

# **24th International Biodetection Technologies Conference 2016**

Point-of-Care for Biodefense

Held at the 2nd Annual Biodefense World Summit 2016

Baltimore, Maryland, USA  
27 - 28 June 2016

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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](mailto:custserv@knowledgefoundation.com)

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The Knowledge Foundation's 24th International  
**Biodetection Technologies:**  
**Point-of-Care for Biodefense**  
June 28-29, 2016

**Tuesday, June 28**

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**12:15 pm**    **Conference Registration**

**PLENARY SESSION: TRANSLATION OF BIODETECTION TECHNOLOGIES TO FIELD READY APPLICATIONS**

**1:40**            **Chairperson's Opening Remarks**

*Tom Slezak, Ph.D., Distinguished Member of the Technical Staff, Pathogen Bioinformatics, Lawrence Livermore National Laboratory*

**1:45**            **KEYNOTE PRESENTATION: BioWatch: The Future of Biodetection.....1**

*Michael Walter, Ph.D., Detection Branch Chief & Program Manager, BioWatch, US Department of Homeland Security*

**2:30**            **Translation Challenges in POC Field Readiness: Strategies and Case Studies on Translation of New and Rapid Biodetection Technologies from Lab to Field and Clinic.....N/A**

*Alina Deshpande, Ph.D., Senior Scientist/Team Leader, Analytics Intelligence and Technology Division, Los Alamos National Laboratory*

**3:00**            **Bulk Acoustic Wave (BAW) Bio-Sensor Technology for Liquid Environments.....5**

*Florian Bell, Sensor System Integration, Qorvo*

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**PLENARY SESSION: TRANSLATION OF BIODETECTION TECHNOLOGIES TO FIELD READY APPLICATIONS (Cont.)**

**4:15**            **miRNA Host Response During Ebola Virus Infection.....N/A**

*Janice Duy, Ph.D., NRC Postdoctoral Fellow, Molecular Diagnostics Department, U.S. Army Medical Research Institute of Infectious Diseases*

**4:45**            **Pathogen Biomarkers for Rapid Clinical Diagnosis in POC.....N/A**

*Harshini Mukundan, Ph.D., Principal Investigator and Team Leader, Chemistry, Los Alamos National Laboratory*

**5:15**            **End of Day and Workshop Registration**



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**Wednesday, June 29**

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**8:00 am**     **Morning Coffee**

#### **TOOLS AND TECHNOLOGIES AT THE POINT-OF-CARE**

- 8:25**     **Chairperson's Opening Remarks**  
*Weihua Guan, Ph.D., Assistant Professor, Electrical Engineering, Pennsylvania State University*
- 8:30**     **Drop-n-Go Malaria Molecular Diagnosis.....N/A**  
*Weihua Guan, Ph.D., Assistant Professor, Electrical Engineering, Pennsylvania State University*
- 9:00**     **A Smartphone Colorimetric Microplate Reader for Point-of-Care ELISA Quantification.....16**  
*Qingshan Wei, Postdoctoral Scholar, Electrical Engineering, Bioengineering, University of California, Los Angeles*
- 9:30**     **Late Breaking Presentation**  
*Paul Schaudies, GenArraytion, Inc.*
- 10:00**     **Coffee Break in the Exhibit Hall with Poster Viewing**

#### **ADVANCES IN FIELDABLE TECHNOLOGIES AND ASSAYS**

- 10:45**     **NGS Microbial Forensics at the Point-of-Need.....27**  
*Tom Slezak, Ph.D., Distinguished Member of the Technical Staff, Pathogen Bioinformatics, Lawrence Livermore National Laboratory*
- 11:15**     **Selected Poster Presentation: Cost effective Surveillance of Zoonotic Pathogens on Human/Animal Interface.....42**  
*Viacheslav Fofanov, Ph.D., Assistant Professor, Informatics and Computing Program, Department of Mathematics and Statistics, Northern Arizona University*
- 12:15 pm**     **Networking Luncheon**



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### **ADVANCES IN FIELDABLE TECHNOLOGIES AND ASSAYS (Cont.)**

- 1:40 Chairperson's Opening Remarks**  
*Tania Konry, Ph.D., Assistant Professor, Pharmaceutical Sciences, Northeastern University*
- 1:45 Advancing Bacteriophage-Based Detection of Pathogens.....N/A**  
*Sam Nugen, Ph.D., Associate Professor, Food Science, University of Massachusetts, Amherst*
- 2:15 ScanDrop Platform for Microbial Detection and Phenotypic Drug Analysis.....N/A**  
*Tania Konry, Ph.D., Assistant Professor, Pharmaceutical Sciences, Northeastern University*
- 2:45 Outer Membrane Vesicles Protect Encapsulated Enzymatic Function for Implementation at the Point-of-Care.....54**  
*Nathan J. Alves, Ph.D., Research Associate, Center for Bio/Molecular Science and Engineering, Naval Research Laboratory*
- 3:15 Dessert Break in the Exhibit Hall with Poster Viewing**
- 4:00 Microfluidic Analysis of Circulating Exosomes toward Clinical Diagnosis of Cancer.....68**  
*Yong Zeng, Ph.D., Assistant Professor, Department of Chemistry, Bioengineering Graduate Program, University of Kansas*
- 4:30 Extended Q&A with Session Speakers**
- 5:00 Close of Conference**