

PRECONFERENCE WORKSHOPS

SATURDAY MORNING:

WORKSHOP #1: Saturday, February 10, 2018, 8:00 AM - 12:00 PM **The Biosafety Program: A Road Map for Biosafety Professionals**

Benjamin Fontes, MPH, CBSP, Yale University

This new introductory course will provide a platform of information on the establishment of a biosafety program for a laboratory setting. Through lectures, case studies, and exercises, it will outline the core elements of a comprehensive biosafety program and demonstrate a proactive approach to the management of biohazards, including the roles and responsibilities of the institution, laboratory leadership, and the biosafety professional. Strategies for setting up and sustaining a biosafety program will be provided along with a review of the fundamental competencies needed for today's biosafety professional. After taking the course, students will have a solid understanding of biohazard risk assessment and risk management from the institutional perspective.

WORKSHOP #2: Saturday, February 10, 2018, 8:00 AM - 12:00 PM **Sustainable Laboratories: Design for Biosafety, Biosecurity, Operations & Maintenance**

Mark Fitzgerald, Soter Biocorp., Inc.

Natasha Griffith, MS, RBP, CDC/OPHSS/CSELS/DLS

Jeffrey Owens, MPH, CSP, SN(NRCM), CBSP, Assoc. AIA, HDR Architecture

Vibeke (Vips) Halkjaer-Knudsen, PhD, Sandia National Laboratories

This course offers a basic understanding of key principles underlying the design and operation of large animal facilities, the systems required to support a typical animal facility, how these influence facility design and how specialized systems enhance biosafety. The course will focus specifically on those facilities that do not fall under the Select Agent regulation. Participants will be introduced briefly to laboratory design best practices as they relate to; building zoning, operational efficiency, and biosecurity factors, supporting good lab protocols and flexibility. They will learn how architectural, structural, HVAC (heating, ventilating and air conditioning), Plumbing and Electrical systems are influenced by laboratory designs. Through guided discussions and interactive exercises, participants will learn about the type of information required to design the systems, how services are distributed through a typical laboratory building and the type of redundant features required to keep facilities running. The course will be highly interactive with facilitated group discussions by the instructors.

WORKSHOP #3: Saturday, February 10, 2018, 8:00 AM - 12:00 PM **Integrating Biosecurity into Biorisk Management Systems: A One Health Perspective**

Ryan N. Burnette, PhD, Merrick & Company

Donald Callihan, PhD, Merrick & Company

This course aims to provide an overview of strategic and tactical approaches to building biosecurity programs that support human, animal, or environmental health enterprises. Through discussion and group exercises, the course will provide detailed information on the functional components of an effective program needed to protect valuable biological materials of any type. It will also cover how to integrate biosecurity into existing biorisk management programs.

The four major sections of the course will highlight:

- 1) The inherent differences between common elements of risk-based and threat based assessments as they are used to analyze system wide vulnerabilities
- 2) The Five Pillars of Security as a framework for building an ISP program and how to use the ISP model to align existing institutional safety and security management systems with the security needs of biosafety programs
- 3) The resulting integrated model of biosafety and biosecurity management systems using case studies of public health and animal health systems
- 4) A participatory exercise that will simulate potential biosecurity threats to test the functionality of biosecurity programs designed during this workshop

SATURDAY AFTERNOON:

WORKSHOP #4: Saturday, February 10, 2018, 1:00 PM - 5:00 PM **Can You Hear Me When I Speak?**

Jonathan Richmond, PhD, Biosafety Consultant

Judith Ann Pauley, PhD, Process Communications, Inc.

Joseph F Pauley, Kahler Communications

One major pillar of biosafety communication is the assurance that critical information is effectively understood. It applies during educational courses, interactions with workers throughout the biomedical community, and stressful meetings with the public/press/regulators/inspectors/etc. Through interactive discussion, this course focuses on skill-building in oral communication situations and will teach the key psychological clues that will allow you to present your messages to a more receptive listener. It will prepare you to present important messages in both face-to-face and speaker/audience environments. "It's not what you say, it's how you say it."

WORKSHOP #5: Saturday, February 10, 2018, 1:00 PM - 5:00 PM **Risk Assessment for Laboratory Animal Programs**

In this half-day, interactive class, participants will learn the components of risk assessment as related to working with animals in a research setting. Risk assessments are used to determine the biosafety level, the type of animal housing, the type of PPE needed, standard operating procedures, and much more. Case studies, using actual scenarios encountered by the instructors, will be presented for group discussion.

