SCAW and CITI Program have partnered to develop a Student Scholarship Fund to provide opportunities to full-time students or postdoctoral trainees to attend one of the SCAW Regional Training Workshops or the annual winter Conference. The Scholarship fund covers the registration fees.

- Provide complete contact information (Name, address, email address, phone number and institution).
- Provide a paragraph describing why you would like to attend the workshop or conference and how you would benefit.
- Include a recommendation from a current professor or advisor.
- Identify which Workshop or Conference you would like to attend.

Submit the above information no later than six weeks prior to the Workshop or Conference to:

**SCAW/CITI Student Scholarship Fund**

2660 NE Hwy 20, Suite 610-115
Bend, OR 97701
301.345.3500
fax: 541.383.4655
Email: info@scaw.com
Mission Statement

The Scientists Center for Animal Welfare (SCAW) is composed of research professionals dedicated to balancing animal welfare and excellence in basic and applied scientific inquiry. SCAW recognizes that some research areas present challenges regarding animal use. SCAW affirms that the potential benefit to humans and animals from research and the cost to the animal subject(s) must both be considered.

By addressing animal research challenges directly through education and training, SCAW serves to facilitate open discussion and helps craft solutions, as well as promote best practices. Through its outreach to the broader research community, SCAW demonstrates its commitment to excellence in animal care and science.

The SCAW newsletter is published by the Scientists Center for Animal Welfare. Submissions to the newsletter are encouraged and need to be in electronic format. Please send to info@scaw.com.

SCAW has made every effort to ensure the accuracy of materials in the newsletter, but SCAW is not responsible for loss or damages caused by errors, omissions, misprints or misinterpretations of the newsletter contents. Information contained in this newsletter should not be used as the basis of decisions by any reader without referring to applicable laws, regulations and/or professional advice.

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Gregory R. Reinhard, DVM, MBA, DACLAM

SCAW Newsletter Contributor:
Donna M. Zyry, DVM, MS, CPIA
GlaxoSmithKline Pharmaceuticals

Please send any suggestions to Linda Tockey at linda@scaw.com

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There is a wealth of information and resources on research animal welfare as well as general information about SCAW, see below:

- Special secured information section for SCAW Institutional Members
- Membership
- Upcoming meetings, workshops and conferences
- Current publications and older ones in pdf format
- IACUC Training workshops and conferences
- Resources and links
- Mission Statement
- IACUC Talk
- SCAW Newsletters
- History of meetings, workshops and conferences
- Rowsell Award
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OLAW Welcomes Dr. Jane Na

OLAW is pleased to announce the appointment of Dr. Jane Na to the position of Veterinary Medical Officer in the Division of Assurances. She will also provide support to the Division of Compliance Oversight. Dr. Na completed her laboratory animal medicine residency as well her Bachelor of Science in Biopsychology and Cognitive Science at the University of Michigan, and attained her Doctor of Veterinary Medicine degree from Michigan State University. As the first recipient of the Ben and Alice Cohen Comparative Medicine Research Award at the University of Michigan Unit for Laboratory Animal Medicine, she investigated analgesic efficacy in post-operative male guinea pigs. She will be publishing this work and pursue Diplomate status with the American College of Laboratory Animal Medicine. Prior to joining OLAW, Dr. Na was the Lead Analyst at the University of California San Francisco in the Institutional Animal Care and Use Program office. She is looking forward to continuing work to ensure the humane care and use of animals in research, testing, and training as an OLAW Veterinary Medical Officer.

Updates to APHIS’ Website Involving Animal Welfare Act Compliance Information

February 17, 2017

APHIS is posting the first batch of annual reports of research institutions and inspection reports for certain Federal research facilities that the Agency regulates under the Animal Welfare Act. The reports posted are part of a comprehensive review of the documents the Agency removed from its website in early February and are in the same redacted form as before.

To conduct the review, the entire agency search tool database was taken off line. As announced on Feb. 7, 2017, the agency will continue to review records and determine which information is appropriate for reposting.

