NORTH CAROLINA STATE UNIVERSITY, Raleigh, NC
College of Veterinary Medicine
Doctor of Philosophy, Comparative Biomedical Sciences, Infectious Disease

Doctoral Dissertation Title: Antimicrobial Polypeptides, Piscidins and Histone-Like Proteins, in Important Aquacultured Fish and the Effect of Nutrition on their Expression and Susceptibility to Infection in Hybrid Striped (Sunshine) Bass (*Morone saxatilis* m. x *M. chrysops* f.)

B.S.

UNIVERSITY OF MIAMI, Miami, FL
Bachelor of Science, Marine Science & Biology, Minor: Chemistry
University of Miami General Honors
Departmental Honors in Marine Science

PROFESSIONAL EXPERIENCE

Apr 2018 – Present

FLORIDA INTERNATIONAL UNIVERSITY, Southeast Environmental Research Center
Research Assistant Professor

Research interests include in general the study of adverse effects of environmental stressors on aquatic animals. More specifically, she is interested in studying how environmental contaminants and toxicants affect the immune system in fish and in turn alter susceptibility to infection and disease. She works with ecologically relevant fish species in addition to working with fish models such as zebrafish, which serves as both an ecologically relevant model and human health model.

Reference: Prof. Todd Crowl, Director of the Institute of Water and Environment, tcrowl@fiu.edu, 305-348-4094

Jan 2016 BAYLOR UNIVERSITY, Department of Environmental Science
Aug 2017 ***Research Scientist***
Managed research laboratory in a leadership position; assisted advising graduate and undergraduate students; conducted comparative aquatic toxicology studies using fish models towards the design of safer chemicals and the advancement of green chemistry; elucidated perturbations of contaminants of emerging concern (CEC) on aquatic ecosystems at various levels of biological organization.
Reference: Prof. Bryan Brooks, Bryan_Brooks@baylor.edu, (254) 710-6553

Dec 2013 BAYLOR UNIVERSITY, Department of Environmental Science
Dec 2015 ***Postdoctoral Research Associate***
Conducted comparative aquatic toxicology studies toward in vitro to in vivo extrapolation and green chemistry: Elucidation of sustainable molecular design guidelines for next-generation molecules with reduced hazard of oxidative stress responses in fish models.
Reference: Prof. Bryan Brooks, Bryan_Brooks@baylor.edu, (254) 710-6553

Jan 2012 UNIVERSITY OF MISSISSIPPI, Department of BioMolecular Sciences -
Oct 2013 Environmental Toxicology Research Program
Postdoctoral Research Associate
Conducted fish toxicity studies: Multigenerational epigenetic, transcriptomic, reproductive, and developmental effects of benzo(a)pyrene in zebrafish.
Reference: Prof. Kristine Willett, kwillett@olemiss.edu, (662) 915-6691

Jun 2010 UNIVERSITY OF MISSISSIPPI, National Institute for Undersea Science and
Dec 2011 Technology - Environmental Toxicology Research Program
Postdoctoral Research Associate
Conducted studies focused on *marine toxicology*: Shotgun proteomics to study the effects of environmental stressors such as the Deepwater Horizon oil spill in marine organisms such as oysters and seagrass.
Reference: Prof. Kristine Willett, kwillett@olemiss.edu, (662) 915-6691

Jun 2009 GROVE FARM FISH & POI LLC DBA HUKILAU FOOD
May 2010 ***Aquatic Animal Health Consultant***
Provided aquaculture health screen services to ensure the highest quality of healthy moi, Pacific threadfin, production for Hukilau Foods, the first open ocean farm in the U.S.; performed biopsies including gill clips, fin clips, skin scrapes, internal organ tissue squashes; prepared as needed bacterial cultures, tissues for histology, histopathological evaluations of tissues prepared by the University of Hawai'i; advised on best management practices to enhance optimal fish health.
Reference: Ryan Murashigue, Hatchery Manager,
rmurashige@hukilaufoods.com, (808) 841-4956

May 2009 HAWAI'I PACIFIC UNIVERSITY, Hawai'i Loa Campus
July 2009 ***Adjunct Faculty***
Taught university level introductory biology; lectured in the core principles of biology; offered students intending to major in a field related to biological science a basic primer of modern biology pertaining to the structure and function of cells and organisms.
Reference: Prof. Brenda A. Jensen, bjensen@hpu.edu, (808) 236-5853

Jan 2009 UNIVERSITY OF HAWAI'I, Hawai'i Institute of Marine Biology
Sep 2009 ***Research Volunteer***
Participated in studies of the neuroendocrine system which regulates development and physiology in fish and coordinates their interactions with their environment. These studies are based on the idea that reproduction, development, immune function and environmental adaptation are regulated through the orderly release of hormones by the neuroendocrine system, which integrates information from genes and the environment.
Reference: Prof. E. Gordon Grau, grau@hawaii.edu, (808) 956-7031

