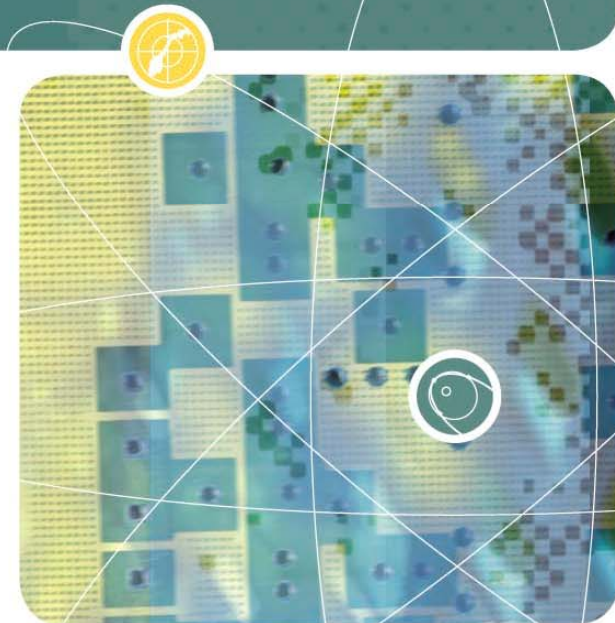


Biodefense Studies at FFI

Workshop: Bioterrorism /
Biological Warfare:
Technology, Threat
and Preparedness

October 31st 2006

Janet M. Blatny





FFI's Charter

- ✓ Give advice to the MoD and the Chief of Defence on the potential implications of scientific technical development.
- ✓ Advice on the best use of military technology for Norwegian defence purposes.
- ✓ Undertake development of weapons and equipment as a basis of competitive national defence industry.
- ✓ Contribute to the national scientific and technical, and to industrial development.



Biodefense at FFI

Ongoing since 1998

Objectives:

- ✓ To develop and establish methods for detection and identification of biological threat agents in environmental samples
- ✓ To enhance expertise in dispersion of biological agents and biological threat assessments



Strengthen National Biodefense

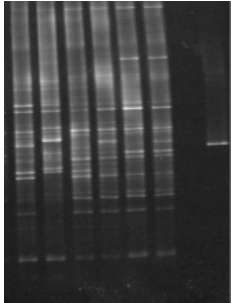
Response and preparedness



"Warning"



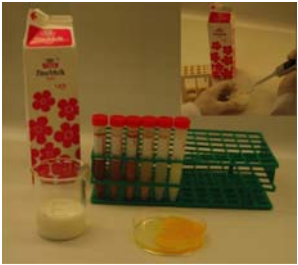
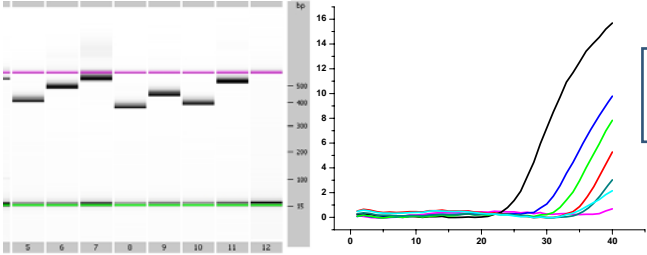
Detection / Identification



Sampling



Sample

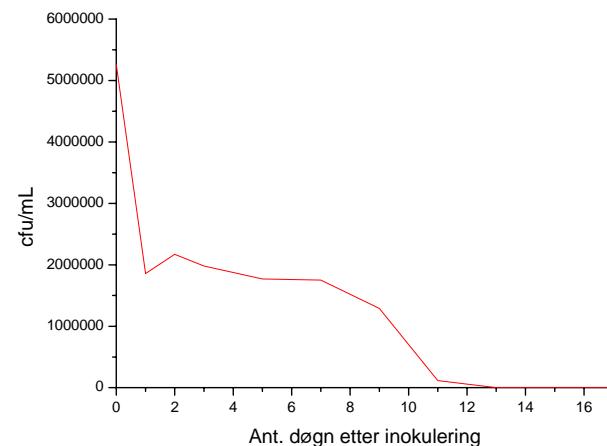


Biodefense at FFI

→ Identification of biological threat agents using real-time PCR, genotyping and other genetic methods. Real-time PCR assays have been established for several biological threat agents

→ Sampling, sample preparation, identification of biological threat agents in

air
water
soil
(food)





Biodefense at FFI

- "Round robin tests"
- Construct and evaluate biological scenarios
Threat assessment
- Stand-off and point detection
- "Technology watch"
- Lectures / Education



Training:

1. "Table top" exercise Green Cloud, February 2006, Bruxelles
2. Field trial, May 2006, "BIOTECT", Denmark
-Sampling of biological agents
3. Field trial, 2006, Sweden
-Dispersion, detection and identification of biological simulants

Biological threat agents in air

Identification of biological threat agents in air
Knowledge of the microbial diversity in air
Sampling, devices and sample preparation
Genetic analysis



Future work

- ➔ Focus on sampling and identification of biological threat agents in the environment, detection of biological threat agents, threat assessments and technical "know-how"
- ➔ Take part in national biodefense