

ABSA



58th Annual Biological Safety Conference

Rhode Island Convention Center • Providence, Rhode Island

October 9-14, 2015

www.absaconference.org



Preliminary Program

American Biological Safety Association

The American Biological Safety Association (ABSA) was founded in 1984 to promote biosafety as a scientific discipline and serve the growing needs of biosafety professionals throughout the world. The Association's goals are to establish the global standard for biological safety, to provide a professional association that represents the interests and needs of practitioners of biological safety, and to provide a forum for the continued and timely exchange of biosafety information.

ABSA accomplishes these goals through providing members and stakeholders expertise and resources through publications in the peer-reviewed journal *Applied Biosafety*, the ABSA web site, sponsoring an annual Biological Safety Conference, training programs to inform members of regulatory initiatives, hazard recognition and management issues, risk communications, current Biosafety publications, meetings and seminars, e-mail updates, training opportunities, and employment opportunities. Additionally, ABSA members receive "Members Only" web privileges where they have access to past issues of *Applied Biosafety*, and members can participate in a biosafety mentoring program.

What is Biosafety?

The concept of Biological Safety (or biosafety) has paralleled the development of the science of microbiology and its extension into new and related areas including tissue culture, recombinant DNA, animal studies, molecular biology, synthetic biology, and biotechnology. The knowledge and skill gained by microbiologists necessary to isolate, manipulate, and propagate pathogenic microorganisms required parallel development of containment principles, facility design, and practices and procedures to prevent occupational infections in the workplace or release of the organisms to the environment.

What is a Biosafety Professional?

A biosafety professional develops and participates in programs to promote safe microbiological practices, procedures, and proper use of containment equipment and facilities; stimulates responsible activities among workers; and provides advice on laboratory design.

Core Purpose

ABSA is dedicated to promoting and expanding biological safety experience.

Core Organizational Values

Leading the profession
Collaboration and community
Promote biosafety as a scientific discipline
Absolute integrity
High standards of excellence



www.absaconference.org

58th Annual Biological Safety Conference

Special Event

Rhode Island may be the “Littlest State in the Union,” but ABSA will celebrate in true, big, Ocean State style at the Rhode Island Convention Center on Tuesday night. Enjoy traditional Rhode Island clambake-style foods, local craft brews, dance to the coolest DJ tunes or sing karaoke. You can also sample the famous Del’s Frozen Lemonade and have your photo taken and immortalized with Chloe—the vintage 1967 Volkswagen photo bus. Come join fellow ABSA enthusiasts for a night filled with games and Oceanside fun.

Award Presentations

Monday, 8:30 am—Arnold G. Wedum Memorial Lecture Award Presentation
Tuesday, 8:05 am—Griffin Lecture Award Presentation
Tuesday, 2:00 pm—Eagleson Award Presentation
Wednesday, 11:35 am—Arnold G. Wedum Distinguished Achievement Award
Wednesday, 11:35 am—Everett J. Hanel, Jr. Presidential Award
Wednesday, 1:30 pm—Robert I. Gross Student Award
Wednesday, 2:00 pm—Richard Knudsen Award Presentation

Registration

The Registration Desk will be open Friday through Wednesday from 7:00 am - 5:00 pm.

New Member Reception

The New Member Reception will be held on Sunday from 5:30 - 6:30 pm.

Opening Reception

The Opening Reception will be held on Sunday from 6:30 - 8:00 pm.

Hotel Information

Omni Providence Hotel
1 West Exchange Street
Providence, RI 02903
Phone: 401-598-8000
Confirmed room rate: \$179.00/night

Exhibit Hall

The Exhibit Hall will be open on Sunday 6:30 - 8:00 pm for the Opening Reception. It will also be open on Monday and Tuesday for continental breakfasts, lunches, and breaks.

Once Again in 2015

ABSA will be offering “Exhibit Only” passes for those not attending the Scientific Program, but would like to preview the latest in biosafety and biosecurity products and services in the Exhibit Hall. For more information, please contact the ABSA Office at info@absa.org.



The American Biological Safety Association has been approved as a provider of continuing education programs in clinical laboratory science by the American Society for Clinical Laboratory Sciences (ASCLS), Professional Acknowledgment for Continuing Education (P.A.C.E.®) program.

For each preconference course, contact hours will be based on 60 minutes of instructional time for each P.A.C.E.® contact hour. The maximum number of P.A.C.E.® contact hours to be credited for half-day courses is 3.50 contact hours and for full-day courses is 7.50 contact hours.

Preconference Courses

Visit www.absaconference.org for course availability.

Friday, October 9, 2015

8:00 am - 5:00 pm

1. Building a Select Agent Program: Safety, Compliance, and Efficiency

Amy Vogler, PhD, RBP, Northern Arizona University, Flagstaff, AZ

Shelley Jones, MS, RBP, Northern Arizona University, Flagstaff, AZ

A successful Select Agent Program depends on ensuring personnel safety and maintaining regulatory compliance in an efficient manner. In the absence of efficiency, research can be unnecessarily hindered and regulatory compliance may become overly burdensome, which could lead to lapses that affect the success or failure of an entity's Select Agent Program. This course will explore strategies for implementing a successful Select Agent and/or Tier 1 Select Agent Program based upon the instructors' experience with their institution's Select Agent (including Tier 1) BSL-3 Program. Topics will include identifying site-specific needs; developing and reviewing plans and SOPs; promoting a safety and compliance culture; organizing and tracking inventory; training methods and recordkeeping; providing effective oversight; and preparing for, facilitating, and responding to inspections. Strategies presented will focus on organization, resource management, flexibility, and efficiency. This course will consist of presentations, group discussions, and exercises to assist participants in applying the strategies to the needs of their entities.

Objectives:

- Evaluate site-specific needs and expectations
- Design and implement effective and efficient policies, plans, and procedures compliant with the current CDC/USDA Select Agent Regulations
- Identify strategies for streamlining and integrating required documentation
- Describe inventory management techniques to ensure current and accurate inventory records

Suggested Background: None

Target Audience: Safety Professionals dealing with Select Agent Programs

Audience Level: Basic

8:00 am - 5:00 pm

2. The Essentials of Health and Safety at the Boundaries of Biosafety

Robert Emery, DrPH, RBP, CBSP, University of Texas Health Science Center—Houston, Houston, TX

Bruce Brown, DrPH, CBSP, University of Texas Southwestern Medical Center, Dallas, TX

Rachel Gamble, DrPH, CBSP, University of Texas Health Science Center—Houston, Houston, TX

Scott Patlovich, DrPH, CBSP, University of Texas Health Science Center—Houston, Houston, TX

In actual practice, there is virtually no work setting where occupational risks are limited solely to biological agents. Fire safety, occupational safety, and chemical safety risks are ubiquitous in laboratory and production settings, and sources of radiation can be regularly encountered. Issues regarding insurance coverage and policy limitations can also arise. Given this diversity of possible risks, it is prudent for biosafety professionals to familiarize themselves with the essential aspects of these other specialty areas of loss control. This course is designed specifically to provide a baseline orientation to a series of parallel health and safety professions with which a biosafety professional commonly interacts. Each section begins with a discussion of the relative public health impact of a specialty area and ends with a description of the simple things a biosafety professional can do to assist in keeping the overall organization safe and compliant.