WORKSHOP #6: Saturday, February 10, 2018, 1:00 PM - 5:00 PM **Employing Competencies to Enhance Laboratory Biosafety**

Michael Pentella, PhD, University of Iowa

Multiple national professional organizations, including CLMA, ASCLS and APHL, have endorsed competency development as a means of strengthening the laboratory workforce. Competencies improve the workforce by providing a framework for developing education and training programs, identifying worker roles and job responsibilities, and assessing individual performance and organizational capacity. Competency assessment assures that the laboratory personnel are fulfilling their duties as required by federal regulation. This course will focus on the implementation of biosafety competencies.

This session will consist of both lecture and a hands-on exercise to introduce participants to the writing of biosafety competencies based on the risk assessment. Participants will first be introduced to biosafety competencies and learn how biosafety competencies enhance the culture of biosafety and the biosafety plan. Next, the participants will break into workgroups and review an SOP and risk assessment. The workstations will represent different laboratory tasks typically found in a laboratory: Molecular testing, HIV serology, AFB testing, MALDI identification, and Blood Cultures.

WORKSHOP #7: Saturday, February 10, 2018, 1:00 PM - 5:00 PM **Disinfection and Decontamination**

Speaker from CDC TBD

Dee Pettit, PhD, North Carolina Department of Health and Human Services

This course provides an introduction into the benefits and issues which may arise with the use of specific disinfection and decontamination agents. Particular emphasis will be on the operation of autoclaves and the options available to achieve adequate decontamination through their use. Chemical disinfection options and space decontamination options will be explored as both a means of waste decontamination and space decontamination. Class exercises will be designed to engage the participants and allow them to identify options which may be suitable for their specific needs.

SUNDAY MORNING:

WORKSHOP #8: *Sunday, February 11, 2018, 8:00 AM - 12:00 PM*

Speaking TIPS: Prepare, Organize and Present with Impact

Thomas Kost, PhD, DTM (Distinguished Toastmaster) – Former GlaxoSmithKline
This course is designed to provide attendees with proven tools for preparing, organizing and presenting effective talks to a variety of audiences. Through a combination of lecture and audience participation, attendees will gain confidence and enhance their speaking skills. Lectures will provide TIPS for preparing, organizing and presenting effectively with an emphasis on successfully connecting with diverse audiences. Attendees will have an opportunity to engage in discussions and exercises focused on developing biosafety related presentations, designing effective PowerPoint slides and extemporaneous speaking.

WORKSHOP #9: *Sunday, February 11, 2018, 8:00 AM - 12:00 PM*

A Moving Target: The Human Factor in One Health Research and Response

Authors: Sarah Genzer, DVM, Centers for Disease Control
Nicole Lukovsky, DVM, DAACLAM, Centers for Disease Control
April M. Clayton, PhD, Centers for Disease Control
Julian Jolly, PharmD, Centers for Disease Control
George Lathrop, DVM, DAACLAM, Centers for Disease Control
Nathaniel Powell, Jr., DVM, DAACLAM, Centers for Disease Control
One Health aims to appreciate and dissect the complex interactions between humans and animals. These dynamic interfaces may occur in a biocontainment (i.e., laboratory) or field (i.e., environmental) setting. Multidisciplinary teams involving scientists, veterinarians, animal care staff, epidemiologists, and safety personnel are key to achieving excellence in One Health-centered research and responses. This workshop will focus on the impact of the human factor in animal research facilities and public health responses involving zoonoses. Topics addressed include: the design and execution of occupational risk management programs to identify risk “hot zones” and hazards in animal biocontainment spaces; America’s opioid epidemic and its effect on animal research, particularly how this epidemic is creating issues with DEA licensing, personnel accountability, and animal pain management; introduction of animals into biocontainment that may be natural reservoirs for novel infectious agents and surrounding challenges regarding screening of these agents and safety of personnel; and the importance of veterinary health professionals interfacing with the public during disasters and outbreaks of zoonotic significance. This interactive workshop will include case studies to foster discussion around each topic and opportunities to handle selected animal and personal protective equipment (PPE), including donning and doffing of PPE, used in biocontainment laboratories and field operations.

