

January 21–25, 2006  
Crowne Plaza Ravinia  
Atlanta, Georgia

**CDC 9th International**

**Symposium on Biosafety**

# Current Challenges in Animal Biosafety and Biosecurity



## CO-SPONSORS

AAALAC – Association for Assessment and Accreditation of Animal Laboratory Care International  
AALAS – American Association for Laboratory Animal Science  
ABSA – American Biological Safety Association  
ACLAM – American College of Laboratory Animal Medicine  
ACVPM – American College of Veterinary Preventive Medicine  
ASLAP – American Society of Laboratory Animal Practitioners  
ASM – American Society of Microbiology  
APV – Association of Primate Veterinarians  
CALAM – Canadian Association for Laboratory Animal Medicine  
CALAS – Canadian Association for Laboratory Animal Science  
CRWAD – Conference of Research Workers in Animal Diseases  
Elizabeth R. Griffin Research Foundation  
ESLAV – European Society of Laboratory Animal Veterinarians  
FELASA – Federation of European Laboratory Animal Science Associations  
ICLAS – International Council for Laboratory Animal Science  
ILAR – Institute for Laboratory Animal Research  
Lab Animal  
NIH / OLAW – National Institutes of Health/Office of Laboratory Animal Welfare  
USDA / APHIS – US Department of Agriculture / Animal and Plant Health Inspection Service  
USDA / ARS – US Department of Agriculture / Agriculture Research Service

## 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: complimentary, on-site fitness center, indoor pool, outdoor jacuzzi, tennis/basketball courts, three story atrium lobby, piano lounge and concierge service.

**A block of rooms has been reserved at the special rate of \$113. To make reservations call 800-554-0055 or call the hotel direct at 770-395-7700. Please indicate that you will be attending the CDC Biosafety Symposium. Reservations must be received by January 2nd.**



## Presymposium Classes

### SATURDAY, JANUARY 21, 2006

#### Afternoon Classes, 1:00 pm – 5:00 pm (select one)

##### 1. Review of Animal Biosafety Levels 1-4, Biosafety Level-3Ag, and the Use of Personal Protective Equipment in Animal Facilities

**Instructors:** Shanna Nesby-O'Dell, DVM, MPH, CDC; Jonathan Richmond, PhD, Jonathan Richmond & Associates; David Bressler, MS, CBSP, CDC

This course contains two sections: (1) The first section will provide an overview of the Vertebrate Animal Biosafety Levels (ABSL) 1-4 as outlined in the 5th edition of the CDC/NIH publication entitled Biosafety in Microbiological and Biomedical Laboratories (BMBL), with an introduction to USDA's Biosafety Level-3 Agricultural requirements (BSL-3Ag). The course will also review the basic safety concepts of principles and practices, special practices, safety equipment and facility design for each ABSL. (2) The second section will provide an overview of the various types of Personal Protective Equipment (PPE) that are commonly used within laboratory animal research facilities. Participants will review appropriate methods of selection, donning and removal of PPE, as well as hazard and medical considerations for its use.

##### 2. Tips on Developing Safety Programs and Manuals

**Instructors:** Joe Campos, PhD, Children's National Medical Centers; Richard Green, MSc, CTM, Georgia Public Health Laboratory

This program will begin with an overview of laboratory safety including descriptions of problems from the past that resulted in the occurrence of embarrassing or frankly hazardous situations. Since laboratory safety requirements are not standardized at many levels and do vary from jurisdiction to jurisdiction, time will be taken to highlight some of the area and regional differences that may not be well-known to attendees. The program will move on to the publication of the new edition of "Biosafety in Microbiological and Biomedical Laboratories" and emphasize the changes in the new edition

that are of importance to laboratories. Finally, the program will wrap up with discussion of steps to take during the establishment of a successful laboratory safety program. Areas that will be addressed include defining the responsibilities of the laboratory safety officer, preparation of a laboratory safety manual, institution of initial and ongoing laboratory safety training activities for workers, documenting compliance of workers with the laboratory safety program, and monitoring the health and infection status of laboratory workers.

