

#### 12th CDC International Symposium on Biosafety

# SUSTAINABILITY: People · Practices · Planet



In partnership with the American Biological Safety Association and the Eagleson Institute

#### **CO-SPONSORS**

- AALAS: American Association for Laboratory Animal Science
- APHL: Association of Public Health Laboratories
- Elizabeth R. Griffin Research Foundation
- NIH/OLAW: Office of Laboratory Animal Welfare
- USDA/ARS: Agricultural Research Service

#### **WHO SHOULD ATTEND?**

- Animal Care Staff
- Animal Facility Managers
- Biosafety Officers
- Facility Managers
- Industrial Hygienists
- Laboratory Designers
- Laboratory Directors
- Occupational Health Providers
- Principal Investigators
- Senior Management Officials

## **Key Topics**

## AT THE SYMPOSIUM, YOU CAN EXPECT TO:

- Hear challenges to old assumptions about sustainability
- Learn from sustainability success stories
- Obtain the latest on sustainable design and construction
- Discover ways of sustaining your workforce

## **Special Feature**

## ATTENDEE-NOMINATED BREAKOUT SESSIONS

This year, the Biosafety Symposium is adding a new feature: attendee-nominated breakout sessions. This participant-driven format will allow those attending the symposium to help plan and carry out activities that match their needs in ways pre-planned sessions may not.

#### You'll be able to:

- Nominate, then select a Sustainability topic that you want to discuss ...
- 2 Meet with others who share your interests or concerns; give and receive information from your peers in an hour-long structured session, facilitated by industry experts ... and
- 3 Return home with the specific information that meets your needs!

## Presymposium Courses

For complete course descriptions, visit www.eagleson.org/CDC

#### SATURDAY, FEBRUARY 11 8:00 AM - 5:00 PM

## The Role of Threat Assessment in Laboratory Biosecurity Programs

INSTRUCTORS: Nanda Gudderra, MSc, MS, PhD, Northern Arizona University; Jason Griffeth, Booz Allen Hamilton; Lindsay Odell, PhD, Booz Allen Hamilton; Benjamin Perman, PhD, RBP, Booz Allen Hamilton

The recent recommendations on personnel reliability by the Federal Executive Security Advisory Panel (FESAP) highlight the need for robust threat assessment practices in entities regulated by the U.S. Select Agent Rule. In addition, many labs not covered by the Select Agent Rule are also implementing threat assessment in response to new threats. The course will focus on the purposes and requirements of biosecurity programs and the role of threat assessment in the management of effective personal security and personal suitability components of biosecurity programs. Through an analysis of relevant case studies, students will learn how to recognize specific personal security vulnerabilities and how to link these vulnerabilities to threats. The course will include a tabletop exercise devised around a realistic laboratory security problem that draws on the material presented in the lecture and case studies.

#### SATURDAY, FEBRUARY 11 8:00 AM - 12:00 PM

#### **Introduction to Biosafety and PPE**

**INSTRUCTORS:** Cristina Bressler, MBA, CDC; David S. Bressler, MS, CBSP, CDC; Elizabeth Weirich, MS, SM(ASM), CBSP, CDC

An introductory biosafety class designed in two parts. The first section will acquaint participants with the national guidance document, "Biosafety in Microbiological and Biomedical Laboratories" (BMBL), co-written by the Centers for Disease Control and Prevention (CDC) and the National Institutes of Health (NIH). Particular attention will be paid to the 5th edition's new chapters and how they apply to a

Cover photographs courtesy CDC/James Gathany; National Institutes of Health; Payette; CDC/Becky Rentz biosafety program, and how the document as a whole relates to the risk assessment process. The second half of the class will be an in-depth discussion of the variety of personal protective equipment (PPE) available for labs and facilities. Instructors will assist participants in selecting appropriate PPE based on their individual risk assessments.

