



# ABSA INTERNATIONAL

*The Association for Biosafety and Biosecurity*

## 60th Annual Biological Safety Conference

Albuquerque Convention Center • Albuquerque, New Mexico

October 13-18, 2017

[www.absaconference.org](http://www.absaconference.org)



## Preliminary Program

## ABSA International

ABSA International 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 International accomplishes these goals through providing members and stakeholders expertise and resources through publications in the peer-reviewed journal *Applied Biosafety*, the ABSA International website, 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 International 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 International 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](http://www.absaconference.org)

## 60th Annual Biological Safety Conference

### Special Event

Tuesday evening's event will be held at the Indian Pueblo Cultural Center in Albuquerque. Our evening will include an opportunity to visit the museum and to see traditional Pueblo dances. Sample a variety of traditional Puebloan foods and enjoy visiting with your colleagues in the courtyard around fragrant piñon fire pits or listening to a local band on the patio. There are 19 Pueblo tribes in New Mexico and each Pueblo is a sovereign nation. Today Pueblo people are located primarily in New Mexico; however, at one time their homeland reached into what is now Colorado and Arizona, where they founded dwellings and trading centers like those located at Chaco Canyon in northwestern New Mexico and Mesa Verde in southwestern Colorado. Much of New Mexico's famed cuisine is rooted in the agrarian Pueblo tradition where chile, squash, beans, and corn were grown. The Indian Pueblo Cultural Center is a world-class museum and cultural center created as a place where Pueblo people can tell their story. Please join us for this uniquely New Mexican evening.

### Award Presentations

Monday, 8:30 am—Arnold G. Wedum Memorial Lecture Award

Tuesday, 8:10 am—Griffin Lecture Award

Tuesday, 11:00 am—Eagleson Lecture Award

Wednesday, 9:50 am—Richard Knudsen Award

Wednesday, 11:35 am—Arnold G. Wedum Distinguished Achievement Award

Wednesday, 11:35 am—Everett J. Hanel, Jr. Presidential Award

Wednesday, 11:35 am—John H. Richardson Special Recognition Award

Wednesday, 11:35 am—International and National Poster Awards

Wednesday, 11:35 am—Hashimoto Award for Service and Honor

Wednesday, 11:35 am—Recognition of Certified Biosafety Professionals and Registered Biosafety Professionals

### Registration

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

### New Member Reception

The reception for new members will be held Sunday from 5:30 - 6:30 pm.

### Opening Reception

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

### Hotel Information

Hyatt Regency Albuquerque  
330 Tijeras Avenue NW  
Albuquerque, NM 87102  
Phone: 505-842-1234  
Room rate \$169.00

DoubleTree by Hilton Hotel Albuquerque  
201 Marquette Avenue NW  
Albuquerque, NM 87102  
Phone: 505-247-3344  
Room rate \$169.00

Hotel Andaluz  
125 Second Street NW  
Albuquerque, NM 87102  
Phone: 505-242-9090  
Room rate \$199.00

### 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 2017

ABSA International 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 International office at [info@absa.org](mailto:info@absa.org).



ABSA International 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](http://www.absaconference.org) for course availability.

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Friday, October 13, 2017

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**8:00 am - 5:00 pm**

### 1. Articulating the Value of Your Biosafety Program

*Robert Emery, 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. The basis for this difficulty is that on a good day in the world of biosafety “nothing happens,” so upper management may not fully appreciate or understand all of the effort that went into making “nothing happen.” Biosafety professionals 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 activities, which can result in the provision of necessary programmatic resources. Numerous real-world examples of successful applications of the techniques discussed will be displayed for review and discussion.

#### Objectives:

- Identify biosafety programmatic measures and metrics that can be easily captured and communicated
- Recall techniques used for displaying biosafety data in ways that others can readily understand and value
- Describe how basic safety and biosafety programs work together to avoid duplication of efforts and improve safety and client satisfaction levels

**Suggested Background:** None

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

**Audience Level:** Intermediate

**8:00 am - 5:00 pm**

### 2. Advanced Risk Assessment

*Chad Austin, PhD, University of Texas Health Science Center—Houston, Houston, TX*

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

*Brandon Hatcher, PhD, University of Maryland—College Park, College Park, MD*

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

In this advanced and interactive course, participants will evaluate research projects as they evolve over time from basic to multifaceted *in vitro* and *in vivo* scenarios based on actual research protocol submissions. Participants will work in teams to conduct risk assessments on scenarios that will include multiple systems used in research as it progresses from cell culture to small animal models using recombinant materials and clinical trials. Risk assessments will focus on the likelihood of exposure and the severity of consequences from exposure to the multitude of hazards encountered in increasingly complex research. Participants should have a thorough understanding of rDNA principles and the link between biosafety, risk assessment, and risk mitigation for this advanced course. There is an emphasis on the interactive nature of the risk assessment process and differing views of risk tolerance; participants should be prepared to participate in discussions and bring interesting or difficult examples from their entities to share with the class.

#### Objectives:

- Prioritize risks based on the likelihood and consequences of an occurrence
- Assess the overall risk and determine mitigation strategies to minimize the risk
- Evaluate mitigation strategies for effectiveness, adjust strategies as warranted

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment, Micro/Molecular Biology 101, Principles & Practices of Biosafety

**Target Audience:** Experienced Biosafety Professionals, Laboratory Workers

**Audience Level:** Advanced

**8:00 am - 5:00 pm**

### 3. Disinfection, Sterilization, and Inactivation: A Practical Guide for the Biosafety Professional

*Althea Treacy, PhD, National Institutes of Health, Bethesda, MD*

*Antony Schwartz, PhD, National Institutes of Health, Bethesda, MD*

This course will provide biosafety professionals with a strong foundation in the topics of disinfection, sterilization, and inactivation that will have a direct benefit in carrying out their responsibilities. The course discussion will be on the history and current regulatory context of disinfection, sterilization, and inactivation, validation strategies and quality assurance tests for each topic, and analysis of the factors that influence the effectiveness and potency of

different treatment methods will be given. Subsequent material will cover the mechanisms of disinfection, sterilization, and inactivation, including chemical structures and classes of disinfectants, sterilants, and inactivation agents. Further discussion will describe the selection of appropriate methods and identification of associated safety hazards. Utilizing proven practices and procedures, participants will be led through a facilitated discussion leading to the development of standard operating procedures for executing sterilization, disinfection, or inactivation at their institution.

**Objectives:**

- Identify and restate the mechanisms of disinfection, sterilization, and inactivation
- Select appropriate disinfectants and sterilants and appropriately evaluate inactivation methodologies
- Choose the appropriate validation and quality assurance test for method of disinfection, sterilization, or inactivation

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment, Principles & Practices of Biosafety

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

**Audience Level:** Intermediate

**8:00 am - 5:00 pm**

**4. BSL-3 Operations and Management**

*J. Paul Jennette, MS, PE, RBP, CBSP, 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 will be discussed 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. 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**

**5. Exercising Training: Making Biosafety Education Great Again**

*Benjamin Fontes, MPH, CBSP, Yale University, New Haven, CT*

If it doesn't fit—you must uplift! As training has moved online, those working in laboratories and related settings are getting more directed teaching from sitting, reading, and listening, which is associated with less biosafety training in live sessions. Whether online or live, periodic biosafety retraining also challenges trainers to create updated and effective programs for returning students. This course has been designed to provide those responsible for providing biosafety training an opportunity to explore a variety of training activities designed to enhance student engagement and information retention while emphasizing the foundational elements of biosafety. A variety of exercises will be utilized to provide each participant a solid library of training ideas and activities. Sample activities will be shared and shown along with a discussion of how they may be modified to fit alternative situations or venues. Exercises and drills will utilize old and new ideas; low-tech and high-tech materials; brief and detailed learning opportunities; light-hearted and serious case studies; and just plain fun. Opportunities to share lessons learned between trainers will be provided throughout the course. Join in learning how to make biosafety education great again.

