4-15-2015

Ouachita students honored at American Chemical Society National Meeting

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ARKADELPHIA, Ark. – Four students from Ouachita Baptist University earned the “Speak Simply” award in the Undergraduate Research Poster Contest at the recent American Chemical Society (ACS) national meeting in Denver. A total of 13 students from Ouachita’s J.D. Patterson School of Natural Sciences presented work at the conference.

“Participating in off-campus meetings, especially regional or national conferences, is a great experience for our students,” said Dr. Tim Knight, dean of OBU’s Patterson School. “Being recognized by their peers in a national conference confirms the quality of work conducted by both our students and their faculty mentors.”

Approximately 1,200 undergraduates from across the nation were eligible to compete in the contest and of those presenting, only 15 students were recognized. Ouachita students have now garnered 14 of the 45 awards in the past three years of the “Speak Simply” contest, the most of any single institution.

“Our students are passionate about their research and communicate it effectively,” said Dr. Marty Perry, OBU’s Nell I. Mondy Professor of Chemistry. “They are well prepared by their faculty mentors as well as the entire Ouachita community that contributes to their overall education.”

Students who presented in the “Speak Simply” division were given two minutes to explain the importance of their individual research projects. They were required to summarize their research simply and free of technical jargon.

“We need to be able to communicate our ideas to patients and policy makers who are not necessarily versed in science,” said Baronger Bieger, a senior biology and English major from Rockwall, Texas. “Science is inherently logical, so anyone should be able to follow what is being done as long as the meaning is distilled into its logical components and not lost in complex, flowery terminology.”

Bieger conducted his research with Dr. Steven Barger from the University of Arkansas for Medical Sciences, studying microglia, cells that keep the brain free of disease-causing clutter, and how they are affected by different proteins known to be associated with Alzheimer’s disease. He explained, “When one protein makes the microglia not clear debris from the brain as effectively, it increases the risk of getting Alzheimer’s. If we can find out what is changing in those microglia to make them less efficient, we might be able to counter it and help prevent Alzheimer’s.”

Having four of the 15 winners of the “Speak Simply” award hail from Ouachita “speaks volumes about the work of not only the undergraduates here, but more so, the work of the professors,” said
Rachel Tucker, a junior biology and chemistry major from Fordyce, Ark. “Our professors are very invested in the research that we do, and they want to see us do well. I feel there is a great quality of both students and professors at Ouachita, and the repeated success at contests much like this one are a direct reflection of that.”

Tucker’s research was based on developing a new drug for a new kind of cancer treatment called photodynamic therapy (PDT). She conducted her research with Dr. Joe Bradshaw, professor of chemistry and pre-medical studies at OBU, developing a drug that was tested on live breast cancer cells, ultimately killing the cancer.

“Ouachita always performs well in this competition which shows our students and professors place an emphasis on ensuring the public understands scientific news instead of trying to sound intimidatingly intelligent,” said Dustin Walter, a senior biology and chemistry major from Marion, Ark. “This was a great experience that served as a reminder that people who are not scientists can be interested in my research too if I am willing to communicate it in a way that they can understand.”

Walter said his research focused on the “very small group of people who are infected with HIV but do not show any symptoms, never progress to AIDS nor show deficiency in immune system functions” to see what was different about their immune systems in hopes of developing an HIV vaccine. His research was conducted this past summer at the Ragon Institute in Boston, Mass., with Dr. Srinika Ranasinghe.

Nathan Hall, a junior chemistry and biology major from Jonesboro, Ark., also received the “Speak Simply” award in addition to Bieger, Tucker and Walter.

“The quality of undergraduate research at Ouachita is very high,” Perry added. “The students are skilled, and the projects they explore are at a level that would compete with many graduate programs. It is critical that our students continue to be exposed to cutting-edge science and participate in independent research projects.”

Most of the students spend at least 10 weeks over the summer working on their projects: reading scientific literature, planning and performing experiments, collecting and analyzing data as well as preparing and presenting their findings.

The ACS national meeting is a semi-annual conference that attracts approximately 15,000 academic, industry and government participants from across the nation. In addition to the undergraduate presentations, the meeting hosts a variety of other events, including lectures, workshops and exhibits.

Other Ouachita students who presented their research at the meeting include: Jace Bradshaw, a sophomore biology, chemistry and physics major from Arkadelphia, Ark.; Bailey Chitwood, a senior biology major from North Little Rock, Ark.; Trevor Meece, a junior chemistry and biology major from Arkadelphia, Ark.; Brian Monk, a senior biology major from El Paso, Texas; Paige Onyuru, a senior biology and chemistry major from Hot Springs, Ark.; Rachel Pruett, a senior biology and chemistry major from Harrison, Ark.; Michael Rogers, a senior biology major from Little Rock, Ark.; Sarah Rogers, a senior biology major from Camden, Ark.; and Joel Ubeda, a senior biology major from Shreveport, La.

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