Jan 2003 NORTH CAROLINA STATE UNIVERSITY, College of Veterinary Medicine
May 2008 ***Manager of Fish Facilities***
Managed fish facilities for Professor Edward J. Noga; maintained fish facilities for scientific research focused on studying stress and immunity of fish especially aquacultured species; transported fish from farms to university facilities; duties included interviewing, hiring, training, and supervising fish technicians; oversaw husbandry duties such feeding fish, water quality testing, tank cleaning, observing changes in behavior; made diagnoses and treated fish.
Reference: Prof. Edward J. Noga, sagonej@gmail.com

Jun 2001 MIAMI-DADE COUNTY DEPARTMENT OF ENVIRONMENTAL RESOURCES
May 2002 MANAGEMENT (DERM)
Biologist I - Coastal Resources Section, Natural Resources Division
Enforced provisions of the Miami-Dade County Environmental Protection Ordinance, specifically Chapter 24-58.1, which estates that a Class I permit is required for any kind of work (dredging, filling, seawall repair, dock construction, installation of boatlifts, etc.) in, on, over, or upon any tidal waters, bay bottom lands or in wetlands supporting halophytic vegetation; enforced and issued Class I permits for the trimming, cutting, and alteration of mangrove trees.
Reference: Lee Hefty, hefty@miamidade.gov, (305) 372-6575, (305) 372-6789

Oct 1998 MIAMI-DADE COUNTY DEPARTMENT OF ENVIRONMENTAL RESOURCES
Jun 2001 MANAGEMENT (DERM)
Pollution Control Inspector I - Compliance Section, Enforcement Division
Investigated public complaints impacting the environment and infringing Chapter 24, Miami-Dade County Environmental Protection Ordinance; inspected, tested,

and evaluated facilities and activities potentially violating the Ordinance.
Reference: Sonia Rosado, rosads@miamidade.gov, (305) 372-6789

Feb 1998 UNIVERSITY OF MIAMI, University of Miami Experimental Hatchery
Sep 1998 ***Hatchery Assistant***
Reared juvenile red drum, *Sciaenops ocellatus*, as part of the Red Drum Project directed by the Florida Department of Environmental Protection (FDEP) to be released into Biscayne Bay, Florida; conducted daily water quality analysis, cleaned tanks to minimize poor water quality and optimize conditions to prevent infection, fed fish, graded fish according to size, and tagged fish prior to release; monitored percentage of viable egg production of sea trout; assisted in the aplysia (sea hare) lab; assisted with morphological measurements of billfish larva.
Reference: Thomas Capo, tcapo@rsmas.miami.edu, (305) 361-4946

Sep 1995 UNIVERSITY OF MIAMI, Rosenstiel School of Marine and Atmospheric Sciences
Sep 1998 ***Research Assistant***
Assessed morphological abnormalities and examined histopathology samples in pinfish, *Lagodon rhomboides*, gray snapper, *Lutjanus griseus*, sea bream, *Archosargus rhomboidalis*, white grunt, *Haemulon plumieri*, and bluestriped grunt, *Haemulon sciurus*; used data as bioindicators of various sites in Biscayne Bay, FL; assisted maneuvering boats; collected and identified fish in the field; extracted blood and dissected fish; prepared samples for histology; conducted total protein and serum lysozyme assays and protein electrophoresis; studied abnormal scale growth (most prevalent morphological abnormality in Biscayne Bay); collaborated in experimental designs and data analysis and interpretation; published (Corrales, J., L.B. Nye, S. Baribeau, N.J. Gassman & M.C. Schmale. 2000. Characterization of scale abnormalities in pinfish, *Lagodon rhomboides*, from Biscayne Bay, Florida. Env. Biol. Fish. 57:205-220).
Reference: Michael Schmale, mschmale@rsmas.miami.edu, (305) 361-4000

PUBLICATIONS

Peer-reviewed Articles

1. Saari GN, **Corrales J**, Haddad SP, Chambliss CK, Brooks BW. 2018. Influence of diltiazem on fathead minnow across dissolved oxygen gradients. Environmental Toxicology and Chemistry, Submitted.

2. Van den Brink PJ, Boxall A, Maltby L, Brooks BW, Murray R, Backhaus T, Spurgeon DJ, Verougstraete V, Ajao C, Ankley G, Apitz S, Arnold K, Brodin T, Cañedo-Argüelles M,Chapman J, **Corrales J**, Coutellec MA, Fernandes T, Fick J, Ford A, Giménez Papiol G, Groh K, Hutchinson T, Kruger H, Kukkonen J, Loutseti S, Marshall S, et al. (2018) Towards Sustainable Environmental Quality: Priority Research Questions for Europe. Environmental Toxicology and Chemistry. 9999:1–15. https://doi.org/10.1002/etc.4205.

