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SAFEGUARDING U.S. AGRICULTURE: THE ROLE OF THE NATIONAL ANIMAL HEALTH LABORATORY NETWORK (NAHLN)

HEARING

BEFORE THE

SUBCOMMITTEE ON LIVESTOCK, DAIRY, AND POULTRY

OF THE

COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED NINETEENTH CONGRESS

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WITNESSES

SAFEGUARDING U.S. AGRICULTURE: THE ROLE OF THE NATIONAL ANIMAL HEALTH LABORATORY NETWORK (NAHLN)

TUESDAY, JULY 15, 2025

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON LIVESTOCK, DAIRY, AND POULTRY,
COMMITTEE ON AGRICULTURE,
Washington, D.C.

The Subcommittee met, pursuant to call, at 10:01 a.m., in Room 1300, Longworth House Office Building, Hon. Tracey Mann [Chairman of the Subcommittee] presiding.

Members present: Representatives Mann, Van Orden, Baird, Feenstra, Finstad, Wied, Messmer, Harris, Costa, Hayes, Gray, and Riley.

Staff present: Justina Graff, Sofia Jones, Patricia Straughn, John Konya, Suzie Cavalier, Daniel Feingold, Michael Stein, and Jackson Blodgett.

OPENING STATEMENT OF HON. TRACEY MANN, A REPRESENTATIVE IN CONGRESS FROM KANSAS

The CHAIRMAN. Good morning, everybody. The hearing will come to order.

Welcome, and thank you for joining today's hearing entitled, *Safeguarding U.S. Agriculture: The Role of the National Animal Health Laboratory Network (NAHLN).* After brief opening remarks, Members will receive testimony from our witnesses today, and then the hearing will be open to questions.

In consultation with the Ranking Member and pursuant to Rule XI(e), I want to make Members of the Subcommittee aware that other Members of the full Committee may be joining us today.

I am excited to chair this hearing of the House Agriculture Committee's Subcommittee on Livestock, Dairy, and Poultry, where we will focus on the important work of the National Animal Health Laboratory Network, or NAHLN.

As a fifth-generation Kansas farm kid, I grew up riding pens and doctoring sick cattle at my family's preconditioning feedlot, and I intimately understand and appreciate the vital role animal health plays in all of livestock and poultry operations.

The National Animal Health Laboratory Network is a critical piece of our ability to respond to and mitigate foreign animal diseases. Originally comprised of 12 laboratories when it was created in 2002, the NAHLN network has grown to include over 60 state and university laboratories, including the Kansas State University

Veterinary Diagnostics Laboratory in Manhattan, Kansas, my district and alma mater.

These labs are strategically placed across the United States to support animal agriculture by developing and increasing the capabilities and capacities to support early detection, rapid response, and appropriate recovery from high-consequence animal diseases. Put simply, they are the first line of our defense.

These labs do not operate in a vacuum. The NAHLN network is successful because of partnerships between Federal, state, and university-associated animal health laboratories and experts. This partnership is critical to response efforts when foreign animal diseases are detected such as highly-pathogenic avian influenza, New World screwworm, African swine fever, and unfortunately, so many more.

Today, you will hear from a panel of experts who all work at NAHLN's laboratories. These experts will be able to share pertinent information about the critical work they do, whether it be tracking the New World screwworm outbreak in Mexico, identifying the move of high-path into dairy cattle in Texas, working with the National Bio and Agro-Defense Facility in Kansas, or crucial swine testing in Iowa.

This hearing could not come at a better time to highlight the work of the NAHLN laboratories and talk about the need for additional resources. As of 2 weeks ago, funding for the NAHLN, as well as funding for the National Animal Disease Preparedness and Response Program and National Animal Vaccine and Veterinary Countermeasures Bank, was substantially increased in the One Big Beautiful Bill (Pub. L. 119–21).

The One Big Beautiful Bill included $233 million per year for the three-legged stool, with $10 million per year directed towards the NAHLN laboratories, which is on top of existing discretionary Federal spending. This funding will increase diagnostic capabilities, improve research, assist in disease surveillance, and strengthen our overall capacity as a nation to prevent, detect, and mitigate foreign animal diseases. I am proud of the work this Committee did to shore up our animal health resources and protect the herds and flocks that bring so much value to our producers and national security.

I look forward to hearing from our witnesses about the work they do day in and day out in their roles with the National Animal Health Laboratory Network. I am excited to hear about how the increased funding will help their operation of these laboratories, which foreign animal diseases they see as the most consequential, and how we as Congress can be good partners to them.

Again, thank you all for being here today.

[The prepared statement of Mr. Mann follows:]

PREPARED STATEMENT OF HON. TRACEY MANN, A REPRESENTATIVE IN CONGRESS FROM KANSAS

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feedlot and I intimately understand the vital role that animal health plays in all livestock and poultry operations.

The National Animal Health Laboratory Network is a critical piece of our ability to respond to and mitigate foreign animal diseases. Originally comprised of 12 laboratories when created in 2002, the NAHLN network has grown to include over 60 state and university laboratories, including the Kansas State Veterinary Diagnostic Laboratory in Manhattan, Kansas.

These labs are strategically placed across the United States to support animal agriculture by developing and increasing the capabilities and capacities to support early detection, rapid response, and appropriate recovery from high-consequence animal diseases. Put simply, they are our first line of defense.

These labs do not operate in a vacuum. The NAHLN network is successful because of partnerships between Federal, state, and university-associated animal health laboratories and experts. This partnership is critical to response efforts when foreign animal diseases are detected, such as Highly-Pathogenic Avian Influenza, New World Screwworm, African Swine Fever, and so many more.

Today, you will hear from a panel of experts who work at NAHLN laboratories. These experts will be able to share pertinent information about the critical work they do—whether it be tracking the New World Screwworm outbreak in Mexico, identifying the move of hi-path into dairy cattle in Texas, working with the National Bio and Agro-Defense Facility in Kansas, or crucial swine testing in Iowa.

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The CHAIRMAN. With that, I would now like to welcome the distinguished Ranking Member, my friend and the gentleman from California, Mr. Costa, for any opening remarks he would like to give.

OPENING STATEMENT OF HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Mr. COSTA. Thank you very much, Chairman Mann. And for Members of the Subcommittee, it is indeed a very important Subcommittee hearing that we are holding here this morning because high-path avian flu has infected many parts of our country on a regional basis, and we have had different efforts with varying degrees of success to deal with this. But certainly, we are not unaccustomed to having infectious diseases impacting our livestock and poultry industries across the country, and how we handle those and how we respond is critical. And therefore, this hearing is totally appropriate and important.

I want to thank the Chairman, not only for holding this hearing for that reason, but thank our witnesses. The witnesses that we have here have over 20 years of experience and growing to include over 60 labs that make up our detection system for animal disease

control. And as I always like to say, food is a national security issue. It is, and we should address it in that fashion.

The laboratory network plays key roles in ensuring we have a safe and secure food supply chain for all Americans at their dinner table every evening. This laboratory network is part of that safety response. It is a foundation that allows us to respond rapidly to animal disease outbreaks simultaneously while keeping our food supply chain safe, and that is a challenge.

As high-path has gone over recently in different parts of our country, in California, where we have 20 percent of America's milk production, we have had over 70 percent infection in our dairy herds, which is critical mass. And of course, we have a significant poultry industry as well. In trying to handle the two over the last 18 months, we have had our hands full. But we have an extra effort that is done by our efforts with our State Veterinarian, Dr. Jones, who I will introduce in a moment.

The only way, though, that we can properly trace and avoid further spread or spillover infection is if we are able to respond quickly, and that is why I think this hearing is so important, and accurately to identify and then use the information to allocate appropriate resources to address the problem. And NAHLN is a great example which highlights the importance of how Federal and state partnerships work together. And I think we have had a good example in California of that partnership working.

We have our main Level 1 lab at the University of California, Davis, which has played a critical role in coordinating with the laboratory network by providing resources throughout California and the nation in combating high-path avian flu. And this is just one example that demonstrates the importance of the laboratory network and the role it plays in greater effort of preventing animal disease that are being spread throughout the United States. And these labs talk to each other on a national basis, which is essential. When we have multiple state outbreaks of animal disease, such as the high-path avian influenza, it is absolutely essential that we have centralized operations coordinated across our states, and we are going to hear about that this morning.

The role that the NAHLN central office plays in combating disease response came into spotlight earlier this year in February. I was disappointed to hear with the DOGE efforts that the Administration fired ¼ of the employees of the central coordinating office. This has occurred in the middle of a prolonged high-path avian influenza outbreak. I can't think of a worse time to decide to cut these positions when coordinating disease response. Think about it. We have seen uninformed, short-sighted decisions such as this one made, and it is not helpful. And I think we have already seen the impacts of those decisions.

I am glad to hear the Chairman talk about the One Big—I don't know that we agree that it was beautiful—but that there is additional funding that may allow us to fill the gaps from the cuts that were made in February because I think that is important, and I think we want to get the opinion of our experts, our witnesses, to opine on that.

Let me close by saying that we are supportive of these programs to combat animal disease. It is critical that we work together to

continue to support systems such as the laboratory network—I really believe that is critical—along with corresponding research that allows us to create better diagnostic tools and preventive measures, which is utilizing the best available science possible.

[The prepared statement of Mr. Costa follows:]

PREPARED STATEMENT OF HON. JIM COSTA, A REPRESENTATIVE IN CONGRESS FROM CALIFORNIA

Good morning.

I'd like to start by thanking the Chairman for holding this important hearing on the National Animal Health Laboratory Network and thanking our witnesses for their testimony today. Since its inception over 20 years ago, NAHLN has grown to include over 60 labs that make up our detection system for animal disease. As I always say, food security is national security, and the laboratory network plays a key role in ensuring we have a safe and secure food supply chain.

The laboratory network is part of the foundation that allows us to respond rapidly to animal disease outbreaks while simultaneously keeping our food supply chain safe.

The only way that we can properly trace and avoid further spread or spillover infection is if we are able to quickly and accurately identify it and then use that information to allocate the appropriate resources to address the problem. NAHLN is a great example which highlights the importance of how Federal and state governments can and must work together. In California, we have our main Level One Lab at the University of California, Davis, which has played a critical role in coordinating with the laboratory network by providing resources throughout California and the nation in combating Hi-Path Avian Flu. This is just one example that demonstrates the importance of the laboratory network and the role it plays in the greater effort to prevent animal disease from spreading in the United States.

When we have multi-state outbreaks of animal disease, such as Hi-Path Avian Influenza, it is essential that we have centralized operations to coordinate across states. The role that the NAHLN central office plays in combating disease response came into the spotlight earlier this year in February when *POLITICO* reported that the Trump Administration fired ¼ of the employees in the central coordinating office. This occurred in the middle of the prolonged Hi-Path Avian Influenza outbreak, and I cannot imagine a worse time to decide to cut positions that coordinate disease response. Think about it. We've seen uninformed and short-sighted decisions such as this one made across the government by this Administration. We have already started to see how these decisions impact our ability to respond to disease, disaster, and other events that put communities in jeopardy.

I have always been supportive of programs that combat animal disease, and it is critical that we continue to support systems such as the Laboratory Network, along with corresponding research that allows us to create better diagnostic tools and preventative measures with the best available science. I look forward to hearing from our expert witnesses about improvements that could be made or more effective ways that we can prevent and detect animal disease.Thank you, and I yield back.

Mr. COSTA. A lot of us have ag backgrounds, and I look forward to hearing from our expert witnesses. But as a part of Costa Brothers Dairy, I had a lot of experience working with our veterinarian Doc Johnson, a big animal vet, and he kept our herds in good shape over the years. Sometimes when my dog had a little problem and I would bring it to him, and he says, "I don't do small animals," and then he would say, "Ah, bring it over here, I will look at it."

But our vets are so valuable. And so by way of mentioning that, let me introduce an individual that is going to testify. I have another hearing I have to go to, so I want to introduce our witness who I noted a moment ago. Dr. Annette Jones is a veterinarian herself. She is the State Veterinarian and Director of Animal Health and Food Safety Services for the State of California, the number one agricultural state in the nation. She has held the directorship since 2004. In that capacity, she oversees an annual

budget of $45.5 million, I believe. Two hundred and twenty-two employees work with her, engaged in programs from animal health, milk and dairy food safety, meat and poultry inspection, livestock identification. She also works closely with the California Animal Health and Food Safety Laboratory System.

In addition to her role as director, she was appointed a California State Veterinarian in 2010. She is a graduate of UC Davis, very proud of that, and with a degree in economics, and she received her D.V.M. from UC Davis School of Veterinary Medicine. She is a total, complete package, and well-respected among the animal science industry in California and around the country. And Dr. Jones, we are glad you could make it here to talk about your vast experience.

And thank you, Mr. Chairman, for allowing me to provide that introduction of Dr. Jones to the Subcommittee. Thank you.

The CHAIRMAN. Thank you, Mr. Ranking Member, for your opening comments and for doing the introduction of one of our four panelists. We will now introduce our other three panelists. And I want everyone to understand that I have been talking to them ahead of time. Every one of them had flight issues coming in. I don't think a single person, one of our witnesses, got in before midnight. Some people made it and their luggage did not.

But I appreciate you all being here this morning and, more than that, your commitment to animals and keeping our food supply safe.

Mr. COSTA. Thanks for pointing that out, Mr. Chairman. And some of us spent 2 hours on the tarmac yesterday afternoon waiting to get off the plane, so I am sympathetic to all of you. Thank you.

The CHAIRMAN. Yes, we appreciate you being here today.

I will introduce the next witness, which will be Dr. Jamie Retallick, the Director of Kansas Veterinary Diagnostics Laboratory at Kansas State University. Dr. Retallick's primary responsibility is Director of Kansas' only veterinary diagnostic laboratory. Before becoming Director, she served as a diagnostic pathologist for KVDL, which involves biopsy and necropsy services from referring veterinarians and the KSVU, or the K-State Veterinary Center. She also oversees daily operations and provides guidance in the development of new tests, teaches a course in veterinary biology, and provides resources with pathology support for collaborative studies. Dr. Retallick is a graduate of both Kansas State University and the University of Nebraska.

From one Kansan to another, thank you for being here this morning.

After we hear from Dr. Retallick, we will hear from Dr. Terry Hensley, who is the Assistant Agency Director for diagnostic services at the Texas A&M Veterinary Medical Diagnostic Laboratory, a state agency in the Texas A&M University system. Dr. Hensley oversees veterinary services, interagency collaborations, case coordination, and consultations with TVMDL's clients. He also serves as a liaison between the TVMDL and multiple regional, state, and Federal partner organizations to oversee the agency's regulatory testing components. Dr. Hensley is a graduate of Texas A&M Uni-

versity, including his D.V.M., and completed his post-doctorate at the University of Georgia.

And next, to introduce our final witness, I am going to turn it over to the gentleman from Iowa, Representative Feenstra, to introduce the next witness.

Mr. FEENSTRA. Thank you, Chairman Mann.

It is an honor to introduce Dr. Rodger Main, a nationally recognized leader in animal health diagnostics and a fellow proud Iowan. Dr. Main serves as a Professor and Director of the Iowa State University Veterinarian Diagnostic Laboratory, which serves as one of the cornerstones of the National Animal Health Laboratory Network.

Under Dr. Main's leadership, ISU's lab processes over 125,000 diagnostic cases and runs more than 1.7 million tests annually, directly supporting the farmers, veterinarians, and industries that power Iowa and the country's agricultural community. He brings decades of experience in swine medicine and clinical research, and holds both a D.V.M. from Iowa State and a Ph.D. from Kansas State. Iowa State continues to lead the nation in agricultural science, and Dr. Main's work is vital to safeguarding animal health, food security, national security, and the future of American agriculture.

Thank you for joining us today, Dr. Main. We look forward to hearing your testimony.

The CHAIRMAN. Thank you, Mr. Feenstra, and thank you to all of our witnesses again for joining us today.