**Objectives:**

- Summarize the biosafety exercises used to design high-impact educational training activities
- Examine and enhance engagement into existing trainings by intercalating the exercises and drills shown
- Identify proven drills and techniques to promote interactions in biosafety training

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment

**Target Audience:** All Safety Professionals, All Biosafety Professionals

**Audience Level:** Basic

**8:00 am - 5:00 pm**

**6. Gene Editing and Risk Assessment: Application to IBC Protocol Review**

*Jessica McCormick-Ell, PhD, RBP, CBSP, (SM)NRCM, Rutgers, The State University of New Jersey, New Brunswick, NJ*  
*Aparupa Sengupta, PhD, Rutgers, The State University of New Jersey, New Brunswick, NJ*

Gene editing technologies have been used for decades by scientists in the field of molecular genetics and recombinant DNA technology. Recently, with the discovery of CRISPR-Cas 9 gene editing, this field has expanded, and the ease to manipulate genes has changed significantly. It is important to understand that many times RNAi work uses viral vectors and CRISPR/Cas 9 and CRISPR/Cas9 sometimes is driven by common viral vectors (such as lentiviral vector), which could present additional risks. This is especially crucial since this technology is very quickly evolving and the risks are changing accordingly, a scientific background of the technology is a must have for all biosafety professionals. This course is designed to provide a brief overview of basic gene editing technologies such as plasmid based systems, RNA interference, viral vectors, CRISPR Cas9 technology, and the use of these technologies to create gene drives. After brief discussion of these technologies, participants will review a model IBC protocol application form (includes *in vitro*, *in vivo*, and human gene therapy applications) and review, discuss risks and benefits, and potentially propose alternative ways for the research to be conducted in a safer manner. The goal of this course is to provide participants with comprehensive background knowledge of various gene editing and recombinant DNA technologies in common use. Participants will be able to assess the risk of the proposed work and biosafety-related information that must be provided by the faculty members writing the protocol. The instructors come from an institution with many gene editing projects in place with multiple applications and have seen a wide variety of applications for this type of research.

**Objectives:**

- Describe the different types of gene editing technologies including viral vectors, RNAi, and CRISPR/Cas9
- Explain why and how these technologies are used together in a research project
- Recall the topics and questions needed to assess the risks of gene editing research proposals

**Suggested Background:** Risk Assessment, Micro/Molecular Biology 101

**Target Audience:** All Biosafety Professionals

**Audience Level:** Intermediate

**8:00 am - 5:00 pm**

**7. 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. Participants will be equipped 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 engineering type questions, and have the confidence to question the answers. Information will be provided 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, and 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. Participants will be able to formulate informed questions, interact with maintenance personnel, and integrate facility operations with the biosafety program.

**Objectives:**

- Recognize engineering issues within the various development phases of a biocontainment facility
- Analyze a laboratory layout to establish its HVAC boundaries
- Explain HEPA filters operation, decontamination, and testing

**Suggested Background:** None

**Target Audience:** All Safety Professionals, All Biosafety Professionals

**Audience Level:** Basic

**8:00 am - 5:00 pm**

### **8. 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 three 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:**

- Using principles of risk assessment to 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 for 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**

### **9. 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:**

- 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 Working with Select Agent Programs

**Audience Level:** Basic

**8:00 am - 12:00 pm**

### **10. Institutional Biosafety Committee (IBC) Basics**

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

This course will present the function and administration of the Institutional Biosafety Committee (IBC). Delivered by expert staff from the National Institutes of Health (NIH) Office of Science Policy (OSP), IBC Basics will promote the professional development of those associated with 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)*, and understand the range of responsibilities that the IBC has under the *NIH Guidelines*.

#### **Objectives:**

- Summarize the content of the *NIH Guidelines* and the requirements for the IBC under the *NIH Guidelines*
- Recognize the partnership between NIH OBA, IBC, and Recombinant DNA Advisory Committees (RAC) and learn about the NIH OBA IBC site visit program
- Describe how to implement an effective program of oversight for research subjects to the NIH Guidelines

**Suggested Background:** None

**Target Audience:** New Biosafety Professionals, IBC Members/Staff

**Audience Level:** Basic



**8:00 am - 12:00 pm**

### **11. Biocontainment Laboratory Operations**

*Miguel Grimaldo, MEng, University of Texas Medical Branch—Galveston, Galveston, TX*

*John Henneman, MS, RBP, Kansas State University, Manhattan, KS*

*J. Paul Jennette, MS, PE, RBP, CBSP, Cornell College of Veterinary Medicine, Ithaca, NY*

This interactive and discussion-based course will discuss key insights and shared expertise in biocontainment facility start-up and operations from an operator's point-of-view. We often hear from some of the best of architects and engineers on how to build or renovate a biocontainment laboratory, but what about their competency—have they ever operated a laboratory to evaluate their own design process? Where did they learn their craft? We will discuss details of the questions to ask the design/construction team, the steps to follow, and lessons learned during all the stages of building or renovating a biocontainment facility. This course will focus on establishing the need for high-containment to include the level needed; the long-term need and ideas for flexibility; selecting the right architect and engineer for the project; selecting a construction manager that understands the design and purpose of the facility; how to choose the proper operations staff; selecting the right commissioning agent; and the initiation of scientific operations to allow for safe biocontainment operations.

#### **Objectives:**

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

**Suggested Background:** None

**Target Audience:** All Safety Professionals, Laboratory Workers, Laboratory Operations Management

**Audience Level:** Basic

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

### **12. Introduction to Unique Biocontainment Challenges in Agriculture Research**

*Nick Chaplinski, MS, RBP, United States Department of Agriculture, Athens, GA*

*F. Claire Hankenson, DVM, Michigan State University, East Lansing, MI*

*Susan Harper, DVM, United States Department of Agriculture, Beltsville, MD*

*Joseph Kozlovac, MS, RBP, CBSP, SM(NRCM), United States Department of Agriculture, Beltsville, MD*

*Eileen Thacker, DVM, DACVM, PhD, United States Department of Agriculture, Athens, GA*

Agriculture research laboratories must conduct work on important pathogens to develop technologies that reduce economic losses due to disease. Experiments including pathogens must be contained and prevented from introduction to the community, including spread to local agriculture production sites and habitats of native species. Topics covered will focus on assessing risk for agricultural disease agents and developing multi-layered containment procedures for implementation to protect agriculture, public health, and the worker as well as a discussion about the need to continually monitor the adequacy of controls using a robust diagnostic testing and surveillance. Specific emphasis will be placed on aquatic species, poultry, cattle, and small ruminants.

#### **Objectives:**

- Restate the difference in worker protection, public health risks versus agricultural risks, and the need for a risk assessment process prior to working with agents that impact agriculture only
- Explain the importance of instituting an animal health monitoring program
- Identify and develop a basic understanding of operational and infrastructure challenges related to veterinary research activities related to endemic and transboundary animal diseases of agricultural significance

**Suggested Background:** None

**Target Audience:** All Biosafety and Biorisk Professionals, Animal Caretakers

**Audience Level:** Basic

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

### **13. Human Gene Transfer—Biosafety Considerations**

*Daniel Kavanagh, PhD, WCG Biosafety, Princeton, NJ*

Recent advances in molecular biology have produced ground-breaking new technologies that are now making their way to the clinic with increasing frequency. Oncolytic viruses, CRISPR technology, CAR-T Cell therapy, and gene therapy for rare diseases are just some of the high-profile applications currently under study in Human Gene Transfer (HGT) clinical trials. This course will provide an overview of the latest advances in HGT research, review the risk assessment considerations for biosafety professionals and Institutional Biosafety Committees, and outline the regulatory environment for human gene transfer research. With successes and failures along the way, the HGT field has accumulated a truly significant resource of information regarding real and perceived risks—information that the biosafety professional can use when assessing individual trials. The course will review the new requirements for HGT study startup under the 2016 revised NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules and discuss practical experience with RAC review. It will also review the regulatory requirements for



clinical research with gene transfer agents after they have been approved by the FDA as drugs. Case studies and group discussion will be used to amplify the take home messages.