##### 3. Use of Viral Vectors in Animal Research

**Facilitator:** Joseph P. Kozlovac, MS, CBSP, RBP, ARS/USDA

**Instructors:** Bruce Crise, PhD, SAIC; Stephen H. Hughes, PhD, Center for Cancer Research

This course shall review frequently utilized viral vector systems for gene transfer/expression and discuss risk assessment methodology for research involving viral vectors in animal models (in vivo) as well as in vitro applications. Topics, such as unanticipated products from production in vitro and adverse host interactions from in vivo introduction of viral vectors, will be discussed. Course participants will be able to utilize information presented in the lectures in an interactive risk assessment exercise.

### SUNDAY, JANUARY 22, 2006

#### Morning Classes, 9:00 am – 12:00 pm (select one)

##### 4. Animal Health Care and Program Issues in BSL3/4

**Facilitator:** Nathaniel Powell, DVM, CDC, NCID, SRP

**Instructors:** Yvonne Reed, CDC, NCID, SRP, ARB; Eddie Jackson, CDC, NCID, SRP, ARB; Paul Spurlock, DVM, CDC; Nathaniel Powell, DVM, CDC, NCID, SRP  
**Technical Experts:** Paul Bystrom, CDC; Wayne Kirby, CDC; Kismet Scarborough, CDC; Bobby Brown, PhD, CDC

This class will begin by discussing the development of a laboratory program, from procurement to completion of the research project. Issues addressed include: the care and use of unusual animal species in a biocontainment environment;

caging and technical requirements within a biocontainment environment – development and modifications; and psychological enrichment within a biocontainment environment. In addition, static caging and equipment will be displayed for participants to view and ask questions.

#### **5. Design, Construction and Commissioning of ABSL1-3 Animal Facilities**

**Facilitator:** Robert Ellis, PhD, Colorado State University  
**Instructors:** Randall E. Larsen, AIA, FWA Group; Kenneth E. Olson, PhD, Arthropod-Borne and Infectious Diseases Laboratory, Colorado State University; David H. Neil, DVM, PhD, Laboratory Animal Resources, Colorado State University

The instructors for this interactive course bring a wealth of experience and expertise in designing and managing laboratories and animal facilities, from BSL 1-3 and ABSL 1-3. The design and management of insectaries integrated into BSL-2 and BSL-3 facilities will be included into a general discussion of laboratory design, construction and commissioning.

#### **6. Risk Assessment and Biosafety for Unique Animals**

**Facilitator:** Alan G. Brady, DVM, University of South Alabama  
**Instructors:** Sherry Henry, CDC, PhD, MPH, and others TBA

The requirements for working with nonhuman primates and other wild animals often complicate procedures for working in a biohazardous environment. They may have special housing and diet requirements, and may require environmental enrichment. This workshop will provide guidance for conducting risk assessments for research with exotic animals and address occupational health and safety concerns for researchers and animal care technicians. The participant will be provided with:

1. An understanding of the parameters which must be evaluated to provide a comprehensive assessment of risk.
2. Guidance for developing a medical surveillance program.
3. Mitigation strategies to address biosafety issues and employee health.
4. Training, decontamination and emergency response considerations.

Resources to address animal housing requirements and potential zoonotic diseases will be provided.

## **SUNDAY, JANUARY 22, 2006**

### **Afternoon Classes, 1:00 pm – 5:00 pm (select one)**

#### **7. Infection Control in an Animal Research Facility**

**Facilitator:** Dale Martin, DVM, PhD, Aventis Pharmaceuticals  
**Instructors:** William White, VMD, Charles River Labs; Charles Clifford, DVM, PhD, Charles River Labs; Dale Martin, DVM, PhD, Aventis Pharmaceuticals

Three presentations in this class/workshop will explore and discuss strategies for monitoring and controlling health status of animals in a Biosafety Environment. The first presentation

will be Biocontainment/Bioexclusion – Perception vs. Reality. The second presentation will be Monitoring and Managing Health Status – knowing what, where and when! Finally, the third presentation will examine scenarios when problems arise in a talk entitled “Having a ‘Plan B’ for People and Animals”. The workshop will give the attendee a sound background to enable him or her to negotiate potential pitfalls in performing biosafety studies in laboratory animals of known health status. In addition, the students will experience a practical exercise on how to identify and manage health problems in animals and people when roadblocks occur.

