

# National Bio & Agro-Defense Facility (NBAF)

## Leveraging Federal/State/City Relationships



NBAF will be Government Owned and Government Operated with contractor support

- What can be learned from NCAH Relationships?
  - ◆ Universities
  - ◆ City



## A virtual NCAH – 3 Centers & 2 Agencies

- **National Animal Disease Center (NADC) - ARS**
  - ◆ Dr. Marcus Kehrli, Jr., Director
  - ◆ Conduct basic and applied research on selected diseases and food safety pathogens of economic importance to the US livestock and poultry industries
- **National Veterinary Services Laboratories (NVSL) – APHIS**
  - ◆ Dr. Bev Schmitt, Director
  - ◆ Responsible for diagnosis of domestic and foreign animal diseases, diagnostic support for disease control and eradication programs, import and export testing of animals, training, and laboratory certification for selected diseases.
- **Center for Veterinary Biologics (CVB) – APHIS**
  - ◆ Dr. Byron Rippke, Director
  - ◆ Responsible for implementing Virus-Serum-Toxin Act of 1913 as amended in 1985 to ensure that veterinary biologics are pure, safe, potent and effective.

# NBAF – a multi-department & agency facility

## A multi-department & agency facility

- **Foreign Animal Disease (FAD) Research Laboratory**
  - ◆ Dr. Luis Rodriguez, Research Leader
  - ◆ Part of the Agricultural Research Service
  - ◆ Conduct research needed to understand the pathogenesis of foreign animal diseases
- **Foreign Animal Disease Diagnostic Laboratory (FADDL)**
  - ◆ FADDL is part of NVSL-APHIS
  - ◆ Responsible for diagnosis of animal and zoonotic emerging and transboundary animal diseases (EADs/TADs) requiring BSL-2, BSL-3 or BSL-4 containment.
- **Department of Homeland Security (DHS)**
  - ◆ Dr. Larry Barrett, Director
  - ◆ Mission includes operations of NBAF

## Both are part of a few Global Animal Health Centers

- National Centers for Animal Health – Ames, IA
- Plum Island Animal Disease Center – Greenport, NY
- Friedrich Loeffler Institute – Riems, Germany
- Australian Animal Health Laboratory – Geelong, Australia
- Institute for Animal Health - Pirbright, UK
- National Centres for Animal Disease – Winnipeg, Canada



## NBAF - Critical issues to understand

- U.S. government has full control over the facility
- Federal staff will direct management, operations, and research support
- Roughly 400 personnel will staff NBAF when fully operational
- Clarity about what each agency (DHS/ARS/APHIS) is and is not
- Understanding how each part fits within its Agency/Department
- 60+ years' experience with PIADC

# Examples from USDA-ARS-National Animal Disease Center

## Effective Relationships with a Land Grant University

- Graduate education for Master's and PhD degrees
- Research collaborations between scientists
  - Extramural funding
  - Intramural funding
- Research Support Agreements
  - Core facilities at University
  - Non-biocontainment livestock facilities – pay user fee
  - Feed mill for special diets
  - Graduate students
- Cooperative Agreements (funded & unfunded)
- Co-hosting seminar speakers
- Career day events
- Outreach programs

# Examples from USDA-ARS-National Animal Disease Center

## Effective Relationships with Community

- Member of Chamber of Commerce
- Civic groups
- Local businesses
- Medical clinics, hospitals, first responders, fire, police
- Welcome information for new employees
- Science outreach fairs with local schools
- Stakeholder workshops
- Scientific conferences





# Operation of NBAF

- Facilities Operation and Maintenance Functions
- Biosafety and select agent functions
- Industrial Hygiene and Safety Functions
- Occupational Health
- Environmental Protection
- Animal Care and Welfare Program (excluding feed costs)
- Information Technology (IT) and Communications Functions
- Laboratory and General Support Functions
- Utilities
- Compliance with regulations, guidelines, departmental and agency requirements, accreditations, advisory groups

>\$400/sq ft/yr of program space in FY16 USD

# Biomedical Research and Development Price Index (BRDPI)

The annual change in the Biomedical Research and Development Price Index (BRDPI) indicates how much the NIH budget must change to maintain purchasing power. The BRDPI was developed and is updated annually by the Bureau of Economic Analysis (BEA), Department of Commerce under an interagency agreement with the NIH. The projections for future year values are prepared by the Division of Biomedical Research Workforce in the Office of Extramural Research, NIH.

<https://officeofbudget.od.nih.gov/gbipriceindexes.html>

The following pattern of future growth in the BRDPI is projected:

2.6% for FY 2017

2.7 percent for FY 2018

2.8 percent for each of the years FY 2019 through FY 2022

# Collaborations & Stakeholders

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- **Other Universities**
- **Companies**
- **Commodity and veterinary groups**
- **Other Government agencies**
- **Global Partnerships**

# Foreign Animal Disease Research Unit

Dr. Luis Rodriguez, Research Leader

Foot and Mouth Disease (FMD)

Classical Swine Fever (CSF)

African Swine Fever (ASF)

Vesicular Stomatitis (VSV)

Basic and applied research with the following goals:

- Identify genetic and biological determinants of viral virulence
- Determine the molecular mechanisms of FMDV pathogenesis and persistence
- Develop novel strategies to control FMDV
- Develop methods for rapid control of CSFV and ASFV

# How does ARS select research priorities?

Congressionally mandated, mission oriented research

ARS Office of National Programs Directs

Scientific review process (OSQR)

Multiple stakeholder inputs into decision process:

- Numerous veterinary and producer groups
- Other Federal agencies (e.g., FSIS, APHIS, EPA, FDA)
- Economic importance

