Montgomery County Students Gain Biotechnology Experience at IBBR

August 23, 2018 - IBBR’s 2018 Summer Intern program culminated on Thursday, August 16, as six Montgomery County high school students presented their research results to their peers, colleagues, family, and friends at a poster session held at the Institute’s Shady Grove campus.

Begun in 2003, the IBBR Summer Intern program has provided approximately 160 local high school students with real-world experience to help them decide whether a future in biology, chemistry, or engineering is right for them. The internships are coordinated with IBBR by Ms. Lesli Adler, a teacher at Thomas S. Wooten High School.

Seventy-three students completed applications for the program and submitted essays. From that pool of applicants, six interns from five local high schools were selected,

From left: Melody Zeng, Walter Johnson High School; Vasha Iyer, Poolesville High School; Emily Yu, Thomas S. Wooten High School; Shawn Zhao, Montgomery Blair High School; Austin Mao, Winston Churchill High School; Farzad Mustafa, Thomas S. Wooten High School
partnered with an IBBR researcher, and assigned an independent laboratory project to complete. With careful supervision and mentoring, the interns gained knowledge of laboratory equipment, learned laboratory protocol and techniques, practiced professionalism and teamwork, experienced a full-time work schedule, and developed time management skills.

Austin Mao, from Winston Churchill High School, interned in the laboratory of Dr. Roy Mariuzza, Principal Investigator at IBBR and Professor, Department of Cell Biology and Molecular Genetics, studying how the body’s system fights cancer. Austin said, “I have always had an interest in science, but research seemed so tedious to me. After doing hands-on work at IBBR, I realize now that it is also very exciting and rewarding.”

Austin’s mother, a chemist, added, “We would ask him questions each day about what he had learned and we could hear his understanding and enthusiasm deepening. Austin was given a very thick research book to read for background. That book was at least at a B.S., if not an M.S., level, but Austin read it completely and enjoyed it. This has been a maturing experience for him. We really thank IBBR for offering this program.”

Dr. Alexander Grishaev, Principal Investigator at IBBR and the National Institute of Standards and Technology (NIST) leads the internship program and selection process. Dr. Grishaev notes: “The program really is a win-win for both IBBR and the students. IBBR mentors not only gain an extra pair of hands in the lab, but by training and teaching the student a step-by-step method for completing an independent project, they revisit and reconfirm the overall project goals in the process. For the student’s part, this is a tremendous opportunity to challenge themselves, gain confidence, test their level of interest in a biotech career, and strengthen their college applications.”

“Montgomery County is one of the largest biotechnology hubs in the world. IBBR is ideally situated, both in terms of location and by virtue of our comprehensive life science and analytical research environment, to host an internship program like this,” says Dr. Thomas R. Fuerst, IBBR Director. “With the current recognition of the importance of STEM-related careers, it is very satisfying to impart knowledge and mentorship to the next generation of research scientists, engineers, and health care professionals.”

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