

# ASU grad aims to improve diagnosis for autoimmune patients like himself

By Rithwik Kalale, ASU News  
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**Editor's note:** This story is part of a series of profiles of notable [spring 2026 graduates](#).

As a supervisor in the sample accessioning department at a molecular diagnostics company, Ayden Hall saw firsthand how genetic sequencing and analysis could guide cancer treatment. At the same time, he was dealing with his own health challenges, navigating a delayed diagnosis of Crohn's disease.

"I quickly drew parallels between the diagnostic work there and my own experience," he said. "That made me eager to get more involved."

At Arizona State University's Biodesign Institute, Hall found a research home at the [Center for Health Through Microbiomes](#), where he contributes to work exploring the gut-brain axis and the role of microbial communities in human health.

"The collaboration between labs has opened my eyes to the kind of science that addresses real-world problems at scale," he said. "What once seemed like separate disciplines now feels interconnected, each contributing a piece to a much larger puzzle."

That perspective extends beyond the lab. Hall also serves in leadership roles connected to the Crohn's and Colitis Foundation, advocating for patients and helping raise awareness about chronic disease.

After graduating this spring with his bachelor's degree in molecular biosciences and biotechnology, Hall will continue at ASU, pursuing a master's degree in microbiology while remaining active in research and helping train students in core lab techniques. Looking ahead, he plans to become a physician-scientist, combining clinical care with research to improve diagnostic timelines for autoimmune diseases.

"The period of uncertainty is agonizing," he said. "Providing physicians with better tools to identify the root causes of these patients' health issues is my top priority."

Read more about Hall's experience at ASU below.

*Note: Answers have been edited for length and clarity.*

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

**Answer:** I loved the collaborative research taking place at Biodesign, especially coming from a multidisciplinary clinical practice where we often relied on the expertise of individuals from different fields to determine a patient's treatment path. I began searching for different labs to reach out to, and the research at the Center for Health Through Microbiomes, focusing on the gut-brain axis, resonated with my own experiences managing inflammatory bowel disease.

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

**A:** Each poster, dissertation or developed research technique is a step toward building larger stories that translate into a better world. Before my time at ASU, I pictured academic sciences as siloed in their respective fields, but the collaboration between ASU research labs, leveraging many different perspectives, has opened my eyes to the kind of science that addresses real-world problems at scale. Now I find myself discussing my research with people from various fields to gain their perspectives and insights, and I am always excited to share my thoughts on others' studies.

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

**A:** Not to be afraid to voice my thoughts or ask questions, especially in environments where I am uncomfortable. When I started at Health Through Microbiomes, much of the research and techniques they discussed were alien to me. I felt seriously unqualified to be working alongside researchers who had been doing microbiome-based research for years, and I was intimidated about asking questions or suggesting research techniques based on my previous experience. My mentor, postdoctoral researcher [Sterling Wright](#), had me step outside my comfort zone by asking questions, pushing me to independently learn unfamiliar methods and asking me to describe my findings, which quickly helped me build the confidence to speak up in these environments.

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

**A:** Don't give up; the path to success is rarely straightforward. In our paths to success, we set expectations of ourselves that feel like we fail when we don't meet them. It's important to keep these expectations malleable and never stop learning from our experiences, whether they are failures or successes. Hardships vary for everyone, and many are invisible to others. Show gratitude to those who support your journey and be sure to return the favor when they need it, fostering community. Community is our strongest tool for overcoming life's obstacles.

**Q: If someone gave you \$40 million to solve one problem on our planet, what would you tackle?**

**A:** I want to improve diagnostic outcomes for patients with autoimmune conditions, which still take an average of four to seven years to diagnose for most patients. The period of uncertainty, during which patients struggle with symptoms without knowing the underlying cause, is agonizing. It causes stigma, overwhelming uncertainties and lost time with loved ones. Providing physicians with better tools to identify the root causes of these patients' health issues and reduce their suffering is my top priority problem, even if I can help just a single community of patients.

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## Main image



Ayden Hall, photo by Andy DeLisle/ASU