

The Third National Conference on Environmental Sampling and Detection for Bio-Threat Agents

Day 1 - Tuesday December 2, 2008

7:30-8:50 a.m. Full Sit Down Breakfast

8:50-9 a.m. Conference Introduction

9-9:30 a.m. Kickoff - Curtis Snook, PhD, Environmental Protection Agency

Sampling Session 1	Sampling Session 2	Sampling Session 3
9:30-10:30 a.m.	9:30-10:30 a.m.	9:30-10:30 a.m.
Basics of BioForensics	Sampling and analysis for post decontamination and clearance	Sampling Strategy for an Incident
Steven Drielak (EPA) chair	Alan Lindquist (EPA) chair	Dorothy Canter (JHU APL) chair
<i>Eugene J. O'Neill (New Jersey State Police) Avoiding the Million Dollar Response, A Practical Approach to "White Powder" Investigations</i>	<i>Vipin Rastogi (DoD) Sampling based biodecontamination efficacy evaluation on military relevant material surfaces</i>	<i>Phillip N. Price (Lawrence Berkeley National Laboratory) Is This Building Safe: How Many Samples Do We Have To Take?</i>
<i>Steven Schutzer (UMDJ) Guidelines for Forensic Sampling</i>	<i>Lindsay Sobota (NSWC) Sampling-based method for testing liquid decontamination efficacy on large military relevant material coupons</i>	<i>Tony Intrepido (ChemRisk) Comparing Probabilistic and Targeted Sampling Strategies in Response to an Ames strain Bacillus anthracis Containment Breach at the USAMRIID</i>
<i>Detective Doug Huffmaster (Las Vegas Police Department) Ricin Toxin Production in a Las Vegas Hotel</i>	<i>Cherie Estill (NIOSH) Recovery Efficiency and Limit of Detection of Aerosolized B. anthracis Sterne from Environmental Surface Samples</i>	<i>Sheila Van Cuyk (LANL) Designing Sampling Plans to Characterize Bacillus thuringiensis var. kurstaki (Btk) in the Environment</i>
	<i>Dino Mattorano (EPA) The Validated Sampling Plan (VSP) and lessons learned from decontaminating a test facility</i>	

10:30-11 a.m. Break & Posters

Sampling Session 1	Sampling Session 2	Sampling Session 3
11 a.m.-noon	11 a.m.-noon	11 a.m.-noon
The Fringes of Sampling	Sampling and analysis for post decontamination and clearance	Sampling Strategy for an Incident
<i>Jim Seidel (EPA) Criminal Enforcement Case Study: Sampling for</i>	<i>Mark Durno (EPA) What we've learned about sampling and analysis since 2001</i>	<i>Michael Thomas (DoD) A Proactive, Integrated Sampling and Response Strategy for High-Value Targets in Buildings</i>

<i>Criminal Enforcement Case Study: Sampling for Microbially Induced Corrosion in Failed Oil Pipelines on Alaska's North Slope</i>	<i>Adrian Hanley (EPA) EPA Water Laboratory Alliance (WLA) Sampling Component</i>	<i>W. Karl Sieber (NIOSH) Using Probabilistic Sampling Options to Supplement Judgmental Approaches During Initial Assessment Sampling Following a Terrorism Incident</i>
<i>Tom Reynolds (Commonwealth Biotechnologies) Techniques used in the Amerithrax Investigation</i>	<i>Schatzi Fitz-James (EPA) The Role of an Environmental Response Laboratory Network for Post-Decontamination</i>	<i>Nathaniel J. Gleason and Nerayo P. Teclerariam (Sandia) BioWatch Indoor Reachback Center</i>
<i>Catharine Conley (NASA) Sampling Inter-Planetary Spacecraft</i>	<i>Stephen Morse (CDC) The CDC perspective on post decontamination sampling and analysis</i>	<i>Brent Pulsipher (PNNL) Sampling Strategies for Event Response and Restoration: Judgmental and Statistical Sampling</i>