#### **8. Crisis and Emergency Risk Communication**

**Instructor:** Barbara Reynolds, CDC

The purpose of this workshop is to introduce participants to communication principles and tools critical to successful communication during a public health emergency. The participant should expect to leave this course with the following understanding:

1. Why organizations must integrate effective emergency risk and crisis communication planning and resources into overall emergency operational planning at the community, state and federal levels.
2. Nuts and bolts of crises communications planning and tools.
3. The psychology of a public health emergency and what messages the public will need from their public health professionals.
4. How local, state and federal emergency response and recovery operations (including government and non-government organizations) should communicate among themselves and to the public and their stakeholders.

#### **9. Managing Internal and External Program Reviews in Biocontainment**

**Facilitator:** Jim Swearengen, DVM, AAALAC International  
**Instructors:** LTC Susan Goodwin, DVM, USAMRIID; LTC Carol Eisenhauer, DVM, USAMRIID; LTC Gretchen Demmin, PhD, USAMRIID; LTC Ross Pastel, PhD, USAMRIID

Managing animal care and select agent programs under Biosafety Levels 3 and 4 (BSL-3/4) can bring unique challenges to veterinarians, facility managers, IACUC members, husbandry staff, safety and biosurety personnel, and facility administrators. One of those challenges includes how to handle internal and external reviews of the animal care and select agent programs. This presymposium course is designed to bring in speakers with real life experience in this area and to provide a balanced view of what is expected by outside organizations (USDA Animal Care, AAALAC International, CDC) when they visit your facility, and challenges associated with conducting required internal IACUC animal care and use program reviews and facility inspections. An overview of applicable animal care and select agent regulations and guidelines will provide a baseline of knowledge for attendees followed by first-hand experiences on what to expect and how to effectively prepare for and manage these types of internal and external reviews in BSL-3/4 facilities.

# Keynote Address

**Julie Louise Gerberding, MD, MPH, Director of CDC**



**Julie Louise Gerberding, MD, MPH**, became the Director of the Centers for Disease Control and Prevention (CDC) and the Administrator of the Agency for Toxic Substances and Disease Registry (ATSDR) on July 3, 2002.

Before becoming CDC Director and ATSDR Administrator, Dr. Gerberding was Acting Deputy Director of National Center for Infectious Diseases (NCID), where she played a major role in leading CDC's response to the anthrax bioterrorism events of 2001. She joined CDC in 1998 as Director of the Division of Healthcare Quality Promotion, NCID, where she developed CDC's patient safety initiatives and other programs to prevent infections, antimicrobial resistance, and medical errors in healthcare settings. Prior to coming to CDC, Dr. Gerberding was a University of California at San Francisco (UCSF) faculty member and directed the Prevention Epicenter, a multidisciplinary research, training, and clinical service program that focused on preventing infections in patients and their healthcare providers. Dr. Gerberding is an Associate Clinical Professor of Medicine (Infectious Diseases) at Emory University and an Associate Professor of Medicine (Infectious Diseases) at UCSF.

Dr. Gerberding is a member of Phi Beta Kappa, Alpha Omega Alpha (medical honor society), American Society for Clinical Investigation (ASCI), American College of Physicians, the American Epidemiology Society, and is a Fellow in the Infectious Diseases Society of America (IDSA). She chaired and co-chaired IDSA's Committee on Professional Development and Diversity, was elected to serve as a member of the Nominations Committee, and co-chaired the Annual Program Committee. Dr. Gerberding is a member of the Society for Healthcare Epidemiology of America, and previously served on its board for three years.

