

Homeland and Health Security:

**Understanding Today's Necessities,
Tomorrow's Needs**

The First RTI Fellows Symposium

November 6-7, 2003

NC Biotechnology Center
15 Alexander Drive
Research Triangle Park, North Carolina

Homeland and Health Security: Understanding Today's Necessities, Tomorrow's Needs

Thursday, November 6, 2003

7:30 am – 8:30 am Continental Breakfast — Foyer

8:30 am – 12:00 pm Plenary Session — Auditorium

8:30 am **Introductions and Welcome**

David Ensor, Conference Chair RTI-CAT

Victoria F. Haynes, President and CEO, RTI International (RTI-PO)

8:45 am **title of talk**

Name and department of invited government keynoter

Introduced by Victoria F. Haynes, RTI-PO

9:30 am

Strategic Medical Intelligence: The Critical Linkages among Law Enforcement, Intelligence, Clinical Medicine, and Public Health

Michael Allswede, University of Pittsburgh Medical Center

Introduced by Kathleen N. Lohr, RTI-HSER

10:00 am Break

10:30 am **title of talk**

John Williams, USDA Animal and Plant Health Inspections Service

Introduced by Michael Bryan RTI-CSI

11:00 am

Medicine and Public Health in an Era of Health Security

Edward Baker, UNC Public Health Leadership Institute

Introduced by Kathleen N. Lohr RTI-HSER

11:30 am

Challenges for Statisticians in Counterterrorism

David Banks, Duke University

Introduced by Paul Biemer RTI-SRD

12:00 – 1:30 pm Lunch — Congressional and Jordan Rooms

1:30 pm – 3:00 pm Breakout Sessions

Agriculture and Food Safety — Auditorium

Michael Bryan, RTI-CSI, Chair

National Research Roadmap for Agriculture Disaster Prevention, Response, and Recovery

Robert Helms, RTI-CSI

Agricultural Security and the Role of the First Responder

Tim Moore, RTI-CSI

Combining Anticipatory Failure Determination (AFD) with Traditional Risk Assessment Tools to Identify, Evaluate, and Mitigate Possible Foodborne Bioterrorism Threats

Roberta Morales, RTI-HSER

Discussion of Research Possibilities

Rapporteur: Barrett Slanning

Medicine and Public Health I — Congressional Room

Herb Seltzman, RTI-COMC, Chair

The Nerve Agent Sarin Compromises the Blood Brain Barrier

Mohamed Abou-Donia, Duke University

Antibodies for Detection of and Protection against Toxins

C. E. Cook, RTI-CLS

Homeland and Health Security: What Can Science and Engineering Do?

Thomas Marrero, RTI-ACS

Discussion of Research Possibilities

Rapporteur

3:00 pm **Break**

3:30 pm – 5:00 pm **Breakout Sessions**

Statistics and Syndromic Surveillance — Auditorium

Kerrie Boyle, RTI-STRD, Chair; Joe Eyeran, RTI-SUROP, Co-Chair

Data Confidentiality, Data Integration, Data Mining, Data Quality: Homeland Security Challenges for Statisticians

Alan Karr, National Institute of Statistical Sciences (NISS), Research Triangle Park, NC

Real-time Data From An HMO Ambulatory Care Facility

Ken Kleinman, Harvard School of Public Health, Cambridge

Discussion of Presentations

Paul Levy, RTI-STRD

Discussion of Research Possibilities

Rapporteur: Joe Eyeran, RTI-SUROP

Sensors, Monitoring, and Protection — Congressional Room

Charles Rodes, RTI-CAT, Chair

The NASA Aviation Security Program: 'An RTI Opportunity'

James Haidt, RTI-CAST

An Integrated Mass Spectrometry System for Universal Threat Agent Detection

Jonathan Bundy, RTI-ACS

Reducing the Vulnerability of Water Supply Systems to Terrorism: Monitoring System Design

Keith Little, RTI-CEA

Discussion of Research Possibilities

Rapporteur

5:00 pm – 7:00 pm **Posters and Refreshments**
Biotech Center Central Foyer

Posters

A Cross National Comparison of Inter-agency Coordination between Public Health and Law Enforcement on Terrorism Response Planning *Joe D. Eyeran, RTI-SUROP*

Artificial Enzymes Afford Protection Against Chemical Warfare Nerve Agents, *Herb Seltzman, RTI-COMC*

