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64 Research Articles

1,581 Citations

\$10.4 M Research Funding

### **Research Interests**

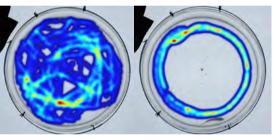
Environmental Toxicology and Bioanalytical Chemistry

Natural Marine Products Chemical Ecology Combinatorial Exposure Studies Response to Climate-Driven Stressors Environmental and Physiological Drivers of Harmful Algal Blooms

## **Experimental Capabilities**

Behavior of Aquatic Organisms Bioactive Compound Identification Algal & Mammalian Cell Culture Metabolomics, Proteomics, Transcriptomics Biomarker Discovery

Biomarker Discovery
Ultra Performance Liquid
Chromatography
Mass Spectrometry



Behavioral effects of ciguatoxins on fish swimming. (Left) control diet; (right) fish fed a ciguatoxin diet.

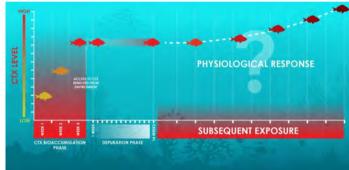
typical cell *K. brevis* salinity >20 ppt

Morphol chang

spherical cell *K. brevis*salinity <20 ppt

Morphology
change

Effect of salinity on the red tide organism *Karenia* brevis has potential consequences for monitoring and management.



Conceptual model of ciguatoxin toxicokinetics from experimental exposure studies and modeled data.

#### 2021 Toxins

"Depuration Kinetics and Growth Dilution of Caribbean Ciguatoxin in the Omnivore Lagodon Rhomboides: Implications for Trophic Transfer and Ciguatera Risk"

#### 2023 Chemosphere

"Novel Algal Ciguatoxin Identified as Source of Ciguatera Poisoning in the Caribbean"

# 2021 Chemical Research in Toxicology

"In Vitro Glucuronidation of Caribbean Ciguatoxins in Fish: First Report of Conjugative Ciguatoxin Metabolites"

#### 2023 Marine Drugs

"Gambierone and Sodium Channel Specific Bioactivity are Associated with the Extracellular Metabolite Pool of the Marine Dinoflagellate Coolia palmyrensis"

#### 2024 Harmful Algae

"Cigua MOD I: A Conceptual Model of Ciguatoxin Loading in the Greater Caribbean Region"