12-1 p.m. Buffet Lunch & Posters

Sampling Session 4	Sampling Session 5	Detection Session 1
1-2:30 p.m.	1-2:30 p.m.	1-2:30 p.m.
BioForensics - Real World Biocrime Approach	The Meat and Potatoes of Sampling	Detection Tools for First Responders
Pete Pesenti (DHS) Chair	John McKinney (TSWG) chair	Bob Ingram (FDNY) chair
<i>Steve Velsko (LLNL) Scenario Introduction</i>	<i>Dr. Michele Jay-Russel (UC Davis) Tracing Contaminated Spinach</i>	<i>Todd Ritter (Idaho Technology, Inc) The Filmmurray: State-of-the-Art Pathogen Detection and Identification</i>
<i>Robert Bull (FBI WMD Directorate) WMD Event Coordination</i>	<i>Sufian Al Khaldi (FDA) Chasing Down the Source: US Role During the in Tracking the Contamination in Tomatoes and Peppers</i>	<i>Charles Call (ICx Technologies, Inc) Integrated Chem/bio HandHeld Sampler</i>
<i>Doug Anders (FBI HMRU) On-Scene Management</i>		
<i>James Burans (DHS National Bioforensic Analysis Center) Case Analysis in the Laboratory</i>	<i>Rich Ryan (ADM) Sampling for Food Defense:Issues for Detection Mitigation / Control, and Decontamination</i>	<i>Matt Scullion (Idaho Technology, Inc) RAZOR EX for Bio-Terror Response and Incident Management</i>
<i>Robert Bull (FBI CBSU) Case Management and Reporting</i>		

2:30-3 p.m. Break & Posters

Sampling Session 4	Sampling Session 5	Detection Session 2
3-4 p.m.	3-4 p.m.	3-4 p.m.
Bioforensics Sample Processing and Analytical Methods	Agriculture and Food Sampling	Challenges in Test and Evaluation
Pete Pesenti (DHS) Chair	John McKinney (TSWG) chair	Joe Cartelli (DoD) chair
<i>Dave Camp (LLNL) Sample Extraction improvements</i>	<i>A.J. Attar (Appealing Products Inc.) Assessing and Detection of Foodborne Adulteration Through Field Testing</i>	<i>Kevin Pohlman (General Dynamics) Overcoming Challenges in System Level T&T</i>

<p><i>David Wagner (NAU)</i> <i>Forensic Implications of Bacterial Population Genetics</i></p>	<p><i>Terrance Wilson</i> <i>Investigation and Exploitation of Clandestine Agriculture Biological Terrorism Laboratories</i></p>	<p><i>Kevin Hommena (Battelle)</i> <i>Development and Demonstration of the Aerosol Research and Component Assessment (ARCA) Chamber</i></p>
<p><i>Tom Slezak (LLNL)</i> <i>Strategies for emerging/advanced threat agent characterization</i></p>	<p><i>Adrian Parton (Matrix MicroScience)</i> <i>Novel Detection Tools for Use in Agriculture Sampling</i></p>	<p><i>Dan Nowak (DoD)</i> <i>CBRN Defense Initiatives in improving Technology Transition</i></p>
<p><i>Karen Wahl (PNNL)</i> <i>Physical Chemical Analysis- Organic Signatures</i></p>		
<p><i>Dinner on your own in Las Vegas</i></p>		

Day 2 - Wednesday December 3, 2008

7:30-9 a.m. Full Sit Down Breakfast

9-9:30 a.m. Opening Remarks

Sampling Session 6	Sampling Session 7	Detection Session 3
9:30-10:30 a.m.	9:30-10:30 a.m.	9:30-10:30 a.m.
Sampling to Inform Response & Restoration	Sampling Tools for First Responders	Detection of Emerging Threats: Seeing the Unknown
Ryan Madden (DoD) and Lance Brooks (DHS) Co-Chairs	David Ladd (Massachusetts Fire Services) Chair	Evan Skowronski (DoD) Chair
<i>Paul Benda (DoD) Project Urban Shield Outdoor Dissemination Study</i>	<i>Carrie Poore (DoD) Suspicious Powder Screening Tools</i>	<i>Al Zulich (DoD) Processing of BW Samples for Identification by Mass Spectrometry</i>
<i>Kristin Omberg (LANL) Characterization of the Environmental Fate of Bacillus thuringiensis var. kurstaki (Btk) After Pest Eradication Efforts in Seattle, WA and Fairfax County, VA</i>	<i>Craig Blackhart (LANL) Mobile Sample Tracking and Collection Technologies for Bio-Surveillance & Bio-Forensics</i>	<i>Crystal Jaing (LLNL) Microarrays applied to detecting emerging, unknown or engineered organisms</i>
	<i>Greg Pellar (DoD) Long Term Sample Bio-Preservation</i>	

