

MORNING

WORKSHOPS

★ **W-27 Management Coaching in Laboratory Animal Science: The Why, the When, and the How**

8:00 a.m.–12:00 p.m.

Room: 105
 Leader: Michael D Kastello
 Faculty: Joel A Goldberg
 Facilitator: Catherine Bernstein
 Workshop Fee: \$130
 Workshop Limit: 50

Developing effective managers and leaders is as important to animal care and use organizations as it is to any other business organization or group. Management coaching has proven to be an effective tool for management and leadership development but, unfortunately, this tool is seldom used to help and guide those responsible for animal care and use programs. These programs exist within diverse and dynamic environments that range from the mundane function of waste disposal to the burnishing of the institution's reputation for a sensitive activity such as animal research. Leadership and management are difficult in this complex environment and sometimes involve responsibility without authority. Training, knowledge, and experience of people are a given in a quality program, but the management of staff and the interactions with scientists, administrators, regulators, and the public involve interpersonal relationships and the art of communication. Management coaching can help to ensure that animal care and use program managers can effectively apply those and other critical skills. As a result of this workshop, participants will, among other things, be able to identify the benefits of management coaching, describe the roles and responsibilities of a management coach, define the circumstances in which coaches can and should be used, explain the pros and cons of an internal versus an external coach, identify the characteristics of an effective coach, identify the characteristics of an effective coaching program, and describe ways to follow up on coaching to ensure ongoing application and assess the impact of coaching. Participants will be involved in an interactive discussion regarding relevant successful coaching situations and their personal experiences with coaches and coaching programs. The target audience includes all that have significant responsibility for animal care and use programs.

★ **W-28 Animal Facility Design**

8:00 a.m.–12:00 p.m.

Room: 106
 Leader: Mark A Corey
 Faculty: Mark A Corey, Rachel Nelan, Steven G Frei, Jim Corkery
 Facilitator: Mia M Nettik
 Workshop Fee: \$130
 Workshop Limit: 50

Key:

- ★ Animal Welfare, Regulatory Compliance, and Public Education
- ✱ Biomedical Research, Medicine, and Methodology
- ✱ Facility Design, Management, and Operation
- ⚗ Neurobehavioral Sciences

This session will benefit those involved with animal facility design and operations by describing the processes, decisions, and technologies involved in the design, construction, and management of animal facilities. We will begin with a discussion of the facility design process, including who should be involved, the level of effort by stakeholders, milestone decisions to be reached, and anticipated durations of the various phases of the process. This will include a detailed discussion of the different planning and procurement options for vivarium equipment and the impacts they can have on the project. Next, current trends in the industry will be explored through a series of case studies, including discussions of planning schemes; interior construction and finishes; operational impacts; and mechanical, electrical, and piping decisions and their outcomes. What is working? And why? These lessons learned will help enable participants to make more informed decisions as they develop their own facilities. Finally, planning energy and resource efficient facilities is no longer a trend or an option, but rather an integral driver in facilities planning. We will discuss those sustainability efforts that are being effectively implemented in animal facilities, and the long-term benefits to be derived from each.

At a Glance

- **Career Center: 8:00 a.m.–2:00 p.m., Rm 109**
- **Learning Resource/Technology Center: 8:00 a.m.–2:00 p.m., Rm 122**
- **Registration: 7:30 a.m.–12:00 p.m., Maryland Street Lobby**
- **Speaker Ready Room: 7:30 a.m.–12:00 p.m., Rm 212**

SEMINARS

★ **Disposable Caging—An Alternative to Conventional Caging**

8:00 a.m.–10:45 a.m.

Room: Sagamore Ballroom 5
 Leader: Keith J Jenne
 Moderator: Stuart E Leland
 Facilitator: David W Mallon

The four perspectives to be presented are ammonia and CO₂ concentrations, breeding comparisons, operational analysis with actual financials, and a framework for evaluating washing versus disposables in new construction. In regards to ammonia and CO₂ in disposable and reusable IVCs, ammonia was evaluated by placing ICR female mice in disposable or reusable IVCs, under positive pressure. Intracage ammonia increased in reusable cages on day four, reached ~50 ppm by day five, and by day nine was >150 ppm. Intracage ammonia levels in the disposable cages remained ≤3.2 ppm. In evaluating a disposable caging system as a breeding and husbandry solution, breeding pairs were set up in both conventional or disposal caging system and monitored for pregnancy and mothers' behaviors. No animal health concerns were detected. Eventually, nine out of nine breeding pairs gave birth and all dams had taken care of their pups at the end of the two-month evaluation period, for a success rate of 100%. This successful breeding result indicates that there was no extended period of acclimation for these animals to the new environmental conditions in disposable housing. This seminar will also cover a case report of a quarantine facility that was converted from IVC caging with a fully functional washroom to disposable caging. The facility staff, expenses, and infrastructure were all benchmarked prior to the conversion as well as following the conversion, so a true comparison can be made. A complete data set has been developed and will be provided. Lastly, this seminar discuss a 12,000-cage barrier mouse facility in which the planning team explored the possibility of using disposable caging for the entire facility. Disposables were eventually selected; the economic analysis leading to this new facility will be presented.