[The prepared statement of Mr. Thompson follows:]

PREPARED STATEMENT OF HON. GLENN THOMPSON, A REPRESENTATIVE IN CONGRESS FROM PENNSYLVANIA

Good morning and thank you to Chairman Mann and Ranking Member Costa for convening this hearing of the Subcommittee on Livestock, Dairy, and Poultry to talk about the importance of the National Animal Health Laboratory Network.

And more importantly, thank you to our witnesses who have taken time out of your busy schedules to appear before us today—I look forward to hearing from each of you.

In recent months, our producers have been dealing with an unprecedented hi-path outbreak in both poultry and dairy cattle.

They are also closely tracking the New World Screwworm outbreak in Mexico, Foot-and-Mouth Disease in the European Union, and African Swine Fever in the Dominican Republic and Haiti.

The threats of foreign animal diseases are very real to our producers. They cost billions of dollars, threaten our national food supply, and have serious trade implications.

That is why our animal health protection tools, like the National Animal Health Laboratory Network, are so important to preventing, responding to, and mitigating animal disease outbreaks.

The NAHLN is a critical system made up of over 60 state and university laboratories.

These labs serve as our first line of defense to protect producers through animal disease surveillance, diagnostic testing, and appropriate recovery efforts.

They also serve as a critical educational partner for industry groups and producers, working to inform both veterinarians and livestock and poultry growers about the most high-consequence foreign animal diseases.

Established in 2002, these labs have answered the call every time we needed them.

Whether it be BSE, new world screwworm, scrapie, chronic wasting disease, African swine fever, highly-pathogenic avian influenza, foot-and-mouth disease, or a whole host of other animal diseases, their role cannot be understated.

I am thrilled that the One Big Beautiful Bill, which has now been signed into law by the President, includes funding for NAHLN, as well as the other components of our three-legged stool of animal health.

The NAHLN system will receive an increased investment of $10 million each year, on top of their existing discretionary allotments.

And while we weren't able to increase the discretionary funding allotments due to the rules of reconciliation, it is my hope that these funds will be crucial to ensuring the capacity and effectiveness of the NAHLN system for decades to come.

To each of our witnesses—thank you again for being here. I look forward to hearing about your experiences and learning from your expertise. With that, I yield back.

The CHAIRMAN. We will now proceed to your testimony. You will each have 5 minutes. The timer in front of you will count down to zero, at which point your time has expired.

Dr. Retallick, please begin when you are ready.

STATEMENT OF JAMIE N. RETALLICK, D.V.M., PH.D., DIRECTOR, KANSAS VETERINARY DIAGNOSTIC LABORATORY; PROFESSOR/ANATOMIC VETERINARY PATHOLOGIST, DEPARTMENT OF DIAGNOSTIC MEDICINE/ PATHOBIOLOGY, KANSAS STATE UNIVERSITY; DIPLOMATE, AMERICAN COLLEGE OF VETERINARY PATHOLOGISTS, MANHATTAN, KS

Dr. RETALLICK. Good morning, Chairman Mann, Ranking Member Costa, and Members of the Subcommittee. It is an honor to be in front of you today to talk about the importance of the National Animal Health Laboratory Network, or NAHLN, and its unique relationships among state and Federal laboratories, State Veterinarians, and state departments of agriculture. We will discuss some of the key aspects that make NAHLN a vital Federal network.

Thank you for this invitation. I have the privilege to be the Director of the Kansas Veterinary Diagnostic Laboratory and a Professor at Kansas State University. The Kansas Veterinary Diagnostic Laboratory, or KVDL, is the primary and only accredited laboratory in the State of Kansas, located at Kansas State University, a land-grant university.

The location at a land-grant university allows for specialized academic faculty to train future generations and work with clients, along with Federal partners, to serve a diverse range of clients and a broad range of diseases. KVDL has approximately 120 staff. About 25 of those are faculty with various specialties in training. We have over 213 species in our database, perform 600 different tests, and approximately 600,000 tests annually. Although a diverse species caseload, the most common is cattle.

KVDL is a critical pillar to support the $12.9 billion Kansas livestock industry. An important part of protection of Kansas livestock industry, and thus the United States, is the relationships and coordination provided by the NAHLN. NAHLN is a vital resource and call tree or communication system to protect United States animal agriculture by providing an early warning system for economically important outbreaks in foreign animal diseases, along with new threats such as the New World screwworm, which NAHLN labs are currently watching for.

As stated, the NAHLN network includes 64 laboratories across the United States, which includes KVDL, a Level 1 laboratory in the network. In addition, there are several Federal or parent lab-

oratories that are part of this network, which include the National Veterinary Service Laboratory in Ames, Iowa, the Foreign Animal Disease Diagnostic Laboratory, FADDL, currently split between Plum Island, New York, and the National Bio and Agro-Defense Facility in Manhattan, Kansas. There is also currently a surveillance laboratory in Puerto Rico for African swine fever.

The NAHLN has built a strong, harmonious relationship between Federal, state, and university veterinary diagnostic laboratories with over 20 years of experience in protecting animal agriculture in the United States through surveillance and disease testing. In addition to providing communication, coordination, and funding, NAHLN also provides standardized testing procedures and laboratory accuracy testing, known as proficiency testing. Standardized protocols and proficiency testing provide consistent, trustworthy, and high-capacity testing among all 64 NAHLN laboratories in critical disease events.

FADDL, from the NBAF facility, has produced and distributed 800 proficiency test panels for several high-impact diseases, including African swine fever, classical swine fever, foot-and-mouth disease, Seneca Valley virus, to NAHLN labs nationwide, including my lab, KVDL.

NAHLN coordination of the state laboratories, funding to support the laboratories, weekly communication calls, standard protocols, and proficiency testing have resulted in a network with redundancy to support each other. KVDL is currently performing overflow testing for California and Colorado. This coordination and overflow testing when a state laboratory is overwhelmed is directed by the NAHLN.

The Federal funding appropriated to NAHLN is transferred to state laboratories in the network and for those laboratories is often used to support equipment purchases, service contracts, software and informational technology upgrades, travel for training, outbreak exercises which are important in preparation for us, and salary support for our staff. The funding makes a huge impact on the VDL operations and is very appreciated to help support our laboratory.

In summary, NAHLN, with over 20 years of experience, standardized and controlled testing, and coordination of 64 laboratories, provides high testing capacity and numbers, redundancy in testing to control outbreaks and surveil for foreign animal disease on U.S. soil. In my opinion, NAHLN is the best example of a Federal organization harmoniously coordinating disease response among state laboratories and state departments of agriculture. When funds are appropriated to NAHLN, Federal dollars are supporting state laboratories, protecting the U.S. economy and food supply, preventing zoonosis—those diseases transferred from animals to humans—maintaining exports and trade channels, and addressing other critical interests.

Thank you for allowing me to discuss the importance of NAHLN today.

[The prepared statement of Dr. Retallick follows:]

PREPARED STATEMENT OF JAMIE N. RETALLICK, D.V.M., PH.D., DIRECTOR, KANSAS VETERINARY DIAGNOSTIC LABORATORY; PROFESSOR/ANATOMIC VETERINARY PATHOLOGIST, DEPARTMENT OF DIAGNOSTIC MEDICINE/PATHOBIOLOGY, KANSAS STATE UNIVERSITY; DIPLOMATE, AMERICAN COLLEGE OF VETERINARY PATHOLOGISTS, MANHATTAN, KS

NAHLN-Kansas Point of View on Federal and State Partnership in Protecting Animal Agriculture

Key Points:

- **The National Animal Health Laboratory Network, [NAHLN],** is a vital resource and call tree (communication system) to protect United States Animal Agriculture by providing an early warning system for economically important outbreaks and foreign animal diseases (FADs).
  - FADs on United States soil can severely impact animal agriculture, which can lead to a domino effect of negative impacts on the U.S. economy, exports, food safety, the food supply (including restaurants) and potentially lead to new diseases transferred from animals to humans (zoonosis).
    - **Example:** Bird Flu (HPAI) increasing egg prices creating difficulty for restaurants and bakeries (record high in April 2025) and has infected dairy employees, raising zoonotic concerns (disease transferred from animals to humans).
- ***The NAHLN has built a strong and harmonious relationship between Federal, state, and university veterinary diagnostic laboratories with over 20 years of experience in protecting animal agriculture in the United States by controlling outbreaks and FADs.***
- NAHLN network includes 64 state laboratories, such as the Kansas Veterinary Diagnostic Laboratory (KVDL) @ Kansas State, which I represent. KVDL is a Level 1 laboratory in the NAHLN network.
- The NAHLN Federal and State Partnership is one of the best operational partnerships between states and the Federal entities that exists, therefore funding thus needs to be maintained, or preferably increased.
  - Federal funding (appropriations to NAHLN) from the Federal Government is critically important for state laboratories testing for Foreign Animal Diseases, but is only a small fraction of a state laboratory budget. For example, the Kansas Lab budget is approximately $16 million annual and we receive $250,000 annually from NAHLN for infrastructure support, to support partial salaries, equipment service contracts and purchase new equipment.
  - In FY24, NAHLN was allocated $24.9 million, through allocations from APHIS, NIFA, and the Farm Bill); ***$45 million total annual funding needs authorized*** (NAHLN is Essential to the Health of Food Animal Agriculture, Food Security, Bioterrorism Surveillance and the U.S. Economy).[1]
- ***The NAHLN Network protects against Animal Agroterrorism.***
  - **Example:** In June 2025, two Chinese Nationals were charged with smuggling a fungus called "*Fusarium graminearum*" into the U.S., which scientific literature classifies as a potential agroterrorism weapon. The fungus causes a disease in wheat, barley, maize and rice that can wipe out crops and lead to vomiting and liver damage if it gets into food. (*https://www.bbc.com/news/articles/c4gkdppymk4o*)

The NAHLN network is actively testing to control the Highly-Pathogenic Avian Influenza (HPAI; bird flu) outbreak and conducting surveillance testing and foreign animal disease (FAD) investigations to monitor potential threats on U.S. soil. Under NAHLN direction, two diseases, state laboratories are currently monitoring are New World Screwworm and African Swine Fever. However, Foot-and-Mouth Disease (FMD) is also another important FAD. In fact if Foot-and-Mouth Disease and African Swine Fever, were to concurrently invade U.S. soil, they could cost the U.S. economy an estimated $231 Billion over 10 years, or $23.1 billion annually.[2]

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[1] NAHLN is Essential to the Health of Food Animal Agriculture, Food Security, Bioterrorism Surveillance, and the U.S. Economy: $45 million total annual funding is needed. AAVLD/USAHA position statement.

[2] Carriquiry, M., A. Elobeid, D. Hayes. *National Impacts of Domestic Outbreak of Foot and Mouth Disease and African Swine Fever in the United States.* Center of Agricultural and Rural Development, Iowa State University, 2023.

NAHLN Network Physical Laboratory Locations:

State Laboratories: 64 state laboratories in most states across the United States (Map Below) Federal-National Veterinary Service Laboratories: NVSL-Ames, IA; PIADC-Plum Island; ***NBAF-Manhattan, KS;*** Dorado, Puerto Rico.

Figure 1: The 2025 NAHLN Network, including State Laboratories and National Veterinary Service Laboratories

NAHLN Laboratory Designations—April 2025

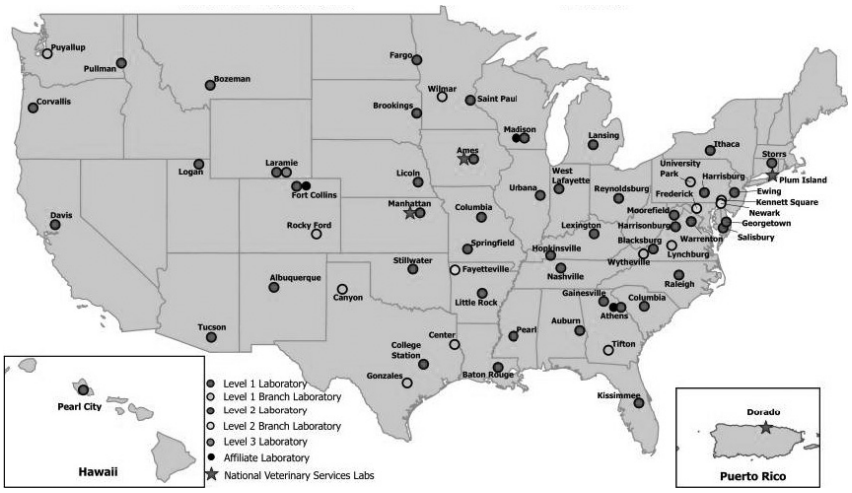


Figure 2: Working Relationship in Kansas among NAHLN, KVDL and the State Animal Health Official (SAHO; State Veterinarian) Under Kansas Department of Agriculture

Relationship Between NAHLN, SAHO and KVDL

Similar in most states.

NAHLN Overview

The NAHLN is a Federal organization comprised of a network of Federal, state and university veterinary diagnostic laboratories with over 20 years of operation. During that time, the network has grown to include 64 laboratories across the United States (*Figure 1*) that work as a team to protect animal agriculture, and thus the food supply and U.S. economy. The Kansas Veterinary Diagnostic Laboratory (KVDL), which I represent in support of NAHLN, is Kansas's Level 1 laboratory. Like other states and their laboratories, KVDL maintains a relationship with the state Department of Agriculture, particularly the State Animal Health Officials (SAHO; State Veterinarians), as well as with NAHLN (*Figure 2*). The NAHLN provides many training opportunities to enhance the laboratories, ranging from technical skills in the laboratory to IT advancements. In addition, ***weekly calls and annual meetings with NAHLN and the 64 state laboratories*** foster necessary communication and strong relationships across the network. As part of the network there are two Federal parent laboratories, the National Veterinary Service Laboratory (NVSL) in Ames, Iowa and the Foreign Animal Diagnostic Disease Laboratory (FADDL) located at Plum Island, New York and the National Biodefense Agriculture Facility (NBAF) in Manhattan, KS. These ***parent Federal labs,*** NVSL and FADDL, perform confirmatory testing for the state/university laboratories in FAD/ outbreaks. NAHLN, in conjunction with these parent labs provide ***standardized testing protocols, assess state laboratory's accuracy and reliability through proficiency testing, and compile important disease tracking data from the network. The network also surveils for Antimicrobial Resistance (AMR) through state laboratory caseload, which is considered a serious global health threat. There is overlap and redundancy between the Federal laboratories, the NAHLN staff and the state/university laboratories, which ensures robust testing in times of outbreaks.***

KVDL Overview

KVDL is located in Manhattan, KS at Kansas State University and has approximately 13 different sections, 100 technicians, 23 faculty, performs over 600 different tests, and has 213 species in our testing database. The two most common species served are cattle and dogs. The lab supports a wide range of clients, including livestock producers, pet owners, practicing veterinarians, government and industry. The diversity in species and caseload along with acceptance of cases from veterinarians and owners make it one of the early locations that may detect an FAD or new outbreak. KVDL is an accredited lab with a robust quality system similar to human labs through CLIA, which allowed us to be able to support human testing during the COVID pandemic. KVDL has an approximately $16 million budget with greater than $10 million supporting salary and benefits. Revenue generated is a close margin with operational costs (expenses). Insults to agriculture affecting the economy can affect our ability to pay staff. **KVDL is a critical pillar to support the $12.9 billion Kansas livestock industry, which is a significant part of the U.S. economy.**

In addition, KVDL being located at a land grant university, faculty contribute to educating and training of future veterinary and agriculture students and trainees in the College of Veterinary Medicine and the College of Agriculture at Kansas State.

