



Welcome

**International Biological Threat Reduction Department
Sandia National Laboratories
October 15, 2006**

**Overview of the Principles of Laboratory Biosecurity
ABSA pre-conference course**

www.biosecurity.sandia.gov

Course Overview

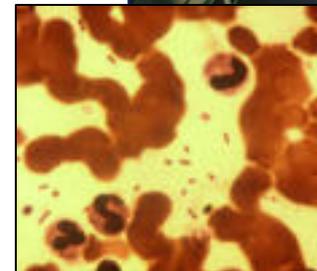
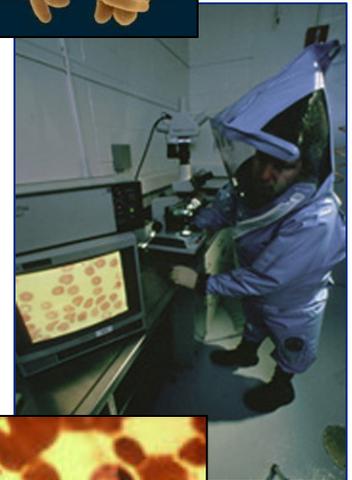
- **Introduction to Laboratory Biosecurity**
 - Biosecurity aims to protect biological agents from theft
 - Biosecurity must be integrated with biosafety
- **Biosecurity Risk Assessment**
 - Risk assessment and risk management key to developing a sustainable biosecurity program
- **Components of a Laboratory Biosecurity Program**
 - Physical security, personnel security, material control & accountability, transport security, information security, and program management
 - Graded implementation based on results of risk assessment

Laboratory Biosafety and Biosecurity

- **Laboratory Biosafety**
 - Objective: reduce or eliminate accidental exposure to or release of potentially hazardous agents
- **Laboratory Biosecurity**
 - Objective: protect biological agents against theft by those who intend to pursue bioterrorism or biological weapons proliferation
- **Common strategy**
 - Implement graded levels of protection based on a risk management methodology
- **Control of certain biological materials is necessary, but *how* that is achieved must be carefully considered**
 - Biosafety and biosecurity should be integrated systems that avoid compromising necessary infectious disease research and diagnostics



Francisella tularensis



Yersinia pestis

Resources

- **WHO Laboratory Biosafety Manual – 3rd edition**
 - **Chapter 9: Laboratory Biosecurity Concepts**
- **WHO Guidance on Laboratory Biosecurity – published September 2006**
- **Biosafety in Bioscience and Medical Laboratories (BMBL) – 5th edition, anticipated Fall 2006**
- **Laboratory Biosecurity Handbook, CRC Press, forthcoming**
- **<http://hazmat.dot.gov>**

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