3. Haddad SP, Luek A, Scott WC, Saari GN, Burket SR, Kristofco LA, **Corrales J**, Rasmussen JB, Chambliss CK, Luers M, Rogers C, Brooks BW (2018) Spatio-temporal bioaccumulation and trophic transfer of ionizable pharmaceuticals in a semi-arid urban river influenced by snowmelt. Journal of Hazardous Materials 359: 231–240.

4. Steele WB, Kristofco LA, **Corrales J**, Haddad SP, Saari G, Kostal J, Voustchkova-Kostal A, Gallagher E, Kavanagh T, Zimmerman J, Anastas P, Brooks BW (2018) Comparative behavioral toxicology of two common larval fish models: Exploring relationships among modes of action and locomotor responses. Science of the Total Environment 640: 1587–1600.

5. Furley TH, Brodeur J, Silva de Assis HC, Carriquiriborde P, Chagas KR, **Corrales J**, Denadai M, Fusch J, Mascarenhas R, Miglioranza KSB, Carames DMM, Navas JM, Nugegoda D, Planes E, Rodriguez-Jorquera IA, Orozco-Medina M, Boxall ABA, Rudd MA, Brooks BW (2018) Toward sustainable environmental quality: Identifying priority research questions for Latin America. Integrated Environmental Assessment and Management. DOI: **https://doi.org/10.1002/ieam.2023**

6. Mellor KE, Coish P, Brooks BW, Gallagher EP, Mills M, Kavanagh TJ, Simcox N, Lasker GA, Botta D, Voutchkova-Kostal A, Kostal J, Mullins ML, Nesmith SM, **Corrales J**, Kistofco LA, Saari GN, Steele WB, Melnikov F, Zimmerman JB, Anastas PT (2018) Gamification of green chemistry and safer chemical concepts for high school and undergraduate students. Green Chemistry Letters and Reviews 11, DOI: https://doi.org/10.1080/17518253.2018.1434566

7. Coish P, Broojs BW, Gallagher EP, Mills M, Kavanagh TJ, Simcox N, Lasker GA, Botta D, Schmuck SC, Voutchkova-Kostal A, Kostal J, Mullins ML, Nesmith SM, Mellor KE, **Corrales J**, Kistofco LA, Saari GN, Steele WB, Shen LQ, Melnikov F, Zimmerman JB, Anastas PT (2017) The molecular Design research network. Toxicological Sciences 161: 241–248.

8. **Corrales J**, Kristofco LA, Steele WB, Saari GN, Kostal J, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Simcox N, Shen LQ, Melnikov F, Zimmerman JB, Voutchkova-Kostal AM, Anastas PT, and Brooks BW (2016) Towards the design of less hazardous chemicals: Exploring comparative oxidative stress in two common animal models. Chemical Research in Toxicology 30: 893–904. DOI: 10.1021/acs.chemrestox.6b00246

9. Alharthy KM, Albaqami FF, Thornton C, **Corrales J**, and Willett KL (2016) Mechanistic evaluation of benzo[a]pyrene's developmental toxicities mediated by Cyp19a1b inhibition. Toxicological Sciences. DOI: 10.1093/toxsci/kfw182

10. **Corrales J**, Kristofco LA, Steele WB, Yates BS, Williams ES, and Brooks BW (2015) Global assessment of bisphenol a in the environment: review and analysis of its occurrence and bioaccumulation. Dose-Response: An International Journal. DOI: 10.1177/1559325815598308

11. Fang X*, **Corrales J***, Thornton C, Clerk T, Scheffler BE, and Willett KL (2015) Transcriptomic changes in zebrafish embryos and larvae following benzo(a)pyrene exposure. Toxicological Sciences; doi: 10.1093/toxsci/kfv105. *Authors contributed

equally.