KVDL and NAHLN Support

KVDL joined the NAHLN network in 2004, became a Level 2 member in 2016, and advanced to a Level 1 member in 2019. As the only state laboratory in KS, KVDL operates at Kansas State University, a land-grant university. This type of arrangement is an excellent example of Federal Government, state government and university/academia working to protect U.S. agriculture and the economy. KVDL would not be able to perform disease outbreak and FAD testing, plus some routine service testing, without the support received by NAHLN. ***NAHLN support includes monetary (Federal funding through annual infrastructure and Farm Bill funding), personnel training, provision of test kits, directions and controls, mock testing to ensure laboratory accuracy, test standardization, educational resources, practice outbreak exercises, networking, and continuous improvement opportunities.*** Since 2019, KVDL has received approximately $250,000 annually in Federal funding, which has supported equipment purchases (testing machines, laboratory monitoring systems, computers, servers), software and database needs (quality assurance software and laboratory information database), equipment service contracts, travel for training, outbreak exercises, and salary support.

As a Level 1 member of NAHLN, KVDL plays a critical role in the nation's diagnostic testing efforts for high-consequence animal disease. Including pathogens like highly pathogenic avian influenza (HPAI), African swine fever (ASF), foot-and-mouth disease (FMD), and several others within NAHLN's scope. ***Since 2005, KVDL has completed approximately 118,452 tests to support NAHLN's mission of protecting U.S. animal agriculture. Over the last 10 years, KVDL's annual testing has ranged from 2,624 to 11,878 in tests per year, averaging 219 to 990 tests/month.*** In 2025, KVDL has performed 215 FAD investigations on disease cases that show similar signs/symptoms to foreign animal diseases. ***These figures represent the testing contributions of ONE lab of the 64 laboratories, which demonstrates the significant impact that the state laboratory network has under the coordination of NAHLN.***

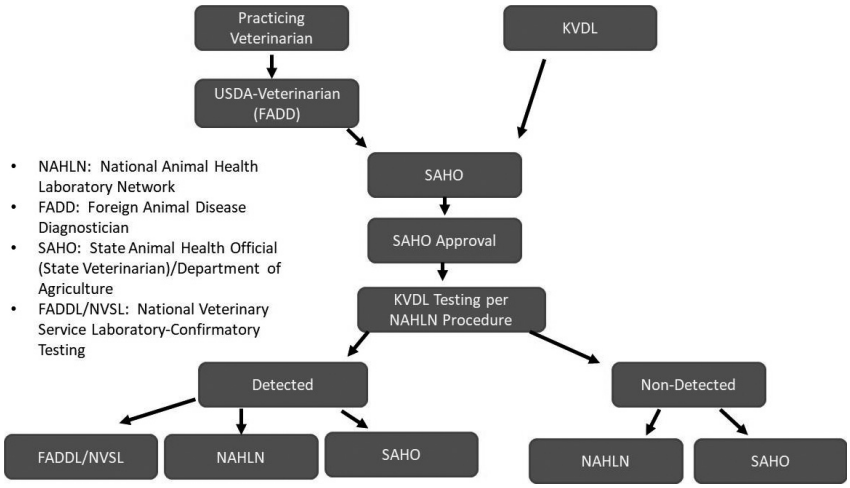
KVDL works closely with the Kansas Department of Agriculture, Division of Animal Health (KDAH) and USDA partners, specifically NAHLN, to perform both routine surveillance testing and Foreign Animal Disease Investigation (FADI) testing. FADI testing, in particular, is a coordinated multi-agency effort led by USDA–APHIS Veterinary Services, and involves close partnership among APHIS–NAHLN, KDAH, KVDL, and the National Veterinary Services Laboratories (NVSL & FADDL) to ensure a timely and effective response to suspected foreign animal disease threats or disease outbreaks (*Figure 2* above).

*How KVDL works with NAHLN and the State Veterinarians (**Figure 3** Below)*

When a potential foreign animal disease (FAD) is suspected, communication between KVDL, KDAH and USDA–APHIS–NAHLN follows a clearly defined process to ensure timely investigation and response, and *can flow in both directions* (*Figure 2* above). *When a potential FAD originates in the field,* KDAH or USDA–APHIS will initiate contact to KVDL to alert the laboratory of incoming samples. These notifications typically follow field investigations conducted by a Foreign Animal Disease Diagnostician (FADD), allowing KVDL to prepare for appropriate handling, testing, and biosafety procedures up on receipt of the samples. *However, FAD investigation cases can also originate within KVDL,* either from samples submitted through a referring veterinarian, owner, or from animals presented to the necropsy service (animal autopsy). If KVDL pathologists or diagnosticians observe clinical signs/symptoms or postmortem findings (animal autopsy) that raise concern for a foreign animal disease, the laboratory initiates communication with state and Federal partners—the SAHO and NAHLN. In these situations, KVDL provides detailed case information so that our regulatory partners can determine whether the case meets criteria for an official FAD Investigation. Once samples are received in the laboratory, KVDL conducts initial rule-out testing according to NAHLN-approved assays and protocols. Results are communicated promptly and securely to both USDA–APHIS, KDAH and USDA–NAHLN coordinators. Throughout the process, interagency communication is tightly coordinated to ensure accurate tracking, confidentiality, and timely decision-making. This collaborative framework is essential for the early detection and control of foreign animal diseases, and it plays a vital role in protecting animal health, public health, and the agricultural economy.

Figure 3: Flow chart of investigation of a foreign animal disease case involving practicing veterinarian, USDA veterinarian, State Animal Health Official (State Veterinarian), KVDL, NAHLN and national laboratories for confirmatory testing

FAD Investigation Flowchart



KVDL Current Testing for NAHLN

KVDL currently is performing Highly-Pathogenic Avian Influenza (HPAI; bird flu) testing, African Swine Fever Virus surveillance testing, and FAD investigations for NAHLN and the United States. Both Colorado and California have become overwhelmed with HPAI testing, so KVDL stepped up to support HPAI (bird flu) wild bird surveillance for Colorado and Foot-and-Mouth Disease Investigations for California. ***This collaborative effort of assisting states that have become overwhelmed, highlights the unique relationship among state laboratories and NAHLN and the importance of NAHLN coordination.***

Highly-Pathogenic Avian Influenza (HPAI; Bird Flu) continues to pose a significant threat to both animal and human health, with the recent outbreak starting in 2022 causing substantial losses in poultry populations and raising concerns about zoonotic transmission (diseases from animals to humans). While human cases remain rare, the virus's ability to jump species underscores the critical need for vigilant monitoring and containment efforts. Recent outbreaks in commercial layer operations resulted in high egg prices in April 2025, which negatively impacted restaurants and bakeries. ***Any insult to animal agriculture can affect the supply chain to the restaurant and family table levels; state veterinary diagnostic labs with NAHLN coordination work to mitigate this risk.***

Since May 2022, KVDL has served as an active member of the USDA-Wildlife Services National Wildlife Disease Program, the nation's largest avian influenza surveillance effort targeting wild bird populations. In addition, KVDL has participated in the Foot-and-Mouth Disease and Seneca Valley Virus (Senecavirus A) (FMD/SVA) surveillance testing program since September 2022. ***In early 2024, the emergence of HPAI in dairy cattle placed a large testing burden on many NAHLN laboratories across the country. In response, KVDL expanded its support to assist other overwhelmed NAHLN labs. While continuing to perform routine wild bird surveillance testing for assigned states, including Kansas, Nebraska, Oklahoma, Texas, and Wisconsin, KVDL volunteered to take on additional wild bird samples from Colorado's assigned states to ease the workload of the Colorado NAHLN lab. Similarly, KVDL assisted the California NAHLN lab by accepting and testing its FMD/SVA surveillance samples. These examples illustrate the critical role of NAHLN's coordinated state laboratory network to meet high testing demands in disease outbreaks.*** To date, KVDL has tested samples from 135 Foreign Animal Disease Investigations (FADIs) for California under this program. This was also evident during the COVID–19 pandemic, when 22 veterinary diagnostic laboratories stood up human **COVID** testing to support human health for their communities and states.

At the same time, KVDL has remained actively involved in HPAI testing efforts for dairy cattle, including for pre-movement, disease status interest and clinical testing and testing for the USDA National Herd Status Monitoring program. KVDL has also supported testing efforts related to HPAI in other mammal populations, including affected felines. ***These collaborative efforts reflect KVDL's commitment to national animal health and its readiness to provide surge capacity and diagnostic expertise in times of crisis; a capability shared by many partner state laboratories.***

Communication and Networking among State Laboratories, Including KVDL and NAHLN

As a Level 1 member of the USDA–NAHLN, KVDL plays an active and integral role in advancing the NAHLN mission. KVDL routinely participates in weekly NAHLN laboratory response calls, testing capacity drills, FAD exercises, and weekly surveys designed to assess and strengthen laboratory readiness. KVDL, and other state laboratories, also regularly complete proficiency (accuracy) testing administered by NVSL and FADDL to ensure ongoing diagnostic accuracy and reliability. KVDL faculty and staff contribute to national coordination efforts by serving on several NAHLN working groups and subcommittees, including the Methods Technical Working Group, the NAHLN IT Working Group, and the NAHLN Portal Working Group. ***In addition, KVDL personnel have served as quality-system auditors for other NAHLN laboratories, helping uphold high standards across the network.*** The lab is also actively engaged in emergency preparedness exercises, including functional drills for African Swine Fever (ASF) and an annual joint FAD response exercise with KDAH, NAHLN, and FADDL simulating a coordinated response to a mock foot-and-mouth disease (FMD) outbreak. Through these ongoing contributions, KVDL demonstrates its leadership, expertise, and steadfast commitment to protecting animal health and strengthening national diagnostic preparedness, similar to many other state laboratories.

NBAF Relationship with NAHLN and State Laboratories (such as KVDL)

The National Bio and Agro-Defense Facility (NBAF) is progressing towards full operational status with missions focused on FAD/outbreak testing and advancing FAD research. The Foreign Animal Disease Diagnostic Laboratory (FADDL), a core component of NBAF, serves as the national reference laboratory for confirmatory testing of foreign animal disease (FAD) diseases that could deliver a significant impact on animal agriculture and the U.S. economy, including African Swine Fever (ASF), Classical Swine Fever (CSF), and Foot-and-Mouth Disease (FMD). Currently FADDL has three physical locations, which include Manhattan, KS (NBAF), Plum Island, NY (Plum Island Animal Disease Center; PIADC) and a smaller presence in Dorado Puerto Rico (Puerto Rico Department of Agriculture). While PIADC remains operational for the time-being, FADDL is progressively transferring operations to NBAF. Several FADDL programs have been fully transitioned to NBAF, including NAHLN proficiency tests (PT), which assess state laboratories testing accuracy and active surveillance testing for foreign animal diseases. From the NBAF facility, FADDL has produced and distributed 800 PT panels for ASF, CSF, FMD, and Seneca Valley Virus to NAHLN labs nationwide. Additionally, NBAF has tested over 17,000 samples under the USDA APHIS ASF/CSF Integrated Active Surveillance Program. Approximately half of FADDL's staff have relocated to NBAF, with ongoing efforts to complete the full transition of operations from PIADC.

Summary—Importance of NAHLN

NAHLN, with over 20 years' of experience, standardized and controlled testing, and coordination of 64 state laboratories provides high testing capacity/numbers and redundancy in testing to control outbreaks and surveil for FADs on U.S. soil. In my opinion, NAHLN is the best example of a Federal organization harmoniously coordinating disease response among state laboratories and departments of Agriculture. When funds are appropriated to NAHLN, Federal dollars are supporting state laboratories, protecting the U.S. economy and food supply, preventing zoonosis, maintaining exports and trade channels and addressing many other critical national interests. KVDL, for instance, receives $250,000 annually from NAHLN, which is a small fraction of KVDL's overall budget of greater than $16 million. However, input costs of veterinary diagnostic laboratories are high and revenue can struggle to exceed expenses in some years. Despite these challenges, the services of veterinary diagnostic laboratories remain critical. Increasing NAHLN authorization/allocations to $45 million would bolster 64 state laboratories and four National Veterinary Service Laboratories, ensuring continued protection of animal agriculture and the economy.

NBAF Science/Research Update

- Scientific activities at the National Bio and Agro-Defense Facility (NBAF) in Manhattan, Kansas are starting in phases.
- This phased process begins with low-risk, common science practices that don't involve infectious pathogens and moves to more advanced or mission-focused science in later phases.
- Current scientific activities at NBAF are at a Biosafety Level 1 and 2—which includes clean, non-infectious materials as well as moderate-risk microbes. This is similar to science work in most universities, colleges and diagnostic laboratories across the country.
- Activities will progress to Biosafety Level 3 then 4 as safety and science goals are achieved.
- USDA staff continue to outline and refine the specifics of the science standup and transition from NBAF's predecessor, the Plum Island Animal Disease Center (PIADC) in New York.
- As NBAF proceeds through science standup, the facility and its procedures are required by law to undergo inspections and reviews by Federal regulatory agencies.

Testimony Prepared by: Jamie N. Retallick DVM, PHD, DACVP, KVDL Director, KSU Professor and Veterinary Pathologist; Lance Noll, Ph.D., KVDL Molecular Testing Section Head; KVDL NAHLN and KDAH Liaison/Section Head, KSU Assistant Professor.

The CHAIRMAN. Thank you, Dr. Retallick.

Next up, Dr. Hensley, please begin when you are ready.

STATEMENT OF TERRY HENSLEY, MS, D.V.M., ASSISTANT AGENCY DIRECTOR, VETERINARY MEDICAL DIAGNOSTIC LABORATORY, TEXAS A&M UNIVERSITY; EXTENSION VETERINARIAN, TEXAS A&M AGRILIFE EXTENSION SERVICE, COLLEGE STATION, TX

Dr. HENSLEY. Good morning, Chairman Mann, Ranking Member Costa, and Members of the Subcommittee. Thank you for the opportunity to address you today. I am Terry Hensley, Assistant Agency Director of the Texas A&M Veterinary Medical Diagnostic Laboratory, or TVMDL. I have the privilege of serving at one of our nation's busiest veterinary diagnostic laboratories, running almost one million tests annually. Most of our caseload comes from within Texas, but we also receive samples from all 50 states and internationally. Animal diseases don't respect geographic boundaries. Therefore, it is imperative that our veterinary diagnostic laboratories in all 50 states have the same capabilities to detect diseases quickly and accurately to limit their spread and mitigate the impact on animal agriculture.

The NAHLN has built a responsive, effective partnership of state and Federal laboratories that leverages resources and talent across the nation. The NAHLN program office works tirelessly to strengthen relationships with every member laboratory so we can respond as a network to the ever-increasing disease incursions threatening our nation's animal agriculture industries.

It is crucial that the NAHLN be fortified and enabled to provide the critical diagnostic testing needed during animal disease outbreaks. Ensuring NAHLN has sufficient funding will aid in addressing our nation's need for a safe, stable, and nutritious food supply. We want to thank Congress for the increased funding for NAHLN in the reconciliation bill and for Congressman Ronny Jackson for helping lead those efforts.

TVMDL was one of the original NAHLN core laboratories. Texas has features that increase its risk for the introduction of animal disease threats, including a 1,248 mile long border with Mexico and multiple international land, sea, and air ports. Texas imports one million cattle annually from Mexico and 2½ million cattle from other U.S. states. In addition to livestock, Texas has an abundance of feral, wild, and farmed wildlife species, three major migratory flyways across the state. The interface between domestic and wildlife species poses a tremendous challenge for disease surveillance, detection, and eradication.

TVMDL's work protects Texas' $24 billion animal agriculture industries while enhancing the response preparedness of the NAHLN. An example of synergy occurred in March of 2024 when many dairies in the Texas panhandle reported a mysterious illness in lactating cows. The cows showed various signs of illness but most striking was the dramatic decrease in milk production. Dairy veterinarians sent samples to TVMDL, as well as our fellow NAHLN labs at Cornell University and Iowa State University. For several weeks, our laboratories ran every test that might provide an explanation, but there were no definitive answers. When dairies reported large numbers of dead birds and cats, the possibility of a connection between highly-pathogenic avian influenza and sick cattle was suggested.

