Undergraduate Research and Mentoring (URM): Enhancing Minority Undergraduate Student Research Experiences in Ecology and Environmental Science

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Department of Biological Sciences

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$614,520

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Dr. Dafeng Hui is currently an Assistant Professor in the Department of Biological Sciences, College of Arts and Sciences at Tennessee State University.

SUMMARY

An award has been made to Tennessee State University (TSU) to establish an Undergraduate Research and Mentoring (URM) program in order to significantly increase the number of under-represented minority students who are prepared for, and motivated to, pursue graduate studies in Ecology and Environmental Science. A cohort consisting of six students will be recruited each year in the first three years of the grant, and NSF funds will be used to support each undergraduate participant for a total of two years. Over the 4-year period of the grant, a total of eighteen students will participate in the program. The TSU URM program involves an intensive year-round research training and mentoring for undergraduates. At least six faculty members from three departments at TSU will serve as mentors and engage the students in research in a wide-range of ecological and environmental disciplines, including global change ecology, microbial ecology, environmental biology, water quality, bio/phytoremediation, and ecological modeling. Students will be paired with faculty mentors, who will provide them guidance at all stages of their laboratory research. In addition, the participants will be prepared for graduate school through activities that include GRE preparation and enhancement of communication skills, both oral and written. Students will also be encouraged to spend a summer at one of the research-intensive universities (such as NSF REU sites), to enhance their experience in research. Students are also expected to present their work at a scientific meeting. Additional information is available by visiting http://www.tnstate.edu/NSF-URM.
Dr. Dafeng Hui is currently an assistant professor in the Department of Biological Sciences, College of Arts and Sciences at Tennessee State University (TSU). He is a 2002 graduate of the University of Oklahoma where he earned a Doctorate degree in Botany (emphasis in Ecology). Dr. Hui’s research focuses on the effects of climate change and environmental stresses on ecosystem responses. He has more than ten years of research experience in global change ecology and ecosystem ecology using both experimental designs and modeling methods. Specially, he has studied elevated carbon dioxide (CO$_2$) influences on plant photosynthesis, soil respiration, and plant growth; investigated biomass allocation in grasslands; and conducted various statistical and modeling analyses in ecology. Dr. Hui’s research has been published by Nature, Science, Global Change Biology, New Phytologist, Tree Physiology, and other peer-reviewed journals. His research has been supported by the National Science Foundation (NSF) and the United States Department of Energy (DOE). He is currently the Program Director of the NSF URM program at TSU and a co-principal investigator on a USDA project. More information about Dr. Hui may be found by visiting http://faculty.tnstate.edu/dhui.