Objectives:

- Describe the 5 recognized steps of risk management process and why this is important for the biosafety profession
- Identify the basic elements of a fire and life system program, a chemical safety program, radiation safety program, and a comprehensive hazardous waste management program that can be easily accessed by a biosafety professional
- Summarize the risk represented by insider threats

Suggested Background: None

Target Audience: All Safety Professionals, All Biosafety Professionals

Audience Level: Intermediate

8:00 am - 5:00 pm

3. Basic Risk Assessment

Patrick Condreay, PhD, Biosafety Consultant Services, Carrboro, NC

Anne-Sophie Brocard, PhD, RBP, CBSP, University of Texas Medical Branch—Galveston, Galveston, TX

Elizabeth Weirich, MS, CBSP, SM(NRCM), Centers for Disease Control and Prevention, Atlanta, GA

Rapid scientific and technological advances continue to challenge the biosafety community in determining and establishing the appropriate practices and containment necessary to avoid exposure to the wide array of hazardous biological agents and materials found in the laboratory. This introductory course will provide an opportunity to incorporate the basic knowledge and skills necessary in order to perform risk assessments for working safely with pathogens (human and animal) and rDNA (genetically modified organisms or viral vectors). Using case studies, participants will work together to conduct risk assessments by determining the hazards involved; the appropriate questions to ask to address the potential risks associated with the intended activities; and make recommendations on appropriate containment and practices required to work safely. The conclusions of the groups will be presented.

Objectives:

- Identify and list determinants for assessing risk (host, environment, agent)
- Complete the steps of a risk assessment
- Determine steps to manage risk (mitigation)
- Identify resources and references for risk assessment/management

Suggested Background: Fundamentals of Biosafety

Target Audience: New Biosafety Professionals, Laboratory Workers

Audience Level: Basic

8:00 am - 5:00 pm

4. Shipping Infectious Substances Certification Course

Eric Cook, MPH, CBSP, Sandia National Laboratories, Albuquerque, NM

This course is appropriate for those who have some experience with infectious substance handling or shipping, but may not have been certified within the past 3 years. The course utilizes group discussions and interactive exercises focused on the essential areas of infectious substance shipping. Participants will have the opportunity to mark, label, package, and complete documentation for a variety of infectious substances shipments (Category A, Category B, and Exempt Patient Specimens). Participants will review applicable regulations with a focus on IATA. This course is appropriate for those responsible for packaging, marking, and labeling shipments of all categories of infectious substances, dry ice, and liquid nitrogen. A final written certification exam will be administered. Participants must score at least 80% in order to be certified.

Objectives:

- Summarize the various regulations that impact the shipment of infectious substances
- Using principles of risk assessment, classify biological materials for shipping purposes as either Category A, Category B, Exempt or not regulated
- Demonstrate how to package, mark, label, and document shipments of infectious substances, Category A, Category B, and dry ice
- Complete a written exam to qualify for infectious substance shipping certification

Suggested Background: None

Target Audience: All Safety Professionals, Laboratory Workers, New Biosafety Professionals

Audience Level: Basic

8:00 am - 5:00 pm

5. BSL-3 Design Commissioning Basics

Paul Langevin, PEng, Merrick & Company, Ottawa, Ontario, Canada

Gilles Tremblay, Merrick & Company, Ottawa, Ontario, Canada

Art Wyatt, PEng, Merrick & Company, Atlanta, GA

This course will offer participants a comprehensive design understanding of BSL-3 facilities. This compact design-based course will cover all aspects from planning to commission and will provide the participants an understanding how a biocontainment facility is logically designed and built. The basic steps involved in planning, design, construction, acceptance, and operation that each facility should go through to be effective in primary and secondary containment will be reviewed. Participants will be able to participate in the BSL-3 design processes and understand the influences that vary for BSL-3 facilities through interactive discussions.

Objectives:

- Recognize how to participate with BSL-3 design projects
- Restate the influences of BSL-3 facility design
- State the operational influences for design criteria
- Explain BSL-3 project variations and delivery options

Course Requirement: Participants must bring a laptop or tablet with a USB port

Suggested Background: Fundamentals of Biosafety, Risk Assessment, BSL-3—Design and Operations, Principles and Practices of Biosafety

Target Audience: All Biosafety Professionals, Facility Managers and Operators, Inspectors, Designers

Audience Level: Intermediate

8:00 am - 12:00 pm

6. Fundamentals of Microbiology and Infectious Disease

James Klenner, MSc, MPH, MPA, RBP, CBSP, Indiana University—Purdue University Indianapolis, Indianapolis, IN

This course is intended for those professionals that participate in protocol review, facilities planning, and any other risk assessment activities, but are unsure as to the actual nature of the disease risks of microbiological agents. Biological safety and risk assessment will **not** be covered in this course. The proposed topics will cover infectious agents, virulence factors, pathogenicities, host-microbe interactions, susceptibility, modes of transmission, and the changes seen in the microbial world. If you don't know the difference between a TCID₅₀, PFU, or ID₅₀; or why HBV is stable in dried blood and HIV is not; or why influenza is an inhalation hazard; or why public health officials advocate flu shots each year—then this course is for you.

Objectives:

- Define different microorganisms and their pathogenicity
- Restate the various modes of transmission of microbial pathogens
- Correlate the host response to microbial infections
- Develop a basis for various environmental survival trends

Suggested Background: None

Target Audience: All Safety Professionals, New Biosafety Professionals, Laboratory Workers

Audience Level: Basic

1:00 pm - 5:00 pm

7. Biosafety Considerations with Human Gene Transfer

Christopher Jenkins, PhD, RBP, WIRB-Copernicus Group, Princeton, NJ

David Emery, PhD, WIRB-Copernicus Group, Puyallup, WA

Since the late 1990s, human gene transfer research has teased the community with the promise of medical breakthroughs using targeted clinical applications with biological materials. Despite setbacks along the way, the field of human gene therapy has made significant advances. This course will provide an overview of human gene transfer research, risk assessment considerations for biosafety professionals and Institutional Biosafety Committees, and outline the regulatory environment for human gene transfer research. Case studies and group discussion will be used to amplify the take home messages.

Objectives:

- Recall the challenges past and present with human gene transfer research into human subjects
- Generate risk assessments with biological materials used in clinical environments
- Review the regulatory environment from the FDA and NIH perspectives for human gene transfer research

Suggested Background: Risk Assessment, Micro/Molecular Biology 101

Target Audience: All Biosafety Professionals, Clinical Professionals

Audience Level: Intermediate

Saturday, October 10, 2015

8:00 am - 5:00 pm

8. Techniques for Improving Support for Your Biosafety Program

Robert Emery, DrPH, RBP, CBSP, University of Texas Health Science Center—Houston, Houston, TX

Bruce Brown, DrPH, CBSP, University of Texas Southwestern Medical Center, Dallas, TX

Rachel Gamble, DrPH, CBSP, University of Texas Health Science Center—Houston, Houston, TX

Scott Patlovich, DrPH, CBSP, University of Texas Health Science Center—Houston, Houston, TX

A recurrent challenge for biosafety professionals is the ability to garner necessary program resources. This difficulty lies in the fact that on a good day in the world of biosafety nothing happens. Upper management may not fully appreciate or understand all of the effort that goes into making “nothing happen.” Biosafety professionals in particular experience difficulty in this regard because many in the profession have received intensive training in the biological sciences, but little or no training in the area of program management. This course will focus on key management techniques that can be used within biosafety programs to help improve stakeholder understanding of the program and its activities. Real-world examples of successful applications will be discussed.

