



Department of

# BIOLOGICAL SCIENCES

Clemson® University

## Note from the Chair



Saara J. DeWalt, Chair

Happy December! The fall semester has flown by, and we are already preparing for final exams, wrapping up projects and getting ready to celebrate our December graduates.

Just a few months ago, we welcomed six new faculty to Biological Sciences: [Subham Dasgupta](#), [Jason Fridley](#), [Qing Liu](#), [Krissa Skogen](#), [Norm Wickett](#) and [Kelly Willemsens](#). Below you will meet two of them — biologists who study the effects of toxicants on human health. We are currently searching for one more toxicologist and are busily renovating research lab space in Jordan Hall for our new hires. I've heard it said that if you don't see construction happening, it means things are stagnating. If that is the case, then all the dust in Jordan Hall means we are thriving!

We also celebrated several promotions this past year, which is testament to the amazing work our faculty and staff are doing. Congratulations to new professors [Barbara Campbell](#) and [Jeremy Tzeng](#), senior lecturer [Nora Espinoza](#), and principal lecturers [John Cummings](#), [Christine Minor](#) and [Krista Rudolph](#)!

We couldn't achieve excellence in teaching, research and outreach without our dedicated faculty, staff, students, alumni and friends.

As always, thank you for all you do to support Biological Sciences!

**Best regards,  
Saara**

Please visit our [Facebook](#) page or follow us on [Twitter](#) or [Instagram](#) for weekly news about our students, alumni, faculty and staff. Email us with any questions/comments/suggestions at [BiolSci@clemson.edu](mailto:BiolSci@clemson.edu).

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It was wonderful to see so many alumni, friends and family at Explore Science. BioSci curators and students enjoyed showcasing collections and interactive displays from the Bob and Betsy Campbell Museum of Natural History. If you couldn't make it to Homecoming this year, we hope to see you next year!

## Meet Our New Toxicology Faculty

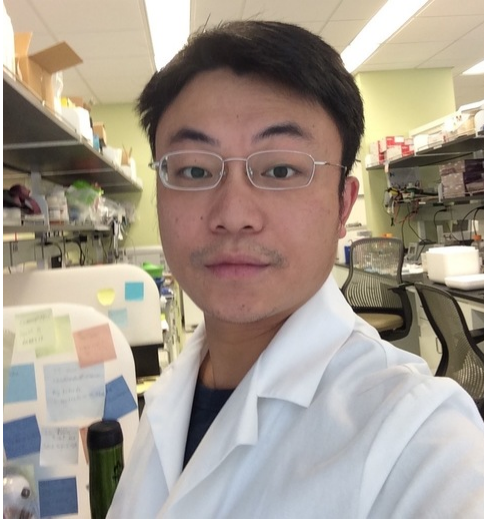


### Subham Dasgupta

I am from Kolkata, India and received my Ph.D. in marine sciences from Stony Brook University, New York. My lab uses zebrafish as a model to study molecular underpinnings of short- and long-term health effects caused by developmental chemical exposures. I look forward to fostering a fun lab group and advancing the field of toxicological sciences as well as the missions of BioSci. I am also keeping my fingers crossed that my lab folks will share my proclivity towards eating.

### Qing Liu

I grew up in China and received my Ph.D. in molecular toxicology from the University of Wisconsin-Milwaukee. Before joining Clemson, I was an instructor at Stanford University School of Medicine. My research at Clemson is focused on how to use human stem cells to understand cardiovascular diseases and toxicology. I feel lucky to have moved to such a warm and beautiful place as Clemson!



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## Biological Sciences Research



**Antonio Baeza — with his marine biology students — has discovered a tiny parasite that has implications for the fishing industry and, in some ways, the future of our planet.**

Landings of the commercially lucrative Caribbean spiny lobsters have decreased over the past decade. Scientists have several possible reasons — overfishing, declining water quality, global climate change and environmental degradation. Caribbean spiny lobsters live in coral reefs, and many coral reefs in the Florida Keys and Caribbean are dying at dramatic rates.

The tiny ribbon-like worm Baeza discovered also could contribute.



Baeza and his students are conducting research into the parasite's behavior, including how it eats the eggs and mates. In addition, they are trying to ascertain how climate change and pollution effects could differ for the parasites and the host lobsters.

