EL DORADO UNION HIGH SCHOOL DISTRICT

PRESS RELEASE

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Oak Ridge Student Spends Summer Conducting Research at UC Davis

While most high school students spent the summer lounging around the pool, playing video games, or maybe working at the nearest mall, Archita Bhattacharya spent her summer researching Tyrosine Sulfation at UC Davis.

Archita Bhattacharya, a senior at Oak Ridge High School, was among a select group of students attending the UC Davis Young Scholars Program this summer. The advanced science program, now over 50 years old and offered by the School of Education, introduces up to 40 high achieving high school sophomores and juniors to the world of original research in the biological and natural sciences.

Participants work one-on-one with research faculty in state-of-the art laboratories for six weeks. Each student works on an individual project and prepares a professional-level research paper and presentation about his or her work.

"Students work under the direction of real-world researchers," said Rick Pomeroy, Program Director and teacher educator in the School of Education at UC Davis. "In fact, these high school students are engaged in research that most college undergraduates don't have an opportunity to do."

Archita was working in the Departments of Neurobiology, Physiology, and Behavior with Dr. Grace Rosenquist -- a professor and researcher at UC Davis -- as part of the UC Davis Young Scholars Program this summer. Her project was based on Tyrosine Sulfation, specifically on predicting sites of Tyrosine Sulfation in proteins. Tyrosine Sulfation plays an important role in many protein-protein interactions, including virus entry in cells, blood coagulation, and hormone binding to receptors. Among other purposes, this research has potential in improving immunosuppressant drugs.

The program, which kicked off this year on June 25, immerses students in the entire college experience. During the first two weeks of the program, participants attend lectures focusing on recent developments in biology and natural sciences in the mornings and conduct lab science every afternoon. During the last four weeks of the program, students work full time in their labs. Students live in campus dormitories and take field trips every weekend.

To qualify for the program, students must have a strong academic record, have taken biology and two years of college preparatory mathematics and recommendations from their teachers. In addition, applicants must write a personal essay. Substantial fee reductions, based on need, are available to accepted students to help offset the \$6,500 program cost. Applications open on December 1, 2017 and are accepted until March 16, 2018.

"All of the participants are highly qualified academically, take honors or advanced placement courses in high school and have high GPAs," said Pomeroy. "Most importantly, though, they have all demonstrated a desire and ability to conduct original scientific research and have the potential to contribute significantly to the field."