

Laboratory Leadership Service (LLS)

Laboratory Leaders Up Close



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—Caelin Potts, PhD
LLS Class of 2016



Caelin Potts, PhD

As a research scientist, I have always been interested in how my work could impact human health. During my graduate work at Johns Hopkins Bloomberg School of Public Health and my postdoctoral studies at Emory University, I focused on scientific research related to cell division and how DNA structure affects gene expression. I was drawn to these fields because an understanding of basic biological elements is essential to developing medicinal therapies. After 10+ years of discovery-based research experiences, I longed for a role with a more direct and immediate impact on public health. When I learned about the Laboratory Leadership Service (LLS) from a program participant, I knew it was a perfect fit for me to continue my professional development while addressing real public health issues. I was especially excited for an opportunity to work in a CDC laboratory, where my work can potentially inform public health policy decisions.



Caelin Potts, PhD, LLS fellow in the Bacterial Meningitis Laboratory, has implemented quality control metrics for the laboratory's whole genome sequencing workflow and measures to improve laboratory quality and safety.

My LLS fellowship began in 2016 with an assignment to CDC's Bacterial Meningitis Laboratory (BML) in the Meningitis and Vaccine Preventable Diseases Branch.

Because I'd never worked with a pathogen before joining CDC, I was eager to serve on a team of experts where I could apply my technical expertise in whole genome sequencing to U.S. disease surveillance activities. In my role, I used whole genome sequencing techniques to characterize the genetic diversity of *Neisseria meningitidis* isolates – the cause of meningococcal diseases collected in the U.S. from 2011–2015. I also conducted risk assessment and implemented quality control metrics to improve quality and safety on advanced molecular testing in my laboratory. Overall, the combination of on-the-job service and professional training in research, quality and safety have given me a strong foundation to excel both inside and outside of the laboratory.

A pinnacle of my fellowship experience was participating in a joint laboratory and epidemiological outbreak investigation in response to a cluster of 31 cases of unexplained illness, including 13 deaths, reported in Sinoe County, Liberia. My laboratory investigation during the response led to 13 confirmed and 3 probable meningococcal cases. I also coordinated communications between the Incident Response Team in Atlanta headquarters and the in-country team conducting specimen testing. This unique experience allowed me to use my scientific and communication skills, serve on a multidisciplinary team, and directly impact a public health response.

The LLS fellowship is an amazing opportunity that has inspired and positioned me for a career in public health.

Learn more about LLS at
www.cdc.gov/lls

Center for Surveillance, Epidemiology, and Laboratory Services (CSELS)
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