On-screen: CDC logo on bottom right, text attribution for CDC’s Public Health Infrastructure Center on bottom left. Title of presentation: Preparing Your Best LLS Application: Applying to become a member of the Laboratory Leadership Service (LLS).

Tara Henning: Welcome, everyone. It's the top of the hour, so we'll go ahead and get started.

On-screen: headshots of Tara Henning. Verbal descriptions followed.

Tara Henning: I'm looking forward to sharing with you today information on CDC's Laboratory Leadership Service fellowship program, or LLS. I'm Tara Henning. I'm the Director of the LLS program. In the webinar today, we're going to walk through an overview of the program and discuss the application process. I'll give a few tips for a competitive application, but you'll also receive a handout after the session with more detailed recommendations on how to prepare your application and where to find additional support. This is going to be sent to the email that you used to register for the webinar.

LLS is a two-year program for PhD scientists in a laboratory-related field. Newly graduated and even soon to graduate PhDs, as well as those with postdoctoral experience, are welcome to apply. The most competitive applicants are those who have an interest in, or even a passion for, a career in public health. As we work through the slides this afternoon, I'm going to take a moment to highlight some of our current and past fellows, like here in this slide. This is Dave Lowe on the left, and he is a 2017 fellow. He was working with a novel rabies model as a part of his LLS applied research. Dave is now a team lead with CDC's Coronavirus and Other Respiratory Viruses Division Laboratory Branch.

The mission of LLS is to develop a diverse cohort of future public health leaders who demonstrate scientific excellence through leadership, service, and high standards of laboratory quality and safety. This is Class of 2018 fellow; Brandi Freeman and she was on a response deployment to the US Virgin Islands Public Health Lab. Brandi is now the Deputy Branch Chief for Laboratories in the Polio and Picornavirus Branch.

The training and experiences that LLS provide are based on competencies deemed critical for success as a leader in the public health laboratory workforce. These competencies were developed in collaboration with APHL, the Association for Public Health Laboratories, and they cover the gamut-- applied research, lab safety and quality, bioinformatics, lab management, communications. Leadership is a key area of development and the curriculum is designed to weave leadership experience and training throughout all of the competencies.

Fellows then complete Core Activities of Learning, or CALs, throughout their fellowship to build proficiency and skill within each one of those competency domains. Shown here is Class of 2022 fellow, Roxana Rodriguez Stewart and she was training partners in Thailand on antifungal susceptibility testing and doing this on behalf of her host site laboratory.

LLS training is largely on the job. It's experiential. It's service-based. On a near daily basis, fellows support the mission objectives of their host labs, whether through applied research contributions, conducting risk assessments, supporting lab ops or other routine but high performance activities. They also provide service to the nation's public health needs through the support of CDC initiatives. Only a small portion of LLS fellows' training is didactic.

We often get questions about where does an LLS fellow works. Our fellows are hosted and trained in either CDC or other jurisdictional public health labs across the United States and its territories. We offer a broad range of training opportunities and experiences regardless of where you are hosted. Featured on this slide are Class of 2022 fellows, Sergio Rodriguez and Peter Dumoulin, with the collaborating EIS officer and they’re at the Tampa Bureau of Laboratories in Tampa, Florida.

Now, Peter, on the right, is assigned as a field fellow to the Tampa lab. And Sergio, on the left, is a CDC headquarters fellow. Sergio was completing his LITE, or LLS Immersive Training Experience, at the Tampa lab. Even as a headquarters fellow, he's still gaining experience and perspective at the state and local level. Peter travels to CDC for training and frequently engages with headquarters-based fellows, CDC scientists, leadership, SMEs, and the LLS program. LLS encourages applicants to be open to both headquarters and field placements.

I keep mentioning that service and service learning. These are LLS cornerstones. Fellows provide service to their host site labs and research programs, but the service isn't just limited to bench science. Now, some of you may be looking to LLS for your postdoctoral training. That's great. But it's not designed to provide traditional academic postdoc experience. We're lab scientists and applied research is a key component of the fellowship, but that applied concept is going to manifest itself in a variety of ways that extend beyond the bench.