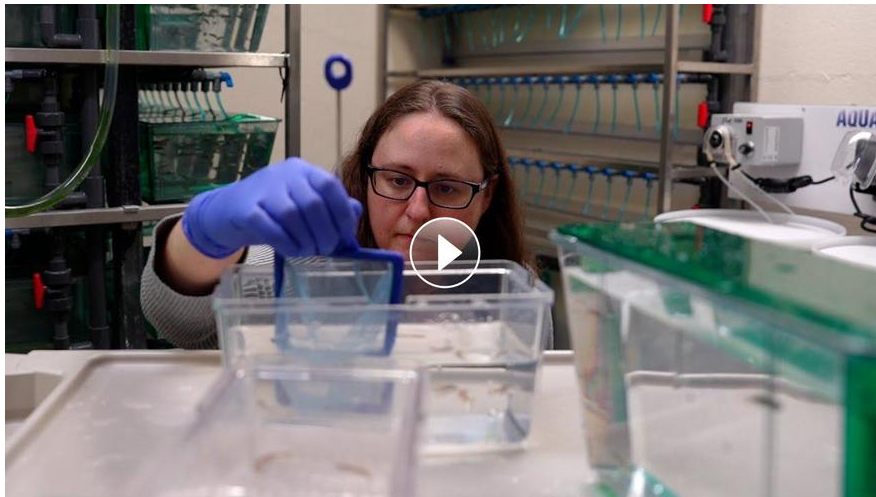
[Read the entire Clemson World feature \(includes videos\).](#)

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## Research Highlights



Senior biological sciences major Lauren Bulik conducted summer research in the Florida Keys, focusing on the impact of marine debris on coral communities.



Research by Assistant Professor Emily Rosowski is supported by the National Institutes of Health and will lead to precision therapies for inflammatory diseases.



Assistant Professor Anna Seekatz is investigating ways to manipulate gut microbiota to improve human health and prevent diseases like *C. diff*.

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## Alumni in the Spotlight

- A multi-generation dentistry! **Alan Owings** (B.S pre medicine '89), Rebecca Sam (B.S. nursing '86) and Allison Owings Bass (B.S. nursing '18).
- **Jennifer Manning** (B.S. biological sciences '95) has been named SVP of Global Strategic Partnerships at the Center for Breakthrough Medicines.
- **Ashley Rickey** (B.S. microbiology '06) and Josh Rickey (B.S. biochemistry '05) met in medical school, married and now are both surgeons at Novant Health in Winston-Salem, North Carolina. She is a vascular surgeon. He does general and robotic surgery.
- **Kiandra Scott** (B.S. microbiology '11) joined the Lexington Medical Center and Lexington Surgery where she will specialize in breast and general reconstructive surgical care.
- **Namrata Sengupta** (Ph.D. environmental toxicology '16) recently opened the Broad Discovery Center, a public educational space that showcases how researchers around the world are seeking to understand and treat human disease. The Center has five galleries, where visitors can immerse themselves in interactive and informative exhibits. Sengupta is the associate director of the Center.
- **Gabrielle Godfrey** (B.S microbiology '20), **Stephanie LaPlaca** (Ph.D. environmental toxicology '21) and **Melissa Heintz** (Ph.D. environmental toxicology '20) published an article about their environmental outreach program, What's in Our Waters Jr. (WOW Jr.), in The American Biology Teacher.
- **Hayley Hassler** (M.S. microbiology '21) and Vince Richards published the research that Hayley began work on as an undergrad and finished during her M.S.!
- **Maggie Musick** (Ph.D. biological sciences '22) has been selected as an NIH T32 Fellow in Reyland and Cramer's Training Program in Cancer Biology at the University of Colorado Anschutz Medical Campus where she will be researching molecular alterations related to estrogen receptor activity and estrogen-dependent tumorigenesis in invasive lobular carcinoma (ILC).
- **Rhett Rautsaw** (Ph.D. biological sciences '22) created VenomMaps, a database and web application containing updated distribution maps and niche models for all 158 pit viper species living in North, Central and South America.

**We want your alumni news!** Got an accomplishment to share? Working on an exciting new project? Starting a new company? We want to hear about it! Share your professional or educational news updates with the College of Science using our **online submission form**. Your news may be featured on our website, social media or in this space in our next newsletter.

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