The NAHLN Update 2025

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THE OFFICIAL NEWSLETTER OF THE NATIONAL ANIMAL HEALTH LABORATORY NETWORK (NAHLN)
A STATE AND FEDERAL PARTNERSHIP TO SAFEGUARD ANIMAL HEALTH

Founding Principles and Features of the NAHLN

- Operate within a quality management system
- Maintain competency of laboratory personnel
- Use standardized protocols, reference materials, and equipment
- Maintain appropriate biosafety/biosecurity levels
- Provide secure communications and real-time electronic reporting
- Evaluate preparedness through scenario testing

In This Issue:

Recurring Call Schedule:

NAHLN Laboratory Response Planning calls occur every Friday.

NAHLN Coordinating Council (CC) calls occur on the third Monday of each month.

Fun Facts

Did you know that the Foreign Animal Disease (FAD) PReP Material and References website includes information on:

- FAD PReP Ready Reference Guides
- Highly Pathogenic Avian Influenza (HPAI)
- National Milk Testing Strategy (NMTS)
- African Swine Fever (ASF)

and many more useful resources.

Input Welcome!

We appreciate hearing from you! Are there other topics that you would like to hear about? Please email your comments to us at NAHLN@usda.gov.

A message from the NAHLN Coordinator

There are a lot of reasons to be thankful so far in 2025! The National Animal Health Laboratory Network (NAHLN) continues to serve our purpose well and our NAHLN Program Office Team has two amazing new additions!

The NAHLN continues to provide an exemplary response to the Highly Pathogenic Avian Influenza (HPAI) outbreak across multiple species. The routine outbreak of HPAI in wild birds and poultry extended into wild and peridomestic mammalian species as well as aquatic mammalian species. It then emerged as an unprecedented pathogen of dairy cattle. In three and a half years NAHLN laboratories have provided over 1.1 million PCR results across all species in response to this adverse animal health event!

In support of the NAHLN laboratories is a small but mighty NAHLN Program Office Team that works behind the scenes providing information, guidance and in most cases answers to many, many questions. We are thankful to have added two new microbiologists to our Team in 2025- Dr. Lauren Holinka and Steve Hollenback. To learn more about them see their bios below.

What makes us especially thankful for the good news? It has to be living through the bad news. In 2025, three of our NAHLN Teammates elected to take the Deferred Resignation Program offered by the Trump Administration. Traci Imlau, Tari Moody and Jake Ritland were essential members of the team and provided a wealth of experience and knowledge in NAHLN history, administration, financial management and NAHLN laboratory support. They represent almost 40 years of combined experience with NAHLN helping to build and maintain the foundation on which NAHLN continues to grow and succeed. The path we are on has been paved by the hard work of these individuals. We will miss these NAHLN Team members and wish them well in the next chapter of their lives!

Sincerely,
Christina M. Loiacono

NIFA Update

USDA Announces Dr. Jaye L. Hamby as NIFA Director

The U.S. Department of Agriculture (USDA) announced the appointment of Dr. Jaye L. Hamby as the Director of the National Institute of Food and Agriculture (NIFA). As Director, Dr. Hamby will lead USDA's efforts to advance agricultural innovation, community outreach, and fostering the next generation of agricultural leaders.

Dr. Hamby, a Tennessee native, grew up on his family's cow-calf operation and developed a deep connection to agriculture through 4-H and FFA, eventually serving as a national FFA officer. He then earned a bachelor's degree in agricultural education from the University of Tennessee before completing his master's and doctorate degrees in agricultural education at Oklahoma State University. Over the course of his career, he has directed hundreds of research efforts specializing in concept testing, product marketing, value driver analysis, and following market trends and strategies to support agricultural producers.

The NIFA contacts for NAHLN laboratories remain:

- Michelle Colby, NIFA National Program Leader Animal Biosecurity
- Kathe Bjork, NIFA National Program Leader Animal Health
- Robert (Bob) Godfrey, NIFA Animal Systems Division Director, Animal Systems

Congratulations to Dr. Hamby for your appointment and thank you for your dedication to supporting agriculture.

APHIS Laboratory Portal Updates

LabDIR home page, My SOP library

In the APHIS Laboratory Portal (ALP), LabDIR homepage, the "My SOP" library has been updated to include the document title field in addition to the disease, SOP ID, SOP version, date released, and date acknowledged fields.