12. **Corrales J**, Fang X, Thornton C, Mei W, Barbazuk WB, Duke M, Scheffler BE, and Willett KL (2014) Effects on specific promoter DNA methylation in zebrafish embryos and larvae following benzo[a]pyrene exposure. Comparative Biochemistry and Physiology, Part C 163: 37–46.
13. **Corrales J**, Thornton C, White M, and Willett KL (2014) Multigenerational effects of benzo[a]pyrene exposure on survival and developmental deformities in zebrafish larvae. Aquatic Toxicology 148: 16–26.
14. Fang X, **Corrales J**, Thornton C, Scheffler BE, and Willett KL (2013) Global and gene specific DNA methylation changes during zebrafish development. Comparative Biochemistry and Physiology, Part B 166: 99–108.
15. Slattery M, Ankisetty S, **Corrales J**, Marsh-Hunkin KE, Gochfeld DJ, Willett KL, and Rimoldi JM (2012) Marine Proteomics: A critical assessment of an emerging technology. Journal of Natural Products 75: 1833–1877.
16. **Corrales J** and Noga EJ (2011) Effects of feeding rate on the expression of antimicrobial polypeptides and on susceptibility to *Ichthyophthirius multifiliis* in hybrid striped bass (*Morone saxatilis* ♂ x *M. chrysops* ♀). Aquaculture 318: 109–121.
17. Noga EJ, Ullal AJ, **Corrales J**, and Fernandes JMO (2011) Antimicrobial polypeptide host defense to aquaculture: Exploitation of downregulation and upregulation responses. Comparative Biochemistry and Physiology, Part D 6: 44–54.
18. Park NG, Silphaduang U, Moon HS, Seo JK, **Corrales J**, and Noga EJ (2011) Structure-activity relationships of piscidin 4, a piscine antimicrobial peptide. Biochemistry 50: 3288–3299.
19. **Corrales J**, Mulero I, Mulero V, and Noga EJ (2010) Detection and quantification of antimicrobial peptides related to piscidin 4 in important aquacultured fish. Developmental and Comparative Immunology 34: 331–343.
20. **Corrales J**, Gordon WL, and Noga EJ (2009) Development of an ELISA for quatification of the antimicrobial peptide piscidin 4. Fish and Shellfish Immunology 27: 154–163.
21. **Corrales J**, Ullal A, and Noga EJ (2009) Lateral line depigmentation (LLD) in channel catfish, *Ictalurus punctatus* (Rafinesque). Journal of Fish Diseases 32: 705–712.
22. **Corrales J**, Nye LB, Baribeau S, Gassman NJ, and Schmale MC (2000) Characterization of scale abnormalities in pinfish, *Lagodon rhomboides*, from Biscayne Bay, Florida. Environmental Biology of Fishes 57: 205–220.

Manuscripts in Preparation

1. McRae N, **Corrales J**, Kristofco LA, Saari GN, Burket SR, Glover C, Gaw S, and Brooks BW. Effects of the nonsteroidal anti-inflammatory drug, diclofenac, in zebrafish and fathead minnow: oxidative stress and behavior. (Inpreparation)

2. **Corrales J**, Thornton C, White M, Willett KL. Multigenerational effects of benzo(a)pyrene exposure on reproduction and gonad development in zebrafish larvae. (In preparation)

Invited Talks

1. **Department of Environmental Science**, **Baylor University**, Waco, TX, February 2017. "Sustainability Science a Gateway to a Sustainable Society: The Role of Green Chemistry in Toxicology."
2. **Bayou Preservation Association Symposium**, Houston, TX, October 2016. "Emerging water quality issues – challenges on the horizon we have not addressed yet."
3. **Environmental Health Science Program**, **Baylor University**, Waco, TX, March 2015. "Evaluating stressor responses in aquatic organisms."
4. **Department of Biological Sciences**, **California State University Long Beach**, Long Beach, CA, February 2015. "Evaluating stressor responses in aquatic organisms."
5. **Department of Environmental Science**, **Baylor University**, Waco, TX, October 2013. "Evaluating stressor responses in aquatic organisms."
6. **Department of Pharmacology**, **University of Mississippi**, Oxford, MS, November 2011. "Discovery proteomics in marine organisms: A tool to monitor the effect of environmental stressors on biological function and fitness."

Conferences (most recent)

1. **Corrales J**, Kristofco LA, Saari GN, Steele WB, Voutchkova-Kostal A, Kavanagh TJ, Gallagher EP, Anastas P, Brooks BW. Dimethyl Sulfoxide (DMSO), a widely-used solvent in aquatic toxicology, effects on oxidative stress, inflammatory and DNA damage response genes, and behavior in zebrafish and fathead minnow: How much is too much solvent? The 56th Annual Meeting of the Society of Toxicology, 12-16 March 2017, Baltimore, MD.
2. **Corrales J**, Kristofco LA, Saari GN, Steele WB, Voutchkova-Kostal AM, Kavanagh TJ, Gallagher EP, Anastas P, Brooks BW. How much is too much? Comparative oxidative stress and behavioral responses to dimethyl sulfoxide, a widely-used solvent in aquatic toxicology. The 7th Society of Environmental Toxicology and Chemistry World Congress/37th Annual North American Society of Environmental Toxicology and Chemistry Meeting, 6-10 November 2016, Orlando, FL.
3. **Corrales J**, Kristofco LA, Steele WB, Saari GN, Mills M, Gallagher EP, Kavanagh TJ, Simcox N, Shen LQ, Beach E, Melnikov F, Kostal J, Zimmerman JB, Voutchkova-Kostal A, Anastas P, Brooks BW. Exploring comparative oxidative stress toxicity in two common animal models: towards the design of less hazardous chemicals. The 7th Society of Environmental Toxicology and Chemistry World Congress/37th Annual North American Society of Environmental Toxicology and Chemistry Meeting, 6- 10 November 2016, Orlando, FL.
4. Steele, WB, Kristofco LA, **Corrales J**, Haddad SP, Brooks BW. Comparative behavioral response patterns of two common larval fish models. The 7th Society of Environmental