Speakers/Topics:

8:00	Keith J Jenne	Welcome and Introductions
8:05	Keith J Jenne	Quarantine Conversion to Disposable Caging—A Case Study
8:25	Marek Piechowiak	Evaluation of Disposable Caging System as a Breeding and Husbandry Solution
8:45	Tim Geary	A Decision-making Framework for Selecting Disposable Caging for New Construction

- 9:05 Michael J Parnell Disposable Caging as a Complete Bio-containment Solution
- 9:25 Dag M Eide Disposable Caging as an End-to-End Solution

*** Mouse Names: Nomenclature, Genetic Background, and "Normal" Phenotypes' Impact on Research and Study Design**

8:00 a.m.–10:45 a.m.

Room: Sagamore Ballroom 3
 Leader/Moderator: Cory F Brayton
 Facilitator: Rebecca D Hyzer

What's in a mouse name? Are you intimidated by long mouse names? Afraid that it will take years of training to translate them or use them correctly? Are outbreds really more like us humans? Inbred strains were developed for their possession of traits or phenotypes of interest, in order to study those traits or phenotypes. Inbred mice are beautiful genetic tools. They should be expected to have important phenotypic differences, which can be used to advantage, or not. This seminar aims to demystify mouse nomenclature, remind us why some common strains were developed and what to expect from them, and illustrate how genetic backgrounds impact experimental design. This seminar is aimed at all users of the mouse—scientists, veterinarians, and research and technical staff.

This seminar is sponsored in part by Charles River and Jackson Laboratory.

Speakers/Topics:

- 8:00 Cory F Brayton Welcome and Introductions
- 8:05 Cory F Brayton What Mouse Strain for What Study? Phenotypes to Expect and Recognize
- 8:55 Lois Maltais Mouse and Gene Nomenclature: How to Use Correct Nomenclature and Why You Should
- 9:50 Michael Festing Genetic Background Implications for the Design of Experiments

*** Rodent Fur Mites: An Emerging Biosecurity Issue**

8:00 a.m.–10:45 a.m.

Room: Sagamore Ballroom 2
 Leaders: Felix R Wolf, Neil S Lipman

Moderator: Felix R Wolf
 Facilitator: Donna D Tignor

The prevalence of fur mites in rodent colonies has been increasing in recent years. Many facilities that were previously mite-free for many years are now infested. The most likely sources are the introduction of animals from non-commercial sources combined with a failure of quarantine measures. Diagnosis of fur mites is notoriously unreliable, and the published treatment modalities were costly, labor intensive, and often unsuccessful. This seminar will summarize the problem, discuss effective diagnostic procedures to detect fur mites both in small groups (such as quarantine) and large colonies (such as sentinels), present several effective eradication schemes compatible with different facility sizes, and discuss effective prophylactic treatment and rederivation schemes to enhance rodent quarantine.

Speakers/Topics:

- 8:00 Felix R Wolf Welcome and Introductions
- 8:05 Neil S Lipman Historic Perspective and Biological Aspects
- 8:25 Felix R Wolf Diagnosis: Techniques and Limitations
- 8:45 Rodolfo J Ricart Arbona Facility-wide Treatment using Anthelmintic Containing Feed: Investigative Studies and Implementation
- 9:05 Felix R Wolf Multimodal Regime Treatment
- 9:20 Jennifer K Pullium Important Strategies and Quarantine Eradication Programs
- 9:45 All Speakers Future Directions and Discussion

*** Scientific Advances in Laboratory Animal Nutrition**

8:00 a.m.–10:45 a.m.

Room: Sagamore Ballroom 4
 Leaders/Moderators: Dennis E Barnard, David K Johnson
 Facilitator: Christopher O Meshida

This seminar is a tribute to Joe Knapka, PhD, an insightful laboratory animal nutritionist who led the scientific contributions of defined laboratory animal diets in biomedical research. This seminar highlights the evolution of laboratory animal diets, nutritional concepts, and the value of diet formulations, along with standard to customized diets. Data will be presented on the direct influence that diets have as research variables, intervention therapies, aging processes, and to genetic engineered animal models.

