

ASU grad heads to Harvard after exploring connection between allergies and the brain

By Victor Chambers, ASU News
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Editor's note: This story is part of a series of profiles of notable [spring 2025 graduates](#).

Growing up in a small town in the Sonoran Desert, [Leslie Bustamante Hernandez](#) experienced severe asthma as a child. She was often told to be careful and not to do anything that could make her sick.

The fear and confusion that came with the constant warnings developed in her an innate need to understand how her body worked and laid the foundation for a growing interest in biology and science.

In her first year at Arizona State University, she realized she could pursue this curiosity professionally, eventually going on to double major in biological sciences and biochemistry in the College of Liberal Arts and Sciences.

Starting in 2022, she delved deeper into what afflicted her as a child, working as a researcher in Assistant Professor [Esther Florsheim](#)'s lab at the [Biodesign Center for Health Through Microbiomes](#).

"I study how allergies can affect physiology and behavior," Bustamante Hernandez said. "I love asking questions and bringing ideas to life through experiments. I couldn't see myself doing anything else."

A first-generation student, Bustamante Hernandez shared that one of the most significant challenges she faced in the past years was learning how to navigate the college system.

"I had to figure it out all myself, from finances to fundamental things, such as what credit hours and majors are," she said.

Her advice to others is not to think that anything is too big for them or that they might lack the expertise, as some of her most relevant experiences were the ones that pushed her out of her

comfort zone.

“Take advantage of ASU’s resources, get involved and don’t be afraid to network. Most importantly, trust your voice, especially in fields where people like you haven’t always been represented,” she said.

Recently accepted to the Immunology PhD program at Harvard University and the National Science Foundation’s Graduate Research Fellowship program, Bustamante Hernandez is deeply aware of the importance of representation in scientific and academic fields.

“As I join the less than 1% of Latina PhD holders, I am committed to be a lifelong learner, opening doors for others and helping create more inclusive spaces,” she said.

As she embarks on this new chapter, she said she is most excited about continuing to work in a dynamic field that allows her to explore how immune cells influence not just disease, but also mood, behavior, tissue repair, nutrition and communication with the microbiome.

“I look forward to asking questions about immune-brain interactions and how the environment shapes these responses,” Bustamante Hernandez said.

Read more about her experience at ASU below.

Note: Answers are edited for length and clarity.

Question: Why did you choose to work at the Biodesign Institute?

Answer: I was looking for research experience and wanted to join a lab whose mission I genuinely connected with. I came across Esther Florsheim’s seminar on neuroimmune adaptations to dangerous environments, and her lab’s focus immediately drew me in. Her lab’s commitment to supporting scientists from underrepresented backgrounds and fostering an inclusive, growth-oriented environment made it feel like the right place to begin my journey. I’ve loved being in such a collaborative space.

Q: What’s something you learned here that surprised you or changed your perspective?

A: One thing I’ve come to really appreciate at ASU is its diverse environment that taught me that everyone brings their own unique background and perspective, which is what makes collaboration so powerful. Early on, I often compared myself to my peers and felt like I was behind, but I’ve since realized that no two people have the same journey. We all grow up with different opportunities, resources and mentorship, and that’s not a weakness — it’s what makes each of us valuable in our own way.

Q: What is an important lesson your mentor at Biodesign Institute has taught you?

A: I’m grateful to have Florsheim’s support. Her mentorship is one of the most impactful parts of my time at Biodesign. She’s helped prepare me for a career in science through one-on-one guidance on everything, from organizing lab notebooks and planning experiments to leading journal clubs and preparing for interviews. She has taught me the value of confidence as a woman in science. How we speak, write and present ourselves matters in ensuring we take up the space we deserve. Most importantly, she has helped me believe in my abilities and find my own voice in

the scientific community, reminding me not to feel intimidated.

