

# USDA ARS 3rd International Biosafety & Biocontainment Symposium: *Biorisk Management in a One Health World* February 2-5, 2015

Baltimore Hilton ■ Baltimore, Maryland



**Final Program**



Agricultural  
Research  
Service

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## Schedule of Events

### Monday, February 2, 2015

7:00 am - 5:00 pm	Registration .....	West Foyer
8:00 am - 5:00 pm	Integrated Risk Assessment for Life Science Operations .....	Johnson A
8:00 am - 5:00 pm	Practical Approaches to Evaluating and Implementing On-farm Animal Disease, Risk, Biosafety, Biocontainment, and Biosecurity Programs.....	Johnson B
8:00 am - 12:00 pm	Facility Operational Biosafety .....	Latrobe
8:00 am - 12:00 pm	Life Science Facility Waste Management Methodologies .....	Ruth
1:00 pm - 5:00 pm	Research and Diagnostic Facility Biosecurity: Operational Challenges and Solutions .....	Latrobe
1:00 pm - 5:00 pm	Introduction to Biorisk Management.....	Ruth
5:30 pm - 7:30 pm	Opening Reception .....	Holiday Ballroom 4-5-6

### Tuesday, February 3, 2015

7:00 am - 5:00 pm	Registration .....	West Foyer
8:00 am - 5:00 pm	General Session .....	Holiday Ballroom 1-2-3
9:00 am - 4:00 pm	Exhibits .....	Holiday Ballroom 4-5-6

### Wednesday, February 4, 2015

7:00 am - 5:00 pm	Registration .....	West Foyer
8:00 am - 5:00 pm	General Session .....	Holiday Ballroom 1-2-3
9:00 am - 3:00 pm	Exhibits .....	Holiday Ballroom 4-5-6
5:30 pm - 7:00 pm	Poster and Networking Reception.....	Holiday Ballroom 6

### Thursday, February 5, 2015

7:00 am - 12:00 pm	Registration .....	West Foyer
8:00 am - 12:00 pm	General Session .....	Holiday Ballroom 1-2-3

## Presymposium Courses

### Monday, February 2, 2015

8:00 am - 5:00 pm

#### 1. Integrated Risk Assessment for Life Science Operations

*Martin Kuster, MD, Novartis International AG, Basel, Switzerland*

*David M. White, DVM, PhD, DACVM, U.S. Department of Agriculture, Ames, IA*

##### Objectives:

- Outline how an integrated risk assessment system could be set up
- Explain the players involved in an integrated risk assessment system
- Describe the different facets of what encompasses a risk at a workplace or process

8:00 am - 5:00 pm

#### 2. Practical Approaches to Evaluating and Implementing On-farm Animal Disease Risk, Biosafety, Biocontainment and Biosecurity Programs

*Derald Holtkamp, DVM, Iowa State University, Ames, IA*

*David Scarfe, DVM, PhD, American Veterinary Medical Association, Schaumburg, IL*

*David Shapiro, DVM, Dipl. ACPV, Perdue Farms, Inc., Salisbury, MD*

*Eileen Thacker, DVM, PhD, DACVM, U.S. Department of Agriculture, Beltsville, MD*

##### Objectives:

- Assess and describe the need to perform risk assessments for priority diseases in animal populations
- Describe alternative approaches for developing and implementing effective on-farm biocontainment, bio-management, and bio-exclusion programs tailored to specific industries, species, regulatory, and other needs
- Identify and understand public health risk and agricultural risk implications

8:00 am - 12:00 pm

#### 3. Facility Operational Biosafety

*Mark Fitzgerald, HDR Architecture, Inc., Los Angeles, CA*

*Natasha Griffith, MS, University of California—Los Angeles, Los Angeles, CA*

*Miguel Grimaldo, M.Eng., University of Texas Medical Branch—Galveston, Galveston, TX*

*Vibeke Halkjaer-Knudsen, PhD, Sandia National Laboratories, Albuquerque, NM*

*John Henneman, MS, RBP, Pennsylvania State University, University Park, PA*

##### Objectives:

- Restate the principles of good laboratory design and the methods for developing, analyzing, and improving laboratory designs
- Summarize how building systems support laboratory functions
- List the biological containment implications of system distribution concepts
- Describe the intent of providing redundancy on engineering systems for laboratories