**Objectives:**

- Restate the risks and challenges associated with human gene transfer
- Identify the categories and risk groups of biological agents used in human gene transfer
- Summarize the key NIH regulatory requirements for gene transfer research

**Suggested Background:** None

**Target Audience:** All Biosafety Professionals

**Audience Level:** Intermediate

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

**14. Handling Critical Situations in Laboratories**

*Luis Alberto Ochoa Carrera, MS, Institute for Epidemiological Diagnosis and Reference (InDRE), Mexico, Mexico*

*Hans Jürgen Laut, MSc, Mexican Biosafety Association, Mexico, Mexico*

Emergencies and critical situations will occur regardless of the workplace, institution, or country. Laboratories that have a biological risk assessment are not immune to accidents or emergencies. The handling of critical situations ensures responsiveness by the members of a laboratory and minimizes the potential negative impacts of an emergency. Preparing and responding effectively to emergencies are among the most pressing challenges that occur in a laboratory. Several specific situations that institutions must consider are: fire and medical emergencies; weather-related emergencies; spill emergencies; human conflicts; intrusion; and others. Specific procedures need to be created and evaluated on how to handle these situations. This course establishes basic procedures for planning, preventing, and responding to accidents and possible ways to prevent them from occurring as well as understanding the advantages and disadvantages of incident management for coordination, communication, and capacity for the care of critical situations in laboratories. Proper hazard evaluations and risk assessments are the primary responsibility of the person performing the experiment and the laboratory supervisor. Knowledge of basic concepts regarding accidents, incidents, emergencies, and critical situations will be discussed and how this understanding and the sources of information are used to assess the risks associated with potential hazards. A practical guide for trained laboratory personnel engaged in these activities will be provided.

**Objectives:**

- Identify and categorize the various scenarios and critical situations that may be encountered by users during the development of activities
- Develop a risk assessment of activities and specific processes of each laboratory
- Evaluate the technical competence of each lab worker and identify potential risks of each lab and activity

**Suggested Background:** Fundamentals of Biosafety

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

**Audience Level:** Basic

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**Sunday, October 15, 2017**

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**8:00 am - 5:00 pm**

**15. Advanced Laboratory Design Principles and Practices**

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

*Mark Fitzgerald, SOTER Bioconsulting, Inc., Los Angeles, CA*

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

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

This course 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 ABSA preconference course entitled Laboratory Facility Programming and Design Best Practices. 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

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment, Principles & Practices of Biosafety, Laboratory Design Best Practices

**Target Audience:** Experienced Biosafety Professionals, Architects, Engineers, Facility Maintenance Personnel

**Audience Level:** Advanced

**8:00 am - 5:00 pm**

**16. Leadership, Training, and Culture Development in Biosafety**

*Sean G. Kaufman, MPH, CHES, CPH, Behavioral-Based Improvement Solutions, Woodstock, GA*

Leadership prepares, protects, and promotes the workforce and safety officer. Training not only prepares the workforce, it protects them and promotes safety throughout the organization. Blending the workforce, safety officer, and leadership with a common set of risks, rules, and rituals creates a ONESAFE culture. This course will provide participants with a chance to practice public speaking, behavioral, and cognitive training strategies aimed at delivering more effective biosafety training programs. The second part of the course will provide participants with leadership strategies; increasing the ability of participants to prepare, protect, and promote the workforce. Participants apply several leadership techniques including personality typing, appreciative inquiry, and behavioral techniques to increase compliance to safety policies. The course will provide participants with strategies aimed to blend the workforce, safety officer, and leadership—creating a ONESAFE culture under a common set of risks, rules, and rituals.

**Objectives:**

- Demonstrate effective cognitive and behavioral training strategies in biosafety
- Describe leadership strategies in biosafety
- Discuss a ONESAFE culture

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment, Principles & Practices of Biosafety

**Target Audience:** All Safety Professionals, All Biosafety Professionals

**Audience Level:** Basic/Intermediate/Advanced

**8:00 am - 5:00 pm**

**17. Integrating Biosecurity into Laboratory Biorisk Management Systems**

*Ryan Burnette, PhD, Merrick and Company, Greenwood Village, CO*

*Donald Callihan, PhD, Merrick and Company, Cockeysville, MD*

*Nancy Connell, PhD, Rutgers New Jersey Medical School, Newark, NJ*

Biorisk management programs should be inclusive of well-developed biosafety and biosecurity elements. Many organizations with robust biosafety programs may not recognize a need to thoroughly integrate biosecurity into their existing biosafety programs. This course aims to provide biosafety professionals and program managers with a strategic and tactical approach to building their biosecurity programs as a functional complement to existing biosafety and physical security programs. It is designed to provide detailed information on the functional components of an effective biosecurity program and how to integrate biosecurity into existing biorisk management programs. This course is comprised of the following sections: understand the inherent differences between risk-based (biosafety) and threat-based (biosecurity) programs where exploration of the fundamentals of threat assessments and vulnerability analyses; examine the Five Pillars of Security (physical security, personnel reliability, material control and accountability, transportation safeguards, and information security) as a framework for an Integrated Security Program (ISP) to be aligned with existing safety and security management systems. The resulting integrated model of biosafety and biosecurity management systems will be augmented using case studies from both academic and industrial examples; participants will be challenged by tabletop exercises that will simulate potential biosecurity threats. A package of biosecurity program documentation will supplement workshop content, including materials specific to conducting threat assessments and vulnerability analyses, models for creating a biosecurity program, checklists to initiate development of biosecurity programs, and strategies for integrating biosecurity functionality into biosafety programs. Participants will leave with practical advice on biosecurity program design and implementation as well as ideas on the initial steps that may be taken to the participant's respective institutions to build or improve their biosecurity program and integrate it into existing biosafety and management systems. Participants will conclude the session by initiating a draft of their own next action steps for use upon returning to their institutions.

**Objectives:**

- Restate the fundamental elements of risk-based and threat-based programs
- Recognize threats and vulnerabilities to consider when protecting laboratory materials from unauthorized access, loss, theft, misuse, diversion, or intentional release
- Utilize Five Pillars of Biosecurity as a framework for recognizing gaps and opportunities for improvement

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment

**Target Audience:** All Biosafety and Biosecurity Professionals, Lab/Institutional Management

**Audience Level:** Intermediate

**8:00 am - 12:00 pm**

**18. Naturally Occurring Biotoxins**

*Jyl Burgener, MS, RBP, CBSP, Clayton, NC*

This course will review the various types and classification of naturally occurring biotoxins. The course will discuss factors affecting health and exposure and the increasing evidence linking exposure to environmental biotoxins to neurodegenerative disease.