The "My SOP" library documents remain:

· Available on two tabs: administrative documents and My SOPs for diseases documents

· Default sorted on the "date released" column. Each tab has 7 sort options including the arrows beside each column and a text search box.

The following NAHLN laboratory contacts have access to the My SOPs library: Lab Director, Associate Director, Interim Director, Quality Manager and NAHLN Primary Contact.

The My SOPs library is a delivery mechanism to provide controlled NVSL documents to the NAHLN laboratories. NAHLN laboratories must download the documents sent to their labs and enter them into their laboratories quality management system to access for daily use.

Article submitted by Traci Imlau, Program Assistant, NAHLN Program Office, USDA APHIS VS D & B, NVSL.

Personnel Update option to request changes to account security role

There is a new feature available in the Personnel section, "View All" to request updates to laboratory staff members security role.

In addition to requesting a new portal account, updates to laboratory staff security role can be requested through the automated request option in the ALP Personnel "View All". Now members with the NAHLN Lab Administration account role will see two buttons on the right side of the screen to select from "request access" or "update security" for anyone listed on their personnel page. These requests go to the NAHLN program office (NPO) for final processing.

The following NAHLN laboratory contacts with NAHLN Lab Administration have access to request new portal accounts, or update security roles in the Personnel section, "View All" option: Lab Director, Associate Director, Interim Director, Quality Manager and NAHLN Primary Contact.

Guide available in ALP Library: Library (page 3) > Portal LabDIR User Guides > Request new accounts or account security change to ALP.

Article submitted by Traci Imlau, Program Assistant, NAHLN Program Office, USDA APHIS VS D & B, NVSL.

Response activities

Foreign Animal Disease Diagnostic Laboratory

The Foreign Animal Disease Diagnostic Laboratory (FADDL) conducts diagnostic testing and develops response measures to high-consequence infectious diseases of livestock including foot-and-mouth disease, African swine fever, and classical swine fever.

FADDL is composed of five service sections:

The Diagnostic Services Section
Scientists in this section have the capability to diagnose more than 30 foreign animal diseases, including foot-and-mouth disease, classical swine fever, African swine fever, and other diseases listed by the World Organization for Animal Health.

They perform thousands of diagnostic tests each year, looking for the presence of foreign animal disease agents. Tissue and blood samples that need testing are submitted by veterinarians, who suspect a foreign disease in domestic livestock or by animal import centers testing quarantined animals for foreign diseases. Samples also are submitted by animal health professionals in other countries who need help with a diagnosis.

The Reagents and Vaccine Services Section
Scientists in this section develop, produce, and test standard diagnostic reagents; conduct material safety treatments; prepare materials for the Foreign Animal Disease Diagnostician training course; operate the National Transboundary Animal Disease Biorepository; and conduct diagnostic assay development and optimizations.

The Scientific Liaison Services Section
The scientists in this section provide scientific support for pathogen surveillance and discovery through development and application of advanced metagenomics analysis; collaborate with national and international partners to develop and field-validate novel diagnostic methodologies; and build and support biosafety level-4 laboratory competency and operations at NBAF.

The Proficiency and Validation Services Section
Scientists in this section support NAHLN, by producing proficiency panels and controls for foreign animal disease diagnostics; verify and validate diagnostic tests for internal and external stakeholders; and serve as liaisons for risk analysis and coordination of foreign animal disease safety testing for import and export materials that have an animal origin.

The Vaccine Banks
Scientists in this section procure and test supplies for the North American Foot-and-Mouth Disease Vaccine Bank and the National Animal Vaccine and Veterinary Countermeasure Bank; maintain stockpiles; produce reagents; provide technical support; and enhance preparedness and emergency response capability and capacity for foreign/transboundary animal diseases.

The five service sections work toward FADDL's mission of 24/7 diagnostic testing, emergency response, and training support for federal and state veterinarians and diagnosticians.

Article submitted by Traci Imlau, Program Assistant, NAHLN Program Office, USDA APHIS VS D & B, NVSL.