8:00 am - 12:00 pm

#### 4. Life Science Facility Waste Management Methodologies

*Joseph H. Wilson, Bio-Response Solutions, Inc., Danville, IN*

*Robert J. Hawley, PhD, RBP, CBSP, Alliance Biosciences, Frederick, MD*

*Rich Apolinar, Astell, Inc., Harrisburg, NC*

##### Objectives:

- Describe the options available for handling and treatment of different types of wastes
- Restate the regulations surrounding the requirements, installation and testing of treatment systems
- Summarize all about the different types of waste disposal systems, how to properly select and size them, how they compare in acquisition and operational cost, and what infrastructure requirements are necessary for implementation, operation, and ongoing maintenance of these systems and facilities
- State key biosafety considerations in owning, testing, operating, and maintaining the different types of systems including managing and disposition of the end products

**1:00 pm - 5:00 pm**

**5. Research and Diagnostic Facility Biosecurity: Operational Challenges and Solutions**

*Mark Fitzgerald, HDR Architecture, Inc., Los Angeles, CA*

*Natasha Griffith, MS, University of California—Los Angeles, Los Angeles, CA*

*Miguel Grimaldo, M.Eng., University of Texas Medical Branch—Galveston, Galveston, TX*

*Vibeke Halkjaer-Knudsen, PhD, Sandia National Laboratories, Albuquerque, NM*

*John Henneman, MS, RBP, Pennsylvania State University, University Park, PA*

**Objectives:**

- Explain the principles of good laboratory design
- Identify methods for developing, analyzing, and improving laboratory designs
- Restate how building systems support laboratory functions
- Summarize the biological containment implications of system distribution concepts
- Define the intent of providing redundancy on engineering systems for laboratories

**1:00 pm - 5:00 pm**

**6. Introduction to Biorisk Management**

*Joseph Kozlovac, MS, RBP, CBSP, U.S. Department of Agriculture, Beltsville, MD*

*Patricia Olinger, RBP, Emory University, Atlanta, GA*

**Objectives:**

- Recognize the importance of instituting a comprehensive biorisk or biological safety management program
- Explain the role of management, Institutional Biosafety Committees, and the biosafety professional in the program
- Summarize the importance of communication to all levels about the biorisk management or biosafety program
- Discuss the use of metrics and measures for reviewing and improving the biorisk management program
- Describe how to use the Plan, Do, Check, Act (PDCA)

## Final Program

### Monday, February 2, 2015

5:30 pm - 7:00 pm                      Opening Reception

### Tuesday, February 3, 2015

7:00 am - 5:00 pm                      Registration

9:00 am - 4:00 pm                      Exhibits

8:00 am - 8:15 am                      **USDA ARS Welcome**  
Joseph Kozlovac, MS, RBP, CBSP, U.S. Department of Agriculture, Beltsville, MD

8:15 am - 8:30 am                      **ABSA Welcome**  
Marian Downing, RBP, CBSP, American Biological Safety Association, Mundelein, IL

**Session I**                                      **One Health Challenges and Successes**  
Moderator: Paul Meechan, PhD, RBP, CBSP, Centers for Disease Control and Prevention, Atlanta, GA

8:30 am - 9:20 am                      **Keynote Address**  
Stephen S. Morse, PhD, Columbia University Medical Center, New York, NY

9:20 am - 9:50 am                      **USDA APHIS One Health Initiative**  
Joseph F. Anelli, DVM, U.S. Department of Agriculture, Riverdale, MD

9:50 am - 10:20 am                      **One Health Commission**  
Deeanna Burleson, RN, MSN, One Health Commission, Washington, DC

10:20 am - 10:40 am                      Break in Exhibit Hall

10:40 am - 11:10 am                      **Infectious Salmon Anemia**  
Jill Rolland, PhD, U.S. Geological Survey, Seattle, WA

11:10 am - 11:40 am                      **Challenges in Dealing with MERS**  
Jonathan Epstein, DVM, EcoHealth Alliance, New York, NY

11:40 am - 12:10 pm                      **Novel Pox Virus**  
Darin Carroll, PhD, Centers for Disease Control and Prevention, Atlanta, GA