Objectives:

- Identify various biosafety programmatic measures and metrics that can be easily captured and communicated
- Define techniques used for displaying biosafety data in ways that others can readily understand
- Describe how biosafety programs can assist with other basic safety program needs to avoid duplication of efforts and improve safety and client satisfaction levels
- Employ various commonly used sales methods to improve the visibility and support for biosafety programs

Suggested Background: None

Target Audience: All Safety Professionals, All Biosafety Professionals

Audience Level: Intermediate

8:00 am - 5:00 pm

9. Engineering for the Biosafety Professional—Part I

Juan Osorio, IE, World BioHazTec Corporation, Rockville, MD

Brynte Johnson, MS, RBP, CBSP, SM(NRCM), World BioHazTec Corporation, Rockville, MD

Diego Osorio, CE, World BioHazTec Corporation, Rockville, MD

Theodore Traum, PE, World BioHazTec Corporation, Rockville, MD

Proactive biosafety professionals need to be involved and knowledgeable in the operation, maintenance, and certification of containment facilities and building systems. The biosafety professional may be called upon to participate in the planning, design, and validation of a new biocontainment laboratory or renovation of an existing facility. This course will equip attendees with the basic knowledge to understand the process for planning, design, construction, maintenance, and operation of a high-containment laboratory. For the biosafety professional to participate in these activities, it's important to understand engineering fundamentals, develop skills to ask questions in engineering terms, and have the confidence to question the answers. This introductory course will provide information relevant to BSL-3 facilities to determine air change rates, define HVAC containment boundaries, interpret design drawings, understand HEPA filtration, provide an introduction in determining room heat loads and ventilation rates, directional airflow concepts and room pressure differentials, as well as an introduction to HVAC components (e.g., isolation valves, control valves, fast acting actuators, etc.). Building on this information, there will be a step-by-step presentation on planning, design, construction oversight, commissioning, certification/validation/ANSI Z9.14 standard, maintenance, and operation. Attendees will gain a better understanding of engineering issues from planning to post-occupancy of biocontainment facilities, be able to formulate informed questions, be able to interact with maintenance personnel, and integrate facility operations with the biosafety program.

Objectives:

- Recognize engineering issues in planning, design, construction, commissioning, certification/validation, and post-occupancy of biocontainment facilities
- Analyze a laboratory layout to establish its HVAC boundaries
- Explain HEPA filters operation, decontamination, and testing
- Formulate informed questions in engineering terms and have the confidence to question the answers
- Interact with maintenance personnel and integrate facility operations with the biosafety program

Suggested Background: None

Target Audience: All Safety Professionals, All Biosafety Professionals

Audience Level: Basic

8:00 am - 5:00 pm

10. Infectious Substance Shipping Train the Trainer

Eric Cook, MPH, CBSP, Sandia National Laboratories, Albuquerque, NM

This course is appropriate for those who need more in-depth knowledge of regulations and are responsible for training others in shipping infectious substances. Come learn how to apply brain friendly learning techniques to become a master trainer. Learn techniques to turn a boring infectious substance shipping seminar into something memorable. Participants should have completed an infectious substance shipping training course within the past three years and are familiar with shipping regulations. A portion of the course will be spent in reviewing details of both IATA and DOT regulations. IATA DGR and 49 CFR regulations will not be provided. Participants must bring their own copy of the IATA DGR regulations and a copy of 49 CFR for marking and discussion.

Objectives:

- Apply adult learning theory, brain-friendly strategies into an infectious substance shipping course
- Discuss details of shipping regulations and be prepared to answer FAQs related to infectious substance shipping regulations that go beyond the typical, basic shipping course
- Demonstrate expertise in infectious substance shipping regulations through an open book exam
- Evaluate and coach others in the proper application of infectious substance shipping regulations
- Demonstrate the new IATA qualification requirements for instructors of dangerous goods shipping

Course Requirement: Participants must provide their own copy of the IATA DGR regulations and a copy of 49 CFR

Suggested Background: Previous Certification Training in Infectious Substance Shipping

Target Audience: Experienced Biosafety Professionals, Trainers

Audience Level: Advanced

8:00 am - 5:00 pm

11. Basic Threat Assessment for Laboratory Biosecurity Programs

Ben Perman, PhD, RBP, Booz Allen Hamilton, Inc., Washington, DC

Tricia Delarosa, PhD, RBP, CBSP, National Institute of Allergy and Infectious Disease, Rockville, MD

Lindsay Odell, PhD, Booz Allen Hamilton, Inc., McLean, VA

Maureen O'Leary, PhD, CBSP, Dartmouth College, Hanover, NH

This course will train administrators, management, and researchers the basic principles of threat assessment and introduce participants to the role of threat assessment in biosecurity programs. Participants will be provided with a basic tool-kit that will allow implementation of successful insider threat mitigation strategies using threat assessment at their home institutions. The course will follow established techniques in the personal protection field that are used to identify, assess, and manage dangerous threats. Participants will be presented with relevant case studies on basic threat indicators, approaches to make threats, threatening behaviors, how to recognize specific personal security vulnerabilities, and how to link these vulnerabilities to threats. The course will focus on the purposes and requirements of a biosecurity program and the role of threat assessment in the management of effective personal security and personal suitability or reliability components of biosecurity programs. Regulatory issues relevant to threat assessment and the implementation of personnel management programs, in particular changes to the Select Agent Regulations pertaining to Tier 1 agents, will be discussed. Theoretical concepts will be put into practice in a 2-hour tabletop exercise devised around a realistic laboratory security problem that draws on the material presented in the lecture and case studies.

Objectives:

- Describe the basic principles of threat assessment in a laboratory biosecurity program and how threat assessment can be implemented in a successful insider threat mitigation program
- Recognize specific personal security vulnerabilities and how to link these vulnerabilities to threats
- Discuss the purpose and requirements of basic suitability or reliability and threat assessment programs and their roles in laboratory biosecurity management
- Identify resources and the legal and regulatory controls relevant to threat assessment and the implementation of a laboratory biosecurity program

Suggested Background: None

Target Audience: All Safety Professionals, Laboratory Workers, Security Professionals

Audience Level: Basic

8:00 am - 5:00 pm

12. Introduction to Synthetic Biology

David Gillum, MS, RBP, Arizona State University, Tempe, AZ

Zsuzsi Kovacs, MS, Arizona State University, Tempe, AZ

This course will cover biosafety and biosecurity issues pertinent to the emerging field of synthetic biology. Participants will be provided with a general and historical overview of synthetic biology and a glimpse into the current trends and potential future of the field. Instructors will focus on core concepts in synthetic biology and a current level of understanding as they pertain to biosafety and biosecurity. Implications for staff training, personal protective equipment (PPE), engineering controls, lab design, material transportation, waste disposal, regulations, ecological impacts, and ethical considerations will be discussed. As the field of synthetic biology continues to play a bigger role in industry, research, and pharmaceuticals, this course will be timely and will help move conversation forward to allow biosafety professionals an opportunity to become current with trends and positively impact policies, procedures, and guidelines.

Objectives:

- Recall the history of synthetic biology, the motivation for making biology easier to engineer, and a few common applications of synthetic biology
- Identify the core concepts and tools to make synthetic biology including: RNA, DNA, and proteins
- Discuss the major foundational technologies for synthetic biology and aspects of biotechnology that enable the reprogramming of natural systems
- Recognize the biosafety and biosecurity concerns for individuals and institutions working with synthetic biology and the basic laboratory techniques used in synthetic biology applications
- Summarize the ethical, environmental, and ecological considerations regarding synthetic biology and its current and future applications

Suggested Background: Micro/Molecular Biology 101

Target Audience: All Safety Professionals, New Biosafety Professionals, Laboratory Workers

Audience Level: Basic

8:00 am - 5:00 pm

13. Brain-friendly Biorisk Management Training Strategies

LouAnn Burnett, MS, CBSP, Sandia National Laboratories, Albuquerque, NM

We have all attended training sessions that we liked and we've attended training sessions that we didn't like. Some training sticks and some doesn't. Much of this good/bad, stick/don't stick is based on how our brains function. Creating memorable training is imperative in creating a solid biorisk management culture. This course will examine "brain-friendly" strategies that can be used in biorisk management training. The course will be highly interactive and students will design and teach-back a short brain-friendly activity.