#### Sustainable Laboratories: Planning, Process and Implementation

INSTRUCTORS: Mark Fitzgerald, HDR, Inc.; William F. Zavatkay, PE, LEED AP, HDR, Inc.; Pamela A. Kostle, MS, CIH, University of Iowa

This course will introduce key aspects of the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) program as it applies to laboratories. The instructors will discuss sustainability in laboratories from the owner's perspective. The need for sustainability champions throughout the design/construction process as well as the importance of buy-in by senior leadership will be emphasized. Instructors will describe the design and decision-making process and required activities at various stages of a LEED project. Options for sustainable architectural and engineering systems and cost effective strategies for "green" laboratories will be highlighted. Case studies will be utilized throughout the course to illustrate concepts.

#### SATURDAY, FEBRUARY 11 1:00 PM - 5:00 PM

#### Performance Metrics for Sustainable Biorisk Management

INSTRUCTORS: LouAnn Burnett, MS, CBSP, Sandia National Laboratories; Joseph Kozlovac, MS, RBP, CBSP, United States Department of Agriculture – Agricultural Research Services

The most difficult—and most often overlooked—component of an effective biorisk management program is building in appropriate performance indicators to monitor if the program is the right one, working the way it was intended, and sustainable over time. This course will guide students through establishing objectives and goals, collecting metrics, and using those metrics to review and improve biorisk management performance.

## Energy Efficient Lab Ventilation Design Practices and Technologies

**INSTRUCTOR:** Gordon P. Sharp, MSEE, Aircuity, Inc.

Laboratories typically have 5 to 10 times the energy and carbon footprint of comparatively sized office buildings due to the outside air required. This course will focus on ways to reduce HVAC energy use safely and cost effectively in the face of multiple lab building requirements related to fume hoods/biosafety cabinets, thermal loads,

and dilution ventilation. Participants will become familiar with a progression of different but complimentary airside technologies and design practices and learn how these approaches can be layered or combined progressively to safely reduce a lab's ventilation-related energy costs. Quantitative energy savings for a variety of different climate regions will be provided. Real-world case studies will be used to illustrate key points.

#### **SUNDAY, FEBRUARY 12 8:00 AM - 10:00 AM**

## Training For ABSL-3 Staff: How Do You Know What They Need to Know?

INSTRUCTORS: Melissa Williams, BS, CMAR, LATG, SoBran, Inc., NIH/NIAID/CMB; James Magrath, LATG, SoBran, Inc., NIH/NIAID/CMB; Marsha Abramson, BBA, CMAR, LATG, SRS, LVT, SoBran, Inc., NIH/NIAID/CMB; Deborah Reedy, BA, LATG, SoBran, Inc., NIH/NIAID/CMB

How can you determine the appropriate training content that needs to be included in employee and investigator orientations for employees working directly in an ABSL-3 suite, and how can you make sure the training is effective? This workshop will provide information and hands-on exercises that will help you meet the specific needs of your biocontainment facility, whether you are developing a new training program or wish to enhance an existing one. Topics will include how to develop a training plan, design engaging classroom and hands-on training, assess training effectiveness, and maintain necessary documentation.

### **SUNDAY, FEBRUARY 12 10:00 AM - 12:00 PM**

#### Gold Storage Strategies for Energy Efficiency While Improving Sample Access and Freezer Performance

INSTRUCTORS: Allen Doyle, MS, University of California, Davis; Kathryn A. Ramirez-Aguilar, PhD, University of Colorado at Boulder

Ultra low temperature (ULT) freezers have tripled in the last ten years at UC Davis and demand is growing. Each ULT uses as much or more electricity than a single family home; the annual costs are about two thousand dollars in direct energy and hidden costs. Also, sample access may be compromised by poor record keeping and obsolete samples. This course will highlight cold storage issues, then examine integrated strategies for reducing cost and energy consumption while improving sample access and unit performance. Participants are encouraged to inventory cold storage units and identify issues at their facilities in preparation for the class.