**Objectives:**

- Classify the various types and classifications of naturally occurring biotoxins
- Summarize factors that affect the susceptibility of individuals to naturally occurring biotoxins
- Restate the environmental conditions can affect the prevalence of naturally occurring biotoxins and the evidence that exists linking biotoxins to disease

**Suggested Background:** Fundamentals of Biosafety

**Target Audience:** Experienced Biosafety Professionals, All Safety Professionals

**Audience Level:** Intermediate/Advanced

**8:00 am - 12:00 pm**

**19. Introduction to ANSI Z9.14: Testing and Performance Verification of BSL-3/ABSL-3 HVAC System**

*Erick Guandique, MS, RBP, University of California—Irvine, Irvine, CA*

*Gary Landucci, University of California—Irvine, Irvine, CA*

*Tran Phan, University of California—Irvine, Irvine, CA*

ANSI Z9.14: "Testing and verification of the ventilation system of laboratories that operate at Biosafety Level 3 (BSL-3)/Animal Biosafety Level 3 (ABSL-3) are necessary processes for ensuring that the performance and operation of the systems consistently maintain a safe environment for human occupants, research animals, and the internal and external environment." Each facility is unique; testing and verification acceptance criteria will differ among facilities. Therefore, a risk-based approach to testing and verification of the ventilation system is recommended. It is highly encouraged that each facility develops and maintains standard operating procedures (SOPs) that address testing and verification of the ventilation system and associated components. Risk assessments should be performed initially and at regular periods throughout the life cycle of the facility. ANSI Z9.14 provides recommendations for testing methodologies, guidance on the ventilation system components that should be inspected visually, and what is needed to verify that the system components operate such that the overall system's performance (i.e., directional inward airflow, response to failures, minimizing leakage, etc.) can be verified to ensure safe operation of the facility's ventilation system. This course will introduce the ANSI Z9.14 standard and the recommendations for HVAC system testing and verification.

**Objectives:**

- Discuss common types of equipment found in BSL-3 laboratories and their impact on ventilation systems
- Restate key factors in performing an initial "pre-validation" and "post-validation" risk assessment
- Describe testing methodologies and discuss course of action for failure scenarios

**Suggested Background:** None

**Target Audience:** All Safety Professionals, Laboratory Workers, Operation and Maintenance, Architects, Engineers

**Audience Level:** Basic

**8:00 am - 12:00 pm**

**20. Practical Biosafety and Infection Control Considerations for Human Gene Transfer Studies**

*Edward David, MPH, RBP, Celgene, San Diego, CA*

This course will outline regulatory and safety challenges in conducting human gene transfer research and offer strategies to address them. The course will cover basic regulatory review and risk assessment for human gene transfer studies and expand on the practical aspects of conducting such studies including identifying key stakeholders such as the IBC, IRB, Infection Control, and Pharmacy, and how to coordinate safety activities between each group. The course will outline some of the differences between biosafety, infection control, and hazardous drug safety and how each can work together to achieve desired outcomes. The course will also examine case studies that will highlight some of the challenges one might encounter in the real world.

**Objectives:**

- Summarize the regulatory framework and basic risk assessment for human gene transfer research
- Identify key stakeholders for conduct of human gene transfer research
- Describe strategies to coordinate activities between them

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment, Principles & Practices of Biosafety

**Target Audience:** All Safety Professionals, All Biosafety Professionals

**Audience Level:** Intermediate

**8:00 am - 12:00 pm**

**21. How to Respond to Emergency Scenarios in Biocontainment Laboratories**

*David Harbourt, PhD, United States Army Medical Research Institute of Infectious Disease, Fort Detrick, MD*

*David Cooke, Federal Law Enforcement Training Center, Brunswick, GA*

It is important for biosafety professionals to understand how to respond to emergency response situations that could affect operations in containment laboratories. Emergency situations can affect a wide range of facility operations (electrical failures, plumbing, heating/ventilation/air conditioning [HVAC], etc.) and often occur with little or no warning to the biosafety professionals, scientific staff, or support staff. Biosafety professionals need to be able to thoroughly understand how their facility and personnel function during normal operations in order to aid in preparation for significant events. In addition to understanding their facility and personnel, it is also vital for biosafety professionals to know who the key decision makers are in their facility for situations that could potentially result in short- or long-term disruptions to operations. By understanding the critical information that is needed for the key decision makers during emergency scenarios, biosafety professionals can help ensure that they are prepared when situations arise in the future. This course is intended to cover basic information of emergency response situations along with the key features of a containment laboratory that may be affected during an emergency situation. This course will go over the key aspects of an HVAC, building electrical design, and plumbing systems. This is not an engineering course—it is intended to be a brief overview so that biosafety professionals understand the right questions to ask during emergency situations. The course will be separated into five sections covering critical information that needs to be understood: basics of emergency response; HVAC; plumbing; electrical failures; and potential occupational exposures. A series of case studies based on real-world emergency response situations and potential occupational exposures in biocontainment laboratories will be conducted.

**Objectives:**

- Describe the basics of emergency response and its relation to the decision-making process during an emergency response situation affecting biocontainment laboratory operations
- Restate the key decision makers in your facility and who can authorize decisions that will make an impact
- Identify lessons learned after action reviews from case studies and potential occupational exposures and apply them to an incident response plan, if applicable

**Suggested Background:** None

**Target Audience:** All Safety Professionals, All Biosafety Professionals

**Audience Level:** Intermediate

**8:00 am - 12:00 pm**

**22. Best Practices in Teaching Technical Topics**

*David Casavant, The Sustainable Workplace Alliance, Lake Wales, FL*

Studies show that nearly 75% of the population fears public speaking. An HR salary study has determined that employees who make presentations earn an average of \$9,000 per year more than employees who are not responsible for making presentations. Do you provide training on difficult compliance subjects to your employees? In a recent survey of those who provide technical training, we found that the number one problem was “How to make the training interesting.” Four of the top five issues for trainers involved not technical issues, but how to be a better, more polished speaker (without getting so nervous). This course will reveal easy-to-implement ideas that will help you become more comfortable in front of the room and make your message more impactful. Whether a new trainer or a seasoned veteran, you will find this training presentation helpful. We share cutting-edge ideas that will help you easily explain difficult ideas and help you get your message across to your audience.

**Objectives:**

- Recall the use of a participatory-based training experience (PTE) to encourage retention and change employee behavior
- Describe how to handle the “disruptive,” “know it all,” or otherwise “difficult” student
- Explain the use of real-time polling, digital quizzes, and other online tools to improve your message

**Suggested Background:** None

**Target Audience:** All Safety Professionals, All Biosafety Professionals

**Audience Level:** Intermediate

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

**23. Contemporary Topics Affecting Biosafety Program Operations**

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

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

The practice of biosafety is actually the convergence of a variety of professional disciplines, thus changes and developments that affect the field can emerge from various sources. This course is designed to address four contemporary issues confronting biosafety program operations: biosafety’s role in mitigating insider security risks;



ethical decision making and the link to safety culture; anticipating and adapting to change within your organization; and the promise and peril of “citizen science.”

