

Columbia State Students Excel During Summer Research Experience

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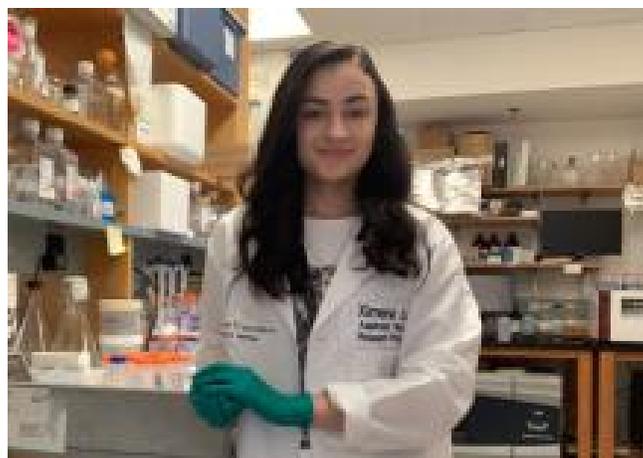
Ximena Leon and Johana Fernandez-Solano recently completed summer undergraduate research opportunities through Columbia State Community College's partnership with the Community College Undergraduate Research Initiative. Columbia State has been a part of the CCURI since 2017. The CCURI exposes students to real-world science through a case study followed by a hands-on research.

Leon, a Lewisburg native, spent the summer researching at Vanderbilt University in the Aspirnaut™ program characterizing collagen IV in A549 cells (adult human lung cancer cells) and PFHR-9 cells (embryonic mouse kidney cells). The project included various techniques to determine the structure and function of the collagen IV scaffold of the cell lines.

“My time at Vanderbilt University has been exceptional,” Leon said. “I have learned so much, and I have built so many great relationships. The Aspirnaut™ program takes a holistic approach with its interns. The faculty gave us every opportunity imaginable to be successful and thrive not only in research, but also in life. This has definitely been a huge stepping stone for my growth, education and career.”

Aspirnaut™ is a K-20 STEM Pipeline for diversity with the goal of increasing the numbers and diversity of the STEM Workforce. The Aspirnaut™ Summer Research Internships are non-clinical, hands-on and mentored laboratory experiences for high school students interested in a career in the fields of science, technology, engineering or mathematics, and for undergraduate students interested in a career in biomedical research. To learn more about Aspirnaut™, visit www.aspirnaut.org.

Fernandez-Solano, a Culleoka native, spent the summer at Old Dominion University studying the development of biochar and whether or not ozone-treated biochar is able to help dissolve phosphorus in the soil and potentially be used as a soil amendment. Biochar is a charcoal used as a soil amendment to reduce contamination.



“My favorite thing about the program is that I was able to experience what real research is like and meet all the different people who are doing the research,” Fernandez-Solano said. “I believe the biggest take away from this experience is the advice I have been given so that I can successfully have a career in research.

The Research Experiences for Undergraduates through Old Dominion University is designed for community college students interested in a chemistry-related career. Participants work on cutting-edge research opportunities in the chemical sciences. The REU program provides a variety of topics for students to choose from. To learn more about REU, visit www.odureu.org.

“These students have an unmatched passion and talent for the biology and chemistry fields and I am thrilled for both Ximena and Johana,” said Dr. Elvira Eivazova, Columbia State assistant professor of biology. “Our partnership with the Community College Undergraduate Research Initiative provides wonderful intellectually stimulating opportunities for students.”

Eivazova developed an Introduction to Biology Research course at Columbia State in 2017 to create hands-on research opportunities and to promote and advance creativity, critical thinking, communication and writing skills. Through this course and her student advising sessions, she has inspired several students to attend workshops, conferences and work on several projects of global significance. In addition, Eivazova has represented the college at several STEM forums nationwide. This summer, Eivazova chaired and moderated a session at the Howard Hughes Medical Institute National Student Research symposium at the HHMI Janelia Research Center in Maryland.

To learn more about the Columbia State Science, Technology and Mathematics division, visit www.ColumbiaState.edu/STM