In This Issue...

Letter from the Director ...................................... Page 2
Project SEED .................................................. Page 3
Highlights & Recognition ................................. Page 4 & 5
Parent Connection ........................................... Page 6
Student Spotlight ............................................ Page 7

Honors Recognition Ceremony 2018
Dear Scholars, Family Members and Supporters of Science Bound,

In this issue, we highlight this year’s theme, “Redefining Your Success Trajectory.” I believe this phrase speaks volumes. In the Merriam-Webster Dictionary, the verb “redefine” means to “reexamine or reevaluate, especially with a view to change.” We want our scholars to know that the power to be successful is in their hands. The education they receive, and the connections they form in this program, can set them on the path to greatness.

As you know, we provide a number of opportunities to scholars and their families in Science Bound. For instance, we help our young people take advantage of summer enrichment opportunities (see p. 3). Additionally, those scholars who choose to accept the Science Bound scholarship they earn are able to take advantage of the Fall Retreat (see p. 4). During the fall, we also hosted a number of events in the community for scholars and their family members, as well as at Iowa State and the Boone Y Camp (see pp. 4-5). All of these experiences and opportunities have one goal – to ensure that our scholars go out into the world empowered to make the changes necessary in the classroom and in their personal lives to stay on their success trajectory.

Of course, change requires small, consistent steps; that is what ultimately leads to success. That is how Science Bound has grown from an idea to a 28-year-old program serving three school districts in Iowa. The shared success trajectory of Science Bound staff, students and sponsors has created a community like none other, and we are thrilled you are part of it.

Scholars, the question to you is, what are you doing to redefine your success trajectory?

Sincerely,

Alexis Campbell
Director

Cover photo:
1. Rosy Banda, North High School, receives an award from Dr. Campbell for her high grade point average at the Honors Recognition Ceremony.
2. Jessica Ramirez Solis (left), Victor Ndungu (middle) and Manali Jana (right) from Roosevelt High School at the Honors Recognition Ceremony.
3. Science Bound recognized 77 students for GPAs above 3.75 and/or 100% participation during the Honors Recognition held at Corteva’s Carver Center in August.
Research from the RAND Corporation, a nonprofit global policy think tank, has found that, “by the end of summer, students perform, on average, one month behind where they left off in the spring.”* The same study found that participation in quality summer learning opportunities can counteract the damaging effects of summer learning loss. Participating in a summer science program has also been found to increase interest in ASTEM careers.**

As a result, Science Bound requires its students to participate in 40 hours of agriculture, science, technology, engineering, or mathematics (ASTEM) educational experiences each summer during high school.

A quality summer experience is the goal of the American Chemical Society’s Project SEED. Science Bound participants and Roosevelt High School students Abdullahi Mohamed and Khadija Aden worked in Iowa State University (ISU) laboratories for six weeks during the summer of 2018 with Project SEED. The program provides students with valuable research opportunities, mentorship and professional networking. Students who successfully complete Project SEED are eligible for fellowship awards immediately upon completion and scholarships if they decide to pursue a chemistry-related major.

It’s chemistry that attracted Mohamed to the Project SEED opportunity. Over the course of his junior year, he developed a love for chemistry. Inspired by what he’d learned in his AP Chemistry class that year, Mohamed reached out to his SB mentors to find chemistry-related opportunities. This search led him to a research opportunity with Project SEED, where he spent part of two months during the summer.

His research focused on gas chromatography and volatile compounds. Chromatography is a method of separating and analyzing mixtures of chemicals. Volatile compounds are organic chemicals that easily become gases and can be found in a variety of household products.

“We were testing different types of wavelengths and studied how that affected the chromatography and [analyzed] the separate peaks,” Mohamed said.

For Aden, the first few weeks of Project SEED involved research on the subject of bacteria. Her aim was to understand how bacteria effects the world.

“I had to try to understand bacteria and how bacteria grow. After that, I made a video for students,” Aden said.

Aden and Mohamed both commented that they grew professionally while conducting research with Project SEED. Aden even credits her experience for inspiring her to pursue chemistry in the future.

“Next time I do an internship, I’ll know what to do and how to reach out to the professors,” Aden added. Both of the scholars, who are high school seniors, encourage other Science Bound students to participate in research experiences like Project SEED.

“Go for the research opportunity, because it can only benefit you. The mentors are great. They will help you and guide you,” Mohamed advised.

---


Fall ISU Retreats!

Thirty-four new scholars joined 112 returning undergraduates on Science Bound scholarship at the fall retreat, which is held each year before classes begin at ISU. First-year scholars have the opportunity to explore the campus and learn about available resources while building community with the upper-level scholars.

Saturday Visits

More than 400 Science Bound (SB) scholars come to Iowa State University on three special Saturdays each academic year. The high-energy events bring the students into laboratories and experiences where they are hosted by nearly 150 faculty, staff and graduate students yearly.

Students arriving at ISU for a Science Bounce Saturday experience the energy!

Nearly 100 eighth grade scholars visited the only U.S. Department of Energy Laboratory in Iowa to learn about materials science and engineering in October.

Scholars learned about food spoilage in an Iowa State laboratory in November.

Science Bound scholars and teachers pack Troxel Hall at Iowa State University.
Fall Parent Meeting

East High School and Hoyt Middle School Selected as Science Bound Schools of the Year

Each year Science Bound selects a middle and high school of the year to recognize schools where, among other factors, student retention and participant improvement is high. For 2017-2018, the programs at East High School and Hoyt Middle School were selected. The East High program is anchored by teachers, Lauren Barry, Nikki Dorr, Bryan Gladson and Lowell Long. At Hoyt, the teachers are Megan Hamilton and Shaun Loneman.
This spring, 48 Des Moines high school seniors are poised to earn the Science Bound scholarship. One of those scholars is Aracely Ocampo from Hoover High School. We spoke with Aracely’s mother, Veronica Ocampo, recently to learn more about her daughter, her daughter’s future, and her experiences with Science Bound.