APHIS is committed to ensuring the welfare of animals and continues to carry out the critical day-to-day work of ensuring the humane treatment of vulnerable animals through unannounced inspections, pre-compliance visits, horse protection inspections, and other activities.

The reposted information can be found on our website, here. In addition, some enforcement records (such as initial decision and orders, default decisions, and consent decisions) will continue to be available on the USDA’s Office of Administrative Law Judge’s website.
Reports on Site Visits to the National Primate Research Centers & Federally Supported Chimpanzee Sanctuary

Reports of OLAW site visits to the National Primate Research Centers and the federally supported Chimpanzee sanctuary have been posted on the Enrichment and Social Housing webpage. The site visits were initiated to determine whether the institutions’ programs and facilities were consistent with their Animal Welfare Assurance with OLAW and to evaluate the current state of social housing, husbandry, enrichment, veterinary care, and training practices.

See also Guide Notice NOT-OD-17-010.

Updates to APHIS’ Website Involving Animal Welfare Act and Horse Protection Act Compliance Information

APHIS, during the past year, has conducted a comprehensive review of the information it posts on its website for the general public to view. As a result of the comprehensive review, APHIS has implemented actions to remove certain personal information from documents it posts on APHIS’ website involving the Horse Protection Act and the Animal Welfare Act. Going forward, APHIS will remove from its website inspection reports, regulatory correspondence, research facility annual reports, and enforcement records that have not received final adjudication. APHIS will also review and redact, as necessary, the lists of licensees and registrants under the Animal Welfare Act, as well as lists of designated qualified persons (DQPs) licensed by USDA-certified horse industry organizations.

We can still publicly post a list of our licensees/registrants that we regulate under the Animal Welfare Act. Here is the link: https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/SA_Regulated_Businesses. On that webpage, please click on List of Persons Licensed or Registered under the AWA to see the most up-to-date list.

Those seeking information from APHIS regarding inspection reports, research facility annual reports, regulatory correspondence, lists of regulated entities, and enforcement related matters may submit Freedom of Information Act (FOIA) requests for that information. FOIA requests can be submitted here: https://efoia-pal.usda.gov/palMain.aspx. Records will be released when authorized and in a manner consistent with the FOIA and Privacy Act. Also, consistent with recent amendments to the FOIA, if the same records are frequently requested records under the FOIA, and are subject to release under the FOIA and Privacy Act, APHIS will post the appropriately redacted versions to its website. In addition, some enforcement records (such as initial decision and orders, default decisions, and consent decisions) will continue to be available on the USDA’s Office of Administrative Law Judge’s website (https://www.oaljdecisions.dm.usda.gov/).

Congratulations to the 2016 Global 3Rs Awards Winners!

The Global 3Rs Awards program is a collaboration between AAALAC International and the IQ Consortium. Please join us in congratulating the 2016 winners of the Global 3Rs Awards!

- Dr. Olivier Frey, Europe
- Dr. Madhav Paranjpe, North America
- Dr. Benjamin Quah, Pacific Rim
The Global 3Rs Awards program recognizes individuals for their significant innovative contributions toward the 3Rs of animal research to advance ethical science in academia or industry in any area of biology. Click here for more information on this year’s winners and their work, and the sponsors who make this program possible!

PREPARE Guidelines for Planning Animal Research and Testing

As part of ongoing efforts to reduce waste and increase the reproducibility of animal research and testing, a group of experts led by the Secretary of the Norwegian 3R platform Norecopa (https://norecopa.no) has produced a set of guidelines for planning animal experiments: PREPARE (Planning Research involving Experimental Procedures on Animals: Recommendations for Excellence).

These guidelines complement the ARRIVE guidelines for reporting animal experiments. PREPARE focuses on a large number of factors which, although they are seldom reported in scientific papers, can dramatically influence the validity and outcome of studies on animals, as well as the health and safety of all those concerned. They cover all stages of quality assurance, from the management of an animal facility or population to the individual procedures which form part of a study. The guidelines are based upon the experience of the authors in running animal facilities, collaborating with researchers (including those working with farm animals, fish and wildlife), serving on advisory and regulatory committees, and planning their own animal studies.