Speakers/Topics:

- 8:00 David K Johnson Welcome and Introductions
- 8:05 Dennis E Barnard A Tribute to Joe Knapka, PhD: Scientific Contributions, Especially Open Formula Diets
- 8:25 Forrest Nielsen Evolution of Diets: Standard, Customized, and AIN76A and AIN 93
- 8:55 Julius E Thigpen Source, Concentration, and Impact of Dietary Phytoestrogens on Estrogenic Studies Using Laboratory Animals
- 9:25 Dennis E Barnard Dietary Intervention of Ulcerative Dermatitis in C57Bl Mice
- 9:40 Donald K Ingram Manipulating Aging through Diet Restriction
- 10:00 James Kaput Effect of Diets on Rodent Models & Genetic Expression
- 10:20 All Speakers Panel Discussion

PLATFORM SESSIONS

*** Husbandry/Management III**

8:00 a.m.–10:45 a.m.

Room: Wabash Ballroom 2
 Moderator: Valerie A Hamlin
 Facilitator: Brian J Ebert

- 8:00 PS78 Facility Design Requirements for Integrating Gaseous Chlorine Dioxide Decontamination Systems
 P Lorcheim, M Czarneski*
- 8:15 PS79 Circadian Disruption Induced by Dark-Phase Light Contamination in Animal Facilities Stimulates Human Tumor Growth and Metabolism in Nude Rats
 RT Dauchy*, EM Dauchy, LK Davidson, PC Tirrell, DT Lynch, RP Tirrell, MW Greene, LA Sauer, DE Blask
- 8:30 PS80 A Comprehensive Rodent Quarantine System That Jump-starts Research
 J Watson*
- 8:45 PS81 Bedding Change Interval Influence on the Microenvironment of Mice in Ventilated Microisolator Housing
 MD Rosenbaum*, S VandeWoude, T Johnson
- 9:00 PS82 Ammonia Concentrations at the Cage Level for Mice and Rats: Effects of Strain, Housing Density, and Ongoing Breeding
 AM Ostdiek*, A Frazier, N Johnston*, T Liberati, R Trammell, LA Toth
- 9:30 PS83 Radical New Approach to IVC Housing for Rats
 M Jackson*
- 9:45 PS84 Characterization Routine for Improved Animal Welfare in Prewearing Mice
 JM Marques, H Augustsson*, S Ögren, K Dahlborn
- 10:00 PS85 Predicting the Impact of Noise from Construction on Mouse Gestation and Nursing Behavior
 S Rasmussen*, GM Glickman, FW Quimby, R Tolwani

 GLAS-sponsored abstract

Spouses Hospitality

8:00 a.m.–11:00 a.m.,
 Marriott, Atlanta

Thursday

- 10:15 PS86 Novel Means of Continuously Monitoring Laboratory Rodents
SM Niemi*, M Dempsey, N Sims, M Wollowitz
- 10:30 PS87 Comparison of Single-use and Multi-use Individually Ventilated Cages: CO₂ and Energy Environmental Performance
GA Norris*, V D'Incognito

SPECIAL TOPIC LECTURES

* A Canine Model of Glycogen Storage Disease Type Ia: Challenges in the Clinical Management of Affected Dogs

11:00 a.m.–12:00 p.m.

Room: Sagamore Ballroom 2

Speaker: Maggie B Struck

Moderator: Harvey E Ramirez

Facilitator: Javier Chavez

Glycogen storage disease type Ia (GSD Ia), von Gierke disease, is an autosomal recessive disorder due to mutations in the gene that encodes for glucose-6-phosphatase. Deficiency of this crucial enzyme occurs in 1:200,000 individuals, and results in the inability to produce glucose through gluconeogenesis and glycogenolysis. Clinical signs include severe hypoglycemia, hepatomegaly, hyperlactacidemia, hypertriglyceridemia, and hyperuricemia. Unlike the murine animal model, the naturally occurring GSD Ia canine model displays a key feature of the human disease, hyperlactacidemia. This makes the canine model ideal for investigation of novel treatments, including viral-vectored gene therapy. Production and maintenance of affected canines involves extensive knowledge in breeding management, neonatal care, and intensive care for both model-associated and naturally occurring medical problems and emergencies. A team of dedicated personnel providing continuous 24-hour care is essential to the survival of affected dogs. This presents unique challenges with regard to husbandry, veterinary medical care, and regulatory compliance. Health concerns in affected dogs, similar to complications in humans, require specialized knowledge of the disease and novel approaches for treatment of medical problems. This presentation will introduce the canine GSD Ia model and the breadth of strategies involved with proliferation and maintenance of this sensitive and valuable colony. We will also discuss the major challenges in integrating human medical expertise and specialized veterinary knowledge within research facilities and an academic veterinary medical teaching hospital. The target audience includes facility managers, laboratory animal veterinarians, and those involved with IACUC.