10:30-11 a.m. Break & Posters

Sampling Session 6	Sampling Session 7	Detection Session 4
11 a.m.-noon	11 a.m.-noon	11 a.m.-noon
Sampling to Inform Response & Restoration	Sampling Tools for First Responders	DoD Interests in International and Cooperative Development
<i>Dorothy Canter (JHU APL) Key Role for Data Management Systems in All Phases of Environmental Sampling Processes</i>	<i>Kevin Church (Microbial-Vac Systems, Inc) Improved Bio-Agent Recovery from Simulated Environmental Surfaces with Liquid Rinse-Vacuum Collection Systems</i>	Kate Ong (DoD) Chair
<i>Dino Mattorano (EPA) Sampling Methods Influence Overall Environmental Assessment</i>	<i>Rod Hudson (QuickSilver Analytics, Inc.) Custom CBRE Sampling Kits</i>	<i>Richard Jaffe (Office of the Special Assistant to the Secretary of Defense for Chemical and Biological Defense and Chemical Demilitarization Programs) Chem Bio Rad MOU</i>
<i>Mike Walter (DoD) Lab & Field Testing of Sample Collection: Methods & Strategies (An Inter-Agency Approach)</i>	<i>Don MacQueen (LLNL) Material-based Stratification for Bio-threat Sampling</i>	<i>COL Kulifay (CWMD International, Treaties, Agreements and Capabilities) NATO's Efforts on Chem Bio Defense</i>
		<i>COL Eric Burns (OUSD (AT&L) AS&C) What can DAC/FCT programs do for you?</i>

12-1 p.m. Buffet Lunch & Posters

Sampling Session 8	Sampling Session 9	Detection Session 5
1-2:30 p.m.	1-2:30 p.m.	1-2:30 p.m.

