



## SARE – COMBATting DISPARITY IN EDUCATION

### *Ageneration at risk*

Established and directed by Doug Robinson, Ph.D., a professor in the Department of Cell Biology, the Summer Academic Research Experience (SARE) seeks to develop exceptional high school students from the greater Baltimore area by introducing them to academic research with a secondary emphasis on STEM and health-related professions. The students who go through the program are known as “SARE Scholars”.

SARE provides these scholars with a unique exposure to modern scientific research, combined with additional tutoring to fortify basic academic skills. The rationale is that many low-income, educationally under-resourced youth have not been exposed to an environment where creative and critical thinking skills are highlighted, where being smart and working hard are considered “cool”, where substantial academic accomplishment is celebrated, and where colleagues of all levels are ready to help when one needs it. Laboratories within academic research universities cultivate this type of environment. Therefore, we leverage this environment and utilize our science in outreach to this younger group of students.

While research universities already have many outreach programs, most target the undergraduate and post-baccalaureate levels. Through SARE, Johns Hopkins targets adolescents at a critical age in an intensive manner, allowing for substantial impact that will carry on through these students’ lives.

Baltimore is an area of great need. Approximately 34% of children in Baltimore City grow up in poverty, which is nearly three times higher than the national rate (13%). Situated in East Baltimore, SARE provides a conduit for promising, disadvantaged students to achieve the academic and professional skills as well as the network needed to succeed.

### *Bringing the Baltimore Community Together*

SARE has forged partnerships with some of the highest quality programs in the Baltimore City that target marginalized youth. Through partnerships with Boys Hope Girls Hope Baltimore (BHGH), the SEED School of Maryland (SEED), Green Street Academy, Baltimore Polytechnic Institute, Woodlawn High School, Dunbar High School, Eastern Technical High School, Baltimore City College, and several others, students who have outstanding potential and are likely to benefit from specialized attention are selected. Organizations identify appropriate students, who come from households that are low-income and who are generally either first-generation college, have one or more parents who have been incarcerated, or have had drug or significant health concerns. Some students have even been homeless at one point in their lives.

### *“It takes a village”*

SARE comprises several members of Dr. Robinson’s research laboratory. Mrs. Pamela Hamm directs the program and leads the academic component, including the writing, bioethics and science portions. Professional math teacher and Director of Mathematics at Woodlawn High School, Ms. Tujuana Hinton, prepares and teaches the mathematics curriculum. Scholars are also paired with doctoral students or postdoctoral fellows in one of the research labs in one of the basic science departments at Johns Hopkins School of Medicine.

Scholars are fully immersed in the laboratory atmosphere and become integrated in the “lab family”. These experiences are transformative as the scholars leave valuing their thought processes, hard work, intellectual creativity, and critical thinking.

### **SUPPORTING THE NEXT GENERATION OF LEADERS IN SCIENCE AND BEYOND**

#### ***Offering real life experience to prepare and pursue higher education***

This eight-week program is divided into three main components: Academic, Research and Professionalism portions. The Academic and Research portions are integrated, as much of the writing and mathematics are geared to help provide the students with the skills needed to function in the laboratory. Scholars also take structured courses in science and bioethics. Additional enrichment is provided that includes exposure to financial planning and the college application and matriculation process. At the end of the summer, the students assemble a full scientific poster presentation. Students practice presenting their posters orally, which generally requires several days of practice and rehearsal with their lab members and professor. Finally, the students present their posters at an open reception attended by scientists from across the medical school campus, as well as friends and family. In a few cases, students have made novel discoveries, which they unveiled for the scientific community at the poster presentation.

#### ***Philanthropy: A Vital Partnership that Drives Results...***

The history of Johns Hopkins and its commitment to excellence was built solely on the generosity of individuals. To this day, philanthropy plays a vital role in SARE’s ability to challenge and advance the knowledge of the students who come through the program.

We hope that you might consider partnering with us to support the next generation of leaders. Thank you for your thoughtful consideration. For more information, please contact:

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