In the past, Dr. Gerberding served as a member of CDC's National Center for Infectious Diseases' Board of Scientific Counselors, the CDC HIV Advisory Committee, and the Scientific Program Committee, National Conference on Human Retroviruses. She has also been a consultant to the National Institutes of Health, the American Medical Association, CDC, the Occupational Safety and Health Administration, the National AIDS Commission, the Congressional Office of Technology Assessment, and the World Health Organization.

## Welcome Reception

**SUNDAY, JANUARY 22, 2006**

Be sure to join your colleagues Sunday evening at 6:00 pm in the Ravinia Ballroom for a welcome reception. Thanks to the support of corporate sponsors, we will be serving a variety of hors d'oeuvres. It is guaranteed to be a lively evening.

## Conference-At-A-Glance

**KEYNOTE ADDRESS: GLOBAL OUTBREAKS AND INFECTIOUS DISEASE**

**SESSION ONE: OCCUPATIONAL HEALTH**

**SESSION TWO: FACILITY OPERATIONS**

**SESSION THREE: FACILITY DESIGN**

**SESSION FOUR: SAFETY OVERSIGHT**

**SESSION FIVE: BSL-3 AG ISSUES**

## Symposium Banquet

**TUESDAY, JANUARY 24, 2006**

For more information visit [www.eagleson.org](http://www.eagleson.org)

## MONDAY, JANUARY 23, 2006

---

8:00 **Welcome:** L. Casey Chosewood, MD, CDC

### **KEYNOTE PRESENTATION:**

8:15 **Global Outbreaks and Infectious Diseases**  
Julie Louise Gerberding, MD, MPH, CDC

## SESSION ONE:

### OCCUPATIONAL HEALTH

Shanna Nesby-O'Dell, DVM, MPH, CDC, **Moderator**

9:15 **OSHA Safety and Health Requirements for Biosafety and Animal Research Facilities**  
Melody Sands, MS, USDOL/OSHA

- Guidance on Local vs. State vs. Federal Requirements

9:35 **Medical Surveillance Programs: AAALAC International's Perspective and Expectations**

Jim Swearngen, DVM, DACLAM, DACVPM, AAALAC International

10:00 **BREAK**

10:20 **Medical Surveillance for Personnel Working with Animals**

L. Casey Chosewood, MD, CDC

- Advance Planning, Allergies, Immunizations, Serum Banking

11:00 **Respiratory Protection for Bioaerosols: Selection and Use**

Max Keifer, MS, CIH, CDC

- Risk Assessment, Medical Exams, Selection of Respirator

11:40 **Medical Management of Potential Exposures to Biological Threat Agents**

Janice Rusnak, MD, USAMRIID

12:20 **LUNCH**

1:30 **Panel Discussion**

### **SPECIAL PRESENTATION:**

2:00 **BMBL 5th Edition**

Deborah Wilson, PhD, CBSP, CAPT, USPHS, NIH

- Updates from previous edition

2:45 **BREAK**

### **SPECIAL PRESENTATION:**

3:05 **Using Recombinant DNA Safely in Animals**  
Stephen H. Hughes, PhD, Center for Cancer Research

- Gene Transfer
  - Recombinant DNA Molecules
  - Focus on Biosafety, Safety Testing
  - Demonstrate Agent is Non-Replicating, Not Shedding, Noninfectious
  - Dealing with Animals Post-gene Transfer

3:45 **Recombinant DNA Panel Introduction**

*Each presenter will give 10 minute overview of background.*

#### **A. Regulations**

NIH/OBA Designate

#### **B. Applications**

Robert F. Hoyt, Jr., DVM, National Heart, Lung & Blood Institute, NIH

#### **C. Biosafety**

Diane O. Fleming, PhD, RBP, CBSP, Biosafety Consultant

4:15 **Panel Discussion**

4:50 **Concluding Remarks**

5:00 **Conclusion**

## TUESDAY, JANUARY 24, 2006

---

### **SPECIAL PRESENTATION:**

8:00 **Transport of Infectious Substances**  
Mary Cipriano, MBA, Abbott Labs

#### **Transport of Animals**

Robert J. Russell, DVM, Harlan

9:00 **Discussion**

## SESSION TWO:

### FACILITY OPERATIONS

Nathaniel Powell, DVM, CDC/NCID/SRP, **Moderator**

9:20 **Managing Animal Facilities**

David H. Neil, BVSc, MRCVS  
Colorado State University

- Training, Safety & Operational SOPs, Biosafety, Maintenance, Program Management

