National Bio and Agro-defense Facility

Defending America Against Foreign Animal Diseases

Diagnostics • Vaccines • Training
MISSION: To Protect U.S. Livestock from Foreign Animal Diseases (FADs) including Zoonotic (Animals ↔ People) Threats

✓ **TO SAFEGUARD FOOD ANIMAL HEALTH + PUBLIC HEALTH AS WELL**

✓ **TO PRESERVE AMERICA’S FOOD SUPPLY & AG ECONOMY**

**OBJECTIVES:**

- To replace the obsolete Plum Island facility (opened in 1954)
- To develop 21st century vaccines, diagnostics and countermeasures against multiple FADs concurrently
Foreign Animal Disease or Pathogen

- African Swine Fever [ASF]
- Classical Swine Fever [CSF] – a.k.a., Hog Cholera
- Rift Valley Fever [RVF(Z)] – Zoonotic (Treatments Exist)
- Japanese Encephalitis [JE(Z)] – Zoonotic (Treatments Exist)
- Bovine Pleuropneumonia [BP]
- Foot and Mouth Disease [FMD]
- Nipah Virus [NV(Z)] – Zoonotic (NO Treatments Exist)
- Hendra Virus [HV(Z)] – Zoonotic (NO Treatments Exist)
42 Pathogens
CDC & USDA
“Regulate”
to Limit U.S.
Disease Outbreaks

http://www.upmc-biosecurity.org

7 of 8 NBAF Diseases (all except Bovine Pleuropneumonia) + 35 more

Natural Disease Outbreaks in < 2 Years

01/01/09 TO 10/31/10

7 OF 8 NBAF DISEASES (ALL EXCEPT BOVINE PLEUROPNEUMONIA) + 35 MORE
**CONSTRUCTION TIMELINE GAINING CLARITY**

**NBAF Construction**

**Progress to Date + Future DHS Goals**

- **Projected Schedule to Full Operations**

- KSU Animal Facilities Removed: 10/2010
- Construction Manager on Site: 11/2010
- Site Prep – $18M – Completed: 08/2012
- Land Conveyed: Kansas ➔ DHS: 12/2012
- CUP Contract – $80M – Signed: 02/2013
- KSU Feed Mill on Site Removed: 08/2013
- Begin Main Lab Construction: *05/2015
- Complete Lab Construction: *12/2020
- Select Agent Accreditation: *12/2022
- Transition from Plum Island: *08/2023
2012 Flyover of the Construction Site

August 1, 2012

Looking East
**Central Utility Plant Status Currently**

April 2015
CUP Construction
~90% Complete

**Cooling Towers**
Marley Cooling Tower Co.
Olathe, KS

**Central Utility Plant Construction Contract** ≈ $80 Million
Kansas plus Kansas City-area Subcontracts = $52 Million [65%]
FINAL SITE PLAN FOR THE 46.828 ACRES

SITE PLAN LEGEND:
A. Lab Building/Offices
B. Central Utility Plant
C. Transshipping
D. Animal Receiving
E. Visitors Center

GROSS ft²: A = 580,184 ft²; B = 87,000 ft²; C/D/E/P = 46,235 ft²;
TOTAL FACILITY SPACE = 713,419 GROSS ft²
Building Standards Surpass:

1) FEMA’s for Tornado Shelters

2) NRC’s for Nuclear Power Plants

**SQUARE FOOTAGE:**

- **GROSS = 580,184 ft²**
- **NET = 178,000 ft²**

**LAB BIOCONTAINMENT BOUNDARIES AT EF-5**

**NATIONAL BIO AND AGRO-DEFENSE FACILITY**

**Diagnósticos • Vacunas • Training**

**KANSAS STATE UNIVERSITY**

**NUCLEAR REGULATORY COMMISSION EF-5 TORNADO STANDARDS FOR NUCLEAR POWER PLANTS**
LABORATORY FACILITY IN CROSS-SECTION

LABORATORY RESEARCH LEVEL (178,000 ft²)

HEPA AIR FILTRATION LEVEL

AIR HANDLER AND EXHAUST FAN LEVEL

PIPE INSPECTION LEVEL

LIQUID DECONTAMINATION TANK LEVEL

(580,184 ft² total)

NUCLEAR REGULATORY COMMISSION EF-5 TORNADO STANDARDS FOR NUCLEAR POWER PLANTS
VITAL TO AMERICA’S HOMELAND SECURITY!

$1.25 BILLION TOTAL COST