

Mentorship helped ASU graduate find passion for immunology

By Victor Chambers, ASU News
May 1, 2025

Editor's note: This story is part of a series of profiles of notable [spring 2025 graduates](#).

[Fathima Nawaz](#) moved across the globe to discover how our bodies defend themselves from environmental toxins in an increasingly polluted world.

Hailing from the Middle East, Nawaz arrived in Arizona as a teenager to live with her aunt, accompanied only by her older brother. She learned quickly that being away from her family meant shouldering serious responsibilities. Balancing studying, having free time and thinking of her future goals was one of the early challenges she faced.

"It was difficult having to become independent and self-reliant so fast while still feeling immature and too young to know what to do with my freedom, especially when I began college," Nawaz said.

When her aunt was diagnosed with breast cancer, Nawaz knew she had to find the resilience to support her family and start making choices that would shape her career path, like the decision to attend Arizona State University.

With time, she learned how to make ASU feel like a new home. Visiting the grounds around the Virginia G. Piper Writers House to study and decompress and grabbing a bite at Crepe Club turned into favorite pastimes.

Nawaz sought out research opportunities at ASU but struggled to find one that truly resonated with her interests.

"I was scared to leave research opportunities that I was not feeling fulfilled by, but the graduate teaching assistants I worked with helped me feel free and secure in wanting to find something new. They were essential in shaping that decision," she said.

Joining Assistant Professor [Esther Florsheim](#)'s lab in the [Biodesign Center for Health Through Microbiomes](#) at the end of her sophomore year not only helped Nawaz choose a major, but also discover her passion for immunology. Her research there has focused on how our bodies react to toxin ingestion. The team uses specific cell types in vitro to learn about how the cells sense and respond to toxins.

"I'm thankful to ASU for offering so many opportunities in different fields, something that helped me find out what I liked the most," Nawaz said. "I'd tell other students in similar positions to not be afraid of trying new things."

A member of Barrett, The Honors College and a recipient of the New American University President's Scholarship, she is graduating this May with a bachelor's degree in molecular biosciences and biotechnology from the [School of Life Sciences](#).

After graduation, Nawaz is headed to the Mayo Clinic Alix School of Medicine's MD Program and is considering a dual degree option to obtain a master's degree in immunology.

Read more about Fathima Nawaz's experience at ASU below.

Note: Answers are edited for length and clarity.

Question: What was your "aha" moment when you realized you wanted to study the field you majored in?

Answer: When I met my amazing professor and PI, Esther Florsheim, for the first time. I remember walking onto the third floor of the Biodesign Institute and noticing a "Happy Birthday" banner across the lab office. "We celebrate birthdays here!" was one of the first things Florsheim said to me. That small detail stood out to me. The lab felt welcoming and supportive, and I could tell it was the kind of environment where I'd feel comfortable learning and growing.

When she explained the lab's work in immunology, particularly its focus on allergies and environmental toxins, I was hooked. I found myself genuinely curious about the questions the lab was trying to answer. That day made me realize I wanted to dive deeper into this field.

Q: What's something you learned at the Biodesign Institute that surprised you or changed your perspective?

A: One thing that surprised me here is how much research has shown me what I don't know. The deeper you get into a project, the more questions you uncover. It's an experience that has been both humbling and motivating.

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

A: It's hard to pinpoint just one lesson because Florsheim's mentorship has shaped nearly every aspect of how I work and my experience at ASU. I've learned how to be a stronger communicator, writer and planner with her. I've learned patience. Florsheim has taught me to approach problems from multiple angles, to keep fueling my curiosity and to always ask, "Why?"

Q: What's the best piece of advice you'd give to those still in school?

A: Finding a supportive mentor is the key to success. Talk to everyone and ask questions. Graduate teaching assistants are especially helpful. They've been in your shoes recently and can guide you in approaching professors, figuring out your research interests and navigating opportunities.

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

A: I would invest the money into community support services like food security, housing assistance and educational programs for children. Humanity faces countless challenges, but by addressing the needs of communities, we can create a foundation for a more prosperous society.

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

Main image



“I’m thankful to ASU for offering so many opportunities in different fields, something that helped me find out what I liked the most,” said Fathima Nawaz, who is graduating with a bachelor’s degree in molecular biosciences and biotechnology and is heading to the Mayo Clinic Alix School of Medicine next. Photo by Quinton Kendall/ASU

Text image(s)



At the Biodesign Center for Health Through Microbiomes, undergraduate Fathima Nawaz's research focused on how our bodies react to toxin ingestion. Photo by Quinton Kendall/ASU