9:50 **BREAK**

10:10 **Animal Husbandry/Daily Operations/Safety**  
Mallory Tate, DVM, CDC

- Primary Containment Options, Primate Issues, Adapting Existing Equipment to Containment

10:40 **Operations in a Field Environment**

Jack Rhyan, DVM, MS, National Wildlife Research Center, USDA/APHIS/VS

11:10 **The Real Costs of Operating an Animal Facility**

Stefan Wagener, PhD, RBP, CBSP, Canadian Center for Human and Animal Health

11:40 **Panel Discussion**

12:00 **LUNCH**



## TUESDAY, JANUARY 24, 2006

---

### SESSION THREE: FACILITY DESIGN

Randy Kray, MARCH, Smith Carter, Moderator

- 1:15 Advanced Technologies in Animal Research**  
**Kim Taylor, DVM, NIAID**
- Aerobiology, Imaging, Flow Cytometry, Transport of Animals
- 1:45 Aerosolization Technology**  
**Louise Pitt, USAMRIID**
- 2:15 Waste Management for Containment Facilities**  
**Paul E. Langevin, PE, Merrick & Company**
- Technologies and Applications, Regulations, Permitting, Waste Streams, Cage Washing, Sterilization, Carcass Disposal (Large Animal)
- 2:45 Panel Discussion**
- 3:00 BREAK**

### SESSION FOUR: SAFETY OVERSIGHT

Robert Ellis, PhD, Colorado State University, Moderator

- 3:20 Roles and Responsibilities**  
**Claudia Mickelson, PhD, M.I.T.**
- IBCs, IACUCs, Biosafety Officers, Chief Veterinarians, Line Management
    - Facility Responsibilities
    - Identifying Safety Problems
    - Controlling Access
- 3:50 Managing Your Internal Select Agent Program**  
**Charles Brokopp, CDC**
- Compliance and Reality
  - Audits and Inspections
- 4:20 Series of Short Presentations on Unique Situations Related to Safety Oversight**  
*Each presenter highlights points of concern. Panel discussion follows.*
- A. Navigating Through IACUC-IACUC and IACUC-IBC Overlaps: Jointly Sponsored Research and Peer Review of Hazardous Agent Use in Animals**  
**Michael T. Fallon, DVM, PhD, DACLAM, Atlanta VA Medical Center**
- B. Managing Students and Other Academic Challenges**  
**Jerry Collins, DVM, Yale University**

**C. The Contract Staffing Perspective**  
**Kerry L. Taylor, DVM, MSc, DACLAM, Charles River Laboratories, Inc.**

- 4:50 Questions and Discussion**
- 5:15 Conclusion**
- 6:00 SPECIAL DINNER EVENT**

## WEDNESDAY, JANUARY 25, 2006

---

### SPECIAL PRESENTATION:

- 8:00 Public Communications and BSL-4 Labs: The UC Davis Experience**  
**Andrew Fell, BSc, PhD, UC Davis News Service**

### SESSION FIVE: BSL-3 AG ISSUES

LeeAnn Thomas, PhD, USDA/APHIS, Moderator

- 9:00 Pathogens of Agricultural Significance**  
**Robert A. Heckert, DVM, PhD, USDA/ARS**
- Emergency Management & Diagnostics
  - Overview of Pathogens of Agricultural Significance
  - Agricultural Pathogen Containment Recommendations
- 9:30 Agriculture Risk Assessment vs. Biosafety Risk Assessment**  
**Scott Rusk, MS, Flad & Associates**
- Economic Impact
  - Comparison of ABSLs for Different Species
  - Lab Animals, Primates, Farm Animals
  - Field Biosafety, Outdoor Facilities, Wildlife
  - Permitting
- 10:00 BREAK**
- 10:20 BSL-3Ag**  
**Alfonso Torres, Cornell University**
- Philosophy, Biocontainment
  - Design
  - Pathogens of Livestock and Poultry
- 11:10 International BSL-3/4 Ag Facilities**  
**Kathrin Summermatter, PhD, Institute of Virology**
- Comparison of USA with Other Countries
  - Testing & Security
- 11:40 Panel Discussion**
- 12:10 Wrap-up**
- 12:30 Conclusion**