Objectives:

- Know why certain training strategies are more brain-friendly than others
- Demonstrate confidence in using participant-driven, interactive techniques
- Utilize validated brain-friendly techniques to create and teach a short activity

Suggested Background: None**Target Audience:** All Safety Professionals, All Biosafety Professionals**Audience Level:** Intermediate**8:00 am - 12:00 pm****14. Biocontainment Myths Explored***John Keene, DrPH, RBP, CBSP, Global Biohazard Technologies, Inc., Midlothian, VA**Ronald Trower, RBP, Global Biohazard Technologies, Inc., Midlothian, VA*

There is considerable confusion and misunderstanding when it comes to interpretation of the *BMBL* and requirements for containment. Such misunderstanding can increase the cost of operation of biocontainment facilities and cause undue hardship on research personnel. This presentation will highlight some of the most common misinterpretations of the guidelines and will provide guidance on how to avoid the pitfalls of misinformation.

Objectives:

- Identify potential problems in containment practices
- Recognize the differences between true requirements and fictional requirements
- Apply the concepts presented to establish a cost effective, user friendly biocontainment procedure process

Suggested Background: Fundamentals of Biosafety, BSL-3—Design and Operations, Principles and Practices of Biosafety**Target Audience:** All Safety Professionals, All Biosafety Professionals**Audience Level:** Intermediate**1:00 pm - 5:00 pm****15. Biocontainment Laboratory Operations: Applying Lessons Learned from the Planning Stage to Facility Startup***John R. Henneman, MS, RBP, Pennsylvania State University, University Park, PA**Miguel A. Grimaldo, MEng, University of Texas Medical Branch—Galveston, Galveston, TX**J. Paul Jennette, MS, PE, RBP, Cornell College of Veterinary Medicine, Ithaca, NY*

This course offers participants key insight and sharing of experiences in biocontainment facility construction and start-up from the operations point of view. Often we hear about containment facilities being built simply by transplanting concepts used at other institutions without consideration of the site-specific needs and resources. In this course, lessons learned and the questions to ask during all the stages of building or renovating biocontainment facilities will be shared by instructors with over 50 years of combined experience. The course will focus on establishing the need for high-containment including the level required; the long-term need; and ideas for flexibility. Selecting the right architect, engineer, and construction manager who understands the design and purpose of the facility selecting the proper operations staff; selecting the right commissioning agent; and initiating safe scientific operations will be discussed. The course will consist of interactive, group discussions facilitated by the instructors.

Objectives:

- Restate lessons learned in the design/construction and start-up process of a biocontainment facility
- Identify the questions to ask when selecting the facility design, construction, and operations teams
- Describe the plans and procedures needed to initiate scientific operations

Suggested Background: Fundamentals of Biosafety, BSL-3—Design and Operations**Target Audience:** All Safety Professionals, Laboratory Workers, Laboratory Management**Audience Level:** Basic

Sunday, October 11, 2015

8:00 am - 5:00 pm**16. BSL-3 Operations and Management***J. Paul Jennette, MS, PE, RBP, Cornell College of Veterinary Medicine, Ithaca, NY**Dee Zimmerman, University of Texas Medical Branch—Galveston, Galveston, TX*

This course will review the important aspects of the daily operation of a BSL-3 facility from two points of view; management of the facility and the daily operations. This assumes that you already have a facility built and have all required authorizations to work in it. The course will cover the different aspects you need to consider to operate a BSL-3 facility, such as: approval and training of a worker; maintenance support; occupational health issues; managing

waste; maintenance of the HVAC and physical facility; periodic checks on the facility's systems; and emergencies of different types. Daily operations in a BSL-3 such as: understanding when it is safe to enter and when you need to evacuate; what to do when the ventilation fails; practical aspects of entry and exit procedures; practical tips on selection and use of personal protective equipment (PPE); safety considerations within the experimental SOPs; waste handling; facility cleaning; and how to have equipment repaired or serviced will be discussed. This course will be conducted in a way that allows for interaction and exchange of experiences between participants and instructors. This course will not cover regulatory aspects from any specific country.

Objectives:

- Describe the elements of annual verification, emergency response, etc.
- Recognize institutional responsibilities from management to user
- Summarize the methods used to develop manuals, SOPs, and training

Suggested Background: Basic Risk Assessment and Biosafety Knowledge

Target Audience: All Safety Professionals, All Biosafety Professionals

Audience Level: Basic

8:00 am - 5:00 pm

17. Integrating Your Biosafety Program into a Biorisk Management System

LouAnn Burnett, MS, CBSP, Sandia National Laboratories, Albuquerque, NM

Ben Brodsky, PhD, Sandia National Laboratories, Albuquerque, NM

Patricia Olinger, RBP, Emory University, Atlanta, GA

Kalpna Rengarajan, PhD, RBP, Emory University, Atlanta, GA

The function of most biosafety programs is driven by the need to comply with various local and federal requirements. This approach can result in a program that is compliant, but still does not address all areas where biorisk exists. A management system approach can assist an institution assure compliance and address both the breadth of all the functional aspects biosafety and biosecurity across all the roles at an institution, from the top management downwards. Provisions for a Biorisk Management System have been developed in the CEN Workshop Agreement (CWA) documents 15793 and 16393. This course will allow participants to begin to integrate the biorisk management system approach into their current biosafety program by using the CWA documents to identify gaps, establish goals, objectives, roles, and responsibilities to address priority gaps. This course will be very interactive and hands-on, using tools, tips, and lessons-learned from the facilitators and the students.

Objectives:

- Identify key components of management systems and how those can apply to and enhance a biosafety program
- Recognize gaps in your current biosafety program and to plan a risk-based strategy to address those gaps
- Utilize existing tools and resources to guide implementation of a biorisk management system approach
- Develop a communication strategy to enhance involvement from all personnel, including management

Suggested Background: None

Target Audience: All Biosafety Professionals, Laboratory Workers

Audience Level: Intermediate

8:00 am - 5:00 pm

18. Advanced Principles and Practices of Working in an ABSL-3

Belinda Rivera, BS, University of Texas Medical Branch—Galveston, Galveston, TX

Institutions with ABSL-3 facilities need to involve animal care and research staff along with safety personnel to ensure that proper work procedures and safety protocols are in place and followed to maintain a safe and productive work environment. This course will provide information to individuals who audit or train personnel to work in ABSL-3 facilities. ABSL-3 facilities have unique hazards and require input from animal care staff, researchers, and biosafety professionals to perform collaborative risk assessments. Personnel working in these facilities need to be informed of the hazards and trained to work safely and appropriately with the species and agents being handled. Discussions will include proper personal protective equipment (PPE), animal handling procedures using pictures and videos, husbandry procedures, caging options, waste management, and emergency response procedures.

