# Homeland Security Presidential Directive-10 "Biodefense for the 21st Century"

- Threat Awareness
- Prevention and Protection
- Surveillance and Detection
- Response and Recovery
  - Response Planning
  - Mass Casualty Care
  - Risk Communication
  - Medical Countermeasure Development
  - Decontamination



NIAID Strategic Plan for Biodefense Research





NIAID Biodefense Research Agenda for CDC Category A Agents





NIAID Biodefense Research Agenda for Category B and C Priority Pathogens





NIAID Biodefense Research Agenda for CDC Category A Agents

**Progress Report** 







NIAID Biodefense Research Agenda for Category B and C Priority Pathogens

**Progress Report** 







## Biodefense Countermeasure Development: Key Achievements

## **Smallpox**

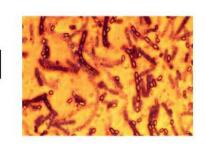
More than 300 million doses of smallpox vaccine now available



- "Next-generation" vaccine (MVA) in advanced testing
- Antiviral drug development, e.g. oral cidofovir

### **Anthrax**

New vaccine (rPA) tested and procured under Project Bioshield

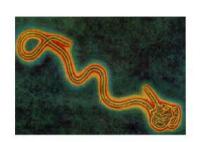


Development of novel antitoxins, e.g. monoclonal/polyclonal antibodies

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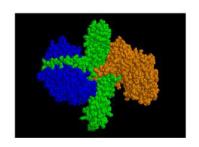
#### Ebola

Vaccine in human trials at NIAID Vaccine Research Center



### **Botulinum Toxin**

Development of vaccine and monoclonal/polyclonal antibodies



### Influenza

Development of vaccines against potential pandemic strains



## Global Examples of Emerging and Re-Emerging Infectious Diseases