The NAHLN laboratories at Texas A&M, Cornell, and Iowa State collaborated using shared samples from sick cows and demonstrated the presence of H5N1 virus in mammary tissue and milk. These results were reported to the NAHLN and confirmed by the National Veterinary Services Laboratories. On Monday, March 25, 2024, USDA made the unprecedented announcement of an outbreak of highly-pathogenic avian influenza in U.S. dairy cattle.

Texas may soon be ground zero for another incursion if the deadly New World screwworm fly invades our state from Mexico. While we hope this pest can be contained south of the border, hope, as they say, is not a strategy. The USDA's National Animal Health Laboratory Network is, however, one vital strategy serving as a cornerstone of the United States' efforts to protect livestock and ensure the health and productivity of the animal agriculture sector.

Thank you for your attention.

[The prepared statement of Dr. Hensley follows:]

PREPARED STATEMENT OF TERRY HENSLEY, MS, D.V.M., ASSISTANT AGENCY DIRECTOR, VETERINARY MEDICAL DIAGNOSTIC LABORATORY, TEXAS A&M UNIVERSITY; EXTENSION VETERINARIAN, TEXAS A&M AGRILIFE EXTENSION SERVICE, COLLEGE STATION, TX

Good morning, Chairman Mann, Ranking Member Costa, and Members of the Subcommittee, thank you for the opportunity to address you today. I'm Terry Hensley, assistant agency director of the Texas A&M Veterinary Medical Diagnostic Laboratory, or TVMDL. I have the privilege of serving at one of our nation's busiest veterinary diagnostic laboratories, which runs over one million tests annually. Most of our caseload comes from within Texas, but we also receive samples from all 50 states and 20 other countries. As you know, animal diseases don't respect geographic boundaries. It Is imperative that our veterinary diagnostic laboratories in all 50 states have the same capabilities to detect diseases quickly and accurately, to limit the spread and mitigate the impact on animal agriculture. The NAHLN has built a responsive, effective partnership of state and Federal laboratories that leverage resources and talent across the nation.

Introduction

The National Animal Health Laboratory Network (NAHLN) was developed in response to the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, and the Homeland Security Presidential Directive/HSPD–9 of 2004 to "develop nationwide laboratory networks for food, veterinary, plant health and water quality that integrate existing Federal and state laboratory resources, are interconnected, and utilize standardized diagnostic protocols and procedures".

NAHLN laboratories provide animal health diagnostic testing, methods research and development, and expertise for education and extension to detect biological threats to the nation's animal agriculture, thus protecting animal health, public health, and the nation's food supply.

The NAHLN enables Federal and state laboratories to test for economically devastating and potentially zoonotic diseases such as foot-and-mouth disease, African swine fever, influenza in avian and swine species, and bovine spongiform encephalopathy (BSE) among other NAHLN scope diseases. This network serves as our nation's most vital early warning system for emerging and foreign animal diseases.

The laboratories within the NAHLN are equipped with state-of-the-art technologies and staffed by highly trained professionals. This, along with the requirement for third-party accreditation to internationally recognized quality standards, ensures the highest levels of diagnostic accuracy and reliability. By providing precise and timely diagnoses, NAHLN laboratories enable veterinarians and livestock producers to make informed decisions about animal health management, thus fostering the overall well-being of livestock.

The NAHLN's primary importance lies in its ability to facilitate early detection and rapid response to animal disease outbreaks. The network laboratories, strategically located across the United States, work collaboratively to conduct surveillance, diagnostic testing, and research. The rapid identification of pathogens enables swift action to contain and eradicate diseases, thus preventing their spread and minimizing their impact.

Effective disease control requires collaboration and coordination among various stakeholders. The NAHLN works closely with Federal and state agencies, industry groups, and international organizations to ensure a unified response to animal health threats. This collaborative approach enhances the network's ability to address complex challenges and strengthens the overall resilience of the animal health infrastructure.

NAHLN celebrated its 20th anniversary in 2022, and it's been remarkable to see how far the network has come since the early days of its inception. The NAHLN Program Office has worked tirelessly to forge and strengthen the relationships with every one of the NAHLN member laboratories so we can respond as a network to the ever-increasing disease incursions threatening our nation's animal agriculture industries. It's crucial that the NAHLN be fortified and enabled to provide preparation, prevention, diagnosis, response, and recovery from economically important and potentially zoonotic diseases. Ensuring the NAHLN has sufficient funding will aid in addressing our nation's need for a safe, stable, and nutritious food supply. We want to thank Congress for the increased funding for NAHLN in the Reconciliation Bill and for Congressman Ronny Jackson in helping lead those efforts.

TVMDL Background Information

TVMDL was a charter member of the NAHLN, one of the original 12 labs identified as a Core Lab in 2002. To understand why TVMDL was chosen as one of the Core Labs, a closer look at the State of Texas is in order. Texas has several attributes that put it at increased risk for the introduction of animal disease threats. 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 one 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. Texas' geographic location is obviously an urgent concern for the introduction of New World Screwworm into the U.S. from Mexico, and for African Swine Fever from the Dominican Republic and Haiti.

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 animal and animal products, and the state boasts a population of nearly one million horses. TVMDL offers state-of-the-art diagnostic services to each of these industries.

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. Today, TVMDL is a member of the Texas A&M University System and has four locations throughout the state (College Station, Canyon, Center, and Gonzales). With its strategic locations, TVMDL is uniquely positioned to serve the animal industries of Texas and the surrounding region. TVMDL's work enhances the response preparedness of the NAHLN and protects Texas' $24 billion animal agriculture industries. Our College Station and Canyon laboratories harbor a tremendous amount of expertise in diagnostics that support the cattle-feeding and dairy industries. The staff foster strong, collaborative relationships with agricultural industries in the region. TVMDL's Center and Gonzales labs are strategically located in the poultry-rich regions of the state.

TVMDL employs 165 staff, including 31 veterinarians, 22 of which hold at least one board certification in their specialty. TVMDL processes over 180,000 submissions and performs over one million tests each year on samples submitted from throughout Texas, all 50 states, and at least 20 countries across the globe. Routine laboratory submissions provide the backbone of both a state and nationwide animal and public health surveillance system. With nearly 700 different assays in TVMDL's test repertoire, ranging from classic methods to cutting edge technologies, the agency has one of the broadest offerings of any veterinary diagnostic laboratory in the United States. TVMDL staff routinely attend industry meetings and work with producers and veterinarians to establish priorities. Statewide, TVMDL has well-established, collaborative relationships with the Texas Animal Health Commission (TAHC), Texas Department of State Health Services (DSHS), Texas Parks and Wildlife Department (TPWD), Texas Poultry Federation, Texas Cattle Feeders Association, and numerous other industry and commodity groups.

With recognition as a Level 1 laboratory of the National Animal Health Laboratory Network (NAHLN), we participate in and maintain capacity and competency in testing for most of the diseases in the NAHLN program. We are also actively engaged in daily testing for notifiable and monitored diseases, select agents, as well as state and Federal regulatory diseases. Our Canyon and College Station labs house the only BSL–3 laboratories in Texas dedicated to animal disease detection.

TVMDL strives to identify and develop new technologies that strengthen our diagnostic capacities. In collaboration with national and international research scientists, TVMDL works to develop, test, and validate new diagnostic assays. In 2019, the Texas A&M University System Chancellor provided $3 million to TVMDL specifically designated to enhance TVMDL's research and development capabilities. This enabled TVMDL to establish a Research and Development Section (R&D) that works alongside the diagnostic testing sections to identify emerging disease threats that need targeted diagnostic assays. The R&D Section also coordinates with the Veterinary Services Section, a team of veterinary diagnosticians that have extensive clinical practice experience in large animal, small animal, equine, and wildlife medicine. This team also includes veterinarians with training in epidemiology and veterinary preventive medicine.

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 brings together five state agencies that are tasked with disaster response and recovery: Texas A&M AgriLife Extension Service, Texas Division of Emergency Management, Texas A&M Engineering Extension Service, Texas A&M Forest Service, and TVMDL. These five agencies meet to discuss current and emerging disaster situations and threats. The State of Texas recognizes the crucial role each agency plays in mitigating the effects of natural disasters, including human and animal disease threats, and has seen fit to increase the base funding for each agency. TVMDL was appropriated $3.7 million per biennium specifically for the rapid detection of animal and human disease threats.

TVMDL's two full-service labs are located adjacent to higher education institutions that are leaders in veterinary medicine. In College Station, Texas A&M University's College of Veterinary Medicine & Biomedical Sciences (CVM) is one of the largest and highest-ranking colleges of veterinary medicine in the U.S. In 2009, CVM partnered with West Texas A&M University in Canyon to create VERO, the Veterinary Education, Research, and Outreach program in the Texas Panhandle. TVMDL's College Station laboratory also has strong partnerships with internation-

ally recognized organizations such as the Texas A&M Institute for Infectious Animal Diseases (IIAD) and the Norman Borlaug Institute for International Agriculture.

TVMDL and the NAHLN

Routine surveillance and monitoring by laboratories such as TVMDL are vital components of the NAHLN's operations. Through regular testing and data collection, the network can identify disease patterns and emerging threats. Ideally, this results in timely implementation of control measures to prevent disease spread. As Texas is vulnerable to many of these disease threats, TVMDL tests for most of the diseases under the NAHLN scope, including African Swine Fever, Classical Swine Fever, Scrapie, Chronic Wasting Disease, Avian Influenza, Swine Influenza, and Newcastle disease. TVMDL's involvement in diagnosis and surveillance for the NAHLN includes the 2002–2003 outbreak of Exotic Newcastle disease, requiring the depopulation of over three million poultry and a total cost of $161 million for eradication. In 2005, TVMDL found one of only six cases of Bovine Spongiform Encephalopathy (BSE) ever diagnosed in the U.S. In 2004–2006, 2015, and 2020, Texas and other states experienced numerous outbreaks of Vesicular Stomatitis Virus (VSV). TVMDL has worked closely with the NAHLN, TPWD, and TAHC on surveillance testing for Chronic Wasting Disease since the discovery of the disease in Texas in 2012. Texas was not impacted by the outbreak of highly-pathogenic avian influenza (HPAI) in 2014–2015, which at that time was the largest animal disease outbreak in U.S. history, but 15 other states were not as fortunate. The direct losses of this outbreak were ~$1 billion, with a loss of 50 million birds and an overall economic loss of $4.4 billion (adjusted to 2025), and NAHLN laboratories performed approximately 80,000 PCR tests for HPAI. There were many lessons learned and shared throughout the network from this outbreak, but it would soon be eclipsed in 2022 by the current outbreak of the H5N1 strain of HPAI.

The 2022–Present Outbreak of Highly-Pathogenic Avian Influenza

The largest animal disease outbreak in U.S. history and the biggest challenge faced to date by the NAHLN and its member laboratories started in early 2022. This H5N1 strain of virus, carried and spread by wild birds, was first detected in February of 2022 in Indiana and spread quickly. In Texas, TVMDL's first detection was in March of 2022 in a flock of captive gamebirds. By the end of 2022, all four of TVMDL's labs throughout the state had detected the virus in backyard poultry flocks and wild birds, but our commercial poultry industry remained unscathed. The outbreak persisted throughout 2022 and 2023, as the virus spread to nearly every state in the U.S. This strain of virus also showed an unusual ability to jump into mammalian species, generally causing a fatal neurologic disease in omnivores and carnivores such as foxes and skunks, and large cats such as mountain lions, tigers, and lions. As months turned to years, NAHLN and its partner laboratories shared data and information daily and weekly and maintained lines of communication with state and Federal veterinarians, commercial industry stakeholders, and others involved in the battle to contain this disease. However, a further demonstration of NAHLN's important role and the collaboration of NAHLN laboratories was to play out in 2024.

Highly-Pathogenic Avian Influenza in Dairy Cattle

In February and March of 2024, many dairies in the Texas Panhandle reported a mysterious illness amongst their lactating cattle. The cattle were showing various signs of illness, but the most striking feature in every herd was dramatic decreases in milk production. Dairy veterinarians sent samples to TVMDL, as well as our fellow NAHLN labs at Cornell University and Iowa State University. For several weeks, our laboratories ran every test we could think of that might provide an explanation, but there were no definitive answers. A few dairy veterinarians reported that some premises had large numbers of dead wild birds. To no one's surprise, the birds tested positive for H5N1 HPAI. Still, no one suspected the link between the virus and the illness in dairy cattle. One of the veterinarians reported that on several of the dairies, the barn cats had all died suddenly or had simply disappeared. TVMDL tested the brains of several dead cats, and it contained high amounts of H5N1 HPAI virus. With that, the possibility of a connection between the virus and sick cattle was suggested. On Friday, March 22, 2024, a nasal swab from a cow tested weak positive for H5N1 at TVMDL. TVMDL shared tissue samples with our colleagues at Iowa State from a sick cow that was sacrificed in hopes of getting a diagnosis. On Friday, March 22, 2024, Iowa State ran tests demonstrating the presence of H5N1 virus within infected mammary gland tissue and milk. These striking results were reported to NAHLN and confirmed by the National Veterinary Services Laboratories over the weekend. By Monday, March 25, 2024, the USDA made the unprecedented announcement of an outbreak of Highly-Pathogenic Avian Influenza

in U.S. dairy cattle.[1] We now know that unfortunately, before this discovery, asymptomatic cattle had already shipped outside of Texas. The virus spread from one state to another and there are currently 17 states and nearly 1,100 herds affected nationwide.

Fortunately, due to measures enacted by USDA and affected states, the spread of the disease in dairy cattle appears to be slowing. However, commercial poultry operations continue to be infected, with over 100 million birds lost, and a direct cost of over $1.4 billion as of November 2024.[2]

The initial outbreak in Texas cattle was determined to be caused by a single spillover event from a wild infected bird into a cow, likely around December of 2023. Disease spread from the index herd to other herds within Texas and to other states was largely due to movement of infected cattle.[3] Whole genome sequence analyses have demonstrated the ability of the virus to cross species barriers.[4] There is also a public health threat, as there are numerous documented transmissions of the virus to dairy and poultry farm workers exhibiting influenza-like symptoms. The human illnesses have mostly been mild, although there have been several requiring hospitalizations and one death in an individual with underlying health conditions.[5, 6]

Funding for the NAHLN

NAHLN has been authorized for funding at $30 million since 2012 but has only been allocated $24.9 million from APHIS ($20.7 million) and NIFA ($4.2 million). These amounts are far below the $45 million needed for the NAHLN to fully support its mission.[7] In 2024, of the $24.9 million total NAHLN funding, $7,885,335 (32%) was used for fee-for-service testing supporting the surveillance and diagnostic testing for NAHLN program diseases (BSE, Scrapie, CSF/ASF, HPAI, *etc.*) and foreign animal disease (FAD) investigations. Another $14,343,000 (58%) was used to support NAHLN member laboratories, with funding levels apportioned by the number of labs at each of the Level 1, 2, and 3 designations.

While all NAHLN laboratories are grateful for the Federal funding we receive, these amounts distributed across 64 laboratories do not go far. In TVMDL's case, as a Level 1 laboratory, we receive the highest level of NAHLN funding possible: $250,000 from the NIFA Line Item, and $128,000 in infrastructure funding, for a total of $378,000, or approximately 1.5% of our annual revenue budget. The money goes towards supporting portions of select staff salaries and purchasing certain equipment used for NAHLN testing. It is therefore easy to see how this Federal funding leverages resources available at the state level to conduct testing that benefits the nation. However, it should be noted that all states are not resourced equally and many NAHLN laboratories are much more reliant on NAHLN funding to afford the equipment and personnel necessary to carry out the mission of the NAHLN.