Emerging Disease Response:

Survey Insights Shape NAHLN-NBAF Partnership Regional Outbreak Response Planning Strategies

In March 2025, the NAHLN Program office, in collaboration with the NAHLN-NBAF Partnership regional scientists, conducted two key surveys to gather data in preparation for the upcoming NAHLN-NBAF Partnership Regional Meetings. The primary goal of these surveys was to better understand the capacity challenges faced by both laboratory and field personnel.

The surveys, designed by NAHLN-NBAF Partnership scientists, focused on two groups: laboratory personnel and field staff. The results from these surveys have provided valuable insights into areas that could be improved upon and will aid in the development of regional strategies aimed at strengthening disease outbreak response efforts.

Survey Results: Key Takeaways

From the NAHLN Laboratory Survey:

The findings from the laboratory survey highlight several opportunities for improvement to strengthen outbreak response planning. One key area is the management of excess samples when laboratory capacity is exceeded. While 17 out of 45 laboratories have established Standard Operating Procedures (SOPs) to address this, there is potential for the remaining 28 labs to develop and implement similar procedures. This represents an opportunity to bolster preparedness and foster greater collaboration among laboratories in managing sample surges during outbreaks.

Additionally, 25 laboratories reported that they have never conducted functional capacity exercises, which are valuable for assessing a lab's ability to handle varying sample volumes. Notably, 9 of these labs expressed interest in receiving support to organize these exercises, highlighting an opportunity to provide additional resources and assistance in this area.

Another area for potential growth identified by the survey is the development of Continuity of Operations Plans (COOPs). While 29 labs have a COOP in place, 15 labs have not yet established one. This presents an opportunity to further strengthen operational resilience and ensure labs are better prepared for unexpected disruptions, such as shutdowns or other emergencies.

The survey also revealed that 13 out of 45 labs do not consistently communicate policy updates to field personnel. Improving communication in this area could help ensure that all stakeholders stay well-informed and aligned during outbreak responses, ultimately enhancing the efficiency and coordination of efforts.

From the Field Personnel Survey:

The field personnel survey identified several areas where preparedness could be further strengthened. Thirteen respondents indicated that their teams have not conducted functional capacity exercises to adjust sample collection or submission capacity. This highlights an opportunity to further strengthen training and capacity-building initiatives at the field level, ensuring field personnel are better equipped to manage sample collection and transportation during outbreaks.

In terms of biosecurity measures, 22 field personnel felt adequately informed on how to adjust biosecurity practices in response to an outbreak. However, 3 field personnel noted that additional information could be helpful, presenting an opportunity to enhance biosecurity education and ensure all field staff feel fully equipped to handle emerging situations.

Additionally, 5 field personnel identified barriers to sample submission or transportation, which could potentially delay critical testing. Addressing these logistical challenges through targeted discussions and brainstorming strategies could significantly improve outbreak response efficiency and coordination, particularly in regions facing these obstacles.

Why This Is Important

The success of the NAHLN-NBAF Partnership Program depends on the active participation of regional stakeholders. The program's goal is to create a tailored approach to outbreak management at the regional level. The NAHLN-NBAF Partnership regional scientists will lead the development of regional risk assessments that identify species priorities, forecast emerging disease threats, and create targeted risk mitigation strategies specific to each region's needs.

Your participation in the upcoming regional meetings is crucial to shaping these strategies. By contributing your insights, reviewing current practices, and identifying areas for improvement, you will help to create a more resilient and prepared laboratory response plan for your region. The feedback gathered from these surveys, combined with the discussions during the meetings, will directly influence the refinement of our approach to outbreak response.

Together, we can build a more effective, adaptive, and proactive system for managing future outbreaks and safeguarding animal health across the nation.

Article submitted by Kimberly A Lehman, DVM, MPH, DACVPM, Director, Diagnostic Bacteriology & Pathology Laboratory, USDA APHIS VS D & B, NVSL.

