

# UAB DEPARTMENT OF BIOLOGY NEWSLETTER



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If you have suggestions for a story or would like someone in particular to be featured in a future issue, please contact us at [biology@uab.edu](mailto:biology@uab.edu).

## FACULTY FOCUS

### Dr. Melissa Harris



Please welcome one of our newest faculty members, Dr. Melissa Harris! Dr. Harris joined the department in July 2016 as an Assistant Professor.

For Dr. Harris, getting gray hair is cause for celebration! This is because Dr. Harris studies the hair follicle stem cells that give hair its color. The loss of these stem cells causes hair graying. She has found that these stem cells are ideal for investigating the cell biology, genetics, and genomics behind the question, “Why do we age the way we do?”

Dr. Harris’ training makes her well suited to this task; she’s studied pigmentation from the beginning while mixing in a combination of cell biology, developmental biology, genetics, and genomics along the way. She received her undergraduate degree in Genetics with a minor in English, followed by her graduate degree in the Department of Cell and Developmental Biology, all from the University of California, Davis. In 2009, Dr. Harris joined the National Human Genome Research Institute of the NIH. It was here as a postdoctoral fellow where she found footing in the world of biomedical research and established her current approach to exploit mouse models of hair graying to study mechanisms of stem cell maintenance.

Throughout her training, Dr. Harris has received numerous awards. Most recently, she was recognized as a winner of the trans-institute, NIH Three-minute Talk competition where she was challenged to present her work in under three minutes in plain language. Notably, Dr. Harris is also the recipient of an NIH Pathway to Independence Award from the National Institute on Aging, a 5-year grant for postdocs transitioning to faculty positions. Beyond the lab, she has a genuine interest in teaching and mentoring.

## Dr. Karolina Mukhtar Promoted, Awarded Tenure

Congratulations to Dr. Karolina Mukhtar on her promotion to Associate Professor and awarding of tenure! Dr. Mukhtar is a broadly trained molecular plant biologist with over 10 years of experience studying plant-pathogen interactions using genetic and biochemical approaches. In 2014, she was awarded a \$1.1 million



National Science Foundation CAREER Faculty Early Development grant. Dr. Mukhtar is also a highly respected teacher and mentor. In 2013 she was named one of 11 inaugural UAB Faculty Fellows in Service Learning. In Spring 2015, she was named the Outstanding Faculty Mentor by UAB's Office of Disability Support Services.

Dr. Mukhtar's research focuses on the relations between the model plant *Arabidopsis thaliana* and several of its most devastating fungal and bacterial pathogens. As emerging pathogens pose threats to the world's food supply, Mukhtar says that basic knowledge gleaned from her work can be applied to help protect crops. "Researchers have a civic duty to come up with an answer. With the world population projected to swell from 7 to 9 billion people by 2040, we will have to sustainably increase our food, fiber, and fuel production using less land and fewer resources," Mukhtar said. "Healthy plants are the key; however, currently up to 30 percent of all crops are being lost annually to various plant diseases. That's why plant pathologists — or plant doctors — can literally mean the difference between feast and famine." Rest assured, Dr. Mukhtar is working tirelessly to find an answer.

## ILLUMINATING ALUMNI

### Dr. Rodney Tucker



Rodney Tucker, MD, MMM (BS, Biology, 1984) currently directs the Center for Palliative and Supportive Care and holds the Christine S. Ritchie M.D. Endowed Chair in Palliative Leadership in UAB's School of Medicine. Born in Gadsden, he entered UAB on a full scholarship as an English major. After his first year, however, he realized that caring for people was his real love and vocation. Medical school became his goal. He switched to dual majors in biology and social work. For students hoping to enter the medical professions, Dr. Tucker strongly recommends this sort of dual major in a scientific and a humanistic discipline as they both contribute to becoming a complete physician, also to becoming a complete person. What he likes most about being

a palliative care doctor is the opportunity it gives him to relate to his patients on many levels - physical, emotional, psychological, and spiritual.

Dr. Tucker is a loyal Blazer through and through. His senior year he was awarded the title of "Mr. UAB" by our National Alumni Society. Years later, he went on to become President of the National Alumni Society. He retains the sort of broad interests that he had even as an undergraduate, having now become an avid art collector and historical preservationist. Surprisingly, his most vivid memory of the Biology Department is tromping through the woods and sloshing through the streams on field trips with Professor Ken Marion. Frogs, snakes, and turtles couldn't seduce him away from medicine though.

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## STUDENT SPOTLIGHT

### Elizabeth Bevan

Biology doctoral student, Elizabeth Bevan, grew up in South Florida and has always been fascinated by sealife. She earned a degree in marine biology from Florida International University before coming to UAB in 2010 to pursue graduate education with her mentor, Thane



Wibbles, Ph.D. Together, they study the highly endangered Kemp's ridley sea turtle in the Gulf of Mexico and are pioneering the use of drones to help solve the mystery of where and when the sea turtles mate. Bevan believes drones will revolutionize not only marine biology, but many other fields of animal study as well. "Drones have changed everything," she said. "UAV (unmanned aerial vehicle) technology has incredible potential to significantly advance the way we do science."

Bevan was one of 90 students selected this year to receive a \$15,000 Scholar Award from the P.E.O. Sisterhood. The P.E.O. Scholar Award recipients are a select group of women chosen for their high level of academic achievement and their potential for having a positive impact on society. Bevan also received the John A. Knauss Marine Policy Fellowship by the National Sea Grant Program in 2014 and the Harold Martin Award for excellence in Biology in 2015.



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