Five questions with...

Ian Hines, PhD,

Ian Hines, PhD, joined the ECU faculty in July, 2010. Dr. Hines is an Associate Professor and Graduate Program Director in the Department of Nutrition Science. He currently teaches a graduate course on Nutrition in Physiology and Metabolism as well as the Nutrition Assessment course at the undergraduate level. Dr. Hines' research focuses on understanding the mechanisms of acute and chronic liver injury with specific emphasis on how the immune response can modulate this process particularly as it progresses to liver scarring or fibrogenesis. Dr. Hines has been the recipient of multiple NIH awards in addition to private foundation grants totaling more than $800,000 to support this research focus and has published more than 30 peer-reviewed articles. Dr. Hines brings a unique mix of background and experience to the Department of Nutrition Science. He completed his PhD in Molecular and Cellular Physiology at Louisiana State University, then completed a post-doctoral fellowship in the field of alcoholic liver disease at the Bowles Center for Alcohol Studies, and held a faculty appointment in the Department of Medicine, Division of Gastroenterology and Hepatology at UNC-Chapel Hill before coming to ECU. Together, this training and research experience provides a unique perspective to students studying nutrition in the classroom and an opportunity for undergraduate and graduate students to engage in basic biomedical research projects.

What do you like best about working at ECU?

ECU provides a balanced work environment where both research and teaching are appreciated. Significant support is provided by the university and the individual colleges for undergraduate research to provide an additional avenue to teach and train the next generation of researchers, scientists, and/or medical professionals. Together and in concert with the caring and collegial environment, these factors make working at ECU enjoyable and primes faculty, staff, and students for success.

What do you find most exciting about your research and its potential?

My research focuses on understanding the mechanisms of liver fibrosis or scarring development following exposure to various toxicants. Specifically, I am interested in understanding how immune cells can both promote tissue scarring as well as aid in its removal following chronic insult. Recent data from my laboratory identify the extracellular matrix itself as a potential driving force for the progression of hepatic fibrosis specifically through activation of hepatic macrophages. This new mechanism may provide the groundwork for a diagnostic tool to potentially predict disease progression through analysis both of macrophage populations present as well as the specific composition of the extracellular matrix.
What excites you about teaching?

I gain the most enjoyment from teaching when I see students begin to engage, to think outside the box and the facts on a slide or in a textbook. In an age where integration of technology and information streams abound, it is often difficult for students to see the pieces of the puzzle in their academic life and to integrate the facts from multiple courses and multiple years of learning into an understanding of the topic. It has been and remains a central mission of mine to encourage students, both at the undergraduate and graduate levels to think, to evaluate complex problems and provide logical solutions or explanations, and to provide the all important answer to the question why!

What do you hope students take away from their experiences from working with you on your research?

The central purpose of having students work in the laboratory is to make them think, to make them explore relatively complex topics and ideas for which there are no answers. Yet, it is an opportunity for them to develop new ideas and new questions themselves, to continue to ask why following every answer. In the end, it is my goal for the student in my lab to gain a greater understanding for the complexity of life, an appreciation for the process of basic biomedical research, and a desire to continue to learn and grow after the text books are all closed.

What is your favorite teaching or research moment?

It is difficult to pick a specific moment. I have been extremely fortunate to have been surrounded by a large number of excellent faculty throughout my career and have benefited greatly from their guidance, mentorship, and collaboration. Things that standout most to me are undergraduate research students' successes both while in the laboratory but more importantly after they graduate. Numerous mentees have gone on to pursue higher education in medical school, in dental school, in pharmacy programs, in PhD programs, and in the biotech sector and I am able to see their growth while working with me and their continued advancement as they move forward. There is no greater satisfaction than to see these students achieve this level of success and their kind words highlighting the importance of their work in my laboratory to achieving these goals.