Getting to Know the NAHLN-NBAF Partnership Scientists

Region 4 – Dr. Patrick W. Maes

Dr. Patrick W. Maes: Advancing Veterinary Diagnostics and Public Health in Arizona and Beyond
As the Molecular/NGS Section Head at the Arizona Veterinary Diagnostic Laboratory (AzVDL), Dr. Maes has overseen a significant expansion of the laboratory's capabilities, introducing advanced molecular techniques and next-generation sequencing technologies that have elevated the laboratory's diagnostic capacity. His forward-thinking approach ensures that AzVDL remains at the forefront of disease detection, surveillance, and response. In 2023, Dr. Maes became the NAHLN-NBAF Southwest Regional Scientist, joining a national effort to improve early detection of emerging animal diseases. Currently, under the guidance of Drs. Yan Zhang and Emily Janovyak, Dr. Maes develops new diagnostic assays, leads risk assessments, and collaborates with regional labs to build preparedness plans. He also helps design response exercises and ensures clear communication among all NAHLN partners.

Dr. Maes's commitment to public health is further demonstrated by his successful National Animal Disease Preparedness and Response Program (NADPRP) grant: State and Tribal Animal Disease Response Education and Point-of-Care Detection Initiative. This project provides Arizona's State Veterinary Office and Tribal Nations with training, tools, and resources to conduct point-of-care real-time PCR (rtPCR) diagnostics for

animal diseases. In partnership with the University of Arizona's Tribal Extension and Native American Advancement departments, and the Office of the National Tribal Liaison, the AzVDL is building relationships with Tribal Nations and conducting a comparative study between field-deployable and standard rtPCR platforms. The project also tests innovative, air-dryable PCR reagents for field use and offers both virtual and in-person training on disease recognition, sample collection, and rtPCR operation. Deliverables include proof-of-concept data, SOPs, quality guidelines, and a white paper to share findings, empowering Arizona's animal health authorities and Tribal Nations to perform rapid, on-site diagnostics—a model adaptable nationwide.
Dr. Maes's journey to science was unconventional. After high school, he spent several years working various jobs, where he met his wife, Joanna. He became the first in his family to earn a college degree, graduating from the University of Arizona in 2013 with a BS in Environmental Science. As an undergraduate, he began research at the USDA's Carl Hayden Honey Bee Research Facility, exploring honey bee gut microbiota under Dr. Kirk E. Anderson. He completed his PhD in Entomology and Insect Sciences in 2022. Dr. Maes has authored/co-authored eighteen peer reviewed publications which have generated over 2200 citations.
Outside the lab, Dr. Maes enjoys hiking, zoo trips, and family adventures with Joanna and their two children, Patrick and Austin.

On the NAHLN-NBAF Partnership, Dr. Maes says:
"Ther are many challenges facing NAHLN-NBAF Partnership in enhancing the detection and response to emerging diseases among animals. The first challenge is the complexity of coordinating the activities and ensuring the standards are the same across the labs. There is a need to keep all the laboratories aware of the evolving diagnostic tools and technologies. The rapid evolution of diagnostic tools and technology necessitates investment in the same tools and technologies. This means resources for lab equipment and equipment must be made available to all laboratories. Additionally, training and development in these tools and technologies may be needed. Lastly, there is a challenge in setting and maintaining strategic goals and priorities to respond to animal and zoonotic diseases. On one hand, there is a need to focus on the current disease threats and such other emerging problems. However, on the other hand, there is a need to consider the diverse and unique needs of the regions and the laboratories. This creates a challenge in determining the needs which are unique to each laboratory and allocating resources."

Article submitted by Traci Imlau, Program Assistant, NAHLN Program Office, USDA APHIS VS D & B, NVSL.

Laboratory Spotlight

Texas A&M Veterinary Medical Diagnostic Laboratory

Lab director
Dr. Amy Swinford, DVM, MS, DACVM

Quality Managers
Ms. Casey DuPont, Mr. Cullyn Winn, Ms. Madeline Morse, and Ms. Claire Hennings

