



Tackling U.S.

Health Crisis

By Expanding Nutrition Education

By Bryant Welbourne

It doesn't take a degree in nutrition to see the problem: obesity and overweight are a critical public health crisis in the United States. In the state of Alabama, 35.7% and 33.9% of adult residents are obese or overweight (respectively), and it is among the top seven states in the nation for obesity and overweight prevalence.¹ Not surprisingly, five of the top 10 leading causes of death in the state, including heart disease, cancer, stroke, diabetes and kidney disease, are directly related to poor dietary intake.

Dr. Jeannine Lawrence, chair of the department of human nutrition and hospitality management, stated "In any positive category, like the number of Fulbright scholars or national championships, I would love for the state of Alabama to be number 1! But, in the case of having so many Alabamians affected by, and dying of, nutrition-related diseases, it would be better for us if

we were last on the list."

To address this crucial need, The University of Alabama's College of Human Environmental Sciences will expand its menu of graduate programs next fall with a new Ph.D. in human nutrition. The innovative curriculum was designed to align with the objectives of the National Institutes of Health's National Center for Advancing Translational Sciences. The goal of UA's new program is to train students in translational nutrition methodology, teaching them to move nutrition interventions from the laboratory to the individual in a bench-to-bedside-to-community approach.

Lawrence credits growth of existing programs, and the growing need for effective nutrition interventions as key areas for contributing to the program's addition.

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“First, our master’s degree program has grown exponentially over the past decade and a significant amount of those students wanted to go on and earn their Ph.D.,” says Lawrence.

Second, we simultaneously have experienced a growth in the number of faculty researchers. Since I arrived at UA in 2007, we have quadrupled the number of active nutrition research faculty and they are receiving strong external grant funding. This gives our doctoral students a wide variety of mentors and research projects to choose to work with.”

And finally, while there is a large amount of nutrition research going on nationally, the skills needed to translate current research into practices that can impact the health of patients and communities are not commonly taught in many programs. This is a critical need that needs to be addressed if we are going to effectively improve the health of our state and nation.”

The push for a Ph.D. in human nutrition started four years ago with full support from CHES Dean Milla Boschung who found the focus of the program a good fit for the mission of the college “to contribute to the generation of new knowledge in the field and to the application of this knowledge to improving the quality of life of individuals, families and communities.” A well-timed construction project added further impetus when the infrastructure to accommodate advanced research was strengthened last year with the completion of the Nutrition and Metabolism Research Lab, a state-of-the-art facility in Russell Hall.

“We are very excited about the translational aspect of the program,” says Dr. Lawrence. “This

(Top Right) Nutrition students measure each other’s resting metabolism with the latest technology.

(Bottom Right) Dr. Lingyan Kong works in the Nutrition Lab on research to improve food quality and nutrition.

program will give students a strong foundation in bench research methodology and teach them how to translate that research to directly help patients and the community.”

While the program’s core is nutrition, it will also place an emphasis on communication. Doctoral candidates will be required to teach a course and will be assessed on their performance. They will also take courses in how to present research to various audiences, including the community and scientists.

“I wish there had been a Ph.D. program of this emphasis and scope when I was a student,” says Lawrence. “The integration of basic, clinical and community nutrition research methods into a cohesive doctoral program sets up our graduates to make a strong and positive impact on the health of the population for generations to come.” ■ ■ ■

1. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity, and Obesity. Data, Trend and Maps [online]. [accessed Apr 04, 2018]. URL: <https://www.cdc.gov/nccdphp/dnpao/data-trends-maps/index.html>.



Dr. Amy Ellis and student in the Nutrition & Metabolism Research Lab.