Toxicology and Chemistry World Congress/37th Annual North American Society of Environmental Toxicology and Chemistry Meeting, 6-10 November 2016, Orlando, FL.

5. **Corrales J**, Kristofco LA, Steele WB, Saari GN, Kostal J, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Simcox N, Shen LQ, Melnikov F, Zimmerman JB, Voutchkova-Kostal AM, Anastas PT, Brooks BW. Towards the design of less hazardous chemicals: Exploring comparative oxidative stress in two common animal models. Lone Star Society of Toxicology Regional Chapter, 21-22 October, 2016, Waco, TX.

6. Steele WB, Kristofco LA, **Corrales J**, Haddad SP, Brooks BW. Comparative behavioral response patterns of two common larval fish models. Lone Star Regional Meeting of the Society of Toxicology Regional Chapter, 21-22 October 2016, Waco, TX.

7. Steele, WB, Kristofco LA, **Corrales J**, Brooks BW. Comparative behavioral toxicology of two fish models. The 26th Annual European Society of Environmental Toxicology and Chemistry Meeting, 22-26 May 2016, Nantes, France.

8. **Corrales J**, Kristofco LA, Steele WB, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Shen LQ, Melnikov F, Kostal J, Voutchakova-Kostal A, Anastas P, Brooks BW. Does a fish model matter? Comparative toxicology of oxidative stress toxicity in zebrafish and fathead minnows. South Central Regional Society of Environmental Toxicology and Chemistry Meeting, 22-24 April 2016, Fort Worth, TX.

9. **Corrales J**, Kristofco LA, Steele WB, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Shen LQ, Melnikov F, Kostal J, Voutchkova-Kostal AM, Anastas PT, Brooks BW. Does a fish model matter? Comparative toxicology of oxidative stress toxicity in zebrafish and fathead minnows. The 55th Annual Meeting of the Society of Toxicology, 13-17 March 2016, New Orleans, LA.

10. Steele WB, Kristofco LA, **Corrales J**, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Shen LQ, Melnikov F, Kostal J, Voutchkova-Kostal AM, Anastas PT, Brooks BW. Towards less hazardous industrial chemicals: Comparative behavioral toxicology of two common fish models. The 55th Annual Meeting of the Society of Toxicology, 13-17 March 2016, New Orleans, LA.

11. Alharthy K, Thornton C, **Corrales J**, Willett KL. Estradiol co-exposure rescues CERTAIN benzo[a]pyrene- and CYP19a1b knockdown- mediated developmental phenotypes in zebrafish. The 55th Annual Meeting of the Society of Toxicology, 13-17 March 2016, New Orleans, LA.

12. **Corrales J**, Kristofco LA, Steele WB, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Simcox N, Shen LQ, Beach E, Melnikov F, Kostal J, Zimmerman JB, Voutchkova- Kostal A, Anastas P, Brooks BW. Comparative toxicology of the zebrafish and fathead minnow models: Understanding oxidative stress toxicity to design less hazardous chemicals. The 36th Annual North American Society of Environmental Toxicology and Chemistry Meeting, 1-5 Nov 2015, Salt Lake City, UT.

13. Steele WB, Kristofco LA, **Corrales J**, Mills M, Williams ES, Shen LQ, Kostal J, Voutchkova-Kostal A, Anastas P, Kavanagh TJ, Gallagher EP, Brooks BW. Towards less hazardous

industrial chemicals: Comparative behavioral toxicology of two fish models. The 36th Annual North American Society of Environmental Toxicology and Chemistry Meeting, 1-5 Nov 2015, Salt Lake City, UT.