Additionally, the $24.9 million has remained level for several years and has not increased despite the heavy burden placed on the network by HPAI in poultry and dairy cattle. In conclusion, the USDA's National Animal Health Laboratory Network is a cornerstone of the United States' efforts to protect livestock and ensure the health and productivity of the agricultural sector. Through early detection, diagnostic excellence, economic protection, research advancement, and public health enhancement, the NAHLN plays a vital role in safeguarding the nation's livestock and supporting the livelihoods of farmers. Its contributions are invaluable in maintaining the prosperity and security of the U.S. agricultural industry.

The CHAIRMAN. Thank you for your testimony, Dr. Hensley. Next up, Dr. Main, please begin when you are ready.

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[1] USDA announcement March 25, 2025.

[2] *Bird flu outbreak costs U.S. poultry industry $1.4 billion.* FORBES, Jan 30, 2025.

[3] Nguyen T.Q., Hutter C.R., Markin A., *et al. Emergence and interstate spread of highly pathogenic avian influenza A(H5N1) in dairy cattle in the United States.* 2025; 388.

[4] Caserta L., Frye E.A., Butt S.L., *et al. Spillover of highly pathogenic avian influenza H5N1 virus to dairy cattle.* NATURE. 2024; 634 (8034): 669–6763.

[5] Garg S., Reinhart K., Couture A., *et al. Highly pathogenic avian influenza A(H5N1) virus infections in humans.* THE NEW ENGLAND JOURNAL OF MEDICINE. 2025; 392 (9): 843–854.

[6] Louisiana Department of Health press release, January 6, 2025.

[7] NAHLN is Essential to the Health of Food Animal Agriculture, Food Security, Bioterrorism Surveillance, and the U.S. Economy: $45 million total annual funding is needed. AAVLD/USAHA position statement.

STATEMENT OF RODGER G. MAIN, D.V.M., PH.D., PROFESSOR AND DIRECTOR, VETERINARY DIAGNOSTIC LABORATORY, DEPARTMENT OF VETERINARY AND DIAGNOSTIC MEDICINE, COLLEGE OF VETERINARY MEDICINE, IOWA STATE UNIVERSITY, AMES, IA

Dr. MAIN. Sure. Good morning. My name is Rodger Main. I have the honor of serving as a Professor and the Director of the Iowa State Veterinary Diagnostic Lab located in Ames, Iowa.

The Iowa State Veterinary Diagnostic Lab is the only full service and fully accredited veterinary diagnostic lab in our state and serves as the official veterinary diagnostic lab for the State of Iowa. Our team at the ISU VDL proudly serves as an active contributor to the USDA's National Animal Health Lab Network.

The NAHLN delivers a national standard of best-in-class veterinary diagnostic technologies, testing capabilities, and coordination of information among Federal, state, and private-sector veterinarians from across the country who are responsible for surveilling and responding to animal health emergencies of high consequence to U.S. animal agriculture.

As you know, agriculture is critically important to the State of Iowa and its people, past, present, and future. Iowa is a national leader in animal agriculture, both in production and processing, and a substantive exporter of value-added food products. This is why the ISU VDL has a long history of being front and center in diagnosing and supporting responses of emerging diseases of high consequence to Iowa and U.S. animal agriculture.

As Randy mentioned, the ISU VDL's team of 30 faculty and 155 technical staff process greater than 125 case submissions, conducting more than 1.7 million assays annually. ISU VDL carries amongst the largest food-animal-centered caseloads in our country, with submissions of livestock and poultry origin representing greater than 90 percent of the cases received.

ISU VDL's principal clientele are the practicing veterinarians, who are working directly in support of the veterinary healthcare needs of U.S. farmers and ranchers on a daily basis. This connectivity to the boots-on-the-ground of Iowa and U.S. animal agriculture positions our laboratory very well in our role as a Level 1 lab in the National Animal Health Lab Network. Our work includes receiving and supporting endemic, emerging, and foreign animal disease case investigations, surveillance, and supporting response efforts in support of the NAHLN's mission to protect U.S. animal health, public health, and the nation's food supply.

In my view, the NAHLN is an exemplary example of a highly functional and effective partnership amongst Federal, state, university, and industry partners. The efficiencies of the Federal funds invested in the NAHLN are greatly amplified through the leveraging of the substantive laboratory infrastructure, subject matter expertise, quality assured laboratory testing capabilities, research scientists, and the direct connectivity to the frontlines of U.S. animal agriculture that exists at our university and state diagnostic labs across the country. The Federal support provided through the NAHLN is a cornerstone for enhancing national preparedness to effectively monitor and respond to the ever-increasing

risk and realities of emerging disease of high importance to both animal and human health.

ISU VDL's role in working in partnership with our USDA colleagues, practicing veterinarians, peer laboratories, and the state and Federal animal health officials from across the country in support of the detection and response to the high-path avian influenza outbreak impacting U.S. poultry, flocks, and dairy herds in the past 2 years is simply the most recent example of the ISU VDL and USDA NAHLN partners from across the country stepping up in a time of need. Such capabilities are only made possible through the Federal investment in this vital network.

In summary, I believe the Federal investments in the NAHLN represent a true win-win-win, win for U.S. animal health, public health, for U.S. agriculture more broadly, and for enhancing the security, safety, and affordability of our nation's food supply. I thank the Members of this Committee and leaders within USDA APHIS, both present and past, for your leadership, vision, and steadfast support for establishing and continuing to advance the capabilities and reach of the NAHLN across our country. Your vision and support have resulted in the development of a highly trusted and capable veterinary network of veterinary diagnostic labs that are truly world class. In my opinion, the NAHLN is a crown jewel within USDA APHIS Veterinary Services that is uniquely American and unmatched the world around. It is something that each of us as Americans can and should take great pride in.

And thank you again for the opportunity to be, and speak with you, here today.

[The prepared statement of Dr. Main follows:]

PREPARED STATEMENT OF RODGER G. MAIN, D.V.M., PH.D., PROFESSOR AND DIRECTOR, VETERINARY DIAGNOSTIC LABORATORY, DEPARTMENT OF VETERINARY AND DIAGNOSTIC MEDICINE, COLLEGE OF VETERINARY MEDICINE, IOWA STATE UNIVERSITY, AMES, IA

Key Points:

- The USDA National Animal Health Network (NAHLN) is a cornerstone of our nation's efforts for protecting U.S. animal health, public health, and the security of a safe, abundant, and affordable food supply.
- The NAHLN delivers a national standard of best-in-class veterinary diagnostic technologies, testing capabilities, and coordination of information among the Federal, state, and private-sector (practicing) veterinarians from across the U.S. who are responsible for surveilling and responding to animal health emergencies of high consequence to U.S. animal agriculture.
- The efficiencies of the Federal funds invested in the NAHLN are greatly amplified through the leveraging of the substantive veterinary diagnostic laboratory infrastructure, subject matter expertise, quality assured laboratory testing capabilities, research scientists, and the direct connectivity to the frontlines of U.S. animal agriculture that exists at the university and state veterinary diagnostic labs across the country.
- NAHLN is an exemplary example of a highly functional and effective partnership among Federal, state, university, and industry partners working together to meet critically important needs of our nation.
- The leadership and vision provided in establishing and continuing to advance the capabilities and reach of the NAHLN across our country has resulted in the development of a highly trusted and capable network of veterinary diagnostic laboratories that is uniquely American and truly world class.

USDA National Animal Health Lab Network (NAHLN):

The USDA National Animal Health Lab Network (NAHLN) is an essential component of a national strategy that provides the frontline support for detecting, responding to, and recovering from animal health emergencies of high consequence to U.S. animal agriculture.

The NAHLN is a network of Federal, university, and state laboratories distributed throughout the country that collectively serve as our nation's primary veterinary diagnostic laboratory infrastructure for protecting U.S. animal health, public health, and the security of our food supply.

The NAHLN was established in 2002 and has evolved to include a total of 64 labs contributing at various levels and capacities towards advancing NAHLN's mission of safeguarding animal health, public health, and our nation's food supply. The NAHLN also works in partnership as part of the three-legged stool with the National Animal Vaccine and Veterinary Countermeasure Bank and National Animal Disease Preparedness Response Program to bolster the country's abilities to capably respond to animal health emergencies of high consequence.

The NAHLN provides a well-structured system for enabling diseases of high consequence testing to be conducted in a quality assured manner by university and state veterinary diagnostic laboratories that are geographically dispersed throughout the country. The NAHLN brings a national standard of best-in-class veterinary diagnostic technologies and system for integrating veterinary diagnostic information to be actively in service on frontlines of U.S. animal agriculture on a day-to-day basis. This distributive model of service brought about by the NAHLN's partnering with university and state labs provides for a practical and efficient means for delivering emerging and foreign animal disease diagnostic support in a timely, cost effective, scalable, and quality assured manner across the country.

Iowa State University Veterinary Diagnostic Lab in the NAHLN

The Iowa State University Veterinary Diagnostic Lab (ISU VDL) is the only full-service, fully accredited veterinary diagnostic laboratory in the State of Iowa, and serves the state as its official veterinary diagnostic laboratory.

The ISU VDL proudly serves as an active contributor to USDA's National Animal Health Laboratory Network (NAHLN).

As a Level 1 Laboratory in the NAHLN, ISU VDL collaborates on a daily basis with the USDA Federal reference laboratories, peer university and state labs, practicing veterinarians, and state and Federal veterinary medical officials from across the country.

As you know, agriculture is critically important to the State of Iowa and its people—past, present, and future. Iowa is perennially a national leader in animal agriculture, both in production and processing, and a substantive exporter of value-added food products.

This is why ISU VDL has a long history of being front and center in diagnosing, researching, and supporting responses to emerging diseases of high consequence to Iowa and U.S. animal agriculture.

The ISU VDL is a major unit within the Department of Veterinary Diagnostic and Production Medicine in Iowa State University's College of Veterinary Medicine.

ISU VDL's team of 30 faculty and 155 technical staff play an active role on the frontlines of U.S. animal agriculture. The lab processes approximately 125,000 diagnostic case submissions and conducts more than 1.7 million diagnostic assays annually.

While the range of comprehensive veterinary diagnostic services the ISU VDL provides extends across the full-spectrum of the animal kingdom—including livestock, companion animals, and wildlife—and includes mitigating the risks of zoonotic diseases spilling over from animals to people; ISU VDL's core purpose centers on playing a critical role in safeguarding and bettering the health, well-being, and competitiveness of Iowa's and the nation's animal agriculture, and ultimately, the security and safety of our nation's food supply.

The ISU VDL carries among the largest food animal centered caseloads in the U.S., with submissions of livestock and poultry origin representing greater than 90% of the cases received and approximately 95% of the overall diagnostic services provided.

ISU VDL receives more than 2,500 case submissions each week. This abundant flow of real-world case material provides our veterinary diagnosticians and research scientists an immediate insight into the applied research questions of high relevance to stakeholders and industries we serve. This case material also serves as invaluable aid in the teaching and training of the next generation of veterinarians, diagnosticians, and veterinary scientists.

ISU VDL's principal clientele are the practicing veterinarians who are working directly to support the veterinary health care needs of U.S. farmers and ranchers on a daily basis. This direct connectivity to the boots on the ground of Iowa and U.S. animal agriculture positions our laboratory very well in its role and service as a Level 1 Lab in the NAHLN.

Our work as a Level 1 Laboratory in the NAHLN includes receiving and supporting endemic, emerging, and foreign animal disease investigations, surveillance, and response efforts in support of the NAHLN's mission to protect U.S. animal health, public health, and the nation's food supply.

The ISU VDL monitors its heavy case load of diagnostic submissions for diseases of high-consequence, maintains an adequate staff of proficiency-tested technicians, and a BSL–3 capable diagnostic facility. Examples of NAHLN scope disease surveillance and testing at the ISU VDL include diseases such as Avian Influenza, African Swine Fever, Chronic Wasting Disease, Classical Swine Fever, Exotic Newcastle Disease, Foot-and-Mouth Disease, Pseudorabies, and Type A Influenza of Swine as well as monitoring for trends in antimicrobial resistance among U.S. livestock and poultry. In just our local example, the ISU VDL conducted approximately 156,000 tests on U.S. livestock and poultry on these NAHLN scope related animal health monitoring and disease control efforts over the course of the past year.

In my view, the NAHLN is an exemplary example of a highly functional, efficient, and effective partnership among Federal, state, university, and industry partners.

Federal Support Provided to the NAHLN

Federal support provided through the NAHLN is a cornerstone of enhancing our national preparedness to effectively monitor and respond to the ever-increasing risks and realities of emerging diseases of importance to both animal and human health.

The efficiencies of the Federal funds invested in the NAHLN are greatly amplified through the leveraging of the substantive veterinary diagnostic laboratory infrastructure, subject matter expertise, quality assured laboratory testing capabilities, research scientists, and the direct connectivity to the frontlines of U.S. animal agriculture that exists at the university and state veterinary diagnostic labs across the country.

The financial resources provided to the ISU VDL as a Level 1 Lab in the NAHLN are essential in enhancing animal disease monitoring capabilities and capacity, demonstrating competence and compliance of well-defined testing standards, supporting the development and implementation of quality assurance programs that drive the continuous improvement of the laboratory, increasing collaboration and connectivity between state and Federal animal health officials and diagnostic laboratories, and improving foreign or emerging animal disease testing, surveillance, and containment capabilities.

These funds have enabled the ISU VDL the ability to maintain a BSL–3 capable diagnostic laboratory space and an adequate staffing of proficiency-trained diagnostic technicians that are utilized on a regular basis for foreign, emerging, and domestic disease surveillance and provide surge capacity when a disease outbreak occurs. These funds also support laboratory information technology infrastructure, capabilities, and personnel to develop and use data systems necessary for secure management and transmission of sensitive laboratory data. Similarly, support through the NAHLN continues to be critical towards enhancing the ISU VDL's quality assurance programs that validate the accuracy and reliability of the test results to reassure decision-makers and foreign trading partners that they can have confidence in the results.

ISU VDL's role working in partnership with our USDA colleagues, practicing veterinarians, peer laboratories, and state and Federal medical officials from across the country in support of the detection and response to the outbreak of High-Path Avian Influenza Virus (HP–AIV) impacting U.S. poultry flocks and dairy herds over the course of the past few years is simply the most recent example of the ISU VDL and USDA NAHLN partners stepping up in a time of need. Such capabilities are only made possible by Federal investment in this vital network.

In short, funding received through the NAHLN is used as an extremely efficient and effective means of leveraging the capabilities existing at the ISU VDL to enhance the U.S. diagnostic system serving to protect animal health, human health, and the greater than $250 billion U.S. animal agricultural economy.

Closing

In summary, I believe the Federal investments in the NAHLN represent a true win-win-win—for U.S. animal health and public health; for U.S. agriculture more

broadly; and for enhancing the security, safety, and affordability of our nation's food supply.

I thank the Members of this Committee and leaders within USDA APHIS both present and past for your leadership, vision, and steadfast support for establishing and continuing to advance the capabilities and reach of the NAHLN across our country.

Your vision and support have resulted in the development of a highly trusted and highly capable network of veterinary diagnostic laboratories that is truly world class. In my opinion, the NAHLN is a crowned jewel within USDA APHIS Veterinary Services that is uniquely American, and unmatched the world around. It is something that each of us as Americans can—and should—take great pride in.

The CHAIRMAN. Thank you, Dr. Main, for that testimony.

Next up, Dr. Jones, please begin when you are ready.

STATEMENT OF ANNETTE B. JONES, D.V.M., STATE VETERINARIAN AND DIRECTOR, ANIMAL HEALTH AND FOOD SAFETY SERVICES DIVISION, CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE, SACRAMENTO, CA

Dr. JONES. Thank you for including me in this hearing today. My long tenure as State Veterinarian has provided me with extensive real-world experience. I have seen effective and less effective strategies, and I am very familiar with critical infrastructure that must be in place to mitigate the impacts of catastrophic disease outbreaks.