**Objectives:**

- List examples of signs and symptoms of insider threat risk behavior
- Identify three examples of ethical dilemmas biosafety professionals encounter
- Discuss strategies for adapting to organizational change

**Suggested Background:** None

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

**Audience Level:** Intermediate

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

**24. Commissioning for the Containment Laboratory**

*Joby Evans, PE, Merrick & Company, Decatur, GA*

*Chris Kiley, PE, Merrick & Company, Duluth, GA*

*Ryan Gregory, PEng, Merrick Canada ULC, Kanata, Ontario, Canada*

Commissioning and/or the resulting documentation from the commissioning process of the biocontainment laboratory are not always clearly understood by the biosafety personnel. The biosafety officer will benefit by having a fundamental understanding of the commissioning process and the resulting documentation. This would allow them to articulate the data required from their commissioning agent and assure the needs are met for the Federal Select Agent Program. Instructors will review the phases of the commissioning process: design; construction; acceptance; and warranty. This knowledge base will allow the biosafety professional to understand how commissioning assists in providing a properly operating facility and the risk when it does not. The knowledge gained will allow the professional to check the containment spaces' performance should there be any questions. The biosafety officer can then observe (or actively participate) in the commissioning process and fully understand the methodology, tools, and data results. This course will review the common biocontainment guidelines, including *BMBL*, NIH, and ANSI used for containment commissioning. This interactive course will review the standard tools used to collect data, demonstrate compliance, and document the results. Participants will use the tools to gain a full understanding of the process and tools and are invited to bring questions or scenarios as to how we may perform a test. The instructors will present some of the commonly encountered issues observed in the field, demonstrating how the issues are identified and present specific means and methods to mitigate the issues. The understanding of the commissioning process, the commissioning report, and the tools used will assist the biosafety professional to confidently respond to the Select Agent inspector's questions regarding the commissioning results of their facility.

**Objectives:**

- Describe the commissioning process and commissioning report
- Recognize the tools used in commissioning and the data outputs and their meaning
- Identify and resolve commonly encountered issues

**Suggested Background:** None

**Target Audience:** All Safety Professionals, New Biosafety Professionals, Facility Operations and Maintenance Personnel

**Audience Level:** Basic

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

**25. Speaking TIPS to Avoid Presentation Disaster**

*Thomas Kost, PhD, Golden, CO*

This course is designed to provide biosafety professionals with proven tools for preparing, organizing, and presenting effective presentations to a variety of audiences. Through a combination of lecture and participatory exercises, participants will gain confidence and enhance their speaking skills. Instructor presentations will provide TIPS for preparing, organizing, and presenting effectively with an emphasis on successfully connecting with the audience. Participants will gain valuable communication tips and experience that will benefit them in successfully connecting with customers and managers. An emphasis will be placed on how to connect with your audience in a meaningful and interesting manner. Participants will have the opportunity to engage in a variety of discussions and exercises focused on biosafety-related topics and Q&A. Participants will have an opportunity to practice in front of the group using a series of biosafety-related questions.

**Objectives:**

- Restate how to prepare, organize, and present effective talks that connect with a variety of audiences
- Design and present effective PowerPoint slides to support their message
- Describe the methods used to assist in thinking quickly and effectively to respond to questions

**Suggested Background:** None

**Target Audience:** All Safety Professionals, Laboratory Workers, Animal Caretakers

**Audience Level:** Basic/Intermediate

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

**26. Clinical Laboratory Testing for High Consequence Pathogens in the Front Line, Assessment or Hospital Setting**

*Roxanne Alter, MS, University of Nebraska Medical Center, Omaha, NE*

Availability of clinical laboratory testing is critical for patient care with a Risk Group 4 high-consequence pathogen. The recent development of highly-specialized facilities in the United States to assess and treat patients with a highly-infectious disease has led to the design of dedicated laboratories to safely test specimens that might contain one of these pathogens. This course will identify the regulatory agencies that govern human testing. Participants will recognize the training necessary to perform clinical laboratory testing. Exploration of the process for determining what tests are already available for testing in the frontline and other acute care facilities. Each tier will be assessed using the risk identification and assessment process. Case studies will be used to practice this determination. Safety practices will be reviewed to include the pre-analytical (specimen collection and processing), analytical (specimen testing), and post-analytical (specimen disposal/waste management and reporting) processes. Levels of practice within a BSL-2 or BSL-3 facility will be examined with possible modifications. Participants will simulate practice with quality control, inventory management, packaging and sample shipping for a high-consequence pathogen. Construction of a test menu will be produced and cost analysis of each of the items will be reviewed. Participants will predict the cost of the sustainability of instrumentation for a bioemergency that may never happen.

**Objectives:**

- Compare Clinical Laboratory Improvement Amendments to College of American Pathology regulations
- Describe the three complexity levels of testing and requirements for Clinical Laboratory Improvement Amendments
- Practice risk assessment for testing processes that include pre-analytical, analytical, and post-analytical

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

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

**Audience Level:** Intermediate

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

**27. OSHA Regulations and Guidance Applicable to Laboratories: What's Current and in Development?**

*Margy Lambert, PhD, Department of Health & Human Services, Washington, DC*

*Thomas Nerad, PhD, Department of Labor/Occupational Safety and Health Administration, Washington, DC*

An institution's biosafety office often focuses on ensuring adherence to guidance documents such as the *NIH Guidelines, Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, and the CDC/USDA APHIS Regulations for Biological Select Agents and Toxins (BSAT). There may not be the same level of awareness of which Occupational Safety and Health Administration (OSHA) regulations pertain to the laboratories at their institutions. A number of OSHA regulations apply to laboratories that handle biohazardous materials including: the Bloodborne Pathogens (BBP) Standard (29 CFR 1910.1030); the Laboratory Standard (29 CFR 1910.1450); various personal protective equipment (PPE) standards (29 CFR 1910 Subpart I) including the Respiratory Protection Standard (29 CFR 1910.134); and the General Duty Clause. There are also some standards relevant to laboratories that have been developed by State OSHA plans, notably CalOSHA's Aerosol Transmissible Diseases Standard. In addition to regulations, OSHA has developed various guidance documents that describe methods to protect workers in laboratory environments. Although the BBP Standard has proven very effective at protecting workers from infectious agents transmitted via the bloodborne route, it does not address infectious diseases transmitted by other routes (e.g., contact, droplet, airborne). OSHA is considering development of an infectious diseases (ID) rule that would cover diseases transmitted by routes other than bloodborne. This course will provide a summary of laboratory OSHA regulations and guidance as well as an update on OSHA's ID rulemaking.

**Objectives:**

- Restate the existing OSHA regulations and guidance that are applicable to laboratories
- Evaluate how OSHA regulations and guidance complement and interact with other federal regulations and guidance
- Summarize forthcoming OSHA regulations and guidance that affects laboratories

**Suggested Background:** None

**Target Audience:** All Safety Professionals, Institutional Management, Lab Workers, Animal Caretakers and Facility Staff

**Audience Level:** Basic

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

**28. Strategies to Customize and Streamline the Institutional Biosafety Committee (IBC)**

*Chris Jenkins, PhD, RBP, Clinical Biosafety Services, Austin, TX*

Strategies to customize and streamline the Institutional Biosafety Committee (IBC) is intended to provide a deeper understanding and tools to assist experienced biosafety professionals, those new to the field, and research administrators tasked with interfacing or overseeing the IBC. An updated survey will be completed by the instructor of all IBCs, which will be reviewed and dissected by participants. A discussion of best practices from the instructor's experiences along with the participants will delve beyond recombinant DNA registrations the NIH Office of Biotechnology Activities requires and form additional options for participants to apply at their institution. As IBCs are increasingly tasked with oversight beyond recombinant DNA, this course will provide participants with methods to streamline IBC operations, increase IBC member participation, and provide the IBC as a resource to the research community. Sources and methods include the latest research and literature on IBC oversight, best practices, and the instructor's experience.

**Objectives:**

- Describe and demonstrate techniques for administering an effective IBC
- Explain methodologies to annually benchmark the IBC internally and externally
- Quantify the time and effort of regulatory impact on the role of the biosafety office and research office

**Suggested Background:** Fundamentals of Biosafety, Risk Assessment

**Target Audience:** All Biosafety Professionals, Research Administrators

**Audience Level:** Intermediate

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**Opening Reception**

The Opening Reception will be held on Sunday, October 15 from 6:30 - 8:00 pm in the Exhibit Hall.

