

Meet the Fellow

Courtney Gauchel

Host Laboratory: Eilbeck Laboratory at the University of Utah

Degree of Study: Master of Science–Biomedical Informatics

Graduation: May 2025

School: University of Utah

Tell us about your educational background?

I just completed my Master of Science in Biomedical Informatics at the University of Utah, specializing in Clinical Informatics. I graduated May 16. I have a Bachelor of Arts in Communications from the University of Wisconsin-Madison, and a Bachelor of Science in Nursing from Viterbo University in La Crosse, WI

What brought you into laboratory science?

My path into laboratory science was unconventional but incredibly meaningful. While searching for a practicum project for my master's program in biomedical informatics, my program director recommended I meet with Dr. Karen Eilbeck about a novel chatbot project focused on educating parents about positive newborn screening results for sickle cell trait. Given my background in labor and delivery nursing and communications, he believed I'd be a strong fit.

That meeting opened the door to a completely new dimension of public health and laboratory science — one rooted in data, technology, and patient education. I was encouraged to apply for the Career Pathways in Public Health Laboratory Science Fellowship - an APHL-CDC Initiative, which allowed me to dive deeper into biomedical informatics and the lab side of newborn screening. So, while I entered this field in a non-traditional way, it's been the perfect intersection of my skills, values, and passion for improving patient outcomes.

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

I first heard about the APHL Newborn Screening Fellowship through my graduate program director, Robert Barber, at the University of Utah. Knowing



Presenting my Ignite Speech at the APHL Newborn Screening Symposium 2024 in Omaha, Nebraska. You can watch the Ignite presentation where Courtney spoke [here](#).

I was transitioning from nursing into biomedical informatics and actively seeking hands-on experience, he recommended I apply. He believed the fellowship aligned perfectly with my goals. At the time, Eilbeck was beginning work on a newborn screening chatbot project. Robert recognized that my background in nursing, communications, and informatics made me an ideal candidate for the role. He introduced me to Eilbeck, and after meeting with her, it became clear that the project and I were a great match. She encouraged me to apply for the fellowship, which would allow me to dedicate myself full-time to this innovative work and gain meaningful experience in the field of biomedical informatics and public health.

How did this fellowship match or exceed your expectations?

This fellowship has far exceeded my expectations in every way. From the beginning, APHL demonstrated remarkable flexibility by supporting a fully remote fellowship with the University of Utah — something that was essential for me as a single mom of



Dinner with other APHL Fellows in Portland, Oregon during APHL2025 Annual Conference.

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three school-age children living in Wisconsin. I'm incredibly grateful that the program was willing to create a non-traditional setup to fit my life circumstances.

What truly made this fellowship exceptional was its openness to innovation. With my background in nursing and communications, my project didn't follow the typical laboratory path. Instead, APHL embraced a more interdisciplinary approach, allowing me to explore biomedical informatics and lead the development of a participatory chatbot designed to educate parents about newborn screening and positive trait results. This work addresses real-world challenges like the shortage of genetic counselors and limited educational tools for families.

The fellowship didn't just match my expectations—it empowered me to grow, create, and contribute in ways I hadn't imagined possible when I first applied

Tell us what you learned from your mentor.

I've learned an incredible amount from my mentor — both professionally and personally. She guided me through the fundamentals of bioinformatics and genetics, helping me shift from a bedside nursing perspective to understanding newborn screening from a laboratory and data-driven lens. Thanks to her, I not only grasped the science but also learned how to communicate complex information to parents in a clear, compassionate, and accessible way. She introduced me to new software, connected me with the developer of our chatbot platform, and supported my training in usability testing and chatbot authoring. Through her network, I was able to collaborate with nationally recognized genetic counselors to co-create a script tailored to parents' informational needs and literacy levels.

Eilbeck also encouraged me to share my work publicly, helping me prepare and refine my Ignite presentation for the APHL Newborn Screening Symposium in October 2024. Her mentorship pushed me beyond what I thought I could do. Beyond the professional support, Eilbeck has been a role model in every sense. She leads with kindness and empathy and is an example of what it means to succeed not only in science but in life. As a working mom myself, I've deeply admired her ability to balance a meaningful career with being a present, devoted parent and partner. She's shown me that it's possible to do both — and do both well. I feel incredibly fortunate to have had a mentor who inspires me in every area of life.

Tell us about your project assignments/laboratory roles.

My project assignments are as follows:

- Create a chatbot script working with genetic counselors and the University of Utah faculty
- Create Zoom interview scripts for parents

and providers for qualitative interviews using the critical incident technique and usability feedback

- Create numerous chatbots addressing Sickle Cell Trait Results, newborn screening, and AI versions of these chatbots as well.
- Complete qualitative analysis of Zoom interviews
- Create an Ignite Presentation for the APHL NBS Symposium 2024 about our chatbot project and the background behind it
- Create Qualtrics survey for 300 people with Sickle Cell Trait chatbot embedded into the survey.
- Analyze results from the Qualtrics survey
- Create visualizations from the Qualtrics survey data
- Network at conferences to secure partners to implement chatbot into workflows

How has your fellowship experience inspired you?

My fellowship experience has truly broadened my perspective on what a career in public health can look like. It's inspired me to stay open to the wide range of paths available—many of which I hadn't considered before. I've come to see that there are countless ways to make a meaningful impact, whether through research, policy, data, or direct public health initiatives. This experience has not only expanded my professional horizons but reaffirmed my passion for helping people in ways I never imagined.

How would you describe the APHL Fellowship to other students?

I would describe the APHL Fellowship as an exceptional launchpad for early-career professionals. In a job market where most positions require prior experience but few provide a way to gain it, this fellowship fills a critical gap. It offers hands-on, meaningful work in public health while providing mentorship, networking, and real-world training that make you a strong candidate for future roles. It's truly one of the best opportunities to gain the experience and confidence needed to thrive in a competitive field.

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

Beyond the laboratory and scientific skills, this fellowship gave me invaluable life experience in balance, resilience, and time management. The flexibility offered by APHL allowed me to successfully navigate full-time graduate school while raising three children after getting divorced—all while fully engaging in the fellowship. This opportunity not only supported my professional development but also empowered me to grow personally and maintain presence in all areas of my life, which has been truly transformative.