#### **SUNDAY, FEBRUARY 12 8:00 AM - 12:00 PM**

#### Sustaining a Biosafety Culture in Your Lab: Why We Don't Heat Soup in Petri Dishes

INSTRUCTORS: Louise S. Barden, PhD, Frontline Health Care Workers Safety Foundation; Murray Cohen, PhD, Frontline Health Care Workers Safety Foundation; Michael Miller, PhD, D(ABMM), Microbiology Technical Services, LLC

This workshop will present the reasons why creating and sustaining a biosafety culture is necessary to ensure biosafety in lab facilities and will provide participants with practical, effective, efficient ways to promote and sustain this culture. The presenters will highlight applicable research and lessons learned from other industries. Focus will be on how a systems approach that detects the root causes of accidents can benefit the traditional lab risk assessment. In addition, the CDC/APHL Biosafety Competencies for Laboratory Personnel (published April 15, 2011) and the forthcoming CDC publication, "Creating a Culture of Safety in the Clinical Laboratory" will be reviewed. Finally, the workshop will provide opportunities to discuss the benefits of the recommendations, as well as strategies for encouraging acceptance, adoption, and adherence.

## Water Savings Design and Practices for Animal Holding Equipment Cleaning and Sterilization

INSTRUCTORS: Dan Ghidoni, PE CIH, Northeast Scientific; Arthur Trapotsis, MBA, MS BioChE, Consolidated Sterilizer Systems; Robert Sedlacek, MS, Gnotobiotics Consultant, Massachusetts General Hospital

This course will demonstrate water savings strategies through presentation of detailed operation characteristics of sterilization and washing equipment. A video "tour" of animal facility operational and service spaces will provide visual understanding of the equipment's scale and system integration. System design requirements and operational procedures will be investigated to illustrate water and heat energy reductions. Instructors will guide students through hands-on payback calculations for energy saving design options and operational decisions.

### **SUNDAY, FEBRUARY 12 1:00 PM - 5:00 PM**

#### Creating a Successful, Durable Green Labs Program on Your Research Campus

INSTRUCTORS: Allen Doyle, MS, University of California, Davis; Kathryn A. Ramirez-Aguilar, PhD, University of Colorado at Boulder

The course will begin with a description of three laboratory conservation programs on research campuses: the University

of California, Davis; the University of California, Santa Barbara; and the University of Colorado at Boulder. Instructors will point out how these models at state universities are applicable to government research and biosafety settings, which face many of the same issues. In the second part of the course, instructors will work with each participant to identify opportunities and key stakeholders in their research setting.

## Sustainable Animal Facilities: Design and Operation Consideration

**INSTRUCTORS:** William T. Freeman, PE, LEED AP, BD+C, Collaborative Engineering Solutions; John R. Henneman, BA, MS, The Pennsylvania State University

This course provides an overview of sustainability as it applies to animal facilities. The purpose of the course is to prepare participants to weigh practical solutions for existing challenges they may face in their facilities, as well as new issues that may arise. The course will focus on both design and operation issues from a practical point of view. Numerous "lessons learned" will be used as examples.

#### Think Before You Act! A Realistic Approach to Sustainable Lab Practices

INSTRUCTORS: Debra Sharpe, MPH, CCHO, RBP, WorkingBuildings; John McFarland, PE, CCP, LEED-AP, WorkingBuildings; Tiffini Lovelace, RA, NCARB, WorkingBuildings; Trevor Powers, PE, CCP, CEM, LEED-AP, WorkingBuildings

Everyone wants to move toward more sustainable labs, but the issues are complex, and require careful examination. This course will provide an overview of sustainable technologies with pros and cons of each, examine the use of Risk Assessment as a tool when pursuing appropriate sustainable technologies, and discuss how laboratory building operations impact sustainability goals.

#### Designing Training Programs for a Biosafety Environment

INSTRUCTORS: Susan Caskey, Sandia National Laboratories; Vibeke Halkjaer-Knudsen, PhD, Sandia National Laboratories

This course will focus on the unique challenges faced when developing effective training for adult learners. Topics include an introduction to the psychology of adult learning and strategies for working with differing levels of education and pre-existing knowledge. The instructors will emphasize how using a mix of theoretical case studies, incidents, accidents and other experiences from the institutions can provide a basis for an ongoing, engaging and interesting retraining program. In the second part of the session, participants will have an opportunity to apply their knowledge by working in small groups to outline a training program for one of the group members' home institution.