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## Scientific Program

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Monday, October 16, 2017

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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 - 8:15 am	Welcome and ABSA President's Address Master of Ceremonies Maureen O'Leary, PhD, CBSP, Dartmouth College, Hanover, NH
8:15 - 8:20 am	Local Arrangements Committee Welcome Jennifer Gaudio, PhD, Sandia National Laboratories, Albuquerque, NM
8:20 - 8:25 am	Scientific Program Committee Welcome Betsy Matos, PhD, RBP, CBSP, Iowa State University, Ames, IA
8:25 - 8:30 am	ABSA International Historical Address Speaker: TBD
<b>Session I</b>	<b>Arnold G. Wedum Memorial Lecture Award</b> Introduction: Jessica McCormick-Ell, PhD, RBP, CBSP, Rutgers, The State University of New Jersey, New Brunswick, NJ
8:30 - 9:30 am	The Next Pandemic: On the Front Lines Against Humankind's Gravest Dangers Ali Khan, MD, University of Nebraska Medical Center, Omaha, NE
<b>Session II</b>	<b>Behavior/Enhancing Compliance</b> Moderator: Judy LaDuc, RBP, University of Massachusetts—Amherst, Amherst, MA
9:30 - 9:50 am	Laboratory-acquired Infections Karen Byers, MS, RBP, CBSP, Dana-Farber Cancer Institute, Boston, MA
9:50 - 10:10 am	A Change in Climate Can Lead to a Better Safety Culture Kimberly DiGiandomenico, MS, RBP, Atrium Environmental Health & Safety Services, Gaithersburg, MD
10:10 - 10:30 am	A Holistic Research Safety Approach Improves Laboratory Safety Culture Esmeralda Meyer, MD, Emory University, Atlanta, GA
10:30 - 11:00 am	Exhibits, Posters, and Coffee Break
<b>Session III</b>	<b>International Biosafety</b> Moderator: Kalpana Rengarajan, PhD, JM, RBP, Emory University, Atlanta, GA
11:00 - 11:20 am	Developing Biorisk Management Systems in the Middle East and Africa Through Project-based Mentoring—The Twinning Program Eric Cook, MPH, CBSP, Sandia National Laboratories, Albuquerque, NM
11:20 - 11:40 am	Establishment of Safety Culture Awareness for Field Veterinarians at the Animal Health Research Institute—Benha Branch Ali Asy, PhD, Animal Health Research Institute, Benha, Egypt
11:40 - 12:00 pm	Biosafety of Work Environment in Natural Foci of Especially Dangerous Infections in Kazakhstan Svetlana Issayeva, Aral Anti-Plague Station, Aralsk, Kazakhstan
12:00 - 1:30 pm	Exhibits, Posters, and Lunch



<b>Session IV</b> 12:30 - 1:30 pm	<b>Poster Session</b> <i>Presenters must be available during the session.</i>
<b>Session V</b> 1:30 - 1:50 pm	<b>Inactivation and Decontamination</b> Moderator: Shirly Mildiner-Earley, PhD, CBSP, SM(NRCM), University of Pennsylvania, Philadelphia, PA Summary of Validated and Verified Viral Inactivation Methods David Harbourt, PhD, United States Army Medical Research Institute of Infectious Diseases, Fort Detrick, MD
1:50 - 2:10 pm	Using the Highlight Disinfectant Color Additive to Confirm Coverage and Contact Time for Any Decontamination Process Jason Kang, Kinnos, Inc., Brooklyn, NY
2:10 - 2:30 pm	Improving Decontamination Processes for Laboratory Waste Aufra Araujo, Centers for Disease Control and Prevention, Atlanta, GA
<b>Session VI</b> 2:30 - 2:50 pm	<b>Biosafety Program Management</b> Moderator: Cristine Lawson, PhD, RBP, National Institutes of Health, Fort Detrick, MD Agricultural and Plant Biosafety Program Management at Rutgers University
2:50 - 3:10 pm	Aparupa Sengupta, PhD, Rutgers, The State University of New Jersey, New Brunswick, NJ Looking Beyond the Risk Group: Risk Assessment Challenges in Models of Emerging, Re-emerging, and Zoonotic Disease
3:10 - 3:30 pm	Molly Stitt-Fischer, PhD, CBSP, SM(NRCM), University of Pittsburgh, Pittsburgh, PA BSL-2 Laboratories Accreditation Program Implementation in Northwestern University Labs Iwona Spath, RBP, Northwestern University, Evanston, IL
3:30 - 4:00 pm	Exhibits, Posters, and Coffee Break
<b>Session VII</b> 4:00 - 4:20 pm	<b>Regulatory Issues</b> Moderator: Francine Rogers, MS, RBP, CBSP, SM(NRCM), Boston, MA Implementation of the Human Pathogens and Toxins Act and Regulations: A Year of Transition
4:20 - 4:40 pm	Cinthia Labrie, MSc, Public Health Agency of Canada, Ottawa, Ontario, Canada Establishing Safety Standards Across the Growing DIYbio and Community Biotech Laboratory Landscape
4:40 - 5:00pm	Todd Kuiken, PhD, North Carolina State University, Raleigh, NC Surviving the OSHA Audit David Casavant, The Sustainable Workplace Alliance, Lake Wales, FL
5:00 - Close	<b>Members' Business Meeting</b> <i>Door prizes will be awarded—must be present to win.</i>

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**Tuesday, October 17, 2017**

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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 Patrick Condreay, PhD, RBP, pc Biosafety Consulting Services, LLC, Carrboro, NC
8:05 - 8:10 am	ABSA International Historical Address Speaker: TBD

<b>Session VIII</b> 8:10 - 8:25 am 8:25 - 9:25 am	<b>Griffin Lecture Award</b> Introduction: Caryl Griffin, MSN, MDiv, Elizabeth R. Griffin Research Foundation, Kingsport, TN Title: TBD Uwe Mueller-Doblies, PhD, Epibiossafe, Ltd., Woking, Knaphill, United Kingdom
<b>Session IX</b> 9:25 - 9:45 am 9:45 - 10:05 am 10:05 - 10:25 am 10:25 - 10:55 am	<b>Training</b> Moderator: Anil Saxena, RBP, Booz Allen Hamilton, Rockville, MD Development and Implementation of a Customized BSL-3 Safety Training Program Michele Edenfield, MS, RBP, Booz Allen Hamilton, Atlanta, GA Developing a Situation-based Training Gabriel Riordain, CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Vienna, Austria Biosafety Training for iGEM Students Claudia Gentry-Weeks, PhD, CBSP, Colorado State University, Fort Collins, CO  Exhibits, Posters, and Coffee Break
<b>Session X</b> 11:00 - 12:00 pm  12:00 - 1:00 pm	<b>Eagleson Lecture Award</b> Introduction: Mary Ann Sondrini, Eagleson Institute, Sanford, ME Dark Life: The Microbiology of Extreme Cave Environments Hazel Barton, PhD, University of Akron, Akron, OH  Exhibits, Posters, and Lunch
<b>Session XI</b> 1:00 - 2:00 pm	<b>Poster Session</b> <i>Presenters must be available during the session.</i>
<b>Session XII</b> 2:00 - 2:30 pm 2:30 - 3:00 pm  3:00 - 3:30 pm	<b>Dual Use Research of Concern (DURC)</b> Moderator: Shelley Jones, MS, RBP, Northern Arizona University, Flagstaff, AZ Beyond the 15 Agents—Should Your Institution Review Life Science Research for Potential DURC? Rebecca Moritz, MS, CBSP, SM(NRCM), University of Wisconsin—Madison, Madison, WI Robert Ellis, PhD, CBSP, Colorado State University, Fort Collins, CO Dual Use Research of Concern Panel Question and Answer Panelists: Robert Ellis, PhD, CBSP, Colorado State University, Fort Collins, CO Kathryn Harris, PhD, RBP, National Institutes of Health, Bethesda, MD Rebecca Moritz, MS, CBSP, SM(NRCM), University of Wisconsin—Madison, Madison, WI  Exhibits, Posters, and Coffee Break
<b>Session XIII</b> 3:30 - 3:50 pm 3:50 - 4:10 pm 4:10 - 4:30 pm 4:30 - 5:00 pm  6:30 - 8:00 pm	<b>Emergency Response</b> Moderator: Peili Zhu, MD, PhD, RBP, University of California—San Francisco, San Francisco, CA Broadening Perspectives: Interagency Emergency Response Exercises Between the National Guard, Civilian Agencies, and Academic Institutions Marcia Finucane, CBSP, University of Colorado—Denver, Aurora, CO Conducting a Multi-agency, Multi-jurisdictional, Full-scale Exercise at a Biofacility Brian O’Shea, PhD, CBSP, SM(NRCM), Battelle Memorial Institute, Columbus, OH The Department of Defense Response to Shipments of Incomplete Inactivated <i>Bacillus anthracis</i> Spores Michael Chute, RBP, Department of Defense, Frederick, MD Tulane University: Response to Tier 1 Agent Release Angela Birnbaum, RBP, CBSP, Tulane University, Covington, LA  <b>Banquet at the Indian Pueblo Cultural Center</b>