The PREPARE guidelines have been submitted to a journal for publication as Open Access. More information will be made available at the PREPARE website:

https://norecopa.no/PREPARE

For more information, please contact the lead author, Adrian Smith at Norecopa (adrian.smith@norecopa.no).

Revised ACLAM Position Papers

Listed below are the revised ACLAM Position Papers.

Position Statements

- Reproducibility
  Updated 12/8/16
- Adequate Veterinary Care
  Updated 12/8/16

- Pain and Distress
  Updated 12/8/16
- Rodent Surgery
  Updated 12/8/16

For More information go to: https://www.aclam.org/
FGB Technician Training Scholarship 2017

The Fondazione Guido Bernardini (FGB) has established for the year 2017 a Scholarship that is designed to provide scientific/technical training to a technician involved in the care of animals used in biomedical research. It will be assigned to a person with at least two years of experience in laboratory animal care.

The scholarship consists in complimentary registration to attend one of the FGB 2017 training courses listed below, run in a prestigious research facility in Milan, Italy; travel and accommodation will also be provided.

Eligibility
The FGB scholarship is open to any technician from academia or industry with good knowledge of English who has demonstrated significant interest and capability in the field of laboratory animal science.

Application process
Applications must be accompanied by:

- a short statement from the responsible person of the laboratory animal facility explaining why the technician should receive the scholarship;
- CV of the candidate;
- an essay of up to 500 words describing his/her activities related to laboratory animals;
- a short statement as how the training course will improve his/her skills and career goals; and
- full contact details for the candidate.

Selection Committee
The FGB Scientific Committee assesses the applications and selects the winner.

Deadline
Applicants are requested to apply by e-mail no later than February 24th, 2017 to: secretary@fondazioneguidobernardini.org

2017 FGB courses:

- ORGANIZING AND OPERATING ACTIVITIES IN A RODENT ANIMAL FACILITY 8/10 March 2017
- MICROBIOTA AND GNOTOBIOTIC MANAGEMENT – 4/5 May 2017
- THE MANAGEMENT OF GENETICALLY ALTERED RODENT COLONIES 15/16 June 2017
- HEALTH MONITORING OF RODENTS: TRADITIONAL AND INNOVATIVE APPROACHES – 28/29 September 2017
- THE IMPLEMENTATION OF THE 3RS IN THE EXPERIMENTAL DESIGN 23/24 November 2017

For more information contact: secretary@fondazioneguidobernardini.org
Production Practices and Animal Welfare in Agricultural Animals

Written By Linda J. Brown

Over 10,000 years ago, humans began domesticating animals, beginning with dogs. The first food animals to be domesticated were ruminants followed by pigs. This domestication allowed humans to select animals with desirable temperaments, allow for a steady supply of food and use these animals for work, religious purposes and companionship. In return, these animals received protection from predators and food to eat. Over the years, animals have vastly contributed to society in a number of ways; food, clothing, shelter, tools, devices, personal items, work/power, war, religion, recreation and health. It’s their domestication that has led to today’s farming practices. Their importance to society in both developed and underdeveloped countries should never be underestimated.