#### WELCOME RECEPTION

Join us Sunday evening at 5:30 PM in the Exhibit Hall for the welcome reception.

This is a great opportunity to meet other participants, the speakers, and our corporate sponsors. You might even win a prize at the raffle. Don't miss it!

## TAKE CARE OF YOUR HEART: A VALENTINE'S DAY BANQUET EXPERIENCE

**Join us from 6 – 9 PM on February 14 for a heart-warming evening!** 

Before dinner, get your heart pumping by participating in a walk along the trails surrounding the hotel, or participating in a mind/body movement activity. After working up an appetite, join fellow symposium attendees for a **heart-healthy meal.** 

After dinner, enjoy the unique experience that is **Drum Cafe Atlanta**. The first sound we hear or feel is the heartbeat in the womb. Through Drum Cafe's interactive performance, you'll connect to the **"rhythm of life."** This group of world class performers will begin the program with an **energizing performance**, followed by an interactive component in which the audience will participate, using clapping, vocalizations and body percussion. It's the perfect way to connect with the rest of your fellow attendees and to end an eventful day.



#### HOTEL INFORMATION

The Crowne Plaza Ravinia is conveniently located in the heart of Atlanta's Perimeter Center, across the street from the Perimeter Mall. It is surrounded by ten acres of lush Japanese gardens containing walking trails.

Amenities include: high-speed internet access in all rooms, an indoor pool and health club, and three restaurants. In addition, the hotel provides complimentary shuttle service to the MARTA train station. The MARTA provides continuous transportation to and from the airport, as well as a variety of other Atlanta locations.



A block of rooms has been reserved at the special rate of \$132. To make reservations, call 1-888-233-9527 or visit www.eagleson.org/CDC for a link to the hotel's room registration website. Please indicate that you will be attending the CDC Biosafety Symposium. Reservations must be received by January 16, 2012.

## **Conference Outline**

#### **MONDAY, FEBRUARY 13**

8:00	Welcome
8:15	Challenging the Dogma
	James Welch, Elizabeth R. Griffin Foundation
8:45	Safety, Sustainability, and Common Sense in the Vivarium — Mutually Exclusive Goals?  Marisa St. Clair, DVM, MS, DACLAM, National Institutes of Health
9:15	Harnessing the Pareto Principle to Improve
	BSC Performance and Sustainability
	David S. Phillips, MBA, Thermo Fisher Scientific
9:45	Q&A
10:00	BREAK
10:30	Group Discussion: FEATURE
	<b>Re-thinking Sustainability in Your Facility</b> Paul J. Meechan, PhD, MPH, RBP, CBSP, Centers for Disease Control and Prevention
11:30	<b>Greetings from ABSA</b> LouAnn Burnett, MS, CBSP, President, American Biological Safety Association
11:45	LUNCH
12:45	Recycling Programs in
	<b>Animal and Laboratory Operations</b> Patricia Olinger, RBP, Emory University
1:30	<b>Sustainability via Lean Vivarium Management</b> Steven M. Niemi, DVM, DACLAM, Massachusetts General Hospital
2:15	Introduction to Tuesday's Participant-
	Nominated Breakout Sessions
2:30	BREAK
3:00	Reduce, Refine, Replace: The 3 R's of Animal Sustainability Shelley Hoogstratten-Miller, DVM, MS, DACLAM, National Institutes of Health
3:30	Green Autoclaves: Less Water, Steam, and
	Energy = More LEED Points
	Arthur Tranotsis MRA MS RioChF