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**Wednesday, October 18, 2017**

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7:00 - 5:00 pm	Registration
7:00 - 8:10 am	Continental Breakfast
8:10 - 8:15 am	Welcome Master of Ceremonies President-Elect: TBD
8:15 - 8:20 am	ABSA International Historical Address Speaker: TBD
<b>Session XIV</b> 8:20 - 9:20 am	<b>Invited Speaker</b> Introduction: Claudia Gentry-Weeks, PhD, CBSP, Colorado State University, Fort Collins, CO CRISPR Technologies in the Biological Safety Setting James Carney, PhD, Sandia National Laboratories, Albuquerque, NM
9:20 - 9:50 am	Coffee Break
<b>Session XV</b> 9:50 - 10:20 am	<b>Richard Knudsen Award</b> Introduction: Janet Peterson, CBSP, Ellicott City, MD Title: TBD Speaker: TBD
<b>Session XVI</b>	<b>Human Gene Transfer</b>
10:20 - 10:35 am	Moderator: Jacqueline Wagner, Princeton University, Princeton, NJ Development of Resources for Human Gene Transfer (HGT) Clinical Trials in Response to 2016 NIH Guidelines Revision
10:35 - 10:50 am	Andrew Maksymowych, PhD, RBP, University of Pennsylvania, Philadelphia, PA Biosafety Concerns for Human Gene Transfer Studies
10:50 - 11:05 am	Peili Zhu, PhD, RBP, University of California—San Francisco, San Francisco, CA The IBC's Role in Facilitating Human Gene Transfer in Multicenter Clinical Trials
11:05 - 11:30 am	Daniel Kavanagh, PhD, WCG Biosafety, Brookline, MA Human Gene Transfer Panel Question and Answer Panelists: Daniel Kavanagh, PhD, WCG Biosafety, Brookline, MA Andrew Maksymowych, University of Pennsylvania, Philadelphia, PA Jessica Tucker, PhD, National Institutes of Health, Bethesda, MD Peili Zhu, MD, PhD, RBP, University of California—San Francisco, San Francisco, CA
11:35 - 1:30 pm	<b>Honor Awards and Special Recognition Luncheon</b> Presenter: Maureen O'Leary, PhD, CBSP, Dartmouth College, Hanover, NH Arnold G. Wedum Distinguished Achievement Award Everett J. Hanel, Jr. Presidential Award John H. Richardson Special Recognition Award International and National Poster Awards Hashimoto Award for Service and Honor Recognition of Certified Biosafety Professionals and Registered Biosafety Professionals Presenters: Donald Wang, MPH, RBP, CBSP, Fred Hutchinson Cancer Research Center, Seattle, WA Susan Cook, PhD, CBSP, Washington University—St. Louis, St. Louis, MO

## Session XVII

### Facility Biosafety

- 2:00 - 2:20 pm Moderator: Darlene Ward, RBP, Florida Atlantic University, Boca Raton, FL  
Keep It Simple—BSL-3 Laboratory Ventilation Systems  
Daniel Cook, Cornerstone Commissioning, Boxford, MA
- 2:20 - 2:40 pm Decontamination with Cold Plasma Activated Ionized Hydrogen Peroxide: Does It Behave Like a Gas?  
Miguel Grimaldo, MEng, University of Texas Medical Branch, Galveston, TX
- 2:40 - 3:00 pm Colombian National Institute of Health—BSL-2/ABSL-2 Laboratory and Specific Pathogen Free Facility Commissioning Process  
Lia Vizzoti, World BioHazTec Corporation, Bogota, Colombia
- 3:00 - 3:30 pm Coffee Break

## Session XVIII

### Biosafety Promotion and Development

- 4:00 - 4:20 pm Moderator: Kelly Flint, RBP, CBSP, SM(NRCM), National Institutes of Health, Fort Detrick, MD  
Building a User-friendly Biosafety Program from Scratch  
Ray Scheetz, MS, RBP, Penn State University College of Medicine, Hershey, PA
- 4:20 - 4:40 pm Disseminating Biosafety Information to the Nonscientist  
Lolly Gardiner, MRIGlobal, Gaithersburg, MD
- 4:40 - 5:00 pm From Scratch to the Establishment of the Center of Excellence for Training of Biosafety and Biosecurity in Pakistan: Things Can Be Done  
Saeed Khan, Dow University of Health Sciences, Karachi Pakistan
- 5:00 pm **Close of Conference**  
Master of Ceremonies  
President-Elect: TBD

### Future Conferences

#### **61st Annual Biological Safety Conference**

October 12-17, 2018

Charleston Convention Center, Charleston, SC

#### **62nd Annual Biological Safety Conference**

October 11-16, 2019

Memphis Convention Center, Memphis, TN

#### **63rd Annual Biological Safety Conference**

October 30-November 4, 2020

Phoenix Desert Ridge, Phoenix, AZ



# Share your biosafety resources!



## AVAILABLE RESOURCES

### GENERAL BIOSAFETY

Serves as a starting template for Biosafety Professionals

### ANIMAL BIOSAFETY

Videos describing the procedures animal handlers should follow when working at ABSL-1, -2, or -3

### BLOODBORNE PATHOGENS

Starting point for administrators creating a BBP Exposure Control Program

## ABSA International Training Tools/Resources Committee

ABSA International's Training Tools/Resources Committee is soliciting submissions via the ABSA International website. Our goal is to provide tools, templates, and resources to those who provide training in biosafety or closely-related areas.

### You may contribute by:

1. **Sending us resources you are willing to share here.** These can be placed on the public site for full access or on the members-only area for access only by ABSA members. Your content will be reviewed prior to posting.
2. **Letting us know what types of resources you might find useful.** The Training Tools/Resources Committee will gather suggestions and look into what resources are currently available as well as make recommendations for development of appropriate tools.
3. **Submitting feedback with the user evaluation form for each resource you use.**



# ABSAs

## INTERNATIONAL

The Association for Biosafety and Biosecurity

# Biosafety Buyer's Guide

## www.biosafetybuyersguide.org

ABSAs International launched the Biosafety Buyer's Guide to connect supplier partners with members and biosafety professionals. The Guide features biosafety and biosecurity related companies, services, and consultants. The Biosafety Buyer's Guide offers biosafety professionals easy access to ABSAs International's partners' products and services. The Guide offers Basic Listings (company contact information), Highlighted Listings (company contact information and logo), and Banner Ads. Listings and Banners are posted for 12 months.

