

Carmen Nichols, Ph.D.

Franciscan Missionaries of Our Lady University
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Education

2013 Doctor of Philosophy – Biology
University of North Texas; Denton, TX
*Investigation of the pharmacokinetics of diazepam in juvenile channel catfish (*Ictalurus punctatus*)*

2008 Master of Science – Pharmaceutical Science
University of Louisiana at Monroe; Monroe, LA
*Investigation of the multixenobiotic resistance mechanism (MXR) in the freshwater fishes western mosquitofish (*Gambusia affinis*) and bluegill sunfish (*Lepomis macrochirus*)*

2006 Bachelor of Science – Toxicology
Minor- Chemistry
University of Louisiana at Monroe; Monroe, LA

Work Experience

2021-Pres. Director – Forensic Science Certificate Program
Associate Professor – Dept. of Biology
Franciscan Missionaries of Our Lady University; Baton Rouge, LA
Teach courses as needed, conduct research, perform administrative duties, and provide service to the university.

2020-2021 Assistant Professor – Dept. of Biology
River Parishes Community College; Gonzales, LA
Teach courses as needed, perform administrative duties, and provide service to the college.

2019-2020 Adjunct Instructor – Dept. of Biology
Dillard University; New Orleans, LA
Teach courses as needed for the department.

2016-2018 Assistant Professor – Dept. of Biology
West Virginia State University; Institute, WV
Teach courses as needed, conduct research, perform administrative duties, and provide service to the university.

2015-2016 Toxicologist
GHD Services, Inc.; Baton Rouge, LA
Reviewed environmental impact statements & assessments, conducted ecological surveys, prepared, edited & reviewed technical documents, and reviewed experimental data & biological field surveys for litigation.

2014-2015 Adjunct Instructor – Dept. of Biology
University of North Texas; Denton, TX
Teach courses as needed for the department.

2013-2015 Postdoctoral Research Assoc. – Dept. of Biology
University of North Texas; Denton, TX
Conducted research associated with the NRDA of the Deepwater Horizon oil spill – managed & organized multi-agency research projects, managed large data sets associated with litigation, and maintained chain of custody & confidentiality. Managed & advised graduate and undergraduate students in the laboratory.

Teaching Experience

2021-Pres. Franciscan Missionaries of Our Lady University; Baton Rouge, LA
BIOL: Principles of Biology I/II (majors), Criminalistics, Anatomy & Physiology Laboratories I/II, Ecology
CHEM: Bioinorganic Chemistry, Toxicology, Forensic Chemistry

2020-2021 River Parishes Community College; Gonzales, LA
General Biology I & II and Laboratories (non-majors)
Principles of Biology I & II and Laboratories (majors)

2019 Dillard University; New Orleans, LA
General Biology II (majors) & Biological Sciences I (non-majors)

2017 West Virginia State University; Institute, WV
Environmental Toxicology & Freshman Experience

2013-2014 University of North Texas; Denton, TX
Principles of Biology I (majors)

2010-2013 University of North Texas; Denton, TX
Principles of Biology Laboratory I/II & Honors (majors)

Service

2021-Pres. Franciscan Missionaries of Our Lady University
IACUC Committee Member (22-Pres)
Research & Scholarship Committee (24-Pres)
Chi Sigma Pi Student Organization – Faculty Advisor (23-Pres)
Faculty Senate Executive Board – Corresponding Secretary (23-24)
Chair of Search Committee - A&P Lab Coordinator (2025)

2020-2021 River Parishes Community College
Recruitment Committee Member
Marine and Environmental Biology Club Faculty Advisor

2016-2018 West Virginia State University
Development of curriculum for the National Science Foundation (NSF) funded EPSCoR summer camp
Search committee member for Chemical Hygiene Officer
WVSU Office of Sponsored Programs – Committee Member
Dr. James E. Brimhall RESA II Science Bowl – Judge

2013-2018 Journal Reviewer
Environmental Monitoring & Assessment
Environmental Toxicology and Chemistry
Ecotoxicology
Comparative Biochemistry and Physiology Part C

Professional Organizations

2025-Pres Society of Forensic Toxicology (SOFT) - Associate Member

2025-Pres American Academy of Forensic Sciences (AAFS) - Assoc. Member

2025-Pres. Council of Forensic Science Educators (COFSE) - Member

2024-Pres Louisiana Association of Forensic Scientists (LAFS) - Member

2006-2018 Society of Environmental Toxicology and Chemistry (SETAC)

2017-2018 SETAC Ohio Valley Regional Chapter
Board of Directors; Social Media Committee Member

2016-2017 SETAC Chesapeake Potomac Regional Chapter
Event Planning Committee Member

2009-2018 Association for Women in Science (AWIS)

2009-2015 SETAC South Central Regional Chapter – Student Representative

2006-2013 Society of Toxicology (SOT)

Publications

AW Wormington, J Coral, MM Alloy, **CL Damaré**, CM Mansfield, SJ Klaine, AP Roberts (2017). Effect of natural organic matter on the photo-induced toxicity of titanium dioxide (TiO₂) nanoparticles. *Environmental Toxicology & Chemistry* 36(6): 1661-1666.