Highlights of the diagnostic lab
Considering the challenges all the NAHLN labs have faced over the last several years, our accomplishments are not necessarily unique to TVMDL, and being part of the NAHLN enabled us to count these situations as successes instead of failures. First, TVMDL was one of many NAHLN labs that stepped up to provide human COVID-19 testing. In our

case, TVMDL's College Station and Amarillo laboratories partnered with human healthcare providers to increase human testing capacity within Texas. In addition, TVMDL remained fully open and performed all testing for our normal caseload throughout the pandemic. Second, our response to COVID-19 and the new (in 2022) outbreak of highly pathogenic avian influenza led to enhanced visibility and recognition for our lab within the Texas A&M University System and amongst state legislators. In the 88th Texas legislative session that ended in May of 2023, appropriations were approved for a new initiative called "Keeping Texas Prepared." This $96 million program brought together 5 state agencies tasked with disaster response and recovery. As one of the agencies, TVMDL was appropriated $3.7 million per biennium specifically for the rapid detection of animal and human disease threats. By increasing the base funding for each agency, the State of Texas recognized the crucial role each agency plays in mitigating the effects of natural disasters, including human and animal disease threats. Finally, as the HPAI virus made the unprecedented leap into dairy cows in the Texas Panhandle, TVMDL was at the epicenter and was one of the first laboratories in the nation to identify the virus in milk. We list this as an accomplishment made possible by the collaborations we have within the NAHLN that were instrumental in this discovery.

Lab History
The Texas Legislature created the TVMDL as a state agency in 1967, and the first laboratory within the TVMDL system opened in College Station in 1969. The Amarillo laboratory (now located in Canyon, TX) was opened in 1975, and the poultry labs in Gonzales and Center were added to the TVMDL system in 1991.

TVMDL joined the NAHLN as one of the twelve charter member labs in 2002.

Benefits of the lab to NAHLN
Texas has several attributes that put it at increased risk for the introduction of animal disease threats, highlighting TVMDL's ability to enhance the surveillance and response preparedness of NAHLN. Texas shares a border with four Mexican states (1,248 miles long) and four U.S. states. Texas has multiple land ports, seaports, and international airports. The state imports more live animals than any other state, including 1 million cattle annually from Mexico, and 2.5 million cattle from other U.S. states. In addition to domestic livestock species, Texas has an abundance of feral and farmed wildlife species, such as cervids, exotic hoof-stock, and feral swine. Three major migratory flyways lead birds to the state. The interface between domestic and wildlife species poses a tremendous challenge for disease surveillance, detection, and eradication, but TVMDL's four laboratories strive to be on the front lines to intercept these threats to multiple animal industries.

Lab Background: specialty and area of focus
TVMDL's specialty is that we don't have a specialty! TVMDL as a system is a full-service laboratory that offers over 700 tests for almost every animal species. Texas is home to the nation's largest livestock industry and leads in the production of cattle, goats, sheep, and lambs. The cattle industry is worth approximately $12.3 billion and produces 15% of the nation's fed beef. The state ranks sixth in the nation in poultry production (broilers and eggs) and fourth in milk. As one of the most popular game animals, white-tailed deer are important to the state's economy with deer hunting generating an estimated $1.2 billion in economic output. Texas is also one of the leading exporters of animals and animal products, and the state boasts a population of nearly 1 million horses. TVMDL offers state-of-the-art diagnostic services to **each** of these industries. Testing ranges from routine instances that assist practitioners with everyday animal health needs to regulatory testing that supports national and international commerce. TVMDL processes over 180,000 submissions and performs over 1 million tests each year on samples submitted from throughout Texas, all 50 states, and at least 19 countries across the globe. TVMDL's testing also supports surveillance needs that ensures animal and human health are protected from emerging and zoonotic diseases. Our focus has remained the

same for nearly 60 years – keeping our clients at the forefront of testing and ensuring they receive superior and timely service.

Total number of staff
165 across all four laboratories.

Number of staff dedicated to NAHLN activities
None of our staff are dedicated full-time to NAHLN activities, but most personnel throughout all four labs provide some level of support to the NAHLN in the course of their duties, from sample receiving, testing, and reporting, to administrative duties.

Round Up

The NAHLN program office bids farewells to:

- Tari Moody, Management and Program Analyst
- Traci Imlau, Program Assistant
- Jacob Ritland, Program Assistant

Thank you for your contributions, commitment, time, and service to the NAHLN. Your efforts have been invaluable in moving NAHLN forward. We thank you for your dedication and support over the years.

Abbreviation / Acronym Key

Volume 16, No.1 Acronym Key

NAHLN
USDA
NVSL
APHIS-VS
NIFA
AAVLD

NAHLN Facts

The following link shows a map and list of laboratories that have been approved as part of the NAHLN Testing Network.