In LLS, you'll be challenged beyond your comfort zone. I'm going to ask you to push your scientific thinking and your contributions beyond the bench and your usual defined area of expertise. It's a rewarding experience like no other. Fellows learn through service to CDC's mission in partnership with state and local labs, on a field deployment, and a variety of other unique opportunities that we're going to discuss a little bit more in the next few slides. Shown here is Class of 2023 fellow, Blake Bertrand, and he's assigned to the Georgia State Public Health Lab.

LLS fellows can lead Lab-Aids as a part of their service learning and gain leadership experience. Now, a Lab-Aid can support a jurisdictional public health laboratory's needs or even those of a CDC lab at headquarters and they provide opportunities for cross training and collaboration with your LLS colleagues and lab SMEs. Lab-Aids help facilitate that fellowship experience balance that we keep speaking about, and it allows headquarter fellows to have opportunities to work in the field and vice versa for field fellows to work at headquarters.
Our sister program is the Epidemic Intelligence Service, or EIS. LLS often partners with EIS officers to provide lab support for their Epi-Aids. EIS officers join Lab-Aids to provide EPI or surveillance expertise when needed. Shown here on the far left is Class of 2020 fellow, Stephen LaVoie. Stephen was leading a

Lab-Aid with our partners in the US Virgin Islands Public Health Lab working on COVID testing workflows. Stephen is now the Team Lead of the Antimicrobial Resistance Characterization Lab with CDC's Clinical and Environmental Microbiology Branch.

LLS fellows are a deployable force. Now, you won't spend all of your time in the field or on a response, nor should you expect to, but we are CDC disease detectives and when the call comes, LLS fellows fully support CDC's emergency response needs. In 2019, the program pivoted fully to support the agency and the nation's response efforts to COVID-19. LLS fellows were among the first to deploy with some on board the Princess cruise liner ship at its docking and at the military base quarantine sites that were repatriating US citizens early in the pandemic.

For the monkeypox outbreak and response in 2022, the first CDC responder in the field was an LLS fellow and we'll be ready to deploy again when the next public health threat emerges. Shown here is Class of 2022 fellow, Perri Callaway. Perri participated in the Mpox response. She even headed to the field about two months after beginning her fellowship. In this image, she was prepping specimen packets for an Mpox vaccine study.

In addition to Lab-Aids, the joint Epi-Aids I mentioned, maybe even the large global public health response efforts, our fellows can still have opportunities to deploy or work in the field through their own host lab assignments. Shown here on the right is Megan Mickum. Megan is a Class of 2022 fellow, and she was providing lab training for cholera detection in El Salvador.

Regardless of how or where they serve, in the field or in their host site, LLS fellows are on the front lines of public health. Megan is going to remain with her site as a unit lead supporting additional international laboratory capacity-building efforts once she finishes up her fellowship. Particularly for field fellows, those fellows who were assigned to a state or local lab, being on the forefront, being on that frontline is a common practice. Field fellows routinely interface with their community through studies, programs or local emergency responses.

LLS fellows are involved in so many service-based activities that aren't associated with the deployment, but that they still provide unique leadership training opportunities and most of these are just part of your daily duties within your own host lab assignment. Our goal is to challenge fellows to not just complete an activity but take a leadership role in that activity. Like in this photo, this is Class of 2022 fellow, Katie Margulieux. She was leading a lab training at her host site with the Michigan Laboratory on a new testing process that she'd implemented.

Our fellows and alumni can share more examples of LLS's leadership training opportunities, such as serving as the branch liaison on interagency collaborations with the FDA, consulting on global biosafety guidance with the WHO, or even leading the design and the setup of a new lab in New York City for rapid STD testing. I encourage you to reach out to them or attend our fellowship experience webinar to learn more.

Now, we've spent a good bit of time discussing these amazing field responses and deployment opportunities. And yes, LLS can provide those types of rewarding opportunities, but the LLS experience doesn't just happen in the field. Particularly when there's not a global pandemic, the magic of LLS is in the day-to-day.

It's this high caliber and challenging activities at the fellow's host site. Fellows have the ability to engage with public health leadership at all levels across multiple agencies and build partnerships with those experts. They receive mentorship from leaders and subject matter experts that are dedicated to their professional development.