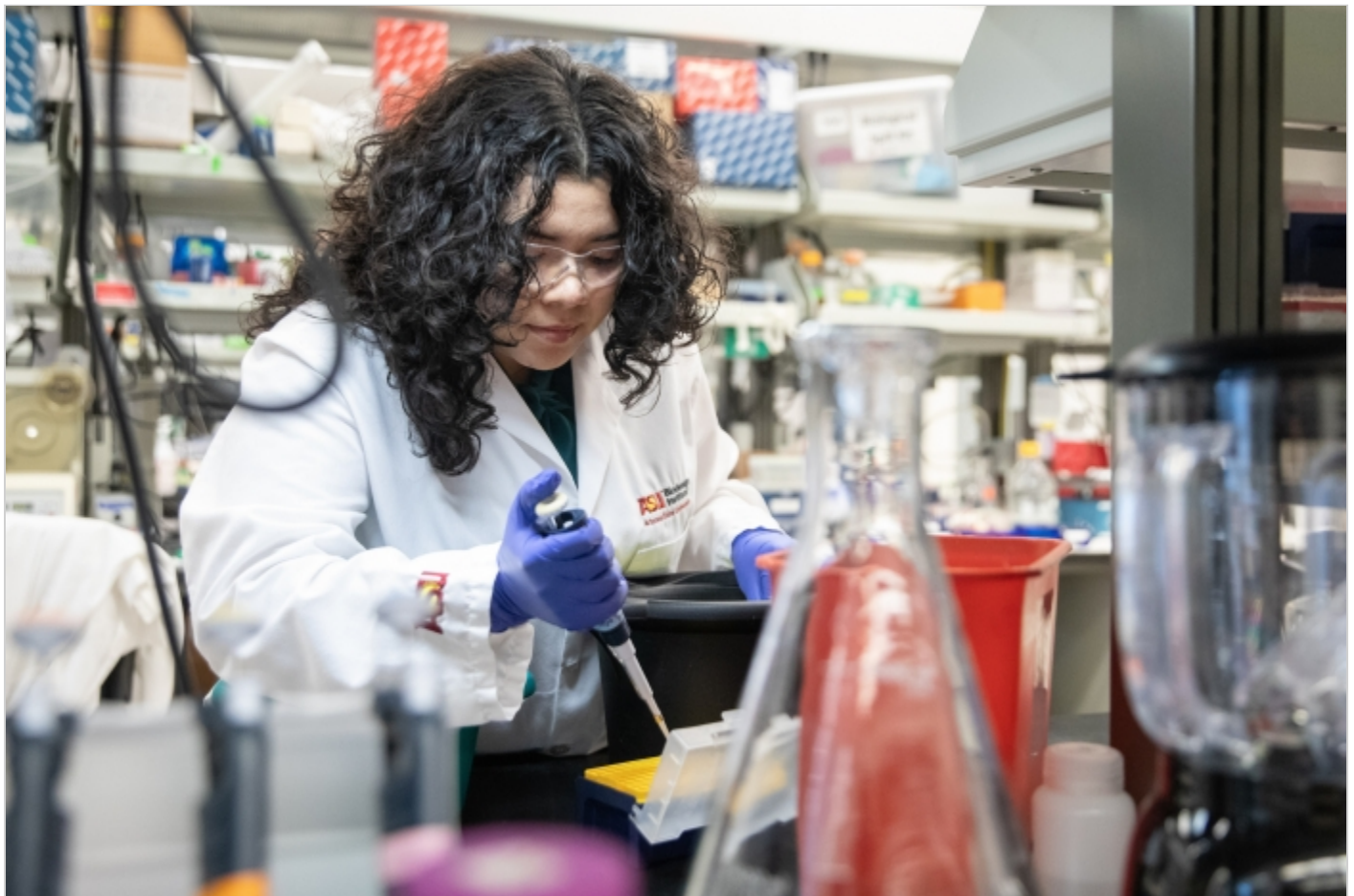
Q: If someone gave you \$50 million to solve one problem on our planet, what would you tackle?

A: Education should be a right, not a privilege. While \$50 million is not enough, I'd work to close that gap for students. I would create a scholarship fund to expand access to higher education for low-income and underrepresented students.

The fund would prioritize Hispanic-serving institutions, focusing on tuition support and opportunities that are often out of reach for students without financial backing, such as internships, research and conference travel. I personally benefited from funding like the School of Life Sciences Undergraduate Research program at ASU, Goldwater Scholarship, Nike HSI, DAAD-RISE, travel grants and first-generation awards that allowed me to pursue hands-on experiences I otherwise couldn't afford. I would also work to grow the program by seeking additional investors, ensuring long-term sustainability and support for future students.

This story originally appeared on [ASU News](#).

Main image



Undergraduate researcher Leslie Bustamante Hernandez said that after graduation, she is most excited about continuing to work in a dynamic field that allows her to explore how immune cells influence not just disease, but also mood, nutrition and more. Photo by Quinton Kendall/ASU

Text image(s)



Leslie Bustamante Hernandez has been recently accepted to the Immunology PhD program at Harvard University and the National Science Foundation's Graduate Research Fellowship program. Photo by Quinton Kendall/ASU