Progress in Surface Sampling Methods	Standards in Sampling & Detection	Future Directions for Reagent & Assay Development
Matt Arduino (CDC) chair	Laurie Locascio (NIST) chair	Jason Roos (DoD) chair
<i>Jason Edmonds (DoD)</i> <i>Wet vs. Dry Sampling in a systematic swab assessment</i>	<i>Tod Companion (DHS)</i> <i>Overview of Standards for Biocountermeasures</i>	<i>Norman Doggett (LANL)</i> <i>In Silico and Experimental Evaluation of TaqMan Signatures to Support the Development of Public Health Actionable Assays</i>
<i>Elizabeth Hong-Geller (LANL)</i> <i>Comparison of Sample Collection Methods for Virulent and Non-Virulent B. anthracis and Y. pestis</i>	<i>Laurie Locascio (NIST)</i> <i>Revision of ASTM E2458: Standards for Sample Collection of Suspected Biological Agents</i>	<i>Alina Deshpande (LANL)</i> <i>A Novel Microsphere Array-Based Assay for the Detection and Characterization of Respiratory Pathogens</i>
<i>W. Einfeld (Sandia National Laboratories)</i> <i>Sampling Efficiency Studies on Clean and Dirty Outdoor Surfaces Using a Surface-Modified Bacillus Atrophaeus Surrogate</i>	<i>Dianne Dutt (Noblis)</i> <i>AOAC Official Method Sampling and PCR Detection Studies</i>	<i>Pejman Naraghi-Arani (LLNL)</i> <i>Multiplex Assays for Environmental Monitoring and Clinical Applications</i> <i>Luther Lindler (DoD)</i> <i>Joining Effort for Biological Detection and Infectious Disease Diagnosis; Influenza A H5 Detection Animal and Human Samples</i>
2:30-3 p.m. Break & Posters		
Sampling Session 8	Sampling Session 9	Detection Session 6
3-4 p.m.	3-4 p.m.	3-4 p.m.
Progress in Surface Sampling Methods	Standards in Sampling & Detection	Grappling with Sample Preparation Issues
<i>Warren Gardner (DoD)</i> <i>Cross contamination of mail during sorting: Implications for the US mail system</i>	<i>Matthew Davenport (DHS S&T)</i> <i>Evaluation and Validation of Biological Detection Assays</i>	Jason Roos (DoD) chair
<i>N. Kristine Montgomery (Sandia)</i> <i>The Efficiency of Collecting Bacillus anthracis Spores from HVAC Filters and Carpet by Vacuum, Wipe, and Bulk Sampling Methods</i>	<i>Jayne Morrow (NIST)</i> <i>Development of a Standard Method for Dynamic Wipe Efficiency Determination</i>	<i>Michael Meyer (ICx Biosystems)</i> <i>Challenges in Sample Preparation</i> <i>Charles Young (JHU APL)</i> <i>An Isotachophoretic Approach to the Development of a Modular, Universal Sample Preparation Device</i>
<i>Donald H. MacQueen (LLNL)</i> <i>The Effect of Spore Aggregation on the Detection of Bacillus Anthracis on Surfaces</i>	<i>David Camp (LLNL)</i> <i>How Good Labs Can Get Wrong Results with B. anthracis Spore Suspensions -- Keys to Accurate and Reproducible Evaluations of Sampling or Process Efficiency</i>	<i>Sean Hart (Naval Research Laboratory)</i> <i>Laser Separation for Pathogen Bioenrichment and Purification</i> <i>Michael Connolly (Integrated Nano-Technologies)</i> <i>A Universal Sample Preparation Approach for Medical Diagnostics</i>
5-7 p.m. Poster Session & Cocktails		

7-9 p.m. Formal Dinner

Speaker - Richard Falkenrath, Deputy Commissioner for Counterterrorism, New York Police Department

Day 3 - Thursday December 4, 2008

7:30-9 a.m. Full Sit Down Breakfast

9-9:30 a.m. Opening Remarks

Sampling Session 10	Detection Session 11	Detection Session 7
9:30-10:30 a.m.	9:30-10:30 a.m.	9:30-10:30 a.m.
R&D Dealing with Sampling in Confined Areas and Buildings	Advances in Development of Autonomous Detection Systems	Advances in Tactical and Hand-Held Detection and Sampling
John McKinney (TSWG) chair	Ed Rhyne (DHS) chair	Tom Buonaugurio (DoD) chair
<i>Joan Stadar (Clean Earth Technologies, LLC) Development of a Standard for Quantitative PCR for Bacillus Spores</i>	<i>Christina Murata (DOD-PFPA) Pentagon Shield: An Integrated Approach to Real-Time Chem/Bio Protection</i>	<i>Aime Poldmae Goad (DoD) Tactical Biological (TAC-BIO) Detector</i>
<i>Kunapuli Madhusudhan (Clean Earth Technologies, LLC) Effect of Swab Material and Interferants on Spore Recovery</i>	<i>Shuqi Chen, PhD (IQuum, Inc.) A Fully Automated Portable Rapid System for Detection of Biological Warfare Agents</i>	<i>Dr. Michael Connolly (Integrated Nano-Technologies, LLC) Electronic Identification of Biologicals in a Portable System</i>
<i>Kunapuli Madhusudhan (Clean Earth Technologies, LLC) Evaluation of a Dry Spore Deposition Method</i>	<i>Michael Meyer (ICx Biosystems) Rapid Multiplexed Nucleic Acid and Antibody Based Sensor for Biothreat Detection</i>	<i>A.P. Bartko (Battelle) Spectroscopic Identification of Biological Pathogens</i>