**Biosafety Buyer's Guide**

Architects > | Biocontainment > | Biosafety Cabinets > | Biosafety Consultants > | Certifiers > | Engineers > | Lab Equipment > | Modular Laboratories > | Monitoring > | Packaging and Shipping > | Personal Protective Equipment > | Software > | Sterilization > | Training > | Veterinary > | Waste Management >

**Featured Companies**

- a-tune**  
a-tune software, Inc.  
19621 FM 1431, Suite 402, Jonestown, TX 78645  
www.a-tune.com >  
214-243-8539  
info@a-tune.com >
- arcoplast**  
Arcoplast Fiberglass composite wall and ceiling systems offers design options in barrier construction for high-containment facilities that meet BSL-3, BSL-4 and USDA ABS 242.1 BSL-3 Ag including NIH, CDC, NIAID and USP 797 construction design guidelines.  
www.arcoplast.com >  
636-978-7781  
636-978-7782 (fax)  
sales@arcoplast.com >
- AT-RISK International**  
14100 Parke Long Court, Suite P, Chantilly, VA 20151  
www.at-riskinternational.com >  
703-378-2444  
703-651-8144 (fax)  
info@at-riskinternational.com >
- bioBUBBLE**  
1411 East Magnolia Street, Fort Collins, CO 80524  
www.biobubble.com >  
970-224-4262  
970-224-2419 (fax)  
sales@biobubble.com >
- CERTEK**  
4200 Old NC 10, Durham, NC 27705  
Dedicated to microbiological, biomedical, and agricultural communities for 37+ years. CERTEK builds modular laboratories.  
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**ABSAs International**  
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Biosafety Buyer's Guide | ABSAs International | 1200 Allanson Road, Mundelein, IL 60060-3808  
1-866-425-1385 (toll free) | 847-949-1517 | info@absa.org

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### Categories

- Architects
- Biocontainment
- Biosafety Cabinets
- Biosafety Consultants
- Certifiers
- Engineers
- Lab Equipment
- Modular Laboratories
- Monitoring
- Packaging and Shipping
- Personal Protective Equipment
- Software
- Sterilization
- Training
- Veterinary
- Waste Management

To add your products or services to the Biosafety Buyer's Guide, contact Karen Savage at [karen@absaoffice.org](mailto:karen@absaoffice.org).  
Download an application at [http://biosafetybuyersguide.org/pdf/ABSAs\\_BiosafetyBuyersGuideApplication.pdf](http://biosafetybuyersguide.org/pdf/ABSAs_BiosafetyBuyersGuideApplication.pdf).

# Registration Form

## 60th Annual Biological Safety Conference

### October 13-18, 2017

ABSA International Member ID Number: \_\_\_\_\_  Nonmember

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_  
 Organization: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ E-mail: \_\_\_\_\_  
 Emergency Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_

**Conference Fees**

	Pre Sept. 22	Post Sept. 22	Amount
ABSA International Member	\$740	\$790	\$ _____
Nonmember	\$980	\$1,030	\$ _____
Member of ABSA International Affiliate	\$860	\$910	\$ _____
Discount Code: _____			
One-day Member (day _____)	\$260	\$300	\$ _____
One-day Nonmember (day _____)	\$360	\$400	\$ _____
Emeritus Member	\$370	\$420	\$ _____
Opening Reception (additional)	\$90	\$90	\$ _____
Exhibit Only Pass (Monday)	\$15	\$15	\$ _____
Exhibit Only Pass (Tuesday)	\$15	\$15	\$ _____
<b>2017 Individual Dues</b>	<b>\$210</b>	<b>\$210</b>	<b>\$ _____</b>

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

Dietary Restrictions: \_\_\_\_\_  
 Additional lunch tickets (\$30 each) \$ \_\_\_\_\_  
 Additional banquet tickets (\$120 each) \$ \_\_\_\_\_  
 Total from course(s): \$ \_\_\_\_\_  
 Total amount enclosed or to be charged: \$ \_\_\_\_\_

Registration is not completed without payment or credit card information. Purchase Orders are not accepted. Check must be made payable to "ABSA International" 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 International web site at [www.absaconference.org](http://www.absaconference.org) for course availability and online registration. Mail to: ABSA International, 1200 Allanson Road, Mundelein, IL 60060-3808 or fax to 847-566-4580. **Registration forms must be faxed to the ABSA International Office to receive the Affiliate Member discount.**

**Preconference Courses**

	Friday, October 13, 2017	Saturday, October 14, 2017	Sunday, October 15, 2017	Member	Nonmember	Amount
1. Articulating the Value of Your Biosafety Program				\$595	\$645	\$ _____
2. Advanced Risk Assessment				\$595	\$645	\$ _____
3. Disinfection, Sterilization, Inactivation				\$595	\$645	\$ _____
4. BSL-3 Operations and Management				\$595	\$645	\$ _____
5. Exercising Training				\$595	\$645	\$ _____
<b>Saturday, October 14, 2017</b>						
6. Gene Editing and Risk Assessment				\$595	\$645	\$ _____
7. Engineering for the Biosafety Professional—Part I				\$595	\$645	\$ _____
8. Shipping Infectious Substances Certification Course				\$595	\$645	\$ _____
9. Building a Select Agent Program				\$595	\$645	\$ _____
10. Institutional Biosafety Committee Basics				\$350	\$400	\$ _____
11. Biocontainment Laboratory Operations				\$350	\$400	\$ _____
12. Introduction to Unique Biocontainment Challenges in Agriculture Research				\$350	\$400	\$ _____
13. Human Gene Transfer—Biosafety Considerations				\$350	\$400	\$ _____
14. Handling Critical Situations in Labs				\$350	\$400	\$ _____
<b>Sunday, October 15, 2017</b>						
15. Advanced Laboratory Design Principles				\$595	\$645	\$ _____
16. Leadership, Training, and Culture Development in Biosafety				\$595	\$645	\$ _____
17. Integrating Biosecurity into Laboratory Biorisk Management Systems				\$595	\$645	\$ _____
18. Naturally Occurring Biotoxins				\$350	\$400	\$ _____
19. Introduction to ANSI Z9.14				\$350	\$400	\$ _____
20. Practical Biosafety and Infection Control Considerations				\$350	\$400	\$ _____
21. How to Respond to Emergency Scenarios				\$350	\$400	\$ _____
22. Best Practices in Teaching Technical Topics				\$350	\$400	\$ _____
23. Contemporary Topics Affecting Biosafety Program Operations				\$350	\$400	\$ _____
24. Commissioning for the Containment Lab				\$350	\$400	\$ _____
25. Speaking TIPS				\$350	\$400	\$ _____
26. Clinical Laboratory Testing for High Consequence Pathogens				\$350	\$400	\$ _____
27. OSHA Regulations and Guidance Applicable to Laboratories				\$350	\$400	\$ _____
28. Strategies to Customize and Streamline the Institutional Biosafety Committee				\$350	\$400	\$ _____

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

**Conference Cancellation Policy:** Cancellations received before September 5, 2017—85% refund; cancellations received between September 5 - September 19, 2017—50% refund; cancellations received after September 19, 2017—no refund.





**ABSA**  
**INTERNATIONAL**  
*The Association for Biosafety and Biosecurity*

1200 Allanson Road  
Mundelein, IL 60060-3808 U.S.A.

# 60th Annual Biological Safety Conference

Albuquerque Convention Center • Albuquerque, New Mexico

#BiosafetyNM17



[www.absaconference.org](http://www.absaconference.org)

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