12:10 pm - 12:40 pm                      **One Health: Challenges to Forging Critical Links when Animal, Human and Environmental Health Collide Roundtable**  
Panelists: Jill Rolland, PhD, U.S. Geological Survey, Seattle, WA; Jonathan Epstein, DVM, EcoHealth Alliance, New York, NY  
Darin Carroll, PhD, Centers for Disease Control and Prevention, Atlanta, GA

12:40 pm - 2:00 pm                      Lunch in Exhibit Hall

**Session II**                                      **Biorisk Management Field to Facility: Practicing Safety in an Unsafe World**  
Moderator: John Balog, RBP, U.S. Food and Drug Administration, Silver Spring, MD

2:00 pm - 2:30 pm                      **Risk Assessment for Field Work**  
Robert Ellis, PhD, CBSP, Colorado State University, Fort Collins, CO

- 2:30 pm - 3:00 pm                   **Genetic Manufacturing of Agents**  
Martin Kuster, MD, Novartis International AG, Basel, Switzerland
- 3:00 pm - 3:30 pm                   Break in Exhibit Hall
- 3:30 pm - 4:00 pm                   **Transportation: Logistics of Handling and Transporting Highly Infectious Veterinary Samples**  
Ephy Khaemba, International Livestock Research Institute, Nairobi, Kenya
- 4:00 pm - 4:30 pm                   **Containment Challenges and Engineering Solutions for Lower Containment**  
Dennis Jones, U.S. Department of Agriculture, Ames, IA
- 4:30 pm - 5:00 pm                   **Hot Topic**

### Wednesday, February 4, 2015

- 7:00 am - 5:00 pm                   Registration
- 9:00 am - 4:00 pm                   Exhibits
- Session III**                           **Risk Management in Production Systems**  
Moderator: Eileen Thacker, DVM, PhD, DACVM, U.S. Department of Agriculture, Beltsville, MD
- 8:00 am - 8:30 pm                   **Ebola Risk Assessment in the Pig Value Chain in Uganda**  
Delia Grace, International Livestock Research Institute, Nairobi, Kenya
- 8:30 am - 9:00 am                   **Poultry Outbreak**  
David Shapiro, DVM, Perdue Farms, Inc., Salisbury, MD
- 9:00 am - 9:30 am                   **Biosafety, Biosecurity and Biocontainment in Aquaculture**  
Ronald L. Stotish, PhD, Aqua Bounty Technologies, Ivyland, PA
- 9:30 am - 10:00 am                   Break in Exhibit Hall
- 10:00 am - 10:30 am                   **PED Virus**  
Derald Holtkamp, DVM, Iowa State University, Ames, IA
- 10:30 am - 11:00 am                   **Swine Biosecurity Practices**  
Derald Holtkamp, DVM, Iowa State University, Ames, IA
- 11:00 am - 12:00 pm                   **Emerging Disease and Evolution of New Outbreak: PED as a Model Roundtable**  
Panelists: David Shapiro, DVM, Perdue Farms, Inc., Salisbury, MD; Ronald L. Stotish, PhD, Aqua Bounty Technologies, Ivyland, PA; Derald Holtkamp, DVM, Iowa State University, Ames, IA
- 12:00 pm - 1:15 pm                   Lunch in Exhibit Hall
- Session IV**                           **Occupational Issues in the Field and Lab**  
Moderator: Mary Louise Graham, Public Health Agency Canada, Ottawa, Ontario, Canada
- 1:15 pm - 2:30 pm                   **LAI Roundtable: Wyndmoor, PA E. coli 0157:H7 Case Study**  
Panelists: Joseph Kozlovac, MS, RBP, CBSP, U.S. Department of Agriculture, Beltsville, MD; Lee Wugofski, MD, U.S. Department of Health and Human Services, Washington, DC; Marshall Reed, U.S. Department of Agriculture, Wyndmoor, PA; Joshua Gurtler, U.S. Department of Agriculture, Wyndmoor, PA