I just wanted to be sure to point this out, that there's a good bit of time spent around a conference table at the lab bench or with a computer. There's a balance to the LLS experience. As a program, we ensure that our fellows receive the benefit of the whole experience. Shown here are members of the Infectious Disease Pathology Branch at CDC with Class of 2022 fellow, Andres Wong-Sam, at the front right. Shifting a little bit, we get lots of questions about what fellows do after LLS. Now, my goal is to train and retain fellows in public health. As of June 2023, so when the 2021 class graduated, about 94% of our matriculated fellows remained in public health after LLS. About 77% of those remained with CDC.

We expect more fellows to accept positions with state and local labs after the increase in the fellow placements at those types of sites. For example, Erik and Elizabeth, shown here, they were both hosted at the New York City Public Health Lab. Erik was a Class of 2021 fellow, and he accepted a position as Chief of Virology with the New York City lab. And Elizabeth Watts is a Class of 2022 fellow, who is busy wrapping up her fellowship, and she'll serve as their Chief of Environmental Sciences.

The types of positions that LLS fellows assume after graduation varies greatly, but for the most part they find themselves working in public health lab science and program management and delivery and leadership. These data that I'm showing you here, they represent current positions. We're seeing the full spectrum of recent graduates all the way back to early alumni. The LLS program provides tailored one-on-one support to the fellows for that post-fellowship job hunt, includes interview, networking and CV training.

Let's go ahead and pivot to discussing the application and the selection process. The first step-- submit your application. You're going to do that online. The portal is open now and will close June 3 and you can access the portal through the LLS website, so that's cdc.gov/LLS.

Your applications are first reviewed for basic eligibility. If you don't meet those requirements, which I'll define in the next couple of slides, your application will be automatically rejected. After eligibility review, comes the deeper review and scoring of your application-- your education and experience, letters of recommendation, etc.
Applicants with high quality applications advance to the first round of interviews with the LLS program. You should expect to hear by the end of July whether you'd advance to program interviews. These interviews take place the second and third weeks of August.

Candidates with high scores from the program interviews will have met all criteria to be among the next class of LLS fellows. You need only match with the host site lab to secure your place in the class.
So next comes the match interviews. Fellow candidates are going to be able to review the position descriptions for all available host sites and select the ones that they'd like to interview with. The match interviews take place mid-September through mid-October. After those interviews, fellow candidates will rank their lab preferences, the labs will rate the fellows that they interviewed with, and we use a statistical algorithm to assign final matches.

Our class size is budget-dependent. At this time, we're looking at about a class size of around 10. So new this year is also a reference check. Between the program and the match interviews, LLS will contact two references. You'll provide these references when you submit your application, so applicants that have an unacceptable reference check wouldn't advance to match.

I touched on eligibility. The entire process begins there. If you're not eligible, your application won't be reviewed. You'll need a PhD in a laboratory-related discipline. Some public health and health scientist doctoral programs will also meet eligibility requirements if they have a lab research component. We've had applicants with medical and veterinary medicine degrees as well. These doctoral-level degrees may also be eligible if your program was research-based. We just need to review your transcripts and thesis description to determine the eligibility in those cases.

Fellows must be US citizens or have a permanent resident status at the time of application. We don't accept international applicants and are unable to support visas. If you're still in graduate school, you're going to need to defend your dissertation before March 31 of the year you enter the program. For the Class of 2025, you must have defended your dissertation by March 31, 2025, and be able to provide transcripts or proof of defense letter by this date.

At this point, I think it's helpful to address a common applicant question since we talked about lab-related disciplines as an eligibility requirement. We often get a question of, well, what if I don't have a microbiology background or a public health background? I want to encourage you to think about public health as more than infectious disease. We have a lot of host sites that request candidates with backgrounds besides that usual micro or molecular biology. LLS can be a great fit for a variety of lab training backgrounds.

To illustrate this point, here's a rundown of the degree landscape for all 98 matched fellows to date. A large proportion have PhDs in micro, molecular bio, immunology, and even the more general biological sciences, but a substantial number of matched fellows also have degrees like engineering, biomedical training, chemistry, biochemistry, and there’s even a place in LLS for candidates with genetics, environmental health backgrounds, EPI (epidemiology) and public health training. We love diversity, so do the host site labs. If you have concerns, go ahead and raise a question when we get to the question and answer portion, or just reach out and we can discuss.

Now, the public health background question is common as well and I'm not asking that you have public health training. That's what we want to give to you. You just need to have doctoral-level research training in a laboratory discipline, a service and learning mindset, and an interest, or, better yet, a passion for a career in public health.