10:30-11 a.m. Break & Posters

Sampling Session 10	Sampling 11	Detection Session 8
11 a.m.-noon	11 a.m.-noon	11 a.m.-noon
Statistical Sampling Models for Buildings (Interior Sampling)	Advances in Development of Autonomous Detection Systems	Evolutions of Biological Point Detection for DoD Applications
John McKinney (TSWG) chair	<i>John M. Dzenitis (LLNL) Autonomous Pathogen Detection System with Multiplexed PCR Assays</i>	Joe Hamel (DoD) Chair
<i>B.K. Heimbuch (Air Force Research Laboratory) Extraction of Aerosolized Virus from Porous Filtration Media</i>	<i>Rudolf Gilmanshin (U.S. Genomics) Single-Molecule Technology for Broadband Detection and Identification of Bioagents</i>	<i>Ben Cobb (Sceptor Industries) High Definition PCR for Bio-Threat Detection</i>
<i>Landon Sego and Janye Morrow (PNNL) Coupled CONTAM/VSP Solution for Bio-Contamination Response Sampling Planning</i>	<i>M. Allen Northrup Ph.D. (Microfluidic Systems) The Microfluidic-Bioagent Autonomous Networked Detector (M-BAND)</i>	<i>Matthew B. Hart (Naval Research Laboratory) Defeating the Background: On-the-Fly Labeling of Chemical and Biological Aerosols Using Fluorescent Beacons for Rapid Identification</i>
<i>Bill Kournikakos (DDRC) Behavior of Anthrax Spores Following a Release in a Closed Environment</i>		<i>Roger E. Davis (OptiMetrics, Inc) Adventures in Developing Bio-Threat Point Detection System Models</i>

12-1 p.m. Lunch & Posters

Sampling Session 12	Sampling Session 13	Detection Session 9
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1-2:30 p.m.	1-2:30 p.m.	1-2:30 p.m.
Training Programs for First Responders	Indoor vs. Wide-area Sampling	Water Detection efforts
Nancy Valentine (PNNL) chair	Penny Hitchcock (DHS) chair	Alex Hryncewich (DoD) chair
<i>Leiloni Stainsby (Lessons Learned Information Sharing) Overview of Lessons Learned Information Sharing (LLIS.gov)</i>	<i>Kristin Omberg (LANL) 2008 BioWatch Environmental Sampling Manual: Recipes for wipe'n and swipe'n and diggin' in the dirt</i>	<i>Ray Yin (ANP Technologies) Detection of Biothreat Agents in Various Water Matrices Using Multiplexed Assays and Handheld/Automated Reader Systems</i>
<i>Patrick Cummings (Johns Hopkins University) Biodefense Laboratory Methods: Model Curriculum for Training Biodefense Professionals in Laboratory Methods</i>	<i>TBD (DHS) Large Scale Outdoor Gypsy Moth Spraying Used to Test Detector Efficiency</i>	<i>Lisa Neuendorff (DoD) Challenges of Water Sampling and Test Methodology for Biological Warfare Agent Detection</i>
		<i>Elizabeth A. Kearns (University of South Florida) Concentration: Bringing the Sample to the Biosensor</i>
2:30-3 p.m. Break & Posters		
Sampling Session 12	Sampling Session 13	Detection Session 10
3-4 p.m.	3-4 p.m.	3-4 p.m.
Training Programs for BioDefense	Indoor vs. Wide-area Sampling	Lessons Learned in DoD Bio Sampling Missions
<i>Roberta Burbank (PNNL) Training for Biodefense: Preparation of Responders</i>	<i>Lee Ann Veal (LANL) Flora, Fauna, and Fomites: Tracking BT Spores After an Aerosol Release</i>	<i>Robyn Little (DoD) chair</i>
	<i>Penny Bevan Polonium 210 - How Do You Spell That?</i>	<i>James Murray (DoD) Overview of JBAIDS Concept of Operations</i>
<i>Barbara Seiders (PNNL) Stopping Bio Threats at the Border</i>	<i>PANEL DISCUSSION Recognizing Clear and Present Danger: Does Environmental Sampling Inform Public Health Risk Assessment?</i>	<i>SFC Adam Snow (1st CST MA NG) 1st CST involvement during a Biowatch Actionable Result</i>
		<i>Joe Hamel (DoD) Joint Portal Shield Operations in Korea</i>
End of Conference & Departure		