Objectives:

- Identify proper PPE and disinfection practices
- Restate examples of techniques used to manipulate animals safely
- Explain the process of waste (cages, carcasses) management
- Summarize emergency and exposure response

Suggested Background: None

Target Audience: All Safety Professionals, Animal Caretakers, Veterinarians

Audience Level: Advanced

8:00 am - 5:00 pm

19. A BSO's Guide for Understanding Research Compliance Regulations

Ted Myatt, ScD, RBP, University of Rhode Island, Kingston, RI

This course will enhance the participant's range of understanding in research compliance areas, regulations, and the guidance that underpins these areas which can be beneficial to biosafety officers and environmental health and safety (EH&S) professionals. For example, research typically encountered by biosafety officers, Institutional Biosafety Committees (IBC), and EH&S groups may also require Institutional Review Board (IRB) or Institutional Animal Care and Use Committee (IACUC) review and oversight. In order to develop strategies for dealing with these areas of overlap, it is helpful to have a solid understanding of IRB and IACUC regulations and guidance. Comprehension of the regulations and guidance governing research involving human and animal subjects, export controls, and financial conflicts of interest will expand the participant's area of expertise, potentially leading to new opportunities within an institution's overall research compliance structure. This knowledge can be used to develop best practices and reduce the regulatory burden on investigators. This course will consist of a mixture of didactic lecture, case studies, and interactive exercises.

Objectives:

- Describe the major regulations and guidance governing research involving human subjects (IRB) and animal subjects (IACUC)
- Compare and contrast IBC governance with IRB and IACUC governance
- Summarize when review by both the IRB and/or IACUC are required for research requiring IBC review
- Discuss other compliance issues, such as export controls, financial conflicts of interest, research misconduct, and their potential relation to research reviewed by an IBC
- Develop an understanding of federal grant management policy, including requirements for review and oversight of research involving recombinant DNA human and animal subjects
- Identify strategies to effectively manage IBCs and best practices for coordination of review and oversight for research requiring review from multiple committees

Suggested Background: None

Target Audience: All Biosafety Professionals, All Safety Professionals

Audience Level: Intermediate

8:00 am - 12:00 pm

20. IBC Basics

Kathryn Harris, PhD, RBP, National Institutes of Health, Bethesda, MD

This course will present the history, function, and administration of the Institutional Biosafety Committee (IBC). Delivered by expert staff from the National Institutes of Health (NIH) Office of Biotechnology Activities (OBA), IBC Basics will promote the professional development of those associated with the IBC by providing an opportunity to learn about the NIH OBA, the content of the *NIH Guidelines for Research Involving Recombinant and Synthetic Nucleic Acid Molecules (NIH Guidelines)*, the history of the IBC, and understand the range of responsibilities that the IBC has under the *NIH Guidelines*.

Objectives:

- Summarize the content of the *NIH Guidelines*
- Restate the requirements for the IBC under the *NIH Guidelines*
- Recognize the partnership between NIH OBA, IBC, and Recombinant DNA Advisory Committees and learn about the NIH OBA IBC site visit program
- Describe how to implement an effective program of oversight for research subject to the *NIH Guidelines*, learn about common challenges, and possible solutions

Suggested Background: None

Target Audience: New Biosafety Professionals, All IBC Members

Audience Level: Basic

8:00 am - 12:00 pm

21. NIH Design Requirements Manual Update

Alamelu Ramesh, PE, LEED AP, National Institutes of Health, Bethesda, MD

Steven Breslin, PE, LEED AP, National Institutes of Health, Bethesda, MD

Rajiv Chainani, PE, LEED AP, National Institutes of Health, Bethesda, MD

Scott Taylor, PE, CEM, LEED AP, National Institutes of Health, Bethesda, MD

This course will provide participants with the salient points discussed in the NIH Design Requirements Manual (DRM). Subject matter experts will discuss planning, architectural, structural, mechanical, plumbing, and electrical design criteria for biomedical and animal research facilities designed and constructed on NIH property and other entities where the design and construction is funded by NIH. This new edition of the DRM provides rationales for most

of the design requirements to help the design team understand reasons behind the requirements. Specific items discussed in this course will be laboratory planning guidance, doors, finishes, casework, cleaning, access, biosafety cabinet placement requirements, decontamination, use of appropriate sealants, anterooms, storage, certification for high-containment facilities, air change rates, pressurization, filtration, exhaust, redundancy, mechanical controls, testing requirements for BSL-3, water, drainage, compressed gases, vacuum, lab plumbing fixtures, and special equipment. The course will also discuss common challenges in the design, construction, and operation of the biomedical and animal research facilities. Exercises will be conducted to ensure that the participants get a clear idea of the design criteria.

Objectives:

- Explain the key biomedical and animal research lab planning concepts
- Describe the importance of selecting appropriate sealants for various applications
- Paraphrase the impact of air flow on safe operation of chemical fume hoods and biosafety cabinets
- Identify equipment or systems planned to be provided with emergency power in case of power failure

Suggested Background: Fundamental knowledge of research facility design

Target Audience: All Safety Professionals, Architects, Engineers

Audience Level: Intermediate

8:00 am - 12:00 pm

22. Working Safely with Arthropods in the Laboratory

Partha Krishnan, PhD, Yale University, New Haven, CT

Sukanya Narasimhan, PhD, Yale School of Medicine, New Haven, CT

Brian Weiss, PhD, Yale School of Public Health, New Haven, CT

Research with live arthropods in a laboratory setting presents unique challenges in terms of biosafety issues, facility design, and safety practices. This course will focus on the biology of arthropods; risk assessment tools, engineering controls, personal protective equipment (PPE), good work practices while handling arthropods, the creation of SOPs for high-risk tasks, review of Arthropod Containment Levels (ACL) and facility design; emergency response procedures, including exposures and loss or release of arthropods from containment, primarily focusing on ACL biosafety levels 1 and 2. Ticks and mosquitoes will be the main arthropod classes that will be the focus of this course. Attendees will learn of the risks posed by working with arthropods, especially when infected with a known pathogen, adopting effective biosafety controls to mitigate or eliminate these risks and handling exposures competently. This course also caters to lab design architects and professionals who may be in need of expertise in factors to be taken into consideration before building or renovating laboratory space for arthropod work.

Objectives:

- Design adequate risk assessment of research using arthropods primarily at ACL levels 1 and 2
- Describe the possible routes of arthropod exposure by understanding the biology of the organism
- Apply best practices and employ effective protocols while working with arthropods with example SOPs
- Identify the most effective engineering controls to contain arthropods and to prevent inadvertent exposures and effective ways to handle exposures, near misses and accidents involving arthropods

Suggested Background: Fundamentals of Biosafety, Micro/Molecular Biology 101

Target Audience: All Safety Professionals, Laboratory Architects and Workers, Insectary Design Consultants

Audience Level: Basic

8:00 am - 12:00 pm

23. Concepts of Virology

Patrick Condreay, PhD, Biosafety Consultant Services, Carrboro, NC

This course will briefly review gene expression in eukaryotes and examine several concepts of virology. Characteristics of different viral families will be presented as well as general replication strategies employed by different viruses. Mechanisms of viral pathogenesis and strategies for antiviral intervention will also be explored. Participants should have a familiarity with molecular biology. The course is targeted to the biosafety professional who does not actively conduct laboratory research, but would like to gain a basic knowledge of virology.

Objectives:

- Define the nature of viruses and clarify how the viruses are classified into families
- Recognize strategies employed by viruses to multiply in a host
- Discuss concepts underlying viral pathogenesis
- Describe methods used to interfere with viral infection and replication

Suggested Background: Micro/Molecular Biology 101

Target Audience: Experienced Biosafety Professionals, Laboratory Workers

Audience Level: Intermediate/Advanced

1:00 pm - 5:00 pm

24. Advanced Laboratory Design Principles and Practices

Jeffrey Owens, MPH, CBSP, CSP, SM(NRCM), HDR Architecture, Inc., Atlanta, GA

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

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

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

Advanced Laboratory Design Principles and Practices will provide participants with an in-depth examination of key principles and practices for designing safe and efficient laboratories. It is intended for architects, designers, and biosafety professionals desiring a more comprehensive analysis of the laboratory design process. Participants are expected to have some experience with laboratory facility design and/or have previously attended the Laboratory Facility Programming and Design Best Practices ABSA preconference course. Participants will engage in guided discussions and analyze laboratory plans with respect to the design principles and practices under consideration.