WORKSHOP #10: *Sunday, February 11, 2018, 8:00 AM - 12:00 PM*

Establishing Effective Biocontainment Facility Performance Criteria

John Henneman M.S., RBP, Kansas State University
Dan Cook, LEED AP, Cornerstone Commissioning
Well operating biocontainment facilities require more than just routine operations and maintenance. Whether starting up a new facility, renovating an older one, or revising current operation procedures, the details discussed in this class will provide guidance to stay on track with the project. After the initial commissioning, annual verification of the facility is essential for safe operations. This course will include discussion of when to start the process, how to start the process, facility functions, documenting the criteria, some lessons learned and suggestions for maintaining communication along the way.

SUNDAY AFTERNOON:

WORKSHOP #11: *Sunday, February 11, 2018, 1:00 PM - 5:00 PM*

The 4 Cs of Effective Communication: Using Language That is Clear, Concise, Creative and Compelling

Margy Lambert, PhD, US Department of Health & Human Services
How do you get key biosafety messages across to your stakeholders? Communicating effectively is imperative regardless of the type of audience,

method of communication or specific message that you are trying to convey. Using language that is Clear, Concise, Creative, and Compelling (the 4 Cs) is an approach that is highly effective in bringing your message home.

This course will provide a road map for crafting effective communications using the 4 Cs as a guide. A series of exercises will be used to summarize common mistakes made in written and oral communications and to illustrate ways to fix those mistakes by using the 4 Cs concept. The instructor is a health scientist and biosafety professional with more than 16 years of experience in communicating about biosafety topics.

WORKSHOP #12: *Sunday, February 11, 2018, 1:00 PM - 5:00 PM*
“Catch and Release” Capture, Restraint, and Sampling of Loose Housed Goats in Containment

Manley Kiser, University of Georgia

Jarrett Sweeley, RLAT, University of Georgia

Working with loose housed animals in a BSL-3Ag environment presents many unique challenges. One of the biggest challenges is safely catching and restraining animals for sampling and procedures. The University of Georgia’s Animal Health Research Center (AHRC) recently finished a 3-month study involving 48 pregnant Boer goats. Goats were caught and restrained on average once every 10 days for the duration of the study. To perform this task the AHRC developed several procedures and techniques to ensure the safety of the personnel and animals alike. By using examples of issues that arose during the study, this session will take an in-depth look at what it takes to safely work with loose housed agricultural animals in a BSL-3Ag setting. Topics will include personnel training, study preparation, PPE, animal capture and restraint, and sampling techniques.

WORKSHOP #13: *Sunday, February 11, 2018, 1:00 PM - 5:00 PM*

International Biocontainment Challenges

Mark Fitzgerald, Soter Biocorp., Inc.

Natasha Griffith, MS, RBP, CDC/OPHSS/CSELS/DLS

Jeffrey Owens, MPH, CSP, SN(NRCM), CBSP, Assoc. AIA, HDR Architecture

William Arndt, PhD, Sandia National Laboratories

This course will begin with a brief review of the key principles underlying the design features of containment laboratories. Participants will be introduced to and have a discussion on the differences in prescriptive and performance based requirements. A discussion will be held on the common biocontainment challenges; participants should come prepared to share their experiences and challenges. In addition to examples provided by the instructors, participants will be able to learn from the experiences of everyone in the room and will help identify possible solutions to challenges shared by other participants. The course will include lecture, pictures of many examples of biocontainment challenges from around the world, and small group activities analyzing case studies and developing alternate solutions. The goal of this course is to give students confidence in using critical thinking skills to tackle problems in biocontainment facilities in lower resource settings.

WORKSHOP #14: *Sunday, February 11, 2018, 1:00 PM - 5:00 PM*

Biosafety Program Analytics Workshop

Robert Emery, DrPH, CHP, CIH, CSP, CBSP, CHMM, CPP, ARM, University of Texas

Scott Patlovich, DrPH, CBSP, CHMM, CPH, University of Texas

All biosafety programs are confronted with three operational “true-isms”:

- 1) Successful biosafety programs function largely in the realm of prevention, so programs need to be adept at objectively demonstrating the amount of resources that are necessary to “make nothing happen”, such as injuries, illnesses and exposures.
- 2) What gets measured gets managed effectively.
- 3) Comparison is the “mother of insight” for administrators

This workshop will address these issues through the active engagement of participants to begin to answer some critical questions plaguing the biosafety community, such as: What are the key institutional drivers that influence biosafety program resourcing? Where might this data reside and how might it be assembled for optimal analysis and interpretation? What parameters should biosafety programs be collecting beyond those for regulatory compliance? What types of comparisons might be possible and valid? Participants in the workshop are asked to come prepared with the types of data they collect for their programs and to actively engage in the dialogue so that the collective knowledge of the group can be leveraged.