Today's modern society has become far removed from this animal production lifestyle, and it has become increasingly more difficult to support and defend the way in which livestock are raised due to the lack of understanding of production agriculture that feeds the world. The small family farm that raised a few chickens and had some milk cows and pigs seems to have vanished from the landscape only to be replaced by larger specialized production units that allow farmers to make a living and support their families. Urban sprawl has often overtaken resources that were once used for raising livestock or inhabited by wildlife. Regardless, an affluent society has voiced their concerns over where their food comes from and how it is raised that less affluent societies can’t afford to even contemplate. These concerns arise from a mixing pot made up of values, emotions, attitudes and some personal experiences. As a result, it demonstrates the complexity of animal welfare concerns and what drives them. As scientists and those intimately linked to working with animals, it becomes necessary to become better educators and more resourceful. Animal scientists and veterinarians should be equipped to drive the conversation of best animal welfare practices and at the same time have the ability to influence and persuade change that serves in the best interest of raising these animals. Society, even with its best intentions does not always understand or take into account the negative consequences and the full impact of their passion for animals and how it could interfere with allowing those best educated in the field of animal production to raise our food supply. At times, societal groups have worked hard to drive the changes that ultimately have a negative impact on animal well-being and welfare. Producing wholesome food is a shared value between the consumer and those that raise our animals.

Often in the forefront of consumer’s minds are questions related to how well the animals are treated and whether or not they’ve received unnecessary drugs, especially...
Continued from page 7

antibiotics and/or hormones. When it comes to asking how well the animals are treated, the term welfare often comes to mind. However, the first question to address is “what is animal welfare”? The AVMA defines animal welfare as “how an animal is coping with the conditions in which it lives.” The next question becomes; “how can we tell how well the animal is coping”. According to the AVMA, an animal is in a good state of welfare (coping) “if it is healthy, comfortable, well nourished, safe, able to express innate behavior, and it is not suffering from unpleasant states such as pain, fear and distress.” Additionally, the Animal Welfare Act (AWA) of 1966 sets forth minimum standards of animal care and treatment for certain animals bred for commercial sale, used in research, commercially transported or used for public exhibition. Often there seems to be some conflict and a large disparity between scientific evidence supporting how animal welfare is measured and human emotions which seem to dictate what is considered ‘good’ animal welfare. The only downside is that the term ‘good’ in the private sector seems to be a moving target. What was once considered to be acceptable methods for raising our food, no longer seems valid by some societal groups. The voice of these groups seems to be driving large corporations to demand changes in the livestock industry that may actually be detrimental to livestock production as it relates to animal welfare and well-being.

By examining each of the states of welfare in an objective manner, one could then logically determine the animal’s overall ‘well-being’. Identifying whether or not an animal is healthy can often be determined by unbiased measures. But how is healthy defined? The WHO (World Health Organization) defines healthy as “a state of complete physical, mental and social well-being and merely the absence of disease or infirmity.” Many support the idea that if an animal is able to express its five freedoms; freedom from hunger and thirst, freedom from discomfort, freedom from pain, injury and disease, freedom to express normal behavior and freedom from fear and distress, these animals are in a state of ‘good’ welfare. Often these are determined based on measuring husbandry and the resources provided to the animal, such as housing design. Animal based outcomes such as weight gain, health status, milk production, etc., serve as impartial indicators of how well the animals are adapting to its environment and, therefore, may be considered by some as a tool for which welfare can be assessed or determined. Others, however, insist that this may be too subjective. Therefore, one method used to counteract this indifference is through third party audits. These have become somewhat of a fairly acceptable form of validating the care and welfare of our animals in food animal production systems.

Another area of animal welfare concern within societal groups is related to common production practices, such as castration, which is assumed to cause pain. Common production practices that may cause pain to an animal also come into play when considering animal welfare. An article published in 2015 by Sutherland examined common husbandry procedures in piglets on commercial farms in the first week of life and their impact on health and welfare. The findings suggest that routine husbandry procedures such at teeth clipping, tail docking and castration all incite acute pain and, therefore, pain mitigation strategies should be in place to improve the welfare of piglets. While this may be the case, one might argue that providing pain mitigation to relieve such short term pain, may itself, produce unnecessary pain.

