



Initiative, hard work create STEM opportunities for BHS student Sahra Hassan

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Burlington High School senior Sahra Hassan has twice been recognized as being among the top students in the country and part of the nation's most promising STEM talent. But you'd never know it in talking to her. This hardworking and high-achieving student comes across, first and foremost, as humble and thoughtful.

“She presents herself very quietly, but she does a thousand things. There’s so much that she does and that she’s accomplished, and you wouldn’t expect it because she’s so quiet about it,” says VSAC counselor Soren Dews, who has worked with Sahra for the last two years as part of the Talent Search program. “She is someone who listens first, thinks about information, and then gives a really thoughtful response.”

Sahra, who is the second-oldest child in a family of nine children growing up with a single mom, recognized early on that hard work would be her ticket to a promising future—even though she wasn’t sure until fairly recently what that future might look like.

“Through middle school and the first part of high school, I didn’t really know exactly what I wanted to do,” Sahra says. “So I’ve just done well in school to keep all of my opportunities open.”

While she’s now a confirmed “science person” who has completed a prestigious summer internship in cancer research and intends to major in biochemistry in college, she says she also really enjoys her AP Government class, one of three Advanced Placement courses in her current class schedule. “I’ve been watching *Law and Order* since preschool, and I find law really interesting,” says Sahra, who is a leader in student government and part of a strategic coalition to recommend ways to reduce racial inequities within the Burlington school district.

“But I feel like I could be a lot more helpful in the science field, because it’s also about representation,” says Sahra. “There are a lot of Black women in social justice fields, but there aren’t many Black women in STEM.”

This past summer, Sahra participated in an internship program called Aspirnaut, whose mission is to build a more diverse STEM talent pipeline. She heard about it through an email from her guidance counselor and decided to apply. That kind of initiative, says Soren, is typical Sahra.

“She’s put herself out there for all these different things. When I or the guidance counselor send out an email with an opportunity, half the students don’t read it. Sahra is the one who reads it and says, ‘Yes, I’m going to apply for this.’”



Sahra was one of two BHS students selected for the internship. Bill Church—a former student of the Aspirnaut program’s founder, who now works at Green Mountain Antibodies in Winooski—funded her spot in the program.

She spent the summer on the Vanderbilt University campus in Nashville, working in a biochemistry lab and assisting with a cancer research study. “We focused on a mitochondrial protein that regulates the spread of

cancer cells. We were studying why it stops working in stage 4 cancer,” she says.

While she was honored and excited to be accepted into the program, she was also really nervous. Other than a brief field trip in the 8th grade, this was the first time she had ever been away from home, and it was the first time she’d flown on an airplane. “There was one other girl from BHS who was going with me, and when I showed up at the

airport, she wasn't there yet. I told myself, if she doesn't show up, I'm definitely going home," she recalls now with a laugh.

Now, looking back, she's very glad that her classmate showed up and that she got on the plane. Her Aspinaut internship was a seminal experience for Sahra, whose laboratory mentors encouraged her to apply for another program called QuestBridge, which ended up granting her early acceptance to Boston College in December and funding 100% of her four-year tuition.

"QuestBridge is very prestigious and very competitive," explains Soren. Nationwide, almost 18,000 students applied, and 1,755 were matched with full scholarships at the program's college partners. Students chosen as finalists are asked to rank their top 15 schools out of QuestBridge's 40 college partners. Then, the best of the finalists—approximately 30% of this year's 5,000 selectees—are matched with the highest-ranked school that also wants them.

According to QuestBridge, this year's Match Scholarship Recipients have an average GPA of 3.94, and 94% are in the top 10% of their graduating class. The vast majority of this year's students—80%—are among the first generation in their families to attend a four-year college in the United States, a group which includes Sahra.

"I always knew I wanted to go to college, but I didn't want to take money from my family. That's definitely a pressure that was taken away with the QuestBridge scholarship," she says.

"My mom always encouraged me to go to school. I don't think she expected me to go so far away, though. She probably would have preferred that I go in-state. But I know she's proud of me for getting the scholarship, and I guess she can't be mad at me for that," she laughs.

"Soren also helped me a lot with applying for QuestBridge. And overall, the VSAC program definitely encouraged me," Sahra says. "It helped take away the pressures of being able to afford applications, standardized test fees, and things like that. And having someone to check over all my applications—that was huge."

Soren notes that Sahra also separately prepared applications to 15 colleges, just in case she wasn't accepted to QuestBridge. "Sahra did so much work. My mind was blown."

As Sahra looks ahead to college, her thoughts are once again a mixture of excitement and apprehension.

"I think I'll be nervous for the first semester, just about just being alone. Because I have such a big family, I'm used to having so many people around me," she says, noting that she spends a lot of time with her brothers and sisters, either cooking or watching movies. "But since middle school I've wanted to go to Boston for college. So it's really cool that I got in there. It's scary, but, yeah, I need that."

After college, Sahra says she hopes to go on to graduate school and to earn her PhD at some point. "Covid research is a big interest for me," she says.

She says her next-younger sister, who is two years her junior, is also in the VSAC program. "I'm pretty sure she's thinking about college. We've talked about it," says Sahra, whose older sister, now 23, led the way by going to the University of Vermont, where she's finishing up a business degree.

As for the advice Sahra would give to her younger siblings, she says: "Work ahead, because it gets really hard. Teachers won't stop giving you homework, and it can be difficult to keep up with everything along with all your college applications."

"And, I suppose they can come talk to me if they really need help," she adds with a smile.



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