2:30 pm - 3:00 pm	<b>Training Ebola: Lessons Learned from the Frontline and in U.S. Hospitals</b> Sean Kaufman, MPH, CPH, Behavioral-Based Improvement Solutions, Woodstock, GA
3:00 pm - 3:30 pm	Break in Exhibit Hall
3:30 pm - 4:00 pm	<b>Field Veterinary Biosafety</b> Patrice Klein, VMD, DACPV, DACVPM, U.S. Department of Agriculture, Riverdale, MD
4:00 pm - 4:30 pm	<b>Waste Disposal and Environmental Contamination</b> Lori Miller, PE, U.S. Department of Agriculture, Riverdale, MD
4:30 pm - 5:00 pm	<b>Case Study—Personal Reliability Program</b> Ben Perman, PhD, RBP, Booz Allen Hamilton, Inc. Alexandria, VA
5:30 pm - 7:00 pm	<b>Poster and Networking Reception</b>

## Thursday, February 5, 2015

7:00 am - 5:00 pm	Registration
<b>Session V</b>	<b>Global Health Security</b> Moderator: Kavita M. Berger, PhD, American Association for the Advancement of Science, Washington, DC
8:00 am - 9:00 am	<b>Keynote Address</b> Nedim Jaganjac, MD, The World Bank, Washington, DC
9:00 am - 9:30 am	<b>Global Health Security Agenda—U.S. Perspective</b> Elizabeth C. Cameron, PhD, National Security Council, Washington, DC
9:30 am - 10:00 am	<b>Security and Law Enforcement Issues</b> Rebecca Hoile, Interpol, Washington, DC
10:00 am - 10:30 am	<b>Downstream Effects of Veterinary and Public Health</b> Julie E. Fischer, PhD, George Washington University, Washington, DC
10:30 am - 10:45 am	Break
10:45 am - 11:45 am	<b>Global Health Security Agenda—Coordination and Next Steps Roundtable</b> Panelists: Nedim Jaganjac, MD, The World Bank, Washington, DC; Elizabeth C. Cameron, PhD, National Security Council, Washington, DC; Rebecca Hoile, Interpol, Washington, DC; Julie E. Fischer, PhD, George Washington University, Washington, DC
11:45 am	<b>Closing Comments and Adjourn</b> Joseph Kozlovac, MS, RBP, CBSP, U.S. Department of Agriculture, Beltsville, MD

## Posters

**Chlorine Dioxide Gas Decontamination of Pall Filter Arrays from BSL-3/BSL-4 Containment Facility (ID #31)**  
Ronald Schmidt, Jr., Mark Verduin, DRS Laboratories, Inc., Lehigh Valley, PA

**Development of the Biosafety and Biosecurity Policy in National Scientific Center Institute of Experimental and Clinical Veterinary Medicine (ID #32)**  
Anton Gerilovych, DVM, PhD, Borys Stegnyy, DVM, PhD, Roman Kucheryavenko, DVM, PhD, Oleksii Solodianskiy, PhD, National Scientific Center Institute of Experimental and Clinical Veterinary Medicine, Kharkiv, Ukraine

**Transfer of Select Agents and Toxins: 2003-2013 (ID #33)**  
Bryan Shelby, Robbin Weyant, PhD, Debora Cartagena, Denise Gangadharan, Vondgurus McClee, Centers for Disease Control and Prevention, Atlanta, GA

**Surveillance of “Forgetting” H2 Subtype Influenza Virus in Natural Reservoirs in the Ukraine 2006-2012 (ID #34)**  
Denys Muzyka, Borys Stegnyy, Mary J. Pantin-Jackwood, Olexander Rula, Maryna Stegnyy, Pavlo Shutchenko, National Scientific Center Institute of Experimental and Clinical Veterinary Medicine, Kharkiv, Ukraine

**Restricted Experiments Requests, Division of Select Agents and Toxins: 2006-2013 (ID #36)**  
Jacinta Smith, Denise Gangadharan, Robbin Weyant, Centers for Disease Control and Prevention, Atlanta, GA

**Evaluating the Use of Bio-pesticides for Crop Protection in Afghanistan (ID #37)**  
Mohammad Zarif Sharifi, PhD, Kabul University, Kabul, Afghanistan

**The Kazakhstan Surveillance System: Findings from Outbreak Exercises (ID #38)**  
Charles Buck, PhD, Ray Lenhoff, PhD, Lolly Gardner, MBA, MRI Global, Frederick, MD