1 N Z Vet J., 2015 Jan;63(1): 52-7
Additionally, dehorning is a common production practice. Disbudding and dehorning in cattle are not currently regulated in the United States. The benefits of disbudding and dehorning include less carcass waste due to bruising, animals that require less trough space, animals that are easier and less dangerous to handle and transport, reduced injury to udders, flanks and eyes of other animals and lower risk of injury from the more dominant animals. An unpublished study performed at the University of Illinois looked at the effects of disbudding on heart rate, physical activity and salivary cortisol concentration in neonatal Holstein-Friesian calves. Seven calves 6-11 days of age were placed in individual, indoor pens, fitted with a HR and movement sensor monitor and under video surveillance. Milk replacer was fed at 12 hour intervals with either sham or actual disbudding occurring 4 hours after feeding. One group received a nonsteroidal anti-inflammatory drug (NSAID) in its milk replacer while the other did not. Actual disbudding was performed using a hot butane dehorner. Saliva was collected 60, 30 and 5 minutes before sham and actual disbudding and every 30 minutes for 4 hours thereafter for the purpose of measuring cortisol, or stress, levels, using an ELISA. Illinois found that sham disbudding caused a transient increase in HR of 30 bpm, which was similar to the increase seen at feeding time. Heart rate (HR) in disbudded calves averaged 5.5 bpm higher over the 7.5-hour observation period compared with sham-disbudded calves. Cortisol levels appeared to peak between 90 and 150 minutes after both sham and actual disbudding with mean cortisol levels slightly higher in the disbudded calves. However, cortisol levels were also slightly elevated in both groups around feeding time. Overall, physiologic responses between sham and actual disbudding (which included HR, physical activity and cortisol) were minimal when calves were disbudded within the first two weeks of life. Those calves in which an NSAID was added to the milk replacer showed a lower HR and increased activity from 2 hours prior to disbudding to 22 hours after disbudding compared to those that did not receive an NSAID. This study demonstrates that while acute pain is anticipated with disbudding, objective measures demonstrated very little difference between sham and actual disbudding. Young calves, while often having human interaction, seem to elicit a physiologic response to the manual restraint applied for the procedure than the actual production practice of disbudding carried out on young dairy calves. While more research needs to carried out to determine the efficacy of an oral NSAID added to milk replacer, one needs to take into account the waiting period for effect as well as its efficacy. Other forms of pain mitigation such as a nerve block, itself causes pain. Therefore, one might argue that in very young animals, the seconds that it takes to disbud an animal may not justify inflicting additional pain through the administration of pain medication. The question arises, which of these choices is in the best interest of the animal and supports best practices and animal welfare?

Castration of bull calves is another common routine husbandry practice with well-described benefits. In many countries pain management for castration is legislated. In the U.S., castration of calves is often a focus of animal welfare discussions. The AVMA recommends castrating calves at the earliest age possible using practices that reduce or eliminate pain and discomfort. A study looking at the effects of flunixin meglumine and a local anesthetic block on post castration performance, plasma cortisol concentrations...
Castration and behavior in dairy calves was carried out. Castration was performed on 30 weaned Holstein-Friesian bull calves ranging in age from 2-3 months of age using a Newberry knife and Henderson castration tool. Five treatment groups were assigned: castration with a local anesthetic (2% lidocaine (LA)), castration with flunixin meglumine (FM), castration with LA + FM, castration without drugs (control) and sham castration. Results showed LA alone, such as a subcutaneous ring block around the spermatic cords and into the testes, did not effectively control discomfort in young dairy calves castrated with the Henderson castration tool and that lidocaine may have resulted in tissue irritation or inflammation. Feed intake and body weight gain averaged 8.4 kg between all groups and was not impacted by treatment. LA failed to mitigate the cortisol response to castration in this study but was also in contrast to the findings of other research. Administration of LA + FM prevented an increase in plasma cortisol concentration after castration. Additionally, it was found that FM alone before surgical castration may have shortened the cortisol response. It could be argued that while this common production practice may be painful and, therefore, a welfare concern, the act of administering medication to reduce pain may be contradicting its benefit. Inducing pain to minimize short term pain seems counterproductive. This study seemed effective at recognizing that castration seems somewhat painful to calves, but feed intake and body weight gain would suggest the animals were in a good state of welfare.