Objectives:

- Illustrate methods of design and analysis that promote good laboratory design
- Identify examples of good design solutions for laboratory room and laboratory building layouts
- Summarize how good design practices work to enhance both biosafety and biosecurity
- Evaluate the effectiveness of laboratory designs from multiple perspectives

Suggested Background: Laboratory Facility Programming and Design Best Practices

Target Audience: Experienced Biosafety Professionals, Laboratory Architects and Engineers

Audience Level: Intermediate

1:00 pm - 5:00 pm

25. Responsible Research: Introduction to Dual-Use Biosecurity

Lela Bakanidze, RBP, Georgian Biosafety Association, Tbilisi, Georgia

Tatyana Novosiolova, University of Bradford, Bradford, West Yorkshire, United Kingdom

This train-the-trainer course will be useful for anyone specializing in the biological sciences. It is designed to raise awareness and foster understanding of the broader social, ethical, and legal implications of modern biotechnology, and thus enhance participant skills and competency to recognize and address potential dual use and biosecurity issues in their work. The course is based on a Team-Based Learning (TBL) training methodology. TBL is a special form of collaborative active learning that uses a specific sequence of individual work, group work, and immediate feedback to create a motivational framework, whereby the focus is shifted from conveying concepts by the instructor to the application of concepts by the learner teams. The specifically selected active learning methodology allows participants to develop appreciation and engage with the broader biosecurity and dual use issues arising in life science research. The training format has a built-in asset since it is easy to replicate, which allows participants to become trainers themselves and promote awareness and responsible conduct of science at their workplace.

Objectives:

- Compare and contrast the concepts of dual-use research and dual-use research of concern
- Recall the concept of beyond the laboratory door biosecurity
- Explain the social, ethical, and legal responsibilities incumbent upon life scientists
- Develop a dual-use biosecurity awareness-raising program to be applied in your local institution
- Apply active learning methodology in training

Suggested Background: None

Target Audience: All Safety Professionals, Life Science Researchers

Audience Level: Intermediate

1:00 pm - 5:00 pm

26. Virus-based Gene Transfer Vectors

Patrick Condreay, PhD, Biosafety Consultant Services, Carrboro, NC

This intermediate course will examine the molecules, processes, and techniques involved in recombinant gene expression. Participants will explore the technology of how viruses are converted into vector systems for the transfer of gene expression constructs. Common viral vector systems, including retroviruses, lentiviruses, adenoviruses, poxviruses, herpesviruses, alphaviruses, and baculoviruses will be discussed with an emphasis on the biosafety characteristics of the vectors derived from these viruses. This course is targeted for the biosafety professional who is not actively conducting laboratory research, yet requires a basic understanding of recombinant DNA methodology.

Objectives:

- Describe processes of recombinant gene expression
- Discuss concepts of viral vector technology and biosafety features
- Recognize characteristics of vector systems unique to specific viruses
- Apply knowledge of recombinant gene expression and viral vector principles to risk assessments

Suggested Background: Fundamentals of Biosafety, Micro/Molecular Biology 101

Target Audience: Laboratory Workers, All Safety Professionals, All Biosafety Professionals

Audience Level: Intermediate/Advanced

1:00 pm - 5:00 pm

27. Large-scale Biosafety

Brian Petuch, MA, RBP, CBSP, Merck, West Point, PA

This course will review the biosafety involved for working at large-scale, which the *NIH Guidelines for Research Involving Recombinant DNA Molecules* defines as >10L. This course will also review Appendix K from the *NIH Guidelines* from good large-scale practice to BSL-3 large-scale with a focus on primary and secondary containment. Basic bioprocessing steps, such as fermentation/cell culture and purification technologies will be reviewed, examples of classic and newer single use technologies will be provided, and the perils and pitfalls of the various technologies will be discussed. A review of risk assessment techniques used for large-scale bioprocesses will also be discussed.

Objectives:

- Recognize large-scale bioprocessing technologies, the inherent risks, and how to perform and document risk assessments
- Restate the advantages and disadvantages of single use biotechnology equipment
- Develop a plan for issues of waste disposal and emergency response
- Recall the components of the NIH rDNA Guidelines Appendix K and how implement them for large-scale bioprocessing projects

Suggested Background: Fundamentals of Biosafety, Risk Assessment

Target Audience: All Biosafety Professionals

Audience Level: Basic/Intermediate

Opening Reception

The Opening Reception will be held on Sunday, October 11 from 6:30 - 8:00 pm in the Exhibit Hall.



Scientific Program

Monday, October 12, 2015

7:00 - 5:00 pm	Registration
7:00 - 8:00 am	Continental Breakfast in Exhibit Hall
7:00 - 4:00 pm	Vendor Exhibits
8:00 - 8:05 am	Welcome Master of Ceremonies Marian Downing, RBP, CBSP, Biosafety Consultant, Kemah, TX
8:05 - 8:10 am	Local Arrangements Committee Welcome Theodore Myatt, ScD, RBP, University of Rhode Island, Kingston, RI
8:10 - 8:15 am	Scientific Program Committee Welcome Shelley Jones, MS, RBP, Northern Arizona University, Flagstaff, AZ
8:15 - 8:30 am	ABSA President's Address Marian Downing, RBP, CBSP, Biosafety Consultant, Kemah, TX
Session I	Wedum Lecture Award Presentation
8:30 - 9:30 am	Introduction: Darlene Ward, RBP, Florida Atlantic University, Boca Raton, FL Developing a Culture of Awareness; Biological Arms Control, Dual Use Research, and Responsible Conduct of Science Nancy Connell, PhD, Rutgers New Jersey Medical School, Newark, NJ
Session II	Prevention of Laboratory-Acquired Infections
9:30 - 9:50 am	Moderator: Dawn Wooley, PhD, RBP, CBSP, SM(NRCM), Wright State University, Dayton, OH Title: TBD Thomas H. Winters, MD, FACOEM, FACPM, Harvard School of Public Health, Boston, MA
9:50 - 10:10 am	Proper Management of Incident Reporting in Biological Research Labs Brian O'Shea, PhD, CBSP, Battelle Memorial Institute, Columbus, OH
10:10 - 10:30 am	Bio-related Exposure Monitoring and Follow-up System at the University of California—San Francisco Peili Zhu, PhD, RBP, University of California—San Francisco, San Francisco, CA
10:30 - 11:00 am	Exhibits, Posters, and Coffee Break
Session III	Laboratory Safety Oversight
11:00 - 11:20 am	Moderator: Jacqueline Wagner, CIH, Princeton University, Princeton, NJ United States Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern Kathryn L. Harris, PhD, RBP, National Institutes of Health, Bethesda, MD
11:20 - 11:40 am	Using Peer-Review Faculty Committees to Obtain Biosafety Consensus Molly S. Stitt-Fischer, PhD, SM(NRCM), CPH, University of Pittsburgh, Pittsburgh, PA
11:40 - 12:00 pm	Zombies, Mad Scientists and Superheroes: An Approach to Promoting Safety Culture with Research Lab Personnel Brandy Nelson, CBSP, University of Kentucky, Lexington, KY
12:00 - 1:30 pm	Exhibits, Posters, and Lunch
Session IV	Poster Session
12:30 - 1:30 pm	Presenters must be available during the session.
Session V	Emerging RNA Technologies
	Moderator: Cynthia Pressman Schwartz, PhD, RBP, Lunenfeld-Tanenbaum Research Institute, Toronto, Ontario, Canada