**Defining Priorities: A One Health Zoonotic Disease Prioritization Tool (ID #39)**  
Cassidy L. Rist, DVM, Emory University, Atlanta, GA; Carmen Sofia Arriola, DVM, PhD, Carol Rubin, DVM, Centers for Disease Control and Prevention, Atlanta, GA

**Management of Biosafety—Overview from a Malaysian Private Research Organization Perspective (ID #40)**  
Halina Mohamed Ramly, Sime Darby Technology Centre, Serdang, Malaysia

**Workshop: Enhancing Collaboration to Address Microbial Forensic Challenges (ID #41)**  
Andrea Paulopol, U.S. Department of State, Washington, DC

**Biosafety and Containment Plan and Design for Direct Sampling of Operating Effluent Decontamination Tanks (ID #42)**  
Charles Balzli, Kira Moresco, David Swayne, Southeast Poultry Research Laboratory, Athens, GA

**Formaldehyde Fumigation: Biological Indicator Substrate Impact on Decontamination Results (ID #43)**  
Fahim Manzur, Booz Allen Hamilton, Groton, CT; Geoffrey Ferman, Plum Island Animal Disease Center, Greenport, NY

**Development of Biocontainment/Bioexclusion Housing for Poultry (ID #44)**  
Colette Wheler, DVM, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

**Coordinating the Biosecurity Requirements for Handling and Diagnostic Operations of EDP and Non-EDP Materials in A Single Laboratory (ID #45)**  
Tea Glonti, PhD, Nino Kheladze, MD, Stephen Rohrer, PhD, Battelle Memorial Institute, Tbilisi, Georgia

**Characterization of Pathobiology and Immunological Responses in Chickens Infected with a New Highly Pathogenic Avian Influenza Type (ID #46)**  
Andrew Bean, Australian Animal Health Laboratory, Geelong, Victoria, Australia

**Prevalence and Antimicrobial Susceptibility and Methicillin Resistant of Staphylococcus Aureus Isolated from Raw Bulk Milk Samples from Different Origins in Jimma, Ethiopia (ID #47)**  
Tadele Tolosa, Jimma University, Jimma, Ethiopia; Joren Verbeke, Girma Kebede, Sofie Piepers, Karlien Supré, Sarne De Vlieghe, Ghent University, Merelbeke, Belgium



## Steering Committee

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Robert Heckert  
John Henneman  
Joseph Kozlovac  
Paul Meechan  
Maureen O'Leary

Hank Parker  
Melanie Peterson  
Jason Rao  
Mo Salman  
David Scarfe  
Jeff Silverstein  
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James Welch