* Advancing Experimental Surgery and Animal Welfare Through Hemostasis and Cardiovascular Management

11:00 a.m.–12:00 p.m.

Room: Sagamore Ballroom 5

Speaker: Kevin M Lewis

Moderator: Daniel D Myers Jr

Facilitator: Julie L Bakken

This special topic lecture will review the importance of surgical hemostasis in overall patient care and welfare, focusing on the physiology of cardiovascular management, the available hemostatic techniques and products, and the perioperative considerations when faced with blood loss. A practical overview of species variations in cardiovascular management will focus on why surgical hemostasis is important and how it is best achieved. Hemostats—crude and sophisticated—will be presented to develop surgical algorithms for use in species-specific surgeries. Specific perioperative considerations of blood loss, fluid therapy, and acid-base status will be highlighted. Participants will learn that cardiovascular management and hemostasis balance the risk of experimental surgery to improve animal welfare and surgical outcomes. Participants will become familiar with the varying indications and efficacy of commercially available hemostats. Additionally, correct application of hemostats will be reviewed as it applies to individual species. Participants will take away hemostatic algorithms for rodent, canine, porcine, and non-human primate surgery. The special topic lecture targets program directors, surgeons, and surgical team members involved in experimental surgery.

* Animal Rights Goes Mainstream: The Danger to Research

11:00 a.m.–12:00 p.m.

Room: Sagamore Ballroom 4

Speaker: John D Young

Moderator: Jacquie Calnan

Facilitator: Tamara Goodman-Kuhel

While our attention is understandably focused on numerous disturbing incidents of violence against scientists by animal rights militants, a much broader threat to animal research is evolving. Well-funded multinational animal rights organizations are hard at work to ensure that the extreme animal rights agenda is infused into every aspect of our lives. Already, the Humane Society of the United States can credibly claim that one out of every 30 Americans is a supporter. As animal rights influence is felt in classrooms and courtrooms; in city halls and the halls of Congress; and through movies, TV, and the Internet, we in the research community frequently find ourselves simply reacting to challenges by animal rights leaders. Can we turn the tide and evolve a cohesive long-term strategy to secure the future of animal research? What can be done to build public understanding and acceptance of our work? How do we connect with citizens who are being inundated by animal rights images and messages? John Young, a researcher and veterinarian, is a popular and high-profile research advocate. He warns that all too often we use animal rights extremism as a convenient excuse to avoid public outreach. AALAS members must work together and with others to tell the public about the nature and benefits of animal research. In this presentation designed for the entire AALAS community, Dr. Young will provide perspective on the animal rights threat, offer practical tips for public outreach at every level, and recommend straightforward strategies to enhance the power of research advocacy.

This special topic lecture is sponsored in part by Americans for Medical Progress (AMP) and Cedars-Sinai Medical Center.

* Selecting a Decontamination Method for Equipment Exposed to Infectious Disease

11:00 a.m.–12:00 p.m.

Room: Sagamore Ballroom 3

Speaker: Michael G Sidelsky Sr

Moderator: Christopher R Katz

Facilitator: Angela T Glasscock

A continuing issue for those conducting animal research, especially those working with infectious agents, including naturally acquired murine viruses, bacteria, and parasites, is selecting a method of decontamination. Various methods, such as vaporized hydrogen peroxide (VHP), ClO₂ gas, ClO₂ solution, steam autoclaving, and dry heat will be discussed, with available data being shown. Sophisticated animal caging systems, some with electronics or constructed with materials sensitive to certain methods of decontamination, will be presented in conjunction with strategies to confront and conquer the problem. Consideration as to how to integrate these decontamination methods for application to and impact on new equipment, retro-fitting old facilities, and constructing new facilities during the planning stage is a goal. The target audience includes facility directors, supervisors, managers, biosafety officers, and technicians.

AFTERNOON

PANEL DISCUSSIONS

* Environmental Monitoring and Contamination Control Technologies for Comparative Medicine Facilities

12:00 p.m.–1:30 p.m.