Biodefense Partnerships: Anti-Smallpox Agents from Basidiomycetes (mushrooms),

Nicholas H. Oberlies, RTI-COMC

Capabilities in Accreditation/Certification of Security Sites, *Michael R. Baylor, RTI-BOC*

Chemical Warfare Agent Simulants, *Anita H. Lewin, RTI-COMC*

Computer-Based Security Analysis Tool, *Joseph Alexander, RTI-CG*

Protective Agents Against Nerve Gas Attack, *Wayne Mascarella, RTI-COMC*

RTI's Support for TSWG in the Development of Standard Methods for Testing HVAC Air Cleaners,

Charles E. Rodes, RTI-CAT

Strategies To Protect Buildings Against Chemical and Biological Attack: Potential Research Areas,

Jonathan Thornburg, RTI-CAT

Surveillance for Presence of Anthrax Spores in Our Mailrooms: "Seek and Ye Shall Find",

Paul Levy, RTI-STRD

Testing Program for Collective Protection Technologies, *Deborah Franke, RTI-CAT*

Monitoring of Participants Who Received the Extended Post-Exposure Anthrax (Bacillus Anthracis)

Prophylaxis, *Brian Burke, RTI-SUROP*

The NoVac Study - Evaluation of Non-Participants in the Pre-Release Smallpox Vaccination Program,

Brian Burke, RTI-SUROP

The Use of Surrogate or Simulant Biowarfare Agents, *Karin Foarde, RTI-EIS*

Towards the Development of a Metalloporphyrin-based "Chemical Reactivity-Based" Sensor:

Organophosphate Reactants, *J. McKinney, RTI-ACS*

Use of Responsive Virtual Human Technology for Interview Training, *Geoffrey Frank, RTI-TAL*

Using Interactive 3D (i3D) Technology for First Responder Medical Simulation and Training,

Jerry Heneghan, RTI-TAL

Friday, November 7, 2003

9:00 am – 10:30 am Breakout Sessions

Economic Impacts — Auditorium

- Jerry Cromwell, RTI-HSER, Chair; F. Reed Johnson, RTI-HS Co-Chair*
The Economics of Policies to Counter Terrorism
Paul Rothstein, Weidenbaum Center on the Economy, Government, and Public Policy, Washington University
- Probabilities, Perceptions, and Prices: Valuing Reduction in Homeland Security Risks
Reed Johnson, RTI-HS
- Insurance, Self-Protection, and the Economics of Terrorism
Darius Lakdawalla, Labor and Population Program, The RAND Corporation
- The Political Economy of Homeland Security: Who's Responsible for Protecting What?
Jerry Cromwell, RTI-HSER and Ed Drozd, RTI-HSER
- Discussion of Research Possibilities
Rapporteur

Statistical Issues in Bioterrorism — Congressional Room

- Paul Biemer, RTI-SRD, Chair; Kerrie Boyle, RTI-STRD, Co-Chair*
Biosurveillance Geoinformatics of Hotspot Detection and Prioritization for Biosecurity
G. P. Patil, Penn State University
- Anthrax Outbreak
Ron Brookmeyer, Johns Hopkins University, Baltimore, Maryland
- Discussion of Presentations
Jun Liu, RTI-STRD
- Discussion of RTI Research Possibilities
Rapporteur

10:30 am Break

11:00 am – 12:30 pm Breakout Sessions

Medicine and Public Health II — Auditorium

- Kathleen Lohr, RTI-HSER, Chair; Joshua Wiener, RTI-HSER, Co-Chair*
Defining Public Health Preparedness: Past, Present, and Future
David Driscoll, RTI-HSER
- Rational Response: RTI Research Supporting Health System Preparedness
Lucy Savitz, RTI-HSER
- Health Security and Public Health: Where Are the Major Opportunities for RTI?
Ronald Fichtner, RTI-RDOVP
- Discussion of Research Possibilities
Audience, Panel Members, and Chairs

Training and Communication — Congressional Room

- Sam Field, RTI-TAL, Chair*
Opening Remarks
Greg Mears, State of North Carolina Emergency Response
- Types of Terrorists and their Likely Threats to Homeland Security
Margaret Zahn, RTI-HSER
- Virtual Patient Simulation for Emergency Preparedness Training
Paul Kizakevich, RTI-TAL
- The Communication of Fear: Past, Present, and Future Strategies for Discussing Homeland Security Issues with the American Public, *Anna Weaver, RTI-PMCS*
- Discussion of Research Possibilities
Rapporteur