Please do make sure when you're submitting your application that you've uploaded transcripts for all of the degrees that you have listed. Electronic transcripts are fine. If you're accepted to the program, you'll have time to get the official ones in for your hiring package.

We do accept foreign transcripts. If your transcripts aren't in English, they do need to have an accompanying equivalency report. Now, this isn't an eligibility requirement. It's just part of the application's transcript requirement. Your application can't be reviewed if we don't have the proper transcript documentation.

Equivalency reports are also needed for international doctoral programs that don't provide transcripts. A scanned copy of your doctoral degree diploma won't be sufficient.
Okay, let's get to the core of your application. Now, you're going to be asked to describe your work and research experience. Use this section to communicate to the reviewers the scope of your research and other work experience that you've had, any particular technical skills or accomplishments gained from that experience.

The reviewers should be able to infer, from these sections, your technical skill and experience, your initiative, ability to manage complex projects. How about your ability to collaborate or your service-oriented mindset, your leadership potential? Don't overlook that volunteer experience. This is an important, yet often underdelivered part of the application.

The application includes personal statement types of questions that will ask you to share your career goals and what you hope to gain from LLS. You want your responses to communicate your interest in and passion for public health and why LLS is the next logical step in your career. These are personal statement responses. It's okay to show your personality. There are also written responses, so proofreading is going to be your friend. But more importantly, let us know and give us a clear strong impression for why LLS is the right fit for you. Be sure to give a little bit of wow to your why.
Two letters of recommendation are required for the application. Choose these carefully. They should be from supervisors, senior mentors, committee members, etc., that know you well and have worked with you recently. They shouldn't be from colleagues or someone who worked with you many years ago. A poor recommendation or one that is not from a suitable source can hurt your application score.

And one of your best resources-- and we have some on the call today-- is connecting with your LLS community, and it includes fellows and alumni. Reach out to the fellows to learn more about the program, this application interview process. Get their perspective on how LLS could help you achieve your goals. Fellows and alumni are listed on the LLS website. As I mentioned, some will be available to answer questions when we're done with our information portion.

Consider attending the LLS office hour sessions. Those are listed on the website as well. Fellows and program staff will be available to answer your application questions. Now, before we move on, I do want to make sure we can highlight some of the fellows on this slide.

We have Class of 2019, Nick Weise, on the far left. He was processing samples on a field deployment. We have Class of 2019 fellow, Oren Mayer, there in the yellow suit. He was on a deployment to the Democratic Republic of Congo, prepared to board a UN Nations flight. To the right of Oren is Class of 2019 fellow, Shelby Chastain Potts, seated with her supervisor and her QMS mentor.
On the far right were members of the classes of 2020, 2021, and 2022, getting ready to participate in the EIS conferences prediction run. Lots of opportunities, lots of ways to engage and learn, and be a part of the LLS community of practice.

We talked about the elements of your application. I think it would be helpful to put that in context of how your application is going to be scored. It may help to reinforce what we discussed in that last slide. The first is your academic achievement. Your academic record should reflect a consistently high level of achievement. We also will review your other listed trainings and professional development.
We'll next review awards, merit-based fellowships, the overall scope of your lab training experience and that's going to include peer-reviewed publications and presentations. It's best not to include in preparation publications. As I mentioned before, that volunteer experience is a scored element and it's important. From this section, the reviewers will make inferences about your initiative, your accountability, the level of responsibility you've taken and your leadership potential.

I'll take note here. This is not a stock image. That's Class of 2022 fellow, Emilie Bouda, who was completing her immersive training at the Mississippi Public Health Lab.

Your personal statement will be scored based on your ability to clearly express, one, reasons that influenced you to consider a career in public health; two, the impact LLS would have on your career path and helping you achieve your goals; and three, what are some of the skills that you're seeking to develop or improve during the fellowship. Again, scoring and deductions will be made for grammatical errors, spelling errors, and again, proofreading is going to be your friend there.

And then finally, recommenders will comment on your ability to manage tasks and projects timely, your ability to take initiative, how you respond to constructive feedback, how you work with others. The letter writers will rate you in these areas, but they're also given the opportunity to give additional examples to support their ratings. That additional context is really helpful and encouraged, so be sure to mention that to them so they take advantage of it. Scores, again, are reduced if the letters are received from unsuitable recommenders.