14. Saari GN, Haddad SP, Chambliss K, **Corrales J**, Brooks BW. The acute and chronic effects of diltiazem in the fathead minnow (*Pimephales promelas*) across dissolved oxygen gradients. The 36th Annual North American Society of Environmental Toxicology and Chemistry Meeting, 1-5 Nov 2015, Salt Lake City, UT.
15. **Corrales J**, Kristofco LA, Steele WB, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Simcox N, Shen LQ, Beach E, Melnikov F, Kostal J, Voutchkova-Kostal A, Zimmerman JB, Anastas P, Brooks BW. Oxidative stress toxicity in zebrafish and fathead minnow: towards the design of safer chemicals. The 11th Biennial Latin American Society of Environmental Toxicology and Chemistry Meeting, 7-10 Sep 2015, Buenos Aires, Argentina.
16. **Corrales J**, Kristofco LA, Steele WB, Yates BS, Williams ES, Brooks BW. Global assessment of bisphenol A in the environment: a review of sources, fate and bioaccumulation. The 11th Biennial Latin American Society of Environmental Toxicology and Chemistry Meeting, 7-10 Sep 2015, Buenos Aires, Argentina.
17. Saari GN, Haddad SP, Chambliss K, **Corrales J**, Brooks BW. The acute and chronic effects of diltiazem in the fathead minnow (*Pimephales promelas*) across dissolved oxygen gradients. Annual Meeting of the Society of Environmental Toxicology and Chemistry – South Central Regional Chapter, 28-30 May 2015, Lafayette, LA.
18. **Corrales J**, Kristofco LA, Steele WB, Yates BS, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Simcox N, Shen LQ, Beach E, Melnikov F, Kostal J, Voutchkova-Kostal A, Zimmerman JB, Anastas P, Brooks BW. Oxidative stress toxicity a gateway for the design of safer chemicals using two model fish species: zebrafish and fathead minnow. The 25th Annual European Society of Environmental Toxicology Meeting, 3-7 May 2015, Barcelona, Spain.
19. **Corrales J**, Brooks BW. Examining Immune Adverse Outcome Pathways and Alternative Endpoints of Relevance to Aquatic Toxicology and Ecological Risk Assessment. The 35th Annual North American Society of Environmental Toxicology and Chemistry Meeting, 9-13 Nov 2014, Vancouver, CA.
20. Kristofco LA, **Corrales J**, Williams ES, Mills M, Gallagher EP, Kavanagh TJ, Simcox N, Shen LQ, Anastas P, Brooks BW. Environmental probabilistic hazard assessments of ToxCast Phase I and II data related to oxidative stress assays. EPA ToxCast Summit 29-30 Sep 2014, Research Triangle Park, NC.

GRANT PROPOSALS

University Research Committee Small and Mid-range Grants Program Baylor University
Expression of Defense Genes Post-Chemical Exposure in Early Life Stages
$6500, Jan 15 – May 31 2017.

RESEARCH-RELATED SPECIALIZED COURSES

Sep 14 – 19, 2012 Killifish Genome Annotation Workshop and Meeting, Mount Desert Island Biological Laboratory, ME – *coordinated by Andrew Whitehead*
The aim is to manually annotate the killifish genome. This workshop will provide excellent training in the analytical tools and approaches that lie at the forefront of bioinformatics and comparative genomics research while promoting cross-disciplinary collaborations.

June 3 – Aug 3, 2006 Aquatic Animal Health and Disease, Hawai'i Institute of Marine Biology, HI – *coordinated by Teresa Lewis*
The objective was to understand the pathological processes and health management techniques relating to the etiology, diagnosis, and treatment of important aquatic animal diseases and to conduct individual student projects. Species found locally in Hawai'i were emphasized.

June 7 – 18, 2004 Diseases of Warm Water Fish, University of Florida, FL
coordinated by Ruth Francis-Floyd
This two-week course focused on diagnosis and treatment of parasitic, bacterial, viral, nutritional and environmental diseases of warm water fish.

July 23 – 25, 2003 Fish Health Management, North Carolina State University, NC
coordinated by Greg Lewbart
The course focused on principles of ornamental fish management.

PROFESSIONAL DEVELOPMENT COURSES AND SEMINARS

Mar 17-19, 2016 Fracking Workshop: SETAC North America Focused Topic Meeting: Environmental Quality Implications of Unconventional Natural Gas. University of North Texas - Institute of Applied Science, Denton, TX – *coordinated by Prof. Bryan Brook and the Society of Environmental Toxicology and Chemistry*.

Oct 13, 2014 Professional development webinar: Diseases of barramundi (Asian seabass) - developing good disease management strategies*, coordinated by The World Aquatic Veterinary Medical Association (WAVMA)*
Dr. Susan Gibson-Kueh discussed the economic significance of barramundi in the aquaculture industry, described pathogens that cause high mortalities to larvae, fry and adults, and identified good practice management strategies to prevent infection and disease.

