ATC Spotlight

ATC chemistry instructor reaches national audience

Dr. Brent Beall, a chemistry instructor in the Biotechnology program at Athens Technical College, co-authored an article that recently appeared in the international scientific journal, Biochemistry.

The article, “Organization of F-Actin by Fesselin (avian smooth muscle synaptopodin 2)” addressed research on Fesselin, an actin-binding protein and its organization of F-actin. Because of the potential role of fesselin in some cancers and its effects on actin, the effect of fesselin on actin structures was further investigated.

The article advances the work by Dr. Beall and his co-authors regarding the scientific body of knowledge related to how the cytoskeleton of cells are regulated and modulated. The publication Biochemistry represents a prestigious peer-reviewed journal that publishes research from the arena where biochemistry, biophysical chemistry, and molecular biology meet, according to its website. The journal covers structure, function, and regulation of biologically active molecules; gene structure and expression; biochemical mechanisms; protein biosynthesis; protein folding; global protein analysis and function; membrane structure-function relationships; biochemical methods; bioenergetics; bioinformatics, and immunology.

Dr. Beall shared Biochemistry’s spotlight on Fesselin with researchers Dr. Mechthild M. Schroeter of the Institute of Vegetative Physiology with the University of Cologne in Germany; Dr. Albina Orlova and Dr. Edward H. Egelman of the Department of Biochemistry and Molecular Genetics with the University of Virginia in Charlottesville; and Dr. Joseph M. Chalovich of the Department of Biochemistry and Molecular Biology with the Brody School of Medicine at East Carolina University in Greenville, North Carolina.

The June article is not Dr. Beall’s first work that has been published on the international stage. He teamed up with Drs. Schroeter, Hans W. Heid, and Joseph Chalovich to co-author two peer-reviewed articles in 2008. “The actin binding protein, fesselin, is a member of the synaptopodin family,” was published in Biochemical and Biophysical Research Communications in its Elsevier journal, and “In vitro characterization of native mammalian smooth-muscle protein synaptopodin 22” was published in Bioscience Reports. He and Dr. Chalovich also co-authored an article titled “Fesselin, a Synaptopodin-like Protein, Stimulates Actin Nucleation and Polymerization” in 2001 in the journal Biochemistry.

Dr. Beall emphasized the importance of research in helping students understand science.

“The whole goal of any research project, aside from contributing to the overall understanding of how life works and providing necessary knowledge needed for the treatment and cures of sicknesses and diseases, is to enhance students' capability of being young scientific leaders,” he said. “Through a collaborative effort between faculty in the department of Biotechnology at Athens Technical College and other local, national, and international research universities, we have created a program that strengthens the overall success of scholarly research and establishes excellent opportunities for our students to be mentored by our distinguished faculty as they begin their own scientific endeavors.”

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