Note from the Chair

Greetings from Clemson! We hope you are enjoying a beautiful fall wherever you are. As we close out this semester and 2020, we continue to prioritize health and safety while pushing forward to achieve our vision to be nationally recognized for our excellence in discovery, inquiry-based learning, signature student experiences, fostering understanding of life and encouragement of individual growth.

I am sure you will join me in thanking our faculty and staff for what they do every day to deliver signature experiences for our students. Our department handled the shift to online classes and lab experiences expertly in March and has continued to provide high-quality, engaging experiences throughout the summer and fall. About 10 years ago, we started an online Master's degree in Biological Sciences designed for K-12 teachers and other educators, and many of our faculty teach in this program. Little did we know how well it was preparing us for 2020 when we would be delivering lectures and labs online. We welcomed two new faculty, Julia George, Ph.D., and Cassandra May, Ph.D., this fall to help deliver these experiences. In addition, our newly assembled team of six staff advisors has risen to new heights again and again, providing individualized support for our biological sciences and microbiology majors in creative ways.

And I am incredibly proud of our students. This fall, we have 1711 undergraduates (B.A. and B.S.), 67 on-campus graduate students (M.S. and Ph.D.), and 196 science educators in our online degree program, again making us the largest department at Clemson. You will see links below to articles highlighting some of our students' successes. The articles include names like Hollings, Astronaut, Udall and more. Please celebrate these students with us, and celebrate each and every student in our biological sciences, microbiology and environmental toxicology degree programs. We are so proud of all our Tigers.

You will also see links below about awards and grants our faculty garnered over the past several months. These successes speak volumes about the high-level research and learning environments we cultivate in the Department of Biological Sciences.

Success comes down to how we respond as individuals and how we come together as a team. Our faculty, staff and students are set on thriving in spite of a pandemic and in response to changes across the University. We can and will continue to succeed because of determination, and we ask for your continued support and engagement. Will you join me in giving back to our department through a philanthropic gift? Many of you already support Biological Sciences through unrestricted gifts, scholarships, fellowships and research experiences, and we thank you for all that you do. The Clemson experience would be nothing without you.

Best regards,
Saara
Matthew Koski, Ph.D., and Herbarium Curator Dixie Damrel examine specimens in the new herbarium.

**Herbarium renovation provides new home for global collection of priceless specimens**

A much-needed renovation has given new life to the Clemson University Herbarium, part of the Bob and Betsy Campbell Museum of Natural History. The Herbarium houses about 100,000 plant specimens that have been carefully preserved and stored for the future. “An herbarium is to a plant scientist what an insect collection is to an entomologist - a timeless collection of information and beauty for research or for simply viewing,” said Cierra Sullivan, a graduate student in Biological Sciences working with assistant professor Matthew Koski.

The project was made possible by funding from the LeGrand McIver Sparks ’41 and Mary Sears Sparks Endowment (A Class of 1941 Initiative), the Professor John E. Fairey III Quasi-Endowment for Natural History, the Biological Sciences Excellence Fund and the Friends of the Natural History Museum. It also included university investment in teaching and learning spaces.

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Faculty receive NSF, DoD, NIH, and NOAA funding for research

Barbara Campbell, Anna Seekatz, Sharon Bewick, David Feliciano, Kara Powder, Bill Baldwin, Antonio Baeza, and other Clemson faculty received a National Science Foundation grant to identify the functional mechanisms of microbes that relate to the health of ecosystems.

David Feliciano explored the cellular underpinnings of Tuberous Sclerosis Complex (TSC), a developmental disorder characterized by the growth of benign tumors, with a grant from the Department of Defense.

Kara Powder was awarded a National Institutes of Health grant to study the genetics behind facial development that could aid in the fight against birth defects.

Bill Baldwin received a National Institutes of Health grant to explore interactions of diet and toxicity on obesity.

Antonio Baeza was awarded a National Oceanic and Atmospheric Administration Saltonstall-Kennedy grant to study the effects of a newly discovered egg parasite on the Caribbean Spiny Lobster fishery in Florida and the Caribbean.
Vincent Richards named Clemson University's 2020 Junior Researcher of the Year

Vincent Richards, associate professor of Biological Sciences, uses microbial genomics to further the understanding of the relationship between diverse microbial communities and human health. His most recent work has focused on the oral microbiome, specifically the bacterial and fungal microbial communities in the mouth that are associated with tooth decay. Richards' research has the potential to support the development of novel therapeutics and prevention strategies. His work is supported by funding from the National Institutes of Health, and he has published 41 papers, including 13 in the past two years. Additionally, Richards supports a vibrant lab of a postdoctoral researcher and numerous Ph.D., M.S. and undergraduate students.

READ MORE

Undergraduates Chris Moss, Riley Garvey and Kori Hays

Undergraduates win national scholarships!
Senior Microbiology and Genetics major Harrison "Chris" Moss selected as a 2020 Astronaut Scholar

Senior Biosystems Engineering and Biological Sciences major Riley Garvey receives prestigious Udall Foundation Scholarship

Junior Biological Sciences major Kori Hays awarded a National Oceanic and Atmospheric Administration (NOAA) Hollings Scholarship

More on Biological Sciences...

- Emily Rosowski’s research on zebrafish larvae featured in 'Early-Career Scientist' series
- Sharon Bewick leads team of undergraduates to develop online tool to estimate COVID risks
- Matthew Koski’s research demonstrating that flower color has responded to rapid degradation of the ozone layer published in the journal *Current Biology*
- Ph.D. student Kea Peyton is featured in a KeysWeekly article. Kea's research in Michael Childress’ Conservation of Marine Resources Lab focuses on marine debris as a habitat for marine organisms

Find out more about the Department of Biological Sciences