TO: Nakatani Foundation

Nakatani RIES 2024 Final Report

Your Name: Surya Murali

Your university: Kyoto University

Host Lab in Japan: Shintaku Lab

Meaning of Nakatani RIES Fellowship: How would you describe the meaning/impact of the Nakatani RIES Fellowship

The Nakatani RIES Fellowship was honestly one of the coolest experiences I've ever had. It wasn't just about the research (though that was great), it was more about getting out of my comfort zone and actually living in a completely different culture. From riding trains across busy cities to spending time in smaller towns, I got to see a side of life that's so different from what I was used to. The biggest thing that stuck with me was how much respect people had for each other and for the little rules that keep everything running smoothly. It made me realize how much I take that stuff for granted back home, and it's something I want to carry with me moving forward.

Complete the following sentences with the intended audience for these responses being potential applicants to the Nakatani RIES Fellowship.

- My favorite experience in Japan was...
 - o Climbing Mt. Fuji and seeing the sunrise from the summit
- Before I left for Japan, I wish I had...
 - Actually learnt some Japanese beyond the basics
- While I was in Japan, I wish I had...
 - Gone charter fishing of the coast in Okinawa

Research Internship Overview: Provide a description of your research project and experience during your research internship. How did your project relate to your current or future academic interests? What was the experience of working in an international research setting like? What will you take away from your research experience this summer and what impact do you think this has had or will have on your future academic career or research interests?

This summer, my research focused on how mechanical confinement influences cancer cell dormancy using the MECH-seq platform, comparing behaviors across cell lines like MCF7, MDA-MB-231, and NMuMG. The project tied directly to my academic interests in biomedical engineering by showing how physical microenvironments can regulate cell fate, which has major implications for cancer therapy. Working in an international setting challenged me to adapt to new perspectives and lab cultures, which broadened the way I approach collaboration. Overall, this experience deepened my interest in pursuing research that bridges engineering and medicine while preparing me to work effectively across diverse teams in the future.

Lab Environment Overview: Provide an overview of what the personal environment of the lab was like. Describe the personality and working style of your research group? What was it like working with your research mentor/s and the overall group dynamic in the lab?

The lab environment was both welcoming and collaborative, which made it easy to feel comfortable right away. My research group balanced being focused and driven with having a laid-back and supportive atmosphere, so there was always room to ask questions and share ideas. My mentor was approachable and genuinely invested in my learning, giving me the right mix of independence and guidance. Overall, the group dynamic felt like a team that valued both hard work and mutual respect, which made the experience really positive.

Daily Life in Japan: Provide an overview of what your daily life was like in Japan. This could include the people you interacted with outside the lab on a day-to-day basis, food, your housing/living experience, your travels around Japan and the challenges you faced and the rewarding experiences you encountered over the course of the summer.

Daily life in Japan was a fun mix of small challenges and exciting discoveries. I lived in an apartment, which meant figuring out things like grocery shopping, cooking with limited space, and managing the recycling system that was way stricter than I was used to. At the same time, I got to enjoy amazing food, meet new people, and travel around the country on weekends. Those little daily adjustments, combined with the bigger adventures, made the experience both rewarding and eye-opening.

Experiences with Japanese Culture: Provide an overview of your most meaningful experiences with Japanese culture. This could be program activities or interactions you had with your lab or within your daily life in Japan that you think best exemplify aspects of Japanese culture or values. What did the experience/s teach you about Japan? What did they teach you about yourself?

One of my most meaningful experiences with Japanese culture was seeing how much respect people show for one another in everyday life, whether it was standing in perfectly organized lines for trains or the quiet politeness in restaurants and shops. I also really noticed how seriously rules and community values are taken, from recycling to lab etiquette, and it made me reflect on how casual I can be about those things back home. These experiences taught me to slow down, pay attention, and be more considerate of the people and environment around me. In the process, I learned that I actually value structure and mindfulness more than I realized.