# CDC 9th International Symposium on Biosafety

## Registration

**TO REGISTER FOR THIS SYMPOSIUM:** Send the completed registration form with payment to Eagleson Institute, P.O. Box 954, Sanford, ME 04073, or register online at [www.eagleson.org](http://www.eagleson.org), or fax to (207) 490-7106 **QUESTIONS:** Call (207) 490-1076 or email [eagleson@eagleson.org](mailto:eagleson@eagleson.org).

NAME \_\_\_\_\_

ORGANIZATION \_\_\_\_\_

TITLE \_\_\_\_\_ DEPARTMENT \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE / PROVINCE \_\_\_\_\_ ZIP CODE / POSTAL CODE \_\_\_\_\_

TELEPHONE NUMBER \_\_\_\_\_ FAX NUMBER \_\_\_\_\_

E-MAIL ADDRESS \_\_\_\_\_

### SYMPOSIUM FEES

Symposium Fees include Opening Reception, Tuesday Night Dinner, Attendance at Symposium Sessions, Lunch on Monday and Tuesday, and Symposium CD.

FEES	BY DECEMBER 16	AFTER DECEMBER 16	
Symposium	<input type="checkbox"/> \$595	<input type="checkbox"/> \$645	\$ _____
Monday Lunch – Guest	<input type="checkbox"/> \$30	<input type="checkbox"/> \$30	\$ _____
Tuesday Lunch – Guest	<input type="checkbox"/> \$30	<input type="checkbox"/> \$30	\$ _____
Tuesday Night Dinner – Guest	<input type="checkbox"/> \$60	<input type="checkbox"/> \$60	\$ _____

If you or anyone in your party requires special needs, please check here

### PRESYMPOSIUM COURSES

**SATURDAY AFTERNOON – Please Select One:**  \$75 \$ \_\_\_\_\_

ABSL 1-4 PPE  Tips on Developing Safety Programs and Manuals  Use of Viral Vectors in Animal Research

**SUNDAY MORNING – Please Select One:**  \$75 \$ \_\_\_\_\_

Animal Health Care and Program Issues in BSL3/4  Design, Construction and Commissioning of ABSL 1-3 Animal Facilities  
 Risk Assessment and Biosafety for Unique Animals

**SUNDAY AFTERNOON – Please Select One:**  \$75 \$ \_\_\_\_\_

Infection Control in an Animal Research Facility  Crisis and Emergency Risk Communication  
 Managing Internal and External Program Reviews in Biocontainment

### PAYMENT INFORMATION

**TOTAL DUE** \$ \_\_\_\_\_

**Check enclosed** (Please make check payable to Eagleson Institute. US Funds only.)

**Please charge my:**  VISA  MasterCard  American Express

CREDIT CARD NUMBER \_\_\_\_\_ EXP DATE \_\_\_\_\_

NAME ON THE CARD \_\_\_\_\_ BILLING POSTAL CODE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

#### CANCELLATION AND REFUND POLICY

Individuals who cancel on or before January 6, 2006, are entitled to a full refund less \$50 service fee. No refunds will be given after January 6, 2006. Notification of cancellation must be received in writing, and refunds will be issued after February 6, 2006. Substitutions for a registered attendee may be made at any time.

**EAGLESON INSTITUTE**



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

Non-Profit Org  
U.S. Postage  
PAID  
Portland, ME  
Permit # 477



**January 21-25, 2006**  
Crowne Plaza Ravinia  
Atlanta, Georgia

**cDC 9th International**

**Symposium on Biosafety**

# **Current Challenges in Animal Biosafety and Biosecurity**