To provide some context, I think of myself as a fire chief, and our disease control experts are deployed to contain outbreaks, much like containing an almost-invisible fire. We are emergency responders, and our strategies are practiced but modified to reflect the specific situation in front of us. State and Federal partners work side by side, and decisions are made in unified command. Similar to a fire response, our actions like euthanizing entire flocks or halting animal and product movement needed to maintain business can be devastating to some but are necessary to minimize the negative impacts on all the nation's herds and flocks.

Continuing the analogy, the National Animal Health Laboratory Network exists to detect new pathogens that threaten our food system, animal health, or public health. It is like the smoke detector that alerts all potentially impacted animal owners and first responders to a problem early enough to reduce losses. This critical detection system also accurately tells us field responders what is in front of us so that we can modify our strategy.

That brings me to my first point. We as a nation, and as farmers and ranchers, need that smoke detector so that even if the fire department is delayed or overwhelmed, we know there is a problem and we can act to protect our employees and animals.

This also brings me to my second point. Given the weight of regulatory response decisions, testing must be accurate, consistent, and timely. That means we must have a laboratory network with surge capacity, consistent methods, and robust quality control at all member labs. The test results must stand up to scrutiny.

For example, last winter, we were challenged in California with over 770 H5N1-infected dairies and 68 poultry outbreak control zones. Normally, our California lab tests about 450 samples per month for influenza. At the peak of this recent outbreak, the sample load was 12,000 samples per month, which is more than 25 times our normal workload.

In those 4 months, the lab network deployed pairs of technicians from other labs to California to help with testing. Because these technicians performed the same test on the same equipment using the same standard operating procedures at their home lab, they were able to immediately expand our lab capacity. At the height of the outbreak, besides fully using the California lab network, labs in seven other states received, processed, and electronically reported accurate, almost real-time results.

My last point is more specific to our way out of the current H5N1 outbreak. I believe we must sustain three concerted efforts. And if even one is neglected, the other two will fail. The first is ongoing testing. Through active surveillance, we will detect mutations and exposure levels or prevalence so we can take informed actions to protect animals and people. Note that the network laboratories have provided over one million test results nationwide in response to the current outbreak. But as I just alluded, testing alone will not make the virus disappear or get us out of this outbreak.

Biosecurity is also needed, meaning actions like movement control, traffic control, personal protective equipment, sanitation, and decontamination. When viral load in the environment is below a certain threshold, we know that biosecurity is by far the best tool for preventing disease. But I have seen time and time again that even the best farm biosecurity will be overwhelmed if there is too much virus being produced by surrounding poultry, wild birds, and dairy cows. So again, biosecurity alone will not work if the environmental viral load is not managed.

Bringing us to the third effort, reducing virus in the environment. Currently, we do this the hard way, by euthanizing infected flocks and by allowing dairy immunity to develop after exposure. Dairy exposure means a huge percent of herds suffer through bloody, snotty noses, aborted pregnancies, no interest in food and water, and udders that dry up. This is not a path that most herd managers ever want to travel, and poultry producers must now use biosecurity to defend their flocks not only from other infected flocks and wild birds, but also from dairies that may be actively infected for months.

Note that of the 17 states that have had infected dairy cows, 12 have experienced poultry outbreaks directly from those dairy cases. I believe we need dairy vaccine in the toolbox yesterday, especially for regions currently free from disease. If I were a poultry producer, a beef producer, a swine producer, or a dairy producer, I would be banging my fist on the table to vaccinate dairy cattle way ahead of poultry.

The CHAIRMAN. Thank you, Doctor.

Dr. JONES. If the USDA can successfully keep trade doors open when millions of dairy cows are actively infected with H5N1, I am confident they can get the job done for a vaccine.

[The prepared statement of Dr. Jones follows:]

PREPARED STATEMENT OF ANNETTE B. JONES, D.V.M., STATE VETERINARIAN AND DIRECTOR, ANIMAL HEALTH AND FOOD SAFETY SERVICES DIVISION, CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE, SACRAMENTO, CA

Thank you for including me in this hearing today. My long tenure as a State Veterinarian has provided me with extensive real-world experience. I have seen effec-

tive and less effective strategies and am very familiar with the critical infrastructure that must be in place to mitigate impacts of catastrophic disease outbreaks.

To provide some context, I think of myself as a "Fire Chief" and our disease control experts are deployed to contain outbreaks, much like containing an almost invisible fire. We are emergency responders, and our strategies are practiced but modified to reflect the *specific* situation in front of us. State and Federal partners work side by side and decisions are made in unified command. Like fighting fire, our actions like euthanizing entire flocks or halting movement needed to maintain business, can be devastating to some, but are necessary to minimize the negative impacts on *all* the nation's herds or flocks.

Continuing the analogy, the National Animal Health Laboratory Network exists to *detect* new pathogens that threaten our food system, animal health, or public health. It is like the "smoke detector" that alerts all potentially impacted animal owners and first responders to a problem early enough to reduce losses. This critical detection system also accurately tells us field responders "what is in front of us" so we can modify our strategy.

That brings me to my first point. We as a nation and as farmers and ranchers need the "smoke detector" so that even if the "fire department" is delayed or overwhelmed, we know there is a problem and can act to protect our employees and animals.

This also brings me to my second point. Given the weight of regulatory response decisions, testing must be accurate, consistent, and timely. That means we must have a Laboratory Network with surge capacity, consistent methods, and robust quality control at **all** member labs. The test results must stand up to scrutiny.

For example, last winter we were challenged in California with over 760 H5N1 infected dairies and 68 poultry outbreak control zones. Normally our CA Lab tests about 450 samples/month for influenza. At the peak of this recent outbreak, the sample load was 12,000 samples/month, which is more than 25 times the normal workload.

Over those 4 months, the Lab Network deployed pairs of technicians from other labs to California to help with testing. Because these technicians performed the same test on the same equipment using the same SOP at their home lab, they were able to immediately expand our lab capacity. At the height of the outbreak, besides fully utilizing the CA Lab, Network Labs in seven other states received, processed, and electronically reported, accurate, almost real-time results.

My last point is more specific to our way out of the current H5N1 outbreak. I believe we must sustain three concerted efforts, and if even one is neglected, the other two will fail.

1. **On-going testing.** Through active surveillance we will detect mutations and exposure levels or "prevalence" so we can take informed actions to protect animals and people. Note that Network laboratories have provided over a million test results nationwide in response to the current outbreak. But as I just alluded, testing alone will not make a virus "disappear" or get us out of this outbreak.
2. **Biosecurity is also needed,** meaning actions like movement control, traffic control, PPE, sanitation, and decontamination. When viral load in the environment is below a certain threshold, we know that biosecurity is by far the best tool for preventing disease. But I have seen time and time again that even the best farm biosecurity will be overwhelmed if there is too much virus being produced by surrounding poultry, wild birds, cows, *etc.* So again, biosecurity alone will not work if environmental viral load is not managed.
3. **Bringing us to the third effort—reducing virus in environment**—Currently we do this the hard way: by euthanizing infected flocks and by allowing dairy immunity to develop after exposure. Dairy exposure means a huge percent of the herd suffers through bloody, snotty noses; aborted pregnancies; no interest in food and water; and udders that dry up. This is not a path most herd managers ever want to travel. And poultry producers now must use biosecurity to defend their flock not only from other infected flocks and wild birds, but also from dairies that may be actively infected for months. Note that of the 17 states with known infected dairy cows, 12 have experienced poultry cases directly from these herds.

I believe we need dairy vaccination in the toolbox *yesterday,* especially for regions currently free from disease. If I were a poultry producer, beef producer, swine producer, or dairy producer, I would be banging my fist on the table to vaccinate dairy cattle way ahead of poultry. If USDA can successfully keep trade doors open when

millions of dairy cows are actively infected with H5N1, I am confident that they can get the job done if we use vaccine *selectively* to protect these girls.

Again, thank you for inviting me to be a part of this hearing today. This subject is one that is very important to me and I am happy to answer any questions you may have.

Not in comments, but information to have available:

- Annual funding for the NAHLN is about $25M to ensure that 64 labs across the U.S. have the skills, equipment, capability, and capacity to test for catastrophic diseases. These labs are held to the highest standards to ensure that results stand up to scrutiny and can be relied upon for critical decisions. $25M is a drop in the bucket when you look at the cost of an outbreak.
- The current HPAI outbreak has cost USDA almost $2B. Without early disease detection and accurate test results to make rapid decisions, the expense and the toll on animals and people would be much higher. To use the fire analogy, you don't save money by eliminating the smoke detectors—you get bigger and more damaging fires.
- An outbreak of Foot-and-Mouth Disease (FMD) could cost $200 billion just to U.S. animal, corn, and soybean agriculture industries. This loss translates into roughly 154,000 jobs over the course of the outbreak. Whatever we can do at the front end to detect disease and implement control strategies as early as possible is worth it. FMD modeling and planning clearly points out the need for the NAHLN and vaccination.
- NAHLN exists to provide nationwide surge capacity for livestock and poultry outbreaks, and to ensure accurate, consistent, and timely results from all labs in the system.

The CHAIRMAN. Dr. Jones, great. Your time has expired. Thank you, all four of our witnesses, for being here this morning.

At this time, Members will be recognized for questions in order of seniority, alternating between Majority and Minority Members, and in order of arrival for those who joined us after the hearing convened. You will be recognized for 5 minutes each in order to allow us to get to as many questions as possible.

First, I will recognize myself for 5 minutes.

The National Bio and Agro-Defense Facility in Manhattan, Kansas, is a state-of-the-art facility that will help protect the nation's agriculture, farmers, and consumers against the threat and potential impacts of serious foreign animal health diseases. NBAF has Biosafety Levels 2, 3, and 4 Laboratories, allowing them to study and diagnose the most consequential animal pathogens. NBAF plays a critical role in our animal disease preparedness and management and is an important partner to the NAHLN system.

Dr. Retallick, how does Kansas State Veterinary Diagnostic Laboratory collaborate with NBAF? And how will each of your operations supplement one another?

Dr. RETALLICK. We are excited to have NBAF as our neighbor in Manhattan, Kansas. And so, NBAF has multiple missions. One of those is research, and one of those is service, which is the NAHLN FADDL lab that was discussed. And so the NAHLN being a network, our interaction with them through the NAHLN and confirmatory testing is going to be the same as all of the NAHLN laboratories for that.

The other thing that you might see us assist in NBAF is training the future technicians for them. Often, entry level will come in, we will train, and they may go to work at NBAF. But ultimately, the collaboration will be very similar among all of the state laboratories with NBAF being our parent lab and our confirmatory testing place.

The CHAIRMAN. Great, thank you. Next question, the detection of the New World screwworm in Mexico is a huge threat to our domestic cattle producers. USDA estimates that a contemporary outbreak in Texas alone would cost producers $732 million per year. To expand those results to the states within the historic range of the New World screwworm pre-eradication, a contemporary outbreak would cost producers as much as $4.3 billion per year and cause a total economic loss of over $10 billion. These are not losses our producers or our economy can afford.

Again for you, Dr. Retallick, surveillance and testing capacity was critical to eradicating this pest back in the 1960s. How are the NAHLN laboratories involved in preventing the spread of the screwworm? And what role would they play if the pest were to reach our shores?

Dr. RETALLICK. So as stated earlier, the NAHLN labs, many of them are universities and state departments of ag, which have specialists. These specialists are highly trained to recognize diseases and new disease threats. At KVDL, like many of the other labs in the network, we have parasitologists and pathologists on staff that have already gone through training to recognize this, and so we will recognize through there.

The NAHLN also is discussing it in its weekly calls, updating us, and providing training. And in addition, with the caseload that comes through these diagnostic laboratories in the states, we see all sorts of things and animals for disposal, allowing us a large caseload to surveil coming in through routine testing.

The CHAIRMAN. Great. And a final question will be for you, Dr. Main. Two weeks ago, the One Big Beautiful Bill was signed into law. We were able to secure historic investments to modernize the farm safety net, promote ag products overseas, increase research and, important to this hearing, shore up our animal health tools. Under the One Big Beautiful Bill Act, the NAHLN system will receive $10 million annually through Fiscal Year 2030 on top of existing discretionary spending. At a time when foreign animal diseases are threatening our producers on all fronts, how will this investment help your lab to prepare for and respond to an outbreak?

Dr. MAIN. Well, thank you. It will be of tremendous help, I would say, from providing a base of capacity and capability, which is principally driven by our people. And that additional funding will enable, across the laboratory, to really help with, I would say, maintaining adequate preparedness via the people in the laboratory.

The CHAIRMAN. Great. Dr. Hensley, anything to add to that?

Dr. HENSLEY. No, I think that is true. I agree with what Dr. Main said really.

The CHAIRMAN. Okay. Well, I will yield back the balance of my time.

And next up, I will recognize the gentleman from New York, Mr. Riley, for 5 minutes.

Mr. RILEY. Thank you. Well, thank you, Mr. Chairman, for organizing this really important hearing. And to our witnesses, thank you for coming to testify, particularly given the extraordinary challenges a lot of you had with traveling here.

Dr. Retallick, am I pronouncing that correctly? Is it Retallick?

Dr. RETALLICK. Very close. Retallick. Yep.

Mr. RILEY. Okay. Well, I really appreciated your testimony about NAHLN's role in defending our country against agroterrorism. Food security is national security. I think that has become kind of cliche over time, but it is actually really true.

And my colleague, Zach Nunn, on the other side of the aisle, and I recently introduced bipartisan legislation that would crack down on agroterror threats from the Chinese Communist Party. Our bill creates new criminal offenses for knowingly and recklessly importing high-risk agricultural biological agents, and we will have tougher penalties for individuals who are doing that when they are tied to foreign adversaries. I think this is a really pressing issue that demands urgency, particularly in light of—I know you had in your written testimony one recent example of this. I was hoping you might be able to elaborate a little bit on how NAHLN's labs work together to detect and prevent agroterrorist threats and what more support you need from us on this Committee to make sure we are keeping our food supply safe.

Dr. RETALLICK. Yes, agroterrorism is a significant threat to United States agriculture. And so, through the laboratories, through NAHLN, NAHLN has weekly calls, and that is with all the laboratories, and that is key for communication about what we are seeing and what testing needs to be done. We know that a way to control an outbreak, *per se,* from agroterrorism is through testing. It is one of those methods. And so the coordination through NAHLN with all of the state laboratories is vital in protecting or responding to an event of agroterrorism very quickly.

And so for support, again, you are already on that track for us. You have added funding for us to increase our capacity. And so that is a critical part for us is maintaining funding or increasing funding to help support these laboratories in their surveillance for these type of agroterrorism events.

Mr. RILEY. Thank you. Is anybody else on the panel interested in addressing this issue of agroterrorism?

Dr. MAIN. I would just add to Jamie's comments is that the NAHLN is a very frontline-facing thing. So, like, just at our local laboratory there at Iowa, we have over 2,500 case submissions a week coming in from Iowa and from across the country that are food animal veterinarians that are working with their producers and ranchers about things that don't quite look right on their farm. And I think that really provides, as Annette mentioned, like that first line of defense of identification and early response would be very critical in any such endeavor.

Mr. RILEY. That is really helpful. Thank you.

I am honored to represent Cornell University, which, as you all know, is home to some of the brightest scientific minds working at the Animal Health Diagnostics Center, which is a Level 1 NAHLN. I think you mentioned collaboration you all had done with the brilliant folks at Cornell. And as all of you highlighted in your testimony, the NAHLN program is just so important not just for animal health but also food security. And we are dealing with grocery prices here, right? Because if there are outbreaks, that is going to drive grocery prices.

One of the things I would be interested in hearing a little bit more about with my limited time is making sure we have the work-

force and the pipeline of folks coming into these labs. I think we are not doing a good enough job in this country making sure that STEM education is available in our rural communities, and it is something that I want to work on improving. I am just curious, with my limited time, and this can be for anybody, how do we make sure we have the next generation of veterinarians and scientists and lab techs coming to you?

