

5th Annual Biosurveillance Integration Symposium 2016

Integrated Management of Threats to
Public Health and Safety

Held at the 2nd Annual Biodefense World Summit 2016

Baltimore, Maryland, USA
30 June 2016

ISBN: 978-1-5108-2787-5

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2016) by Knowledge Foundation
All rights reserved.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact Knowledge Foundation
at the address below.

Knowledge Foundation
250 First Avenue, Suite 300
Needham, MA 02494
USA

Phone: 781.972.5400
Fax: 781.972.5425

custserv@knowledgefoundation.com

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com



The Knowledge Foundation's 5th Annual
Biosurveillance Integration
Integrated Management of Threats to Public Health & Safety
June 30, 2016

Thursday, June 30

7:25 am Registration and Morning Coffee

RISK ANTICIPATION

8:25 Chairperson's Opening Remarks

David L. Hirschberg, Ph.D., Lecturer and Scientist, Department of Interdisciplinary Arts and Sciences and the Institute of Global Engagement, University of Washington, Tacoma

8:30 KEYNOTE PRESENTATION: Success and Hurdles in BSV Knowledge Exchange: Beyond Collecting Data Sheets.....1

Aaron M. Firoved, Ph.D., Director, National Biosurveillance Integration Center, U.S. Department of Homeland Security

9:00 FEATURED PRESENTATION: Climate Change, Emerging Infectious Diseases and Community Health Resilience: The Need for Early Warning.....12

Jeffrey Stiefel, Ph.D., Executive Coordinator, Climate Change and Health Resilience, U.S. Department of Homeland Security

THREAT IDENTIFICATION & CHARACTERIZATION

9:30 Third Generation Sequencing for Rapid Biosurveillance.....30

Dave Ussery, Ph.D., Comparative Genomics Group Lead, Biosciences Division, Oak Ridge National Laboratory

10:00 Coffee Break

10:45 Wearable Technologies: A Paradigm Shift for the Department of Defense.....41

Nicole Rosenzweig, Ph.D., BioDefense Branch Chief, Edgewood Chemical Biological Center, U.S. Army

11:05 Developing a Strategy for Rapid Response to Emerging Threats: Evaluation of New Molecular Technologies, Comparison with Existing Best Practices, Training with Model Public Health Scenarios and Anticipating the Unexpected.....N/A

David L. Hirschberg, Ph.D., Lecturer and Scientist, Department of Interdisciplinary Arts and Sciences and the Institute of Global Engagement, University of Washington, Tacoma

11:25 Cataloging the World? The Future of Biosurveillance.....49

Calvin Chue, Ph.D., Research Biologist, U.S. Army Edgewood Chemical Biological Center; Adjunct Professor, Johns Hopkins University

11:45 A National Approach to Sustainable Syndromic Surveillance.....56

Chelsea Wright Thompson, Ph.D., ORISE Fellow, Agriculture Defense Branch, Chemical and Biological Defense Division, Science & Technology Directorate, U.S. Department of Homeland Security

12:15 pm Networking Luncheon



The Knowledge Foundation's 5th Annual
Biosurveillance Integration
Integrated Management of Threats to Public Health & Safety
June 30, 2016

INTEGRATION ANALYSIS & SHARING

- 1:40 Chairperson's Opening Remarks**
Dave Ussery, Ph.D., Comparative Genomics Group Lead, Biosciences Division, Oak Ridge National Laboratory
- 1:45 Integrative Biosurveillance in High Burden of Disease Populations.....69**
Harshini Mukundan, Ph.D., Team Leader, Chemistry Division, Los Alamos National Laboratory
- 2:15 A Next Generation Biosurveillance Application for Big Data Integration and Analysis.....86**
Payam Etminani, Co-Founder and Managing Partner, Bitscopic, Inc.
- 2:45 Refreshment Break**
- 3:00 Enhancing Analytics through Standards, Policy and Interoperable Product Line.....93**
Michael Ricciardi, Managing Partner, Computer Science, Relevant Technology, Inc.

3:30 PANEL DISCUSSION: Biosurveillance Integration - Challenges and Opportunities for Integrated Management of Threats to Public Health & Safety.....N/A

Moderator:

David L. Hirschberg, Ph.D., Lecturer and Scientist, Department of Interdisciplinary Arts and Sciences and the Institute of Global Engagement, University of Washington, Tacoma

Panelists:

Payam Etminani, Co-Founder and Managing Partner, Bitscopic, Inc.

Harshini Mukundan, Ph.D., Team Leader, Chemistry Division, Los Alamos National Laboratory

Nicole Rosenzweig, Director, Joint Program Executive Office for Chemical & Biological Defense, U.S. Department of Defense

Dave Ussery, Ph.D., Comparative Genomics Group Lead, Biosciences Division, Oak Ridge National Laboratory

4:30 Close of Conference

Additional Paper:

FPDI Detection Method Assessment Tool for Chemical, Biological, and Radiological Agents.....100

Food Protection and Defense Institute