

Meet the Fellow

Annika Strasman

Host Laboratory: Houston Health Department Laboratory

Degree of Study: Biological Sciences

Graduation: May 2024

School: Cornell University



Photo courtesy of Annika Strasman

From left to right: Mingzhong Zheng, Linda Galicia, Sajina Poudel and Annika Strasman are pictured in their controlled air-purifying respirator (CAPR) suits at the Houston Health Department Laboratory.

Tell us about your educational background?

I graduated from Cornell University in May 2024 with a bachelor's in Biological Sciences.

What brought you into laboratory science?

The Public Health Laboratory Fellowship Program: an APHL-CDC Initiative was my first introduction to laboratory science, outside of the laboratory courses I took in college. I previously had dry lab experience from my college internships, but I wanted to gain wet lab experience. This fellowship has provided me with the learning opportunity to gain hands-on public health laboratory experience.

How did you hear about the Public Health Laboratory Fellowship Program?

I found the Public Health Laboratory Fellowship on a LinkedIn Job posting and immediately applied!

How did this fellowship match or exceed your expectations?

When I first got my interview, I had no idea what bioterrorism testing involved or how to work in a general laboratory. I knew that this would be a learning experience for me, but I had no clue how much I would learn in just one year! Since starting my fellowship, I have learned so much about working in a laboratory, conducting quality control maintenance, and following various testing procedures from receiving a sample to reporting results.

Tell us what you learned from your mentor.

Over the past year, I have learned a lot from my mentor. He taught me about extraction and polymerase chain reaction (PCR) and helped me to understand each step of these processes. More importantly, my mentor taught me how to work safely in a Biosafety Level 3 (BSL-3) laboratory: he taught me how to don and doff Personal Protective Equipment (PPE) and how to work safely under the biosafety cabinet. My favorite thing about my mentor is that he meets me where I am. My mentor allows me to learn at my own pace and is available when I need help or make mistakes.

Tell us about your project assignments/laboratory roles.

My project is to conduct clinical testing for various assays in the Molecular Diagnostics laboratory. For example, I am competent in mpox, measles, flu, and bioterrorism/select agent testing. I receive samples, manually extract DNA and RNA, complete PCR analysis, and report results to local hospitals. Additionally, I am working on writing and executing a verification (plan to re-establish the Novel

Coronavirus 2012 Real-Time (RT)-PCR Assay at the Houston Health Department Laboratory.

How has your fellowship experience inspired you?

My fellowship has inspired me to delve even further into the field of public health and continue to pursue my passions, despite the many challenges we face today. Although there have been large funding and job cuts this past year, the APHL fellowship has allowed me to continue working in the laboratory and gain invaluable skills that I plan to transfer to my future educational and professional endeavors

How would you describe the APHL Fellowship to other students?

I would describe the APHL Fellowship to other students as an opportunity to learn and obtain real-world public health skills and experience. For example, before starting my fellowship, I had no idea how to conduct clinical testing, perform PCR, or culture bacteria. This fellowship allowed me to learn on the job and gain skills that I ordinarily wouldn't have been able to do until I had more years of experience. The APHL fellowship opportunity is a great experience for anyone who is taking a gap year prior to further education or looking to gain experience before entering the public health workforce.

Aside from the laboratory and the science, did you gain any other beneficial life experiences?

Yes! Aside from the scientific aspect of my fellowship, I also had the opportunity to relocate to a new city and figure out my life post-graduation. Recently, I have experienced learning independence, financial responsibility, forming good habits, and meeting new people. I have even made some friends at work and the APHL National Conference! I play the flute in the Houston Concert Band, play pickleball and golf, cook and bake, and I have been exploring a new city with friends.