Dr. MAIN. One thing I would mention is that the labs, and we are just an example of one, but are very involved in the teaching and training of the next generation of veterinarians, diagnosticians, and veterinary scientists. And we use this flow, this very rich caseload of very real-world stuff that is going on out in the country, and we use that as fully integrated into the training and teaching the next generations of veterinarians, especially food animal interest veterinarians from across the country.

Mr. RILEY. That is great. I appreciate that very much. Thank you.

The CHAIRMAN. Thank you. Next, I recognize the gentleman from Wisconsin, Mr. Van Orden, for 5 minutes.

Mr. VAN ORDEN. Thank you, Mr. Chairman.

Dr. Hensley, I just want to say that we prayed for the entire State of Texas this morning at the conference. It is just devastating. And if there is anything we can do to help, please. Losing a child is something I am familiar with, and it is horrible. So I want you to know that we are with you here. And that is a bipartisan thing.

Dr. HENSLEY. Thank you very much. I appreciate it.

Mr. VAN ORDEN. You are welcome, sir.

Who is taking the lead tracking this New World screwworm? Because it is not just going to have a devastating effect on beefers. It is going to ruin the State of Wisconsin's economy as far as dairy goes. And so who in this group is actually the focal point? I learned in the military that if everybody is in charge, no one is, and we need to make sure that someone is.

Dr. HENSLEY. That is a good point. I think right now, of course, USDA is the primary agency because they are monitoring what is going on in Mexico. Texas Animal Health Commission is very involved in Texas working with USDA. We are involved. There is a weekly call between Texas Animal Health Commission, Texas Parks and Wildlife Department, ourselves, Texas Department of State Health Services, and the USDA's Veterinary Services staff in Texas. And I think that is very important so we are all hearing what the most current information is about where that screwworm is and what is potentially being done.

Money has been given to Mexico to try to retrofit a fruit fly plant down there. That is going to take time. There are efforts to start a plant there in Mission at least to be able to rear some of the flies that come from Panama for release. But all of these things take time. So I think surveillance is going to be extremely important, and everybody in the State of Texas is going to have to be involved in that.

But I think as far as leading the information right now, it is USDA and Texas Animal Health Commission. And I think everyone so far in the state is working together. Texas A&M AgriLife

Extension Service has been very involved. We did an online talk here a few weeks ago. There were 4,000 people that signed up for that to hear what the current status is, what is New World Screwworm. We have a population now even of ranchers that have no idea. They weren't alive back then.

Mr. VAN ORDEN. So, Doctor——

Dr. HENSLEY. Yes.

Mr. VAN ORDEN.—hold on a sec here, please. So I am going to have USDA and OMB in my office tomorrow morning at 8 o'clock if you are around. If they deliver your luggage tonight, that would be great. I don't care what you look like. We are from Wisconsin. I will give you a Miller Lite at 8:00 in the morning. No one cares. So they are going to be in tomorrow morning. And again, that is a real invitation if you want to come. It is right upstairs here. But what type of relationships do you guys have with your foreign counterparts? So, this started down south. There is the plant in Panama. There is one in Mexico. There is one in actually the State of Georgia. And we are going to talk about trying to retrofit these. What type of relationships do you guys have with your Mexican counterparts and Panamanian counterparts?

Dr. HENSLEY. Okay. Us as a diagnostic lab, we really do not have contacts with the Mexican officials.

Mr. VAN ORDEN. Would it be helpful for you to do that? And can I facilitate that for you?

Dr. HENSLEY. I think where we need to be, we need the current information. And whether that is coming from us working with the Mexicans or we need to have the current information coming from the USDA, and that goes back through the Texas Animal Health Commission. To me, that is where we need to be sure that everyone there is getting the most current information. And I think they have been doing a good job of trying to keep us updated on where that screwworm is. Is it still moving north——

Mr. VAN ORDEN. I think they have a tremendous economic incentive to do so because we get a lot of feeder cattle from Mexico and that has stopped.

Dr. HENSLEY. Yes.

Mr. VAN ORDEN. Right.

Dr. HENSLEY. We have a tremendous incentive to do that.

Mr. VAN ORDEN. Yes, sir. Well, with that, I yield back the balance of my time. Sorry, before I yield back, I would like to get a hold of you later.

Dr. HENSLEY. Yes, sir.

Mr. VAN ORDEN. And if anybody else would like to come to that meeting tomorrow morning, that is a real offer too. I yield back.

Dr. HENSLEY. Thank you.

Mr. VAN ORDEN. Thank you, Mr. Chairman.

The CHAIRMAN. The gentleman yields back.

I now recognize the gentleman from Iowa, Mr. Feenstra, for 5 minutes.

Mr. FEENSTRA. Thank you, Chairman Mann. Thank you to each one of our witnesses, greatly appreciate you here.

The National Animal Health Laboratory Network plays a critical role in safeguarding animal health, supporting for disease surveillance, protecting security of our national food supply. This is very

critical. We just passed some extra dollars in our reconciliation bill, which is wonderful.

But Dr. Main, I would like to ask you, so we have these dollars, which is wonderful. How does that affect you and your lab? But more importantly, what else can we do? I mean, is there more, instead of money, policy that we could go down and look at? What are your thoughts on that?

Dr. MAIN. Yes, I think the support of the NAHLN program as a whole, and then the additional funding that does trickle down, essentially, to the member labs, and again, that provides, I would say, some base funding to help enhance the robustness of human resource-based capabilities that exist at these laboratories. And I just can't tell you how important I believe that is to be able to support the overall work that the lab does.

As additional work in Committee, I think what I would principally say is, thank you. And like I mentioned in my testimony, I think the leadership and support of seeing the value in—disease knows no borders across our country, and so having that connectivity across states to be able to support as a true nation, I just think is really vital. And the NAHLN is the key to make that component work.

Mr. FEENSTRA. I want to talk about a couple different diseases. Obviously, in my district and around the country, high-path avian influenza is so critical and dangerous right now. One hundred and eighty million birds have been affected and been euthanized, 30 million in Iowa. Dr. Main, Secretary Rollins has done a great job putting things together. How do we eradicate this? Or how do we get it to where we don't have millions of birds still dying? I mean, it seems like we understand that this is going to happen. But is there some preventative way that we can stop it?

Dr. MAIN. Yes, I think surveillance is key. Biosecurity is key. And I think, as you know, there has been a lot of discussion about the opportunities for new tools to be in place, the immunization. That could be another tool in the toolbox that would present as the opportunity for some strategic use cases to, for lack of better words, the most vulnerable. But obviously, there are lots of sensitivities around that, principally because of the impact of vaccination can have on international trade. And I know that is an active conversation that is occurring amongst poultry producers, dairy producers, and then the different segments of the poultry industry both by segment of the industry, meaning layer *versus* broiler *versus* turkey, as well as regions. And I think my only encouragement, just a personal opinion would be that anything that can be done to help further those conversations because I think we are going to need more tools than less, and the threats from wildlife are not going to go away.

Mr. FEENSTRA. Nope, that is exactly right. I want to speak on how the lab works to prevent and the consequences of African swine fever sweeping our nation. I mean, to me, it just worries me. And obviously, we just talked about biosecurity. What are the broader goals here of the pork sector? I mean, do you see anything else from the lab side or anything that we can do to make sure that this doesn't hit our swine?

Dr. MAIN. Early detection will be absolutely paramount. Early detection will be absolutely paramount. Obviously, the labs play a role in that. And then advancing our systems of traceability that we have in this country is going to be also very critically to be able to track and trace in a modern way. And I think there are things afoot that are continuing to move that forward. And I think those would be two key things that would be critically important, as well as, obviously, the tremendous efforts that are happening at the border to mitigate entry because that is the biggest win.

Mr. FEENSTRA. Yep. Well, thank you. Thank you for your time. I mean, these are two critical situations that all four of you are involved in, and I thank you for that.

And with that, I yield back.

The CHAIRMAN. The gentleman yields back. I now recognize the gentleman from California, Mr. Gray, for 5 minutes.

Mr. GRAY. Thank you, Mr. Chairman, and thank you to our witnesses for being here today, appreciate your participation. It is certainly nice to see Dr. Jones. Always great to see a fellow Californian here in the swamp. And with this humidity lately, I am really understanding why they call this place the swamp.

But I appreciate the opportunity to speak today on the vital role of the National Animal Health Laboratory Network and its role in safeguarding American agriculture. As a Representative of the Central Valley in California, a region where agriculture couldn't be more important, we certainly know firsthand the importance of strong animal health systems.

The National Animal Health Laboratory Network is a critical piece of America's biosecurity infrastructure, as it serves as our early warning system for animal diseases. Our dairy farms, poultry producers, livestock operations really form the backbone of California's ag economy. And the health of these animals is not just a matter of economics, as a major outbreak could devastate farms, threaten food security, and certainly would collapse local economies and the folks that I represent.

NAHLN's surge capacity is very important to a state like California. As Dr. Jones mentioned in her testimony, California's lab test sample load was 25 times higher than normal at the peak of H5N1 outbreak, and NAHLN deployed technicians from labs across the country to assist in response efforts.

The standardization of testing and methodology across NAHLN's labs allowed for the immediate expansion of lab capacity, meaning efforts to address California's outbreak were taking place across seven different states. When a farmer is deciding whether to depopulate thousands of birds, this is the data he is referencing. Simply put, the values of accurate and timely data when you are making potentially business-altering decisions is priceless, couldn't be more important. Twenty-five million dollars a year is not enough to ensure that 64 labs across the country have the tools necessary to protect American agriculture.

Dr. Jones, in your testimony, you highlight the importance of reducing the H5N1 virus in the environment and how the current methods of euthanizing infected flocks and promoting dairy immunity development through infection are not enough. What do you

think are the best biosecurity methods dairy and poultry farmers should implement to reduce H5N1 presence on their farms?

Dr. JONES. Okay. That is the most difficult question in the world to answer right now because dairy farms in particular are very open in states that enjoy good weather. That is why our dairies thrive because the weather allows for open barns, which means animals move in and out, birds move in and out, so biosecurity is difficult.

Movement control of cows is extremely important, which is why we quarantine our herds in California, as we do in other states. But it is also why I mentioned and why immunity is really important because basic biosecurity will help stop the spread of virus from dairies to other dairies or to poultry, but it needs help from the animal's own immune system. So that is, again, why I am really encouraging the nation to consider having that tool in their toolbox to vaccinate dairy cows.

For poultry, biosecurity is a little bit more straightforward. They tend to be in more enclosed environments, and movement control, wild bird control, *et cetera,* seems to be pretty effective, unless they are drowning in virus in the environment around them. Then biosecurity will not work either.

Mr. GRAY. Thank you.

Dr. JONES. But research is really important to understand the spread, and there is a lot of research going on nationwide.

Mr. GRAY. I couldn't agree more. Farmers play a critical role in the fabric of disease response as their cooperation and early reporting are essential to the rapid containment of outbreaks. The labs' work obviously can only be effective if they have that trust. I know that livestock producers can be wary of working with Federal partners. How do you build and maintain good relationships with producers so that that work can continue?

Dr. JONES. My two favorite questions. Livestock producers definitely can be very skeptical of government, so the key is to have a relationship, open communication, show them the facts, show them the tests, have reliable tests, and share information as fast as possible, and involve them in helping with best practices for mitigating the effects of the disease. So in California, I wouldn't say all the producers love us, but we certainly have a very good relationship with them, and they are our very most important cooperators and are on our side.

Mr. GRAY. Thank you. I appreciate that.

The CHAIRMAN. The gentleman's time has expired.

Mr. GRAY. Yep. I was going to yield back.

The CHAIRMAN. Thank you. Next, I recognize the gentleman from Indiana, Mr. Baird, for 5 minutes.

Mr. BAIRD. Thank you, Mr. Chairman, and I thank our witnesses for being here.

I recognize how important your efforts are in protecting our livestock industry, but agriculture in general across our country, so I think it is very important. And I was glad to hear several of you mentioned that livestock and biological security is also food security, and that is very important to all of us.

And Dr. Jones, it wasn't in your testimony, but I saw the figures that I thought were relevant to what we are talking about today.

There is, what, $25 million? You have down $25 million to 64 labs across the country to maintain the skills, equipment, and all that sort of thing, which I think is an important factor to keep in mind when you think that HPAI could cost the USDA about $2 billion. Foot-and-mouth disease, it costs us $200 billion. I am just trying to establish the relevance and the importance of what you do around the country.

So I would give you the opportunity, Dr. Jones, to elaborate because also in your testimony you mentioned that you would be asking for dairy cattle to be vaccinated ahead of poultry, swine, and beef. So would you care to elaborate on that?

Dr. JONES. Yes. Well, my intent with that comment is if I was a swine producer, I would be asking USDA and my state animal health officials and vaccine manufacturers to look into vaccinating dairy cows to protect my pigs. I would want those dairy cows vaccinated. If I was a beef producer, I would want those dairy cows vaccinated. If I was a poultry producer, I would want those dairy cows vaccinated because the way that a dairy clears virus is living through the infection as it moves through the herd. Some of our herds have been under quarantine for over 300 days, so that means they are potentially spreading virus in the environment that long because we are reducing virus in those herds through natural immunity. If we could vaccinate them, it would move it faster. The comment on trade is the key to that, but we can't have those trade discussions if we don't push dairy vaccine a little bit harder.

Mr. BAIRD. That brings up a couple of quick questions. When you think about a lot of our swine producers in my area in Indiana, we are in confinement units, so you have more biocontrol of birds getting into the buildings to a certain extent, whereas cattle are the same way, that a lot of them are concentrated, the feedlot cattle. But the range cattle, is there a difference between the range cattle and the dairy cattle because they are confined in most cases? Is there a difference there in the spread of disease through birds?

Dr. JONES. I think you were asking, is there a difference, like does the disease have a preference for dairy *versus* beef?

Mr. BAIRD. Yes, the beef cow, the cow-calf herds. I mean, I am wondering how about that——

Dr. JONES. Yes. So there is some breed-specific proclivity of the virus, mostly because of the mammary glands, so definitely Holsteins and Jerseys seem to be most susceptible to this virus. There is no evidence that the virus has been in other breeds, for example, typical beef breeds. We have seen it in young stock, though. It is in calves, it is in feeder cows, but primarily dairy breeds.

Mr. BAIRD. So you probably know Dr. Bret Marsh in Indiana, Purdue University, and he is now the Dean of the College of Veterinary Medicine.

But I would like to give all the others an opportunity to just comment on one thing. I could ask questions all the rest of the afternoon, but anyway, on the vaccine, your perspective on vaccines for any of the species for protecting against HPAI?

Dr. MAIN. I think it needs to be explored. My understanding, the technology exists, and the principal barrier to move forward is navigating potential impacts on international trade.

Dr. HENSLEY. I would agree. From what I know, there are two vaccine companies looking at two different vaccines for dairy cattle right now, but I think what Annette and Rodger said, we do have to look at trade, but we have to weigh that against being able to stop this virus in dairy cattle.

Mr. BAIRD. Dr. Retallick, you have 10 seconds.

Dr. RETALLICK. Oh, I am going to agree with my fellow witnesses. The impact is on the international trade, and there is a lot of research going on in the vaccination area. And so as more of those conversations happen, we will develop the importance——

Mr. BAIRD. That is one way to end the conversation, I guess. Thank you.

The CHAIRMAN. The gentleman's time has expired.

Mr. BAIRD. And I yield back.

The CHAIRMAN. Okay. The gentleman yields, I think. And the chair now recognizes the gentleman from North Carolina, Mr. Harris, for 5 minutes.

Mr. HARRIS. Thank you, Mr. Chairman. And I thank all of you on the panel for your time today. And just a couple of questions I wanted to toss out here.

First, Dr. Retallick, your testimony explains that the Kansas Veterinary Diagnostic Laboratory joined NAHLN Network in 2004, became a Level 2 member in 2016, and advanced to a Level 1 member in 2019. And of course, as we have talked about, Level 1 labs have the highest standards and have the most advanced diagnostic capabilities, among other things. So if you could take just a moment and explain the process of going from a Level 2 member to a Level 1 member.