Q. Tell us a bit about you.
A. My name is Veronica Ocampo and I am the proud mother of a girl who has always loved education. When I was young, I did not have the opportunity.

Q. Tell us a bit about your daughter.
A. Aracely is motivated to reach her goals. She is constantly finding ways to learn new things and is ready to help others. Her greatest dream is to become a doctor in order to make a large impact around the world. She loves anything to do with science and is part of science fairs, internships, and various research opportunities both in and outside of school. She also loves to garden, paint, draw, and create crafts. Some of her achievements include receiving an award for a project at the Des Moines University Symposium, becoming a Borlaug Scholar at the Iowa Youth Institute World Food Prize Event, and being part of the honor roll throughout her academic years.

Q. Have there been any challenges for you and your family as it relates to Science Bound?
A. No. Any requirement Science Bound had for Aracely - such as the science fair, essays, oral justifications, personal statements, or career exploration projects - have all been beneficial to her.

Q. What have been the benefits of Science Bound for you and your family?
A. The greatest benefit in Science Bound is that Aracely has grown both educationally and as a person. Through internships, Aracely has networked with professionals in various fields and has developed connections that will remain with her and can only help her in the future. Before these programs in Science Bound, she was a very timid girl, but now I see her as a person who can better communicate with others.

Success is the reward to everything you have fought for in life. I feel that the purpose of an individual is to accomplish their dreams. Science Bound has helped prepare my daughter for success in not only a university setting, but also life in general as she is preparing herself to face and overcome obstacles regarding her future career as a pediatrician.

Additionally, I have been helped economically immensely by Science Bound. I recognize that is a very important aspect of receiving higher education. Beside the monetary assistance, though, I have benefitted from the Countdown to College meetings, as they have helped ease that transition into college through informational meetings regarding college applications, scholarships, and housing.

Q. Your daughter is just about to graduate. How does that feel?
A. This is a bittersweet moment for me because I will miss Aracely and all the time we spent together. However, I feel very happy that she will continue with her dream of preparing herself through education.

Q. What is your advice for other families?
A. I want to advise families that are going through this high school-to-college transition to support and be there for their children, it is just as difficult for the parents as it is for the students to adapt to this change.

Q. Any final comments?
A. I want to extend my gratitude to all the good people who make Science Bound possible as well as give the opportunity to young people to pursue their dreams through education. Also, there are few programs like Science Bound, and for me, it is an honor to be part of this program as they are here to help students with great potential who would not otherwise have the opportunity.
Student Spotlight:
Meet Edwin Rojas

Meet Roosevelt High School senior Edwin Rojas. Rojas’ family is originally from El Salvador and he has one brother and a dog named Lucky. With the support of his family, Rojas has been able to accomplish much in his personal and academic life.

For instance, while taking a college-level microbiology class in high school, Rojas developed a passion for it. He even cites the course as his inspiration for selecting microbiology as his major at Iowa State University, where he will begin in the Fall of 2019.

“I’ve fallen in love with the material we’re being taught, and I can really see myself doing it in my future career,” Rojas said.

One of the key ways Rojas’ discovered this passion was through his involvement with Science Bound.

“Science Bound has helped a lot by showing me how to work hard in school and what I can do to see the results I want. They showed me how to put myself out there and prove myself,” he continued. “They also showed me what it takes to be a leader and what leaders do for others.”

Rojas has proven himself to be a hard worker within the Science Bound program, too. He has consecutively earned 100% participation and a high GPA recognition throughout his four years in the high school program.

Science Bound has also played a role in helping Rojas be a more confident communicator.

“I first struggled with my [oral justifications*] and any activity that involved speaking to the public, but as time went on I gained more and more confidence and that struggle is not one anymore,” he said.

Rojas advises other Science Bound students to “go above and beyond and to never fear what others think. Make sure to always give it your all in your academics and challenge yourselves, because it will pay off in the future as you grow. Go to teachers, ask for help, don’t be scared to use your voice – use it and increase your intelligence for the better. Right now, it may seem silly or too soon to think of college, but it’s never too early to start preparing because before you know it, it will be your turn.”

Rojas is looking forward to starting his journey at Iowa State and fostering new connections. He aspires to eventually go on to medical school and give back to his community.

“I’m excited to start my journey as a future medical student that I’ve always dreamed of becoming. Going to college is the first step and I’m happy that now it’s my turn to get that experience and make my family proud,” he said.

Science Bound is Iowa State University’s premier pre-college educational program created to increase the number of racially and ethnically diverse Iowans who earn degrees in agriculture, science, technology, engineering and mathematics. Science Bound partners with middle and high school students, their families, school districts and corporate partners in Des Moines, Denison, and Marshalltown.

Dr. Alexis Campbell, Director
Anita Rollins, Manager
Meccah Muhammad, Communications Intern

* Yearly presentations made by all high school students to justify why they should continue in the program.
Science Bound Receives INSIGHT Into Diversity Award!

Science Bound received INSIGHT Into Diversity Magazine’s 2018 Inspiring Programs in STEM Award.

The Inspiring Programs in STEM Award honors colleges and universities that encourage and assist students from groups that are underrepresented in science, technology, engineering, and mathematics (STEM) to excel in these fields.

Inspiring Programs in STEM Award winners were selected by INSIGHT Into Diversity based on efforts to inspire and encourage a new generation of young people to consider careers in STEM through mentoring, teaching, research, and successful programs and initiatives.