I'd also like to highlight, in this image, this is Class of 2022 fellow, Emily Yarosz, on the left. She's with her host site supervisor at the Minnesota Public Health Lab.

Our fellows and our former applicants will agree that the LLS application and selection process, including all the program and the match interviews, etc., it's an intense process. It moves fast. You can ask Peter Dumoulin here. And this is a Class of '22 fellow. I introduced him earlier. He was out on mosquito control assignment. Also fast-paced, kind of reflects similar to our application process.

It helps to have this awareness and just make sure you're in the proper mindset to manage the schedule and be prepared for those next steps. Let's walk through what some of those next steps will look like as we recap what we've discussed here this afternoon.

In terms of timeline, be sure your application is submitted by June 3. That includes having your letters of recommendation in and you'll be able to monitor those in the application portal to know if you need to ping some folks with reminders. If you need equivalency reports for your transcripts, those will also need to be uploaded into the portal by June 3.

High-scoring applications will advance to interviews with the LLS program. You'll learn whether you advanced to this next stage by the end of July and as noted here, those program interviews will take place in August in the second and third weeks.

LLS will conduct reference checks for fellow candidates that score high enough on their program interviews. As I mentioned earlier, you'll list references in your application and LLS will consider feedback from two of them. Now, unlike your letters of recommendation, your references don't have to be those who have directly supervised your work, but they should be able to speak to your professionalism and your work ethic. Personal friends or colleagues should not be provided as references.
Fellow candidates with high program interview scores and acceptable references will be notified in September about advancement to LLS match and this is a conditional acceptance into the LLS class if you successfully match with the host site.

As I mentioned before, before the match interviews, you'll get to review the various position descriptions, choose the labs you'd like to interview with, and then you'll be able to rank order your preferences. They will be able to rate their interview with you and then we'll apply a statistical algorithm to the match.
Now, that host lab’s position description book can be extensive, depending on the year. You're going to want to plan to dedicate substantial time to review those positions, considering their location, associated living expenses, if you have a family or spouse. These are all things you're going to want to give a little bit of time and attention to. Don't neglect the effort that this should take and plan accordingly.

Fellows can choose up to 10 host sites to interview with in the match. This is where that intensity picks up. It's a lot to manage-- the interviews, the schedules, the impressions. These are big decisions. You're going to want to be on your “A-Game” for such an extended period of time.

I recommend that you speak with current and former fellows on how best to prepare for match. Do your homework. Come prepared. Remember, it's just as much an interview for them as it is for you.

I alluded to this a little bit earlier, but after match, or after the match interviews, you'll rank order your preferences. The labs will rate fellows based on their suitability for the various lab projects, or the training opportunities, the culture of that lab. We use a statistical algorithm to match fellows based on those submitted rankings and ratings.

Now, we would love for everyone to be matched with their first or second choice, but this often isn't logistically or mathematically possible. The algorithm doesn't function at the individual level, but it rather looks at the overall match quality of the cohort. It's possible to be matched with any ranked laboratory. We strongly encourage fellows not to rank a lab that they don't have any interest in working with.
The final match class will be notified by the end of November. Any unmatched fellows are placed on a waiting list, and we have often pulled from this waiting list.

Regardless of whether you're assigned to a field or a headquarters lab, LLS fellows are CDC employees who have unparalleled training and career opportunities. LLS is a unique experience. Our fellows are supervised and mentored by scientists who are experts in their field. No other fellowship provides this level of comprehensive curriculum and intensive training with tailored professional development and one-on-one program support. You can make a difference for yourself, for your career, for your training, all while making a difference in public health.

This is Class of 2018 fellow, Ash Wadhwa. And he was presenting at the 2019 ES conference. Ash is now a team lead with CDC's Enteric Disease Laboratory Branch.

We'll close by showing our Class of 2022, which was our largest class to date. They were here at the summer course orientation in Atlanta. That's the first time when the class has come together. I hope to see you in Atlanta in July of 2025. Applications are due June 3.

Again, I hope you'll look at the website for the next offering of our office hours. We'll have those for both applications and interviews. And with that, I think we'll close this up and open up the call for questions.

On-screen text: Applications due June 3rd for LLS Class of 2024 Learn more at cdc.gov/lls