1:30 - 1:40 pm	Emerging RNA Technologies and Therapeutics Melissa Moore, PhD, University of Massachusetts Medical School, Worcester, MA
1:40 - 1:50 pm	Applications for Research/Trials Using Emerging RNA Technologies—An Exciting Vision Neil Aronin, MD, University of Massachusetts Medical School Worcester, MA
1:50 - 2:00 pm	Strategies for Risk Assessment and Institutional Oversight of Emerging RNAi Technologies Angela Birnbaum, RBP, CBSP, Harvard University, Cambridge, MA Rebecca Caruso, MPH, RBP, CBSP, Harvard Medical School, Boston, MA
2:30 - 3:00 pm	Questions and Discussion
3:00 - 3:30 pm	Exhibits, Posters, and Coffee Break
Session VI	Occupational Health and Medical Surveillance
3:30 - 3:50 pm	Moderator: Kelly Flint, RBP, CBSP, SM(NRCM), National Institutes of Health, Fort Detrick, MD Biosafety and Containment Considerations for U.S. Hospitals Preparing for Ebola Virus Disease
3:50 - 4:10 pm	Betsy Weirich, MS, CBSP, SM(NRCM), Centers for Disease Control and Prevention, Atlanta, GA Survival of Hepatitis C Virus is Temperature, Syringe Type, and Volume Dependent: Implications for Infection Control Strategies Elijah Paintsil, Yale University, New Haven, CT
4:10 - 4:30 pm	Avian Influenza Risk Perception among Egyptian Poultry Handlers Lamiaa A. Fiala, Faculty of Medicine, Ismailia, Egypt
4:30 - 4:50 pm	Biosafety-Healthcare Interaction Beyond Ebola Kalpana Rengarajan, PhD, RBP, Emory University, Atlanta, GA
4:50 - 5:00 pm	Questions and Discussion
5:00 - Close	Members' Business Meeting Door prizes will be awarded—must be present to win.

Tuesday, October 13, 2015

7:00 - 5:00 pm	Registration
7:00 - 8:00 am	Continental Breakfast in Exhibit Hall
7:00 - 4:00 pm	Vendor Exhibits
8:00 - 8:05 am	Welcome Master of Ceremonies Melissa Morland, MS, RBP, CBSP, University of Maryland—Baltimore, Baltimore, MD
Session VII	Griffin Lecture Award Presentation
8:05 - 8:20 am	Introduction: Caryl Griffin, MSN, MDiv, Elizabeth R. Griffin Research Foundation, Kingsport, TN
8:20 - 9:20 am	A Survivor's Story: Dual Citizenship at the Ebola Bedside Ian Crozier, MD, Infectious Diseases, Kampala, Uganda
Session VIII	Biosafety Risk Assessment
9:20 - 9:40 am	Moderator: Meghan Seltzer, PhD, HHMI Janelia Research Campus, Ashburn, VA Why Did the Salmonella-Spiked Chicken Cross the Auger? Adventures in Interdisciplinary Research Risk Assessment Shane Gillooly, Georgia Institute of Technology, Atlanta, GA
9:40 - 10:00 am	Gain-of-Function Research: The Eye of the Storm—The University of Wisconsin Story Rebecca Moritz, CBSP, University of Wisconsin—Madison, Madison, WI
10:00 - 10:20 am	Challenges in Biosafety and Biosecurity in Africa: Lessons Learned from West Africa Nicolas Bouchet, PhD, National Center for Research and Training on Malaria, Ouagadougou, Burkina Faso
10:20 - 10:50 am	Exhibits, Posters, and Coffee Break
Session IX	Invited Speaker
10:50 - 11:50 am	Introduction: Noman Siddiqi, RBP, Harvard School of Public Health, Boston, MA Biocontainment of Genetically Modified Organisms by Synthetic Protein Design George Church, PhD, Harvard Medical School, Boston, MA

Session X	National Biosafety Stewardship Month Survey Results
11:50 - 12:20 pm	Moderator: Marian Downing, RBP, CBSP, Biosafety Consultant, Kemah, TX National Biosafety Stewardship Month: A Glimpse into Institutional Safety Activities David A. Martinson, PhD, National Biosafety and Biocontainment Training Program, Bethesda, MD
12:20 - 2:00 pm	Exhibits, Posters, and Lunch
Session XI	Poster Session
1:00 - 2:00 pm	Presenters must be available during the session.
Session XII	Eagleson Lecture Award Presentation
2:00 - 3:00 pm	Introduction: Mary Ann Sondrini, Eagleson Institute, Sanford, ME Title: TBD Dan H. Barouch, MD, PhD, Harvard Medical School, Cambridge, MA
3:00 - 3:30 pm	Exhibits, Posters, and Coffee Break
Session XIII	Expanding BSO Training and Outreach
3:30 - 3:50 pm	Moderator: Don Callihan, PhD, WCG Biosafety, Princeton, NJ Benefits of a Multi-pronged Teaching Module for Select Agent Required Security, Incident Response, and Biosafety Training Kathryn F. Board, University of Pittsburgh, Pittsburgh, PA
3:50 - 4:10 pm	Improving Biosafety Culture—Learning Lessons from Incidents David Bryant, United Kingdom Animal and Plant Health Agency, Weybridge, United Kingdom
4:10 - 4:30 pm	How Can We Facilitate Understanding of the R-DNA Guidelines to the Scientific Community? Esmeralda L. Meyer, Emory University, Atlanta, GA
4:30 - 4:50 pm	Indoor Air Quality: What Every Biosafety Office Should Know Patricia D. Cox, PhD, RBP, Mississippi State University, Mississippi State, MS
5:30 - 10:00 pm	Banquet at the Rhode Island Convention Center

Wednesday, October 14, 2015

7:00 - 5:00 pm	Registration
7:00 - 8:15 am	Continental Breakfast
8:15 - 8:20 am	Welcome Master of Ceremonies Speaker: TBD
Session XIV	Enhancing Biosafety and Biosecurity
8:20 - 8:40 am	Moderator: Maya Nair, RBP, University of North Texas Health Science Center, Fort Worth, TX The CDC Etiologic Agent Import Permit Facility Inspection Process: Two High-containment Laboratory Experiences David S. Bressler, CBSP, Centers for Disease Control and Prevention, Atlanta, GA
8:40 - 9:00 am	Shipping and Exporting Research Materials: Yale University's Research Material Shipping and Export Program via eShipGlobal Kevin M. Charbonneau, Yale University, New Haven, CT
9:00 - 9:20 am	Synthetic Biology: Biosafety and Biosecurity David Gillum, MS, RBP, Arizona State University, Tempe, AZ
9:20 - 9:40 am	The Biological Select Agents and Toxins (BSAT) Centralized Management Concept at the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) Virginia Roxas-Duncan, PhD, U.S. Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD
9:40 - 10:10 am	Coffee Break