CL Overturf, MD Overturf and DB Huggett (2016). Bioconcentration and endocrine disruption effects of diazepam in channel catfish, *Ictalurus punctatus*. *Comparative Biochemistry and Physiology Part C* 183-184: 46-52.

KN Bridges, BK Soulen, **CL Overturf**, PE Drevnick, AP Roberts (2015). Embryotoxicity of maternally-transferred methylmercury to fathead minnow (*Pimephales promelas*). *Environmental Toxicology and Chemistry* 35(6): 1436-1441.

CL Overturf, AM Wormington, KN Blythe, AS Mount, NV Gohad and AP Roberts (2015). Toxicity of noradrenaline, a novel anti-biofouling component, to two non-target zooplankton species, *Daphnia magna* and *Ceriodaphnia dubia*. *Comparative Biochemistry and Physiology Part C* 171: 49-54.

MD Overturf, **CL Overturf**, DR Carty, D Hala and DB Huggett (2014). Levonorgestrel exposure to fathead minnows (*Pimephales promelas*) alters survival, growth, steroidogenic gene expression and hormone production. *Aquatic Toxicology* 148: 152-161.

MD Overturf, **CL Overturf**, D Baxter, DN Hala, L Constantine, B Venables and DB Huggett (2011). Early Life Stage Toxicity of Eight Pharmaceuticals to the Fathead Minnow, *Pimephales promelas*. *Archives of Environmental Contamination and Toxicology* 62(3): 455-464.

CL Damaré, AK Kaddoumi and KN Baer (2009). Investigation of the Multixenobiotic Resistance Mechanism in the Freshwater Fishes Western Mosquitofish, *Gambusia affinis*, and Bluegill Sunfish, *Lepomis macrochirus*. *Bulletin of Environmental Contamination and Toxicology* 83(5): 640-643.

Grants

CD Nichols (In Progress). Deciphering the Metabolic Pathway of Xylazine in Human Liver Microsomes: Implications for Opioid Co-Exposures. NIH-NIDA.

CD Nichols (2024). Awarded Sr. Veronica Dorgan Endowed Professorship for Forensic Science Program Enhancement: \$19,000.

AW Wormington, CL Overturf, and AP Roberts (2014). Awarded an undergraduate EPA GRO grant to research titanium dioxide nanoparticles in aquatic species. (Directly coordinated with the undergraduate student to prepare and write the proposal).

M Grosell, W Burrgren, D Crossley, A Eshbaugh, D Schlenk, and AP Roberts (2014). Awarded Gulf of Mexico Research Initiative (GoMRI) for Relationship of Effects of Cardiac Outcomes in Fish for Validation of Ecological Risk (RECOVER) (Assisted with writing AP Roberts portion): \$2,700,000.

Presentations

CD Nichols (2025). Deciphering the Metabolic Pathway of Xylazine in Human Liver Microsomes: Implications for Opioid Co-Exposures. Presentation at the FranU Research & Scholarship Showcase: Baton Rouge, LA.

V Winter and CD Nichols (2025). Acute Toxicity of Fentanyl and Xylazine in *Daphnia magna*. Presentation at the FranU Research & Scholarship Showcase: Baton Rouge, LA.

V Winter and CD Nichols (2024). The Pharmacokinetics of Xylazine in Human Liver Microsomes. Presentation at the FranU Research & Scholarship Showcase: Baton Rouge, LA.

E Landry and CD Nichols (2024). Cytotoxicity from Polydrug Exposures of a Benzodiazepine and Opioid. Presentation at the FranU Research & Scholarship Showcase: Baton Rouge, LA.

E Landry and CD Nichols (2024). Cytotoxicity from Polydrug Exposures of a Benzodiazepine and Opioid. Presentation at the Louisiana Association of Forensic Scientists (LAFS): Marksville, LA.

JM Morris, M Alloy, KN Bridges, CL Damaré, TR Garner, M Gielazyn, S Hook, M Krasnec, CR Lay, J Lipton, J Oris, J Stoeckel, L Sweet and AP Roberts (July 2017). Photo-enhanced Toxicity of Oil to Aquatic Organisms: Photo-sensitization, Photo-modification and Modeling. Presentation at Pollutant Responses in Marine Organisms (Primo) Symposium: Matsuyama, Japan.