Sep 17, 2014 Professional development webinar: Environmental Extremes and In vitro- In vivo Scaling of Trifluralin Bioconcentration in Sheepshead Minnows (*C. variegatus*), *coordinated by The Health and Environmental Sciences Institute (HESI)*
Irv Schultz presented data on the bioaccumulation and clearance of trifluralin in sheepshead minnows.

Sep 24, 2013 Faculty development workshop: Writing more effective grant proposals – *coordinated by the Office of Research and Sponsored Programs, University of Mississippi*
Mr. Jason Hale discussed strategies to write proposals.

Sep 24, 2013 Faculty development workshop: Locating funding opportunities for grants – *coordinated by the Office of Research and Sponsored Programs, University of Mississippi*
Mrs. Helen Kiss presented internal and external sources for funding announcements including Pivot-COS.

Sep 19, 2013 Faculty development workshop: Overview of budgeting for grant proposals – *coordinated by the Office of Research and Sponsored Programs, University of Mississippi*
Mrs. Lesha Agnew-Hampton discussed federal regulations, how to prepare a budget and what direct costs, indirect costs, indirect rate, cost share, fringe benefits, and participant support costs consist of.

Oct 31, 2012 Faculty development seminar: Current trends in instructional technology – *coordinated by the Center for Excellence in Teaching and Learning, University of Mississippi*
Mr. Jimmy Ball, Deputy Chief Information Officer for Academic Computing, presented current instructional technology support services across universities.

Oct 2, 2012 Faculty development seminar: Developing teaching portfolios for instructional improvements and career advancement – *coordinated by the Center for Excellence in Teaching and Learning, University of Mississippi*
The seminar was presented by Dr. Paul Quick, Coordinator of Faculty and TA Development/Adjunct Professor of English. Center for Teaching and Learning, University of Georgia.

Sep 11, 2012 Webinar: 137th Meeting of the National Advisoty Environmental Health Sciences Council – *coordinated by NIEHS*
The importance of using zebrafish to advance environmental health sciences was discussed.

Aug 13 – 15, 2012 Instructor Workshops, University of Mississippi, MS – *coordinated by the Graduate School and the Center for Excellence in Teaching and Learning* The workshops discussed Bloom's revised taxonomy of teaching and focused on teaching techniques such as team learning exercises (think- pair-share, role play, wikis), how to build an effective lecture, and using case studies & discussions. Rubrics and evaluation techniques were also discussed.

Feb 17-18, 2012 Science Meeting, University of Mississippi –Making sense of the omics data deluge. Midsouth Computational Biology & Bioinformatics Society.

Nov 29, 2011 Webinar: NIH Pathway to Independence Award (K99/R00) – *coordinated by NIH*
The panelists described in detail all aspects leading to grant submission from who is eligible, explaining the two parts (K99 and R00) of the award, duration of the award, administrative forms (budget), to scientific research strategy including significance, innovation, and approach.

Spring, 2011 Campus Resources in Bioinformatics Series, University of Mississippi, MS *coordinated by John Bentley*
The faculty discussed type of current resources to do statistical analysis on campus, the necessary transparency in the availability of bioinformatics resources, and the need to address the increasing demand of courses for students at both undergraduate and graduate levels.

TEACHING

Baylor University

Spring 2016 – Spring 2017	ENV 4344 Fundamentals of Toxicology (Immunotoxicology)
Summer 2016	Green Chemistry/Aquatic Toxicology Teacher Workshop, Phase II
Spring 2016	BIC 2447 Natural World II (Green Chemistry and Ecotoxicology)
Summer 2015	Green Chemistry/Aquatic Toxicology Teacher Workshop, Phase I

Hawai'i Pacific University

Department of Natural Sciences

2009	BIOL 2050	General Biology I
2009	BIOL 2052	General Biology II

College of Veterinary Medicine, North Carolina State University

2007 VMC 953 Special Species Medicine

MENTORSHIP EXPERIENCE

Graduate Student Research Contribution

2018 – Present Florida International University, Southeast Environmental Research Center, Ecotoxicology Lab: Tiffany Yanez, Master Student.

2014 – 2017 Baylor University, Department of Environmental Science: Lauren Kristofco, Ph.D. student; Gavin Saari, Ph.D. student; Baylor Steele, Ph.D. Student; Casan Scott, Ph.D. Student; Bridget Hill, Master Student.

2010 – 2013 University of Mississippi, Department of Pharmacology and Environmental Toxicology Research Program: Meghan Dailey, M.S.; Frank Booc, M.S.; Adam Hawkins, Ph.D.; and Khalid Alharty, Ph.D.