Consolidated Sterilizer Systems

4:00	CDC Energy Conservation Project: Removing Building 17 BSC Thimble Connections Thomas M. Blanchard, PE, CDC; Karen Moss PE, CDC
4:30	Biological Safety Cabinet Energy and Safety Considerations Dan Ghidoni, PE, CIH, Northeast Scientific Associates
5:00	CONCLUSION
TUES	DAY, FEBRUARY 14
8:00	Safe, Successful, and Sustainable Laboratories
8:45	A Success Story: BSL-3 Laboratories Designed into a Platinum LEED Building That is Sustainable and Practical
9:15	for Work with Tier 1 Select Agents Barbara Fox Nellis, SM(NRCM), RBP, CBSP, Barb Nellis Consulting  Opportunities for Sustainable Design and Construction for a Non-human Primate ABSL-3 Facility Maureen Thompson BSN, RN, Yerkes National
	Primate Research Center, Emory University
9:45	BREAK
10:15	Report on a World Health Organization Initiative James Atkinson, Consultant, WHO
10:45	<b>Laboratory Ventilation: Rethinking the Traditions</b> Ralph Stuart, CIH, Cornell University
11:15	Exercise: Tools to Evaluate Lifecycle/Operations Costs  Pamela Greenley, CIH, Massachusetts Institute of Tochnology
12:05	of Technology <b>Explanation of Afternoon Attendee-Nominated Breakout Sessions</b>
12:15	LUNCH

Breakout Sessions
2:45 BREAK

1:30

Attendee-Nominated SPECIAL FEATURE

Stress in the Workplace 3:15 Jeannie A. S. Nigam, MS, National Institute for Occupational Safety and Health/CDC Healthier. Safer and More Engaged: 3:45 Strategies for Sustaining a **Thriving Workforce** L. Casey Chosewood, MD, National Institute for Occupational Safety and Health/CDC CONCLUSION 4:30 Take Care Of Your Heart: 6:00 A Valentine's Day Banquet Experience **WEDNESDAY, FEBRUARY 15** 

**FESAP** Recommendations and Other Policy 8:00 **Drivers for Select Agent Regulations** Robbin S. Weyant, PhD, RBP, CDC

Finding and Acting on Conservation 8:45 **Opportunities in Laboratories** Allen Doyle, MS, niversity of California,

Davis; Kathryn A. Ramirez-Aguilar, PhD, University of Colorado at Boulder

The CDC Chamblee Environmental Health 9:15 Laboratory: Lessons Learned for a Successful, **Sustainable Laboratory Design** Angela Wagner, NCARB, LEED AP BD+C, CDC **Announcement from** 9:45

Elizabeth R. Griffin Research Foundation James Welch, Executive Director

10:00 **BREAK** 

Do Less, Get More: 10:30 A "Glocal" Approach to Sustainability

> Ana Coppinger MArch, BES, Smith Carter Architects and Engineers

First Steps in Establishing 11:00 **Sustainability in Animal Operations** Nathaniel Powell Jr., DVM, DACLAM, CDC

**Advocating for Sustainability** 11:30 Heather Sheeley, PhD, Health Protection Agency UK

**CONCLUSION** 12:15

#### REGISTRATION INFORMATION

#### **SYMPOSIUM FEES:**

Symposium fees include Opening Reception, Symposium Banquet, attendance at Symposium sessions and lunch on Monday and Tuesday.

Fees	By January 6, 2012	After January 6, 2012	
Symposium	\$645	\$695	
Dinner - Guest	\$75	\$75	
<b>Presymposium Courses</b>			
Two-hour course	\$95		
Four-hour course	\$195		
Eight-hour course	\$295		

#### **REGISTRATION INFORMATION**

To register for this symposium online, go to www.eagleson.org/CDC or call 207-490-1076 to register by phone or request a registration form.

#### **CANCELLATION POLICY**

Individuals who cancel on or before January 27, 2012 are entitled to a full refund, less a \$50 service fee. No refunds will be given after January 27, 2012. Notification of cancellation must be received in writing, and refunds will be issued after February 29, 2012. Substitutions for a registered attendee may be made at any time.



P.O. Box 954 Sanford, ME 04073 (207) 490-1076

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FEBRUARY 11-15, 2012 CROWNE PLAZA RAVINIA, ATLANTA, GA

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