CR Lay, D Cacela, J Lipton, JM Morris, AP Roberts, M Alloy, CL Damaré, T Garner, J Oris, M Gielazyn (February 2017) Photo-induced toxicity of Deepwater Horizon oil: applications and future directions. Poster presentation at Gulf of Mexico Oil Spill & Ecosystem Conference: New Orleans, LA

JM Morris, H Forth, C Lay, R Takeshita, M Krasnec, J Lipton, T Lindsey, F Galvez, MM Alloy, CL Overturf, TR Garner, AP Roberts, E Mager, J Stieglitz, C Pasparakis, Z Yao, DD Benetti, M Grosell, E Chesney, K O'Shaughnessy, B Woodall, JP Roberts, M Boulais, A Volety (November 2015). Toxicity of Very Thin Surface Slicks of Deepwater Horizon Oil to Gulf of Mexico Fish and Invertebrate Embryos and Larvae. Platform presentation at the SETAC North America 36th Annual Meeting: Salt Lake City, UT

AM Wormington, AP Roberts and CL Overturf (November 2015). Photo-induced Toxicity and Interaction of Titanium Dioxide (TiO₂) Nanoparticles with Natural Organic Matter (NOM) in Aquatic Systems. Platform presentation at the SETAC North America 36th Annual Meeting: Salt Lake City, UT

CL Overturf, AP Roberts (2014). Investigation of the Apoptosis Mechanisms Following Photoinduced Toxicity in Sheepshead Minnow (*Cyprinodon variegatus*). Poster presentation at the SETAC North America 35th Annual Meeting: Vancouver, BC

AM Wormington, K Blythe, CL Overturf, A Mount, N. Gohad, AP Roberts (2014). Toxicity of the Novel Anti-Biofouling Agent Noradrenaline to *Daphnia magna*. Poster presentation at the SETAC North America 35th Annual Meeting: Vancouver, BC

CL Overturf, MD Overturf and DB Huggett (2014). Bioconcentration and Endocrine Disruption Effects of Diazepam in Channel Catfish, *Ictalurus punctatus*. Poster presentation at the SETAC Regional Annual Meeting: San Marcos, TX

CL Overturf and DB Huggett (2013). In vitro Biotransformation and Bioconcentration of a Model Benzodiazepine, Diazepam, in Channel Catfish (*Ictalurus punctatus*). Poster presentation at the SETAC North America 34th Annual Meeting: Nashville, TN

CL Overturf and DB Huggett (2012). In vitro Metabolism of Diazepam in Channel Catfish

(*Ictalurus punctatus*). Poster presentation at the International Society for the Study of Xenobiotics (ISSX) North America 18th Regional Annual Meeting: Dallas, TX

CL Overturf and DB Huggett (2011). In vitro Metabolism of Diazepam in Channel Catfish (*Ictalurus punctatus*). Poster presentation at the SETAC North America 32nd Annual Meeting: Boston, MA

CL Overturf and DB Huggett (2011). In vitro Metabolism of Diazepam in Channel Catfish (*Ictalurus punctatus*). Poster presentation at the Society of Toxicology (SOT) North America 50th Annual Meeting: Washington, DC

CL Overturf, CF Gomez and DB Huggett (2009). In vitro Metabolism of Selected Pharmaceuticals in the Intestine of Rainbow Trout (*Oncorhynchus mykiss*). Poster presentation at the SETAC North America 30th Annual Meeting: New Orleans, LA

CL Damaré, MD Overturf, and KN Baer. Investigation of the Multixenobiotic Resistance Mechanism in the Freshwater Fish, *Gambusia affinis*. Platform presentation at the Louisiana of Academy of Sciences 82nd Annual Meeting: Northwestern State University, LA (2008)

MD Overturf, CL Damaré, RE Spinks, MD McCoole, and KN Baer (2008). Modulation of Sex Ratios in the Freshwater Invertebrate, *Daphnia magna*, Following Multigenerational Exposure to Treated Domestic Sewage Effluent. Poster presentation at the SETAC Mid-South Regional Annual Meeting: Vicksburg, MS.

CL Damaré, MD Overturf, and KN Baer (2008). Investigation of the Multixenobiotic Resistance Mechanism in the Freshwater Fish, *Gambusia affinis*. Platform presentation at the SETAC MidSouth Regional Annual Meeting: Vicksburg, MS

CL Damaré and KN Baer (2008). Investigation of the Multixenobiotic Resistance (MXR) Mechanism in Selected Aquatic Species. Poster presentation at the SETAC North America 29th Annual Meeting: Tampa, FL