Undergraduate Student Research Supervision

2018 Florida International University, Southeast Environmental Research Center, Ecotoxicology Lab: Rose Santana during NFS-funded Research Experience for Undergraduates program.

2016 – 2018 Yoomin Jo, Environmental Health Sciences, University Scholars, Honors Program, Baylor University: advised student formulating her honors thesis and completion of scientific research.

2014 Nicholas Adams and Leah Botkin, Baylor University Summer Science Research Program students, Baylor University, Department of Environmental Science: formulated a project for students and taught them all phases of scientific research from experimental design to laboratory experiments, biochemical work, statistical analyses, and platform presentation preparation.

2012 Kathryn Mislan, School of Pharmacy Summer Fellowship Program, University of Mississippi.

2011 – 2013 Mallory White, Honors College Thesis, University of Mississippi.

2005 – 2007 Ashley Rawls, Undergraduate Research. Graduated with B.S. continued with Nurse Practitioner studies. North Carolina State University.

2004 – 2006 Sarah Miller, Undergraduate Research. Obtained B.S. and D.V.M. North Carolina State University.

SERVICE

Peer-Review

Journals: *Aquatic Toxicology*, *Critical Reviews in Toxicology*, *Ecotoxicology, Environmental Research, Environmental Science & Technology, Environmental Science and Pollution Research, Environmental Toxicology and Chemistry*, *Toxicological Sciences*, *Toxicology Research*, *Fish Physiology and Biochemistry*, and *Journal of Animal Science*

Professional Societies

2016 – Present **Member**, Society of Environmental Toxicology and Chemistry (SETAC) North America, Career Development Committee, Leadership Sub-committee, Women in SETAC Luncheon Sub-committee; a committee responsible for developing and supporting efforts of career networking, leadership workshops, including special events focused on early career scientists, women in science, and senior scientist resources.

2017 – 2018 Present **Session Chair**, Society of Environmental Toxicology and Chemistry (SETAC) North America, 38th and 39th Annual Meetings; chaired presentations in the immunotoxicology session.

Institutional and Intramural Service

2017 **Mentor** and **Role Model** for Children's Museum of Houston Latina SciGirls Program, Water Quality Workshop.

2016 – Present **Mentor** and **Role Model** for Latina SciGirls events coordinated by Tricia Berry, Director of Women in Engineering Program at the University of Texas Austin.

2015 – 2016 **Evaluator**, Invitation to Excellence, Baylor University; a special program designed for high-achieving high school seniors who are interested in fields of study such as Environmental Science. I served as an evaluator/moderator during an exercise that the students had to formulate a response plan to a hypothetical environmental disaster.

2014 – Present **Member** and **Mentor**, FabFems.org, directory of the national database of women in science, technology, engineering and mathematics (STEM) professions who serve as role models for young women. The FabFems Project is led by the National Girls Collaborative Project.

2014 **Guest Speaker**, SciGirls Club "DreamBoards" at La Vega Intermediate School HP Miles Campus. Educational program led by Melissa Mullins, Environmental Education Specialist at Baylor University.

2011 **Participant**, Center for Ocean Sciences Education Excellence, Central Gulf of Mexico, Deepwater Horizon Oil Spill Research Forum

2011 – 2013 **Judge**, Mississippi Region VII Science Fair

Media

2016 **Guest**, National Public Radio KWBU Station of Waco, TX, Story on "At Baylor, High School Teachers Are Learning About Green Chemistry", http://kwbu.org/post/baylor-high-school-teachers-are- learning-about-green-chemistry

International Service

2013 **Discussion Panel Member**, Lauro Ikastola High School, Basque Country, Spain, Science Week, Session on 'Day to Day Job Duties of a Research Scientist'.

SKILLS AND PRACTICE EXPERIENCE

Molecular biology and histopathology

Epigenetics: DNA methylation
Gene expression: transcriptomics (RNASeq), qRT-PCR
Protein quantification: label-free LC-MS/MS proteomics, ELISA development, immunoblotting
Bioinformatics: omics data analysis, pathways analysis
Bactericidal assays and pathogenic challenges
Enzyme and biochemical assays
Histology: tissue preparation for H&E and IHC
Microscopy: histopathology, morphometrics
Image analysis: ImageJ by NIH Image

Standard laboratory procedures

Common EPA and OECD protocols for regulatory applications
Mentoring and training of lab technician and undergraduate and graduate students
Protocol development for future general lab use

Aquaculture

Fish Disease Diagnosis and Treatment
Management of fish facilities for research & stock enhancement program

Teaching

University level lectures
Veterinary medicine school lab lectures and exercises – assistant

Diving

Open Water, May 1995
Advanced Diving, August 1996

Languages

Fluent in English, Spanish, and Basque