Room: Wabash Ballroom 1

Leaders: Jim N Polarine Jr, Paul T Lopolito

2008/2009 Program
Committee Meeting

1:45 p.m.–5:00 p.m., Marriott,
Santa Fe

Moderator: Jon McCabe

Facilitator: Carrie A Carnevale

Panelists: Jim N Polarine Jr, Paul T Lopolito, Claire Fritz, Mark Czarneski

This panel discussion will cover a variety of topics, including environmental monitoring, cleaning chemistries, disinfectants, sporicides, PPE, and techniques that can be used to limit contamination outbreaks. The focus of current cleaners used in lab animal facilities will be discussed, along with the rationale for having an effective cleaning and disinfecting program. Current and new technologies will be discussed such as vaporized hydrogen peroxide (VHP), chlorine dioxide, acetic acid, hydrogen peroxide, quaternary ammoniums, as well as new novel technologies being used to address viral outbreaks, pinworm outbreaks, and other contamination concerns. Case studies will be presented on VHP and disinfectant/sterilant chemistries. These case studies will focus on and address successful outcomes from large and small scale decon of lab animal facilities. The subject of new application methods such as VHP, foaming, fogging, double- and triple-bucket routines, and dry fogging will be discussed. There will be hands-on demonstration of proper application techniques with some of the latest application equipment and VHP technologies. The panelists will encourage the audience to share their contamination issues to discuss possible solutions. The audience will be encouraged to participate and provide feedback during the presentations and during the demonstration.

This panel discussion sponsored in part by STERIS Corporation.

✳ Help! I Need A Job! Career Options for Lab Animal Veterinarians

12:00 p.m.–1:30 p.m.

Room: Wabash Ballroom 3

Leader/Moderator: Jacquelyn T Tubbs

Facilitator: Angela P King-Herbert

Panelists: Allison Williams, David M Kurtz, Chandra D Williams

The goal of this panel discussion is to convene a group of laboratory animal veterinarians that are fairly new to the field to inform veterinarians in laboratory animal training programs, or those receiving training experientially, of the various career pathways available in laboratory animal medicine and to advise them on what they might expect in their first official job. Panelists will represent different career pathways, such as academia, government, industry, and contract research organizations (CROs), and will include two speakers with PhDs, and two Diplomates of the American College of Laboratory Animal Medicine. They will deliver short presentations explaining how they have adapted to the work environment since training. An extension of the panel will include audience members representing the laboratory animal community, providing additional sources of information and advice for the question-and-answer segment of the discussion. The target audience includes laboratory animal medicine trainees, post-doctoral fellows, and veterinarians receiving training experientially. The audience will receive information about the diversity of career options available to laboratory animal veterinarians, and guidance, advice, and tips on career decisions they will inevitably make when transitioning from laboratory animal trainee to laboratory animal veterinarian.

🔗 Performance-based Training for Investigators

12:00 p.m.–1:30 p.m.

Room: 123

Leader/Moderator: Terry A Hewett

Facilitator: Ellen Croxford

Panelists: William L Singleton, Leticia V Medina, Joanne L Zahorsky-Reeves, Gail K Moore, Sherri L Goss

This discussion is for all people involved with the development, implementation, and improvement of training programs for investigators and their staff. Performance-based training will be defined and its benefits will be presented. Training programs from industry and academic institutions will be described with emphasis on acquisition of skills, such as animal handling, procedures on animals, aseptic practices, anesthesia monitoring, post-operative care, and euthanasia in group or one-on-one formats to stimulate discussion and audience participation regarding successful training strategies and current challenges. Discussion will focus on implementation of performance evaluation to meet training objectives whether voluntary or compulsory programs are in use.

✳ The Government Relations Committee—Getting Involved, Staying Informed

12:00 p.m.–1:30 p.m.

Room: 120

Leaders/Panelists: B Taylor Bennett, VH 'Chip' Price, Matthew R Bailey

Moderator: VH 'Chip' Price

Facilitator: Carolyn M Malinowski

The AALAS Government Relations Committee (GRC) is charged with monitoring Federal legislative and regulatory issues that might impact the field of laboratory animal medicine; identifying and advising the AALAS president on any federal legislative and regulatory issues that might impact the laboratory animal medicine field; and identifying and assisting in the formation of liaisons with key groups to impact legislation and writing position papers, opinions, and comments in regard to the standing charges as directed by the Executive Committee. This session will be a joint effort between the GRC and NABR to bring people up to date on the activities of the GRC and to provide them with an opportunity to learn firsthand how to get involved and stay informed on legislative and regulatory issues.