Session XV	Animal and Containment Facilities
10:10 - 10:30 am	Moderator: Peili Zhu, PhD, RBP, University of California—San Francisco, San Francisco, CA Issues Identified by Commissioning, Again and Again Joby Evans, Merrick & Company, Atlanta, GA
10:30 - 10:50 am	Conversion of a Biosafety Level 3 (BSL-3) Lab to an Arthropod Containment Level 2 (ACL-2) Lab Jolly Qian, Novartis Institute for Tropical Diseases, Singapore, Singapore
10:50 - 11:10 am	Equine Facility Biosafety: Challenges and Lessons Learned from Large Animal ABSL-2 Containment Delena W. Mazzetti, MPH, RBP, University of Kentucky, Lexington, Kentucky
11:10 - 11:30 am	Biosafety Program for Animal Biosafety Level 2 Facility at University of California—San Francisco Mei-Chuan Huang, PhD, RBP, University of California—San Francisco, San Francisco, CA
11:35 - 1:30 pm	Honor Awards and Special Recognition Luncheon Presenter: Marian Downing, RBP, CBSP, Biosafety Consultant, Kemah, TX Arnold G. Wedum Distinguished Achievement Award Everett J. Hanel, Jr. Award Presentation John H. Richardson Special Recognition Award International and National Poster Awards Recognition of Certified Biosafety Professionals and Registered Biosafety Professionals Presenters: R. Thomas Leonard, PhD, CBSP, University of Virginia, Charlottesville, VA, Donald Wang, MPH, RBP, CBSP, Fred Hutchinson Cancer Research Center, Seattle, WA
Session XVI	Robert I. Gross Student Award
1:30 - 2:00 pm	Moderator: Francine Rogers, RBP, CBSP, University of Tennessee Health Science Center, Memphis, TN Developing a Neurological Assessment Protocol Safe for Implementation in High- and Maximum-containment Facilities Shannon E. Ronca, BS, University of Texas Medical Branch—Galveston, Galveston, TX
Session XVII	Knudsen Award & Lecture
2:00 - 2:30 pm	Introduction: Judy LaDuc, RBP, University of Massachusetts, Amherst, MA Title and Speaker: TBD
Session XVIII	Roundtable—Culture of Responsibility
2:30 - 3:15 pm	Moderator: TBD Title and Speaker: TBD
3:15 - 3:45 pm	Coffee Break
Session XIX	Biosafety Facility Issues
3:45 - 4:05 pm	Moderator: Bruce Whitney, PhD, Texas A&M University System, College Station, TX Effectiveness of Decontamination of Laboratory Room Surfaces with Low Concentrations of Hydrogen Peroxide and Isopropyl Alcohol Using Atmospheric Cold Plasma Activation Miguel A. Grimaldo, MEng, University of Texas Medical Branch—Galveston, Galveston, TX
4:05 - 4:25 pm	How to Fit a Square Peg into a Round Hole: Complying with Regulatory Requirements in a BSL-3 Ag Facility Erin E. Smith, RBP, Kansas State University, Manhattan, KS
4:25 - 4:45 pm	Aerosol Monitoring of ABSL-4 Laboratories Housing Non-Human Primates Challenged with Ebola Virus David Harbourt, PhD, RBP, U.S. Army Medical Research Institute of Infectious Disease, Fort Detrick, MD
4:45 - 5:00 pm	Questions and Discussion
5:00 pm	Close of Conference Master of Ceremonies Speaker: TBD

Registration Form

58th Annual Biological Safety Conference October 9-14, 2015

ABSA Member ID Number: _____ Nonmember

Last Name: _____ First Name: _____

Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Emergency Contact: _____

Phone: _____

Conference Fees	Pre Sept. 11	Post Sept. 11	Amount
ABSA Member	\$750	\$800	\$ _____
Nonmember	\$990	\$1,040	\$ _____
Member of ABSA Affiliate	\$870	\$920	\$ _____
<i>Discount Code:</i>			
One-day Member (day _____)	\$250	\$300	\$ _____
One-day Nonmember (day _____)	\$350	\$400	\$ _____
Emeritus Member	\$375	\$425	\$ _____
Opening Reception (additional)	\$60	\$25	\$ _____
Exhibit Only Pass (Monday)	\$25	\$25	\$ _____
Exhibit Only Pass (Tuesday)	\$25	\$25	\$ _____
2015 Individual ABSA Dues	\$210	\$210	\$ _____

Registration includes: continental breakfasts, breaks, lunches, Opening Reception, and banquet. One-day registration does not include the banquet.

Dietary Restrictions: _____

Additional lunch tickets (\$40 each) \$ _____

Additional banquet tickets (\$110 each) \$ _____

Total from course(s) \$ _____

Total amount enclosed or to be charged: \$ _____

Registration is not complete without payment or credit card information. Purchase Orders are not accepted. Check must be made payable to "ABSA" and bank drafted in U.S. dollars or it will be returned.

Visa MasterCard American Express Check Enclosed

Card #: _____ Exp. Date: _____

Signature: _____

Print Cardholder's Name: _____

Course space is limited. No course substitutions or changes prior to the conference. Please visit the ABSA web site at www.absaconference.org for course availability and online registration. Mail to: ABSA, 1200 Allanson Road, Mundelein, IL 60060-3808 or fax to 847-566-4580. **Registration forms must be faxed to the ABSA Office to receive the Affiliate Member discount.**

Preconference Courses

Friday, October 9, 2015	Member	Nonmember	Amount
1. Building a Select Agent Program: Safety, Compliance, and Efficiency at the Boundaries of Biosafety	\$575	\$625	\$ _____
2. The Essentials of Health and Safety at the Boundaries of Biosafety	\$575	\$625	\$ _____
3. Basic Risk Assessment	\$575	\$625	\$ _____
4. Shipping Infectious Substances Certification Course	\$575	\$625	\$ _____
5. BSL-3 Design Commissioning Basics	\$575	\$625	\$ _____
6. Fundamentals of Microbiology and Infectious Disease	\$330	\$380	\$ _____
7. Biosafety Considerations with Human Gene Transfer	\$330	\$380	\$ _____

Saturday, October 10, 2015

8. Techniques for Improving Support for Your Biosafety Program	\$575	\$625	\$ _____
9. Engineering for the Biosafety Professional—Part I	\$575	\$625	\$ _____
10. Infectious Substance Shipping Train the Trainer	\$575	\$625	\$ _____
11. Basic Threat Assessment for Laboratory Biosecurity Programs	\$575	\$625	\$ _____
12. Introduction to Synthetic Biology	\$575	\$625	\$ _____
13. Brain-friendly Biorisk Management Training Strategies	\$575	\$625	\$ _____
14. Biocontainment Myths Explored	\$330	\$380	\$ _____
15. Biocontainment Laboratory Operations	\$330	\$380	\$ _____

Sunday, October 11, 2015

16. BSL-3 Operations and Management	\$575	\$625	\$ _____
17. Integrating Your Biosafety Program into a Biorisk Management System	\$575	\$625	\$ _____
18. Advanced Principles and Practices of Working in an ABSL-3	\$575	\$625	\$ _____
19. A BSO's Guide for Understanding Research Compliance Regulations	\$575	\$625	\$ _____
20. IBC Basics	\$330	\$380	\$ _____
21. NIH Design Requirements Manual Update	\$330	\$380	\$ _____
22. Working Safely with Arthropods in the Lab	\$330	\$380	\$ _____
23. Concepts of Virology	\$330	\$380	\$ _____
24. Advanced Laboratory Design Principles and Practices	\$330	\$380	\$ _____
25. Responsible Research: Introduction to Dual-Use Biosecurity	\$330	\$380	\$ _____
26. Virus-based Gene Transfer Vectors	\$330	\$380	\$ _____
27. Large-scale Biosafety	\$330	\$380	\$ _____

Registration for two 4-hour courses on the same day will include lunch.

Cancellation Policy: Cancellations received before September 1, 2015—85% refund; cancellations received between September 1-11, 2015—50% refund; cancellations received after September 11, 2015—no refund.

ABSA

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Mundelein, IL 60060-3808 U.S.A.



ABSA

58th Annual Biological Safety Conference

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