To: Nakatani Foundation

Nakatani RIES 2026 Final Report

Your name: Jeanne Kamau

Your university: Georgia Institute of Technology

Host lab in Japan: Matsuoka Lab, Cutaneous Allergy and Host Defense Lab

Research mentor(s): Dr. Yumi Matsuoka and Dr. Hiroki Okamoto

Meaning and Impact of the Nakatani RIES Fellowship: How would you describe the meaning and impact of the Nakatani RIES Fellowship on you?

The Nakatani RIES Fellowship felt like a once in a lifetime experience for me. I had a lot more fun and enjoyed myself more than I expected I would. The Nakatani RIES Fellowship is intended to have students become more independent and comfortable in a Japanese lab environment setting. It is important to increase Biomedical Engineering presence globally and create culturally aware and responsible students. The Nakatani Foundation internship has been the most impactful experiences of my undergraduate career. I significantly improved my laboratory skills through hands-on work with RNA extraction, RT-qPCR, and mouse models while learning how to think more critically as a researcher. Beyond the science, working in an international research environment taught me the value of collaboration across cultures and exposed me to different approaches to conducting research. Living independently in Japan also helped me become more adaptable and confident. Overall, the experience reinforced my passion for biomedical research and medicine, and I came back with stronger technical abilities, a more mature research mindset, and a broader global perspective.

Please complete the following sentences with potential applicants to the Nakatani RIES Fellowship as the intended audience.

- My favorite experience in Japan was
  travelling to Okinawa and snorkeling in blue cave!!
- Before I left for Japan, I wish I had...
  spent a bit more time exploring Tokyo and going to Yokohama and Rainbow bridge.
- While I was in Japan, I wish I had...
  learned more Japanese to help me get by and saved my cash better😅

Research Internship Overview: Provide an overview of your research project and your experience during the internship. How did the project relate to your current or future academic interests? What was it like to work in an international research setting?

What did you learn from your research experience this summer, and how has it influenced, or how do you expect it to influence, your future academic path or research interests?

For my research project, I studied the effects of neonatal UVB exposure in relation to atopic dermatitis susceptibility. We were testing a study that found that babies born in the autum time had a higher risk of getting atopic dermatitis compared to babies born in the springtime due to lack of Vitamin D and UVB exposure from being born near colder months. The project was nothing like I had ever done before but it related to my current and future academic interests because I love working with children and in the future, I want to become a pediatric doctor. It was very fun to work in an international research setting! I liked how slower paced and relaxed work felt compared to American labs. The only hard part was the language barrier when I needed to ask for help or explain something to my mentor or other lab members it took a bit more effort. I learned so much from this research experience! I learned that the results you want take time to come and being patient with research is very important. It also really increased my technical and microbiology lab skills a great deal! It made me more interested in immunology and dermatology research since I had never explored that as a research option beforehand. This internship was very helpful for me to learn about early child skin diseases and allergies since I would like for my patient population when I become a doctor to be children.

Lab Environment Overview: Describe the lab environment and the personality and working style of your research group. What was it like to work with your research mentor(s)? How would you describe the overall group dynamic in the lab?

The lab environment was very quiet and professional. Everyone mostly kept to themselves and got their work done on time. There was a lot of collaboration on experiments that happened which I loved. Many of the lab members were so kind and willing to show me a bit of their experiment for teaching and learning purposes. My research mentor and PI were both amazing and so knowledgeable! It was a great group dynamic as I was able to understand exactly what he expected and wanted out of me to complete each day. Communication was a bit hard sometimes, but we had common ways of understanding each other. I really appreciate how welcoming and supportive my lab was. They also took me and the other US intern in the lab on a day trip to Kyoto which was filled with super fun activities!

Daily Life in Japan: Describe your daily life in Japan. You may include the people you interacted with outside the lab, food, your housing and living experience, travel around Japan, challenges you faced, and rewarding experiences you had over the summer.

Daily life in Japan was amazing. I felt very grateful to be in Japan every day I woke up. I was given a bicycle to ride by my mentor so that was how I travelled to lab every day. I also used the bike often to go to the mall or grocery store whenever I had free time. I loved riding around Minoh area and looking at all the houses. I also loved exploring the food, shopping and nightlife culture in Shinsaibashi. I made new friends every time I went out. The living experience in Mei House 2nd apartment was great and very cozy. It had everything I needed although there were frequent cockroaches 😅. Some challenges I faced was making it on the train and bus on time in Osaka and Kyoto since google maps often would say the bus and train is delayed so I would not know the real time that it would arrive. I had rewarding experiences through the cultural activities we had, hiking and walking in the mountains in Minoh, Gotemba and Hiroshima as well as shopping for cheap prices!!!

Experiences with Japanese Culture: Describe your most meaningful experiences with Japanese culture. These could include program activities, interactions with people in your lab, or experiences from daily life that you feel illustrate aspects of Japanese culture or values. What did these experiences teach you about Japan? What did they teach you about yourself?

The most meaningful experience to me was the closing trip when we went to Hiroshima Peach Memorial Museum and the spa village. It taught me so much about Japanese culture and history. Especially about world history facts which I already should have known as a U.S citizen. It taught me that I love world history and culture and learning about it helps me stay connected with new cultures and people I meet! My second favorite activity was when my lab members took me to Kyoto and we went to Kiyomizu Dera in yukatas, made custom pottery, made homemade Umeshu to take home and experience nightlife in Kyoto. I loved that we were all able to connect after lab and have a great night together.

Returning to Japan: Do you plan or hope to return to Japan in the future? If so, what would you like to do? What would you need to make that happen?

Yes!!! 1000 times yes! I want to go back to Japan tomorrow 😂 I loved my experience and would consider working in Japan full time for a few years after I graduate! I would like to work for a biotech or med device company that helps underserved communities around the world. I think I would need a sponsor to help me for the first few months of living and moving there.