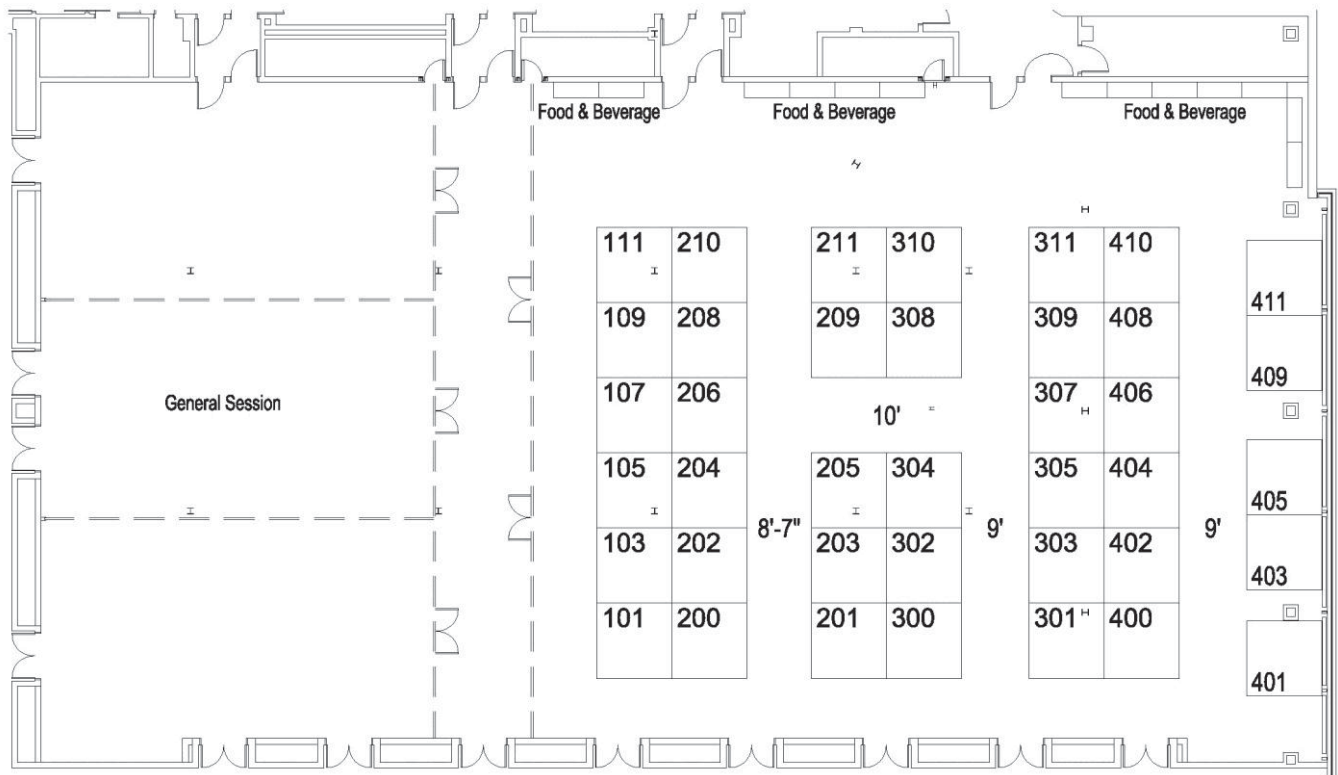
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## Exhibitors



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National Biosafety & Biocontainment Training Program (NBBTP) <a href="http://www.nbbtp.org">www.nbbtp.org</a>	202
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## Speakers

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## Notes

## Notes

# TEN TIPS

## FOR WORKING IN YOUR BIOSAFETY CABINET

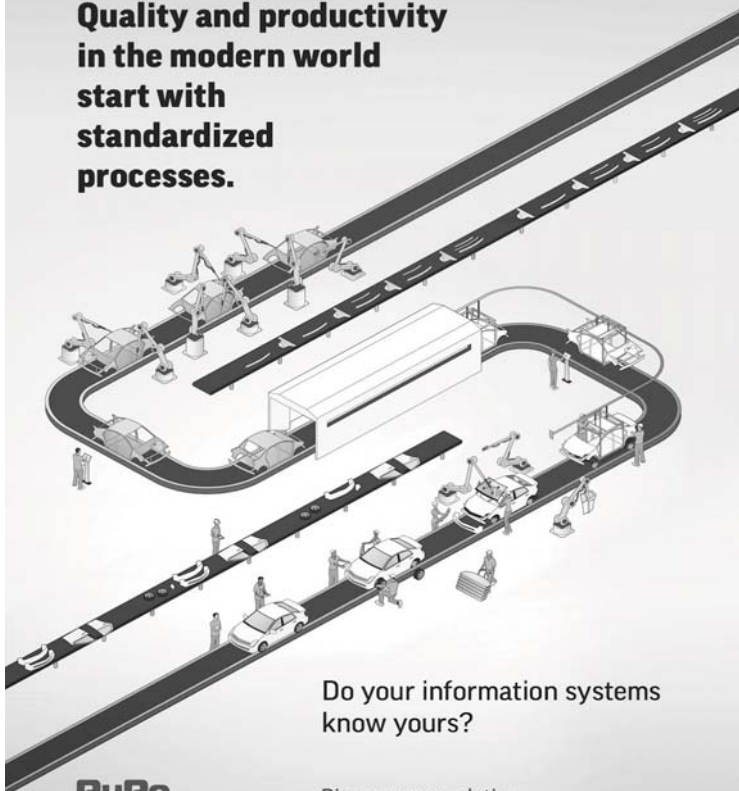
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## **USDA ARS 3rd International Biosafety & Biocontainment Symposium: Biorisk Management in a One Health World**

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