Dr. RETALLICK. So the NAHLN has a matrix they put out every 2 years for the labs to assess where the lab is on capacity and the ability to respond. And in this matrix, there is facility requirements, what equipment do you have, what does your staffing look like, what outreach are you doing, and what NAHLN technical groups are you working with? And so for us, we were able to get access to BSL–3 testing facilities, including necropsy facilities at Kansas State, increased equipment, and got more active and involved in the NAHLN through outreach and technical groups. And so with that, we were able to raise to a Level 1.

Mr. HARRIS. Great. Well, thank you for sharing that. I think it is important that we see as many labs as possible continue to advance and move forward to achieve Level 1 status in order to best fulfill their purposes.

I guess my other question, and I would just toss this out to any of you on the panel that would be willing to share, one of the roles that all of your labs play is communicating with producers about emerging and existing animal health threats. How do you go about those educational efforts? And how have you been the beneficiary of such efforts? Go down the row if you would like.

Dr. RETALLICK. I can start with that one from the KVDL perspective. We have webinars we do for clients, quarterly newsletters, email lists so if a new disease pops up, we can get it out to our clientele and let them know something is there. We have veterinarians that attend producer meetings around the state, and we also have a field investigation unit. And then, being located at the Col-

lege of Veterinary Medicine, the CE events bring in those veterinarians too, and we were able to communicate that route with them too. So we have several ways to communicate what is going on with our producers.

Mr. HARRIS. Okay.

Dr. HENSLEY. Sort of the same thing at TVMDL. We do podcasts. We put educational information on our website. We have a veterinary services section that we routinely interact with veterinarians and producers. We attend producer meetings, give presentations there. We work with the AgriLife Extension Service to help provide information through that resource. So we have a number of outreach efforts that we do to try to get information out to producers and veterinarians, of course.

Mr. HARRIS. Okay. Thank you.

Dr. MAIN. Yep. I would just say that our principal focus is on educating our veterinarians, the practicing veterinarians, and then they, in turn, are working with their producers. And so like 98 percent of our caseload is the same, practicing veterinarian submitting week after week after week, and so we have really great, I would say, close working relationships with those veterinarians about what is happening not only with their caseload but with the lab more broadly. And then they are in turn sharing that with the veterinarians, in addition to more traditional partnerships with our extension service.

Mr. HARRIS. Okay. All right.

Dr. JONES. Same in California.

Mr. HARRIS. Okay. Great. Well, thank you very much for sharing that, and I know that this is important, very important way that we are communicating and getting that information out there. And indeed, it makes a difference in the entire food security of our entire nation, so thank you for all that you do.

Mr. Chairman, with that, I yield back.

The CHAIRMAN. The gentleman yields back.

I now recognize the gentlewoman from Connecticut, Mrs. Hayes, for 5 minutes.

Mrs. HAYES. Good morning, and thank you to our witnesses for your testimony and for being here today.

The National Animal Health Laboratory Network plays a key role in protecting food supply chains, identifying disease trends, and limiting the spread of infectious disease among animals. The network also plays a key role in educating producers and the public about potential disease outbreaks.

The Connecticut Veterinary Medical Diagnostic Laboratory at UConn is the only network laboratory in New England serving producers in Connecticut and across the region. Each year, the lab at UConn—I didn't mention I am from Connecticut—trains approximately 40 graduate and undergraduate students and provides them with hands-on learning opportunities. The lab has identified this as an area for growth where it can develop better programming for students to gain real-life experiences.

Dr. Jones, UC Davis offers numerous outreach opportunities for pre-veterinary students, including summer programs for middle school and high school students to learn about the field. I am an educator by trade, and I am always thinking about pipeline, capac-

ity building, the future, how we engage young people much earlier and introduce them to the potential of so many careers that are within their grasp. Can you describe how your laboratory partners with UC Davis to train veterinary students?

Dr. JONES. Sure, the animal health lab at Davis not only has a lab located at Davis, but they also have lab sites at different locations throughout the state, so they are able to partner with not only the students there at Davis, but also bring them a little bit further down into our Central Valley, which is really the heart of agriculture in California, to give them a little bit more of a taste of the real world of producing food for large groups of people. So that is one of the examples of how they interact with the vet school and with the undergraduates in high schools.

Mrs. HAYES. Can you talk a little bit about how you utilize the National Animal Health Laboratory Network to perform outreach to students and just, I guess, expose them? Because what I have heard, many young people have an idea of what they think careers and professions are, but it is not until they have some actual practical interaction that they really kind of see themselves doing that work.

Dr. JONES. A lot of that type of role, if you are talking about the laboratory network itself——

Mrs. HAYES. Or any network that you use.

Dr. JONES. Yes, a lot of that exposure comes through summer hires and tours, and it gives students a real flavor for the science and technology involved in today's animal health world and food safety world.

Mrs. HAYES. Dr. Main, I see you nodding your head. Did you want to add something?

Dr. MAIN. Yes. So in Iowa, it is very much the—I think it is over ½ of the students at Iowa State College of Vet Med graduating go into either mixed or large animal practice. And the vast majority of those students are not farm kids. They are students that are bright, and they could be—through work experiences at school, internships, whether in undergraduate and externships in veterinary school got turned on to animal agriculture and have chosen to make a profession of it.

Mrs. HAYES. Thank you. And I appreciate you adding that because many of my farmers are telling me their children don't want to go into ag-related fields, so we have to be more attractive to a broader network of young people in order to infuse this pipeline.

In 2023, a study by Johns Hopkins University found that the number of food animal veterinarians has decreased by 90 percent since World War II. Today, less than two percent of veterinarians work exclusively with food animals. Outside the lab, veterinarians are the first line of defense during a disease outbreak, meeting first with impacted farmers and then reporting their findings to network labs.

Dr. Retallick, in the materials you provided to our Committee, you mentioned that the Kansas State Veterinary Diagnostic Laboratory experienced a 62 percent faculty turnover in 2022. Has your lab worked to address these shortages? And what could Congress do to help with that effort?

Dr. RETALLICK. I do think, though, all the labs saw shortages in 2022. For us, it was getting in more technicians. We developed a technician internship pipeline or program, and so we started bringing in those younger generations for technicians. We were able to increase our residents. Our residents are those trained to be faculty, and so we were able to increase our pathology residents. And so, again, we are thankful for the support we get through the NAHLN. That does help support salaries, and so that investment is going back to helping train those technicians with salary support, providing the internships, and helping us train future faculty through residencies and graduate programs, which is important in keeping us staffed.

Mrs. HAYES. Thank you. And with that, I yield back and thank you for your—oh, hey.

Mr. BAIRD [presiding.] The young lady yields back.

Next, we go to the great State of Indiana, Representative Messmer.

Mr. MESSMER. Thank you, Mr. Chairman, and thank you, witnesses, for being here today.

With turkey products accounting for nearly ¾ of the total livestock and animal production in my district, high-path influenza remains a major threat. Thanks to the outstanding efforts of Purdue's Animal Disease Diagnostic Laboratory and on-farm biosecurity measures, my district avoided an outbreak this year. But even without a confirmed case, our farmers are daily in contact with Purdue ADDL. As the only NAHLN lab in the state, Purdue ran more than 11,000 avian flu tests in the first 2 months of this year alone.

Dr. Main and Dr. Retallick, each of your labs also serve as the only NAHLN facility in your state. Given the strains ag states of our size can put on a singular facility, how important is it that our labs are well staffed and equipped with state-of-the-art technology?

Dr. RETALLICK. It is very important that we are very well staffed. We watch our molecular sections. NAHLN is primarily molecular tests, and so making sure we are rapid on keeping those staffs. We also have on-call for those sections. And then, so, yep, it is important to make sure that we stay staffed. And the equipment that we get through the NAHLN funding helps us when we can add equipment or replace aging equipment. That serves to increase our capacity also.

Dr. MAIN. And I would just echo that, is that it has been very important to us as the State of Iowa to have a robust, state-of-the-art, food-animal-centered veterinary diagnostic laboratory to support Iowa and then broader U.S. animal agriculture. And so we have been very blessed in that way. And it is being leveraged in that we kind of function as an extension of the practitioners and veterinary practices that we serve. And I think it is that day-to-day—we are essentially an extension of their business as a trusted partner, and we think those relationships that we use day-to-day are leveraged greatly when you get into times of crisis.

Mr. MESSMER. Thank you. For the purpose of bringing funding into perspective, would each of you share how much Federal funding your facility receives compared to the value of the livestock industry your lab protects?

Dr. RETALLICK. For the State of Kansas, for the Level 1, the annual infrastructure is approximately $250,000. The Kansas livestock is $12.9 billion. We do receive many years' supplemental funding also in addition, but it is primarily that infrastructure $250,000 from the NAHLN as a Level 1 laboratory.

Dr. MAIN. Same here as the $250,000 in Iowa would be about $35 billion.

Dr. HENSLEY. Same here.

Mr. MESSMER. Excellent. Well, each year, animal product sales in Indiana totaled more than $3.5 billion. And based on your responses, I think it is safe to say the investments H.R. 1 included for NAHLN will be paid back in spades, so thank you for that.

Also, last Tuesday, Secretary Rollins issued a National Farm Security Action Plan. The plan highlights the importance of addressing biosecurity threats from our foreign adversaries.

Dr. Retallick, in your opinion, is NAHLN currently equipped to handle major bioterrorism? And if not, what do we need to do to make our nation and our ag system protected?

Dr. RETALLICK. Again, a key part of NAHLN is that communication among the 64 laboratories. It provides that robust network, which is that first line of defense. And so I believe the NAHLN is very well equipped to respond. Capacity can always be increased and improved and efficiency, and so any funding that can help with salaries and equipment to increase that capacity for the labs is always going to be beneficial in an instance like that.

Dr. MAIN. Because one of the things when it is an early detection system, but then it is also going back to the need for laboratory capacity that, again, knows no boundaries within the U.S. is very important, especially when you are getting into multifocal incidences. And the vast majority of the testing involved is demonstrating where the disease or incursion is not to be able to maintain continuity of business outside of the pinpoint of this is infected. But proving where it is not is far greater than 95 percent of all the testing that has happened.

Mr. MESSMER. Thank you for all of your answers, and I yield back my time.

Mr. BAIRD. Thank you. The gentleman yields back.

Our Chairman had to go vote in another committee, so he has asked me to share with you some of his closing remarks, the first being how much we appreciate all of you taking the time out of your schedules to be here because we think this is an important aspect of agriculture and food security.

But anyway, he says today's hearing provided the perfect opportunity to highlight the critical work undertaken each and every day by the National Animal Health Laboratory Network. NAHLN's system is a shining example of what Federal, state, and local collaboration looks like when it is done correctly. And the work of NAHLN's laboratory is absolutely critical to protecting our domestic animal supply, our producers, and national security.

So to our witnesses, thank you for being here, for walking us through the day-to-day operations of NAHLN laboratories and explaining the detailed diagnostic testing you and your colleague do and answering our questions about a whole host of foreign animal diseases. Your testimony and expertise have been invaluable. So

we look forward to continuing to work with you all on the animal health issues for the 119th Congress and for the years to come.

Thank you, and this hearing is adjourned.

[Whereupon, at 11:22 a.m., the Subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

SUBMITTED QUESTIONS

Questions Submitted by Hon. Mary E. Miller, a Representative in Congress from Illinois

Response from Rodger G. Main, D.V.M., Ph.D., Professor and Director, Veterinary Diagnostic Laboratory, Department of Veterinary and Diagnostic Medicine, College of Veterinary Medicine, Iowa State University

Question 1. Dr. Main, the NAHLN system relies on both Level 1 and Level 2 laboratories. Can you speak to how Level 2 labs—like the one at University of Illinois, Urbana—support national disease response when Level 1 capacity is maxed out?

Answer. All labs in the NAHLN play a significant role in supporting the efforts of the network as a whole and most notably in supporting the disease surveillance response efforts in support of the needs of their local state or region.

While the size, scope, and composition of the routine (day to day) clientele and caseload varies significantly among labs in the NAHLN; each the participating labs are well suited to provide the quality assured diagnostic testing of which they are certified to conduct. The certifications pursued tend to be based upon the needs of the respective lab's routine client base being served and can be expanded in a time of national need.

The primary differences between Level 1 and Level 2 labs are principally differentiated by the degree of laboratory infrastructure present, size of the lab, and overall lab capacity or breath of NAHLN scope related testing conducted at the lab.

Question 2. Could you share an example of a recent outbreak where Level 2 labs made a significant impact in supporting the overall national response? And more specifically, how does your lab at Iowa State coordinate with Level 2 partners like Illinois to ensure a strong, regional approach to testing and containment?

Answer. All of the Level 1 and Level 2 VDLs in the NAHLN are certified to Avian Influenza Virus (AIV) PCR testing. AIV PCR is the core testing being used in support of the response to the High-Path Avian Influenza (HPAI) outbreak that has impacted U.S. poultry, egg, and dairy producers over the course of the past 2 years. Thus, many Level 1 and Level 2 NAHLN labs across the country have been actively engaged in the recent HPAIV Response.

Our lab here in Iowa participates in the weekly calls hosted by the USDA NAHLN Program Coordinator that includes representation of the leadership of all of the VDL's in the NAHLN.

These weekly forums provide an excellent means and venue not only for information sharing from the NAHLN Program Office to the participating VDLs; but also for peer-to-peer VDL sharing of best practices and their local (regional) experiences. The USDA NAHLN Program Coordinators do an excellent job in ensuring the experiences and lessons being learned "on the ground" in the participating labs are well understood by their peers in the spirit helping to drive the continuous improvement of the network over time.

The leadership of the labs across the NAHLN is reasonably small community of veterinary diagnostic laboratory professionals nested with the respective VDLs across the country. The weekly forums hosted by the NAHLN as well as the continuing education related forums hosted by the American Association of Laboratory Diagnosticians (AAVLD) create an environment where there are many opportunities for peer-to-peer learning and sharing of best practices among labs across the network.

Question 3. Are there any lessons from COVID–19 or recent livestock disease outbreaks—such as ASF—that Congress should consider when reauthorizing or expanding funding for NAHLN? Particularly in ways that would strengthen the capacity, integration, and infrastructure of Level 2 laboratories?

Answer. As I mentioned in my testimony, I believe the NAHLN is an exemplary example of a highly functional and effective partnership among Federal, state, university, and industry partners.

The NAHLN delivers a national standard of best-in-class veterinary diagnostic technologies, testing capabilities, and coordination of information among the Federal, state, and private-sector (practicing) veterinarians from across the U.S. who are responsible for surveilling and responding to animal health emergencies of high consequence to U.S. animal agriculture.

The power and cost effectiveness of the NAHLN comes via the distributed nature its design in which a comparatively modest amount of Federal coordination and investment leverages the substantive veterinary diagnostic laboratory infrastructure, subject matter expertise, quality assured laboratory testing capabilities, research scientists, and the direct connectivity to the frontlines of U.S. animal agriculture that exists at the university and state veterinary diagnostic labs across the country.

A true a true win-win-win—for U.S. animal health and public health; for U.S. agriculture more broadly; and for enhancing the security, safety, and affordability of our nation's food supply.

A partnership in which I believe to be working well in utilizing the capabilities of NAHLN labs irrespective of Level 1 or Level 2.

A recent example of a lesson learned via the recent HPAIV response was that samples without the need for same day testing in California were diverted via overnight shipment for next day testing at other NAHLN labs throughout the country (*e.g.,* the Iowa State University Veterinary Diagnostic Lab as being one example). This strategy that involved diverting samples to peer laboratories (due to the local NAHLN laboratory being overwhelmed) in a time of need was extraordinarily effective, broadly sustainable, highly scalable, and brings with it a rather extraordinary magnitude of testing capacity that resides across the network.