About the National Veterinary Services Laboratories

Last Modified:



The mission of the National Veterinary Services Laboratories (NVSL) is to safeguard U.S. animal health and contribute to public health by ensuring that timely and accurate laboratory support is provided by their nationwide animal health diagnostic system.

NVSL staff accomplish this through:

- Providing diagnostic services, reagents, and training in world-class facilities
- Responding to animal health emergencies
- Taking an active role in managing the National Animal Health Laboratory Network (NAHLN)
- Serving as an international reference laboratory
- Maintaining a well-trained and responsive staff

Quality Assurance

The NVSL Quality Management System is accredited to ISO 17025, ISO 17043, and ISO 17034. Learn more about the NVSL Quality Management System and the scope of accreditation.

General Information

Expand All

Activities

The NVSL actively participates in various scientific organizations and international activities. NVSL authors often publish papers about their work. Read on for more information on NVSL activities.

Participation

The NVSL actively participates in numerous organizations. A few of them include:

- American Association for Laboratory Accreditation
- American Association of Veterinary Laboratory Diagnosticians (AAVLD)
- Institute for International Cooperation in Animal Biologics
- International Organization for Standardization
- United States Animal Health Association

International Activities

NVSL is a designated World Organisation for Animal Health (WOAH) Reference Laboratory for 14 diseases of veterinary significance including:

- highly pathogenic avian influenza
- anthrax
- bluetongue
- chronic wasting disease
- contagious equine metritis
- equine infectious anemia
- foot-and-mouth disease
- leptospirosis
- Newcastle disease
- pseudorabies
- rinderpest
- swine influenza virus
- tuberculosis
- vesicular stomatitis

The Food and Agriculture Organization of the United Nations (FAO) has designated the NVSL as a Reference Centre for foot-and-mouth disease and other vesicular diseases of the Americas and the Caribbean, animal influenza and Newcastle disease, rinderpest, and bovine tuberculosis and paratuberculosis.

Meetings and Presentations

Experts from the NVSL are often asked to speak at various meetings or provide training. To name a few:

Training Courses (selected)

- USDA: National Poultry Improvement Plan
- APHIS Veterinary Services (VS) Field Skills Course
- VS Foreign Animal Disease Investigator Refresher Course
- VS Program Disease Field Skills Course
- VS Field Epidemiology for High Priority and Program Disease Training

Meetings (selected)

- ASM Biodefense
- Allen D. Leman Swine Conference
- Coalition of State Horse Councils
- Eastern Fish Health Workshop
- FAZD-Ag Screening Tools
- FMD Scientific Conference
- International Conference on TSE Prevention and Control
- International Pig Veterinary Society Congress
- International Society for Veterinary Epidemiology and Economics
- James Steele Conference on Diseases in Nature Transmissible to Man
- Live Bird Market
- NAHLN Methods Technical Working Group
- National Pork Board
- North Central Avian Diseases Conference
- Vaccines and Diagnostics for Transboundary Animal Diseases
- Various AAVLD meetings
- Various WOAH, FAO, and OFFLU meetings

Organization

The NVSL has laboratories in two locations: Ames, IA, and the Foreign Animal Disease Diagnostic Laboratory (FADDL) at Plum Island, NY. Diagnostic test services range from a single laboratory test to comprehensive laboratory services covering many pathogens for a suspected disease outbreak. The NVSL includes four laboratory units and the NAHLN program office:

- Office of the Director
- Diagnostic Bacteriology and Pathology Laboratory (Ames, IA)
- Diagnostic Virology Laboratory (Ames, IA)
- FADDL (Plum Island, NY)
- Diagnostic, Bioanalytical, and Reagent Laboratory (Ames, IA)
- National Animal Health Laboratory Network (NAHLN) Program (Ames, IA)

View the NVSL Organization Chart (44.91 KB)

The NVSL is co-located with the National Animal Disease Center (USDA Agricultural Research Service) and the Center for Veterinary Biologics to form the National Centers for Animal Health (261.06 KB).

History

Originally, the USDA's national veterinary diagnostic laboratory functions were part of its Bureau of Animal Industry.

- In 1961, the National Animal Disease Laboratory (NADL) opened in Ames, IA. The NADL (later renamed the National Animal Disease Center, or NADC) contained research and regulatory laboratories. The regulatory laboratories provided diagnostic services for the Animal Disease Eradication Division and biologics evaluations for the Animal Inspection and Quarantine Division. A few years later, reorganization resulted in three independent units: research, biologics, and diagnostics.
- In 1971, diagnostic services were aligned with the Animal Health Division (AHD) laboratory facilities in Beltsville, MD.
- In 1972, APHIS was formed as an agency under the USDA. Diagnostic services were aligned with APHIS.
- In 1973, the Biologics and Diagnostic Services Laboratories were brought back together under one Director and named the Veterinary Services Laboratories, part of APHIS.
- In December 1977, the unit's name changed to the National Veterinary Services Laboratories (NVSL). Plans were made for construction of new facilities as growth continued. Phase 1 of the plan was completed in 1978, and the biologics, administrative, and support functions moved into the new building. That year, APHIS closed its diagnostic facilities in Beltsville, MD, and the veterinary diagnostic functions moved to Ames, IA.
- In 1984, diagnostic activities at the Plum Island Animal Disease Center (PIADC) located on Plum Island, NY, were transferred to APHIS supervision. Named the Foreign Animal Disease Diagnostic Laboratory (FADDL), it became part of the NVSL.

- Biologics testing activities split from the NVSL in 1996, joining biologics licensing and inspection activities to form the Center for Veterinary Biologics (CVB). The NVSL now focus exclusively on diagnostic services.
- A modernized and consolidated facility for animal health research, diagnosis, and product evaluation, co-locating the NADC, NVSL-Ames, and CVB, was completed in 2009. The facility includes high- and low-containment large animal facilities (BSL-3Ag and BSL-2Ag, respectively) and a consolidated laboratory and administrative facility.
- In 2021, NVSL established a screening laboratory in Puerto Rico (PR) supporting testing on swine samples for African swine fever (ASF) from PR and the U.S. Virgin Islands. The NVSL will continue to support this laboratory by providing equipment, supplies, and laboratory staff through 2031.
- In May 2022, construction was completed of the National Bio and Agro-Defense Facility (NBAF) in Manhattan, KS. This state-of-the-art facility will replace PIADC where NVSL FADDL currently conducts foreign animal disease research, training, and diagnostics. PIADC science mission work began to transition in 2023 and will continue over the next several years.

Contact Us

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