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ECU CHEMISTRY PROFESSOR STUDYING PROTEIN RESPONSIBLE FOR MAD COW DISEASE RECEIVES \$199,000 NATIONAL INSTITUTES OF HEALTH GRANT

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Greenville – East Carolina University’s Department of Chemistry continues to increase their awards from external sources. In a first for the department, a researcher has received an Academic Research Enhancement Award from the National Institutes of Health.

Dr. Colin S. Burns, assistant professor of biochemistry and biophysics, recently was awarded a \$199,000 grant, which supports research projects in the biomedical sciences by faculty that have not previously been major recipients of NIH research grants.

“At the end of last summer I was told that this grant proposal wasn’t going to be funded given the low funding levels for the year. I was very surprised and very excited to hear back from them,” says Burns.

“A central theme of these grants is the involvement of students, particularly undergraduates, in meritorious research with the aim of encouraging them to continue studies in the biomedical sciences,” Burns continues. “AREA grants allow faculty to provide a hands-on research experience for students exposing them to issues at the forefront of the biomedical field.”

Funding from the NIH will support Burns’ research titled “Molecular aspects of copper and zinc promoted prion-prion interactions.”

A prion is a protein found in the central nervous system of birds and mammals, including humans, and according to Burns, it is the protein that plays a key role in many neurodegenerative diseases including Mad Cow’s Disease.

“The precise function of the prion protein is still unclear,” says Burns. “Research over the past decade has made it clear that prion is a copper binding protein and may also be a zinc binding protein. These metals play key roles in numerous metabolic processes in humans and all other organisms.”

According to Burns, learning about the protein’s interactions with copper and zinc will help clarify the role of the prion in the body. This clarification may lead researchers to an understanding of the development of the many diseases caused by the protein and how they can be treated or even prevented.

Burns’ NIH award brings his personal summer grant total to \$223,000. To date, total funding for the department is approximately \$900,000.

“The Department of Chemistry is very proud of Dr. Burns’ accomplishments. He is truly one of ECU’s raising stars in science,” says Rickey Hicks, department chairman. “The department has been very fortunate with the support of Vice Chancellor Mageean of the Office of Research and Graduate Studies and Dean White of the Thomas Harriot College of Arts and Sciences to be able to recruit a number of excellent, young faculty members like Colin. I feel confident that Dr. Burns’ achievement is just the tip of the iceberg for the forthcoming success of this group of faculty.”

Prior to joining the chemistry faculty in 2003, Burns served as a postdoctoral researcher at the University of California Santa Cruz from 1998-2003. He received his doctoral degree in chemistry from the University of North Carolina at Chapel Hill in 1998 and his bachelor of arts degree from Kenyon College in Gambier, Ohio, in 1993.

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