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USU's Summer Academy gives Biotech Experience to High School Students



A group of high school students attending the Biotechnology Summer Academy which focuses on fostering connections between students and faculty through experiential learning of the life sciences.



Some students are attending the Biotechnology Summer Academy for a second year as part of the advanced program which allows returning students to more in-depth on research with faculty mentors.

For the past nine years, nearly 320 high school students have come to the campus of Utah State University as part of a week-long Biotechnology Summer Academy (BSA). The program focuses on fostering connections between students and faculty through experiential learning of the life sciences.

Since its start in 2001, BSA has introduced students to the nature and excitement of science by creating strong connections between students and mentors to build a solid platform for success in a life science major. Students spend most of their time working with a team on an actual biotechnology research project in the laboratory of a faculty mentor.

During the week students also learn of new developments, tools and methods in the field of biotechnology. At a symposium held at the end of the week, students share their findings with an audience of their peers, mentors and parents.

To build camaraderie, evenings are reserved for relaxation and fun with cookouts, swimming, bowling and miniature golf. These activities allow students to share events of the

day, and recharge after a full day in the lab.

The Center for Integrated BioSystems (CIB) hosts the program in its core laboratory facility. Faculty mentors for Summer Academy are from ten departments and four colleges at USU including Agriculture, Engineering, Natural Resources and Science. They represent some of the best researchers and educators on campus, and many are internationally renowned in their discipline.

The program is led by Afifa Sabir, CIB Education Coordinator and a lecturer in the Department of Agricultural Systems Technology and Education at USU. She brings years of experience in program development and delivery.

Monitoring interests and industry trends, BSA is tailored to provide the best experience for recruiting students in Utah into life sciences including science, engineering and biotechnology. Four years ago, Sabir added an Advanced BSA to allow a select group of students to return to the program a second year and focus more in-depth on research with faculty mentors.

Success of the program is shown in follow-up assessments. More than half of participants are female or from ethnic groups underrepresented in science and engineering disciplines. Nearly half declare majors in life science and engineering, and more than a third pursue degrees in education. The program has been shown to broaden student's interests, encourage study of life sciences, and influence biotechnology workforce diversity in Utah.

The program also attracts high caliber students to USU. The USU admissions office says that over 100 students BSA students have applied, ninety-eight students are currently enrolled, and almost half receive funding in the form of scholarships.

The program attributes its success to having productive partnerships and industry support. The organizations listed below have supported BSA with sponsorship ranging from donating supplies to providing free services to contributing funds.

Governor's Office of Economic Development for Utah
George S. and Dolores Doré Eccles Foundation
Thermo Fisher Scientific Inc.
NPS Pharmaceuticals
Prolexys Pharmaceuticals, Inc.
Spendlove Research Foundation
Northern Utah Area Health Education Center

Through their commitment to Biotechnology Summer Academy, these organizations show that they value biotechnology in Utah and understand the importance of science and technology education.

Related links:

[USU Center for Integrated BioSystems](#)
[Science Advisor, Utah Governor's Office of Economic Development](#)

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