Other production practices such as poultry beak trimming, housing, clipping needle teeth, etc. all seem to garner attention related to pain and/or welfare concerns. Being able to determine what is in the best interest of the animal is difficult to accomplish. As humans we have come to enjoy a lifestyle of relative comfort in that most of us are able to determine for ourselves what environment and activities best meets our needs and desires. However, all too often this type of existence has been imposed on other animal species. It’s important to realize that animals are not people and have become well adapted to their surroundings. Those directly involved with animal reproduction have worked to breed animals that produce desirable traits within their herd/flock. These traits have produced an animal that has adapted well to its surroundings based on objective, production measures. It is impossible to have every animal at its peak performance 100% of the time, but through good husbandry practices and veterinary guidance and care, these animals will thrive in their environments.

Animal welfare will continue to be an ongoing dialogue, just as it should be. As an industry, we should continually look for opportunities that work to improve animal welfare. However, any regulated changes should be based on objective measures and outcomes that are repeatable and are not self-serving. Morals and values at the individual level come into play that can be passed on. However, emotions should not be the driver of change. Scientific justification needs to be encouraged. But the question remains ‘what is the best way to address animal welfare in relationship to common production practices?’

Most of us can appreciate some of the expressed concerns from individuals, regardless of how misguided they may be. However, it seems counterintui-
tive to try to regulate and dictate how livestock are raised and regulated simply based on human emotion or perception. I’d like to ask how many other professions are targeted in this way? For example, circumcision of the neonate or human physical examinations may require an injection and/or blood draw. Many find these necessary procedures to be momentarily uncomfortable despite the lack of pain medication ahead of it. Despite this uneasy, short-lived feeling, society rarely challenges its importance to the overall exam. While this is quite a simplistic example, the point being made is that at times we are willing to endure unpleasant and sometimes painful experiences for ourselves in the best interest of our overall health without necessarily questioning the motives of the professionals carrying out the procedure. Therefore, I would argue that it would be prudent to allow the professionals that raise our livestock to carry out production practices using methods and procedures that are in the best interest of keeping the animal safe and healthy without being challenged by those that are not fully educated about production practices. Animal welfare seems to be a moving target and as scientists, we must work to find better ways of sharing our knowledge and educating the public. As a profession, we must find creative ways to overcome our voices being outnumbered by society as a whole, while at the same time work to advance and advocate for the welfare and well-being of the production industry and its practices. As an industry we should partner together to build consumer trust. Accepting and initiating consumer driven changes should be scientifically justified; the livelihood of our production animals depends on it.

Linda J. Brown, is a certified Veterinary Technician at the University of Illinois at Urbana-Champaign, College of Veterinary Medicine. For over 26 years, she has devoted her career to ensuring the care, health and well-being of agricultural animals used in research and teaching, and meeting the standards and guidelines of the regulatory agencies for their ethical use. Linda is a passionate advocate for advancing the use of agricultural animals in biomedical research, food and fiber research, teaching and public outreach with a focus towards improving the lives of animals and humans.
SCAW Newsletter

SCAW IACUC Training Workshop
University of Maryland

Please mail /scan and email to info@scaw.com or register on-line at www.scaw.com

Registration fee includes attendance at all sessions, orientation materials, continental breakfast and lunch as indicated on the program. The total registration fee must accompany the registration form.

Name: ____________________________________________________________

Job Title: __________________________________________________________

Company/Institution Name: __________________________________________

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May 5, 2017, College Park, MD

___ $375 General Registration Fee

___ $300 SCAW Institutional Member Fee

___ $150 Student (Contact SCAW about CITI student sponsorship)

Scientists Center for Animal Welfare
2660 Hwy 20, Suite 610-115
Bend OR 97701
Tel: 301.345.3500
info@scaw.com
www.scaw.com

Continue on next page
SCAW IACUC Training Workshop
Sponsored by OLAW/NIH/DHHS; USDA/APHIS/AC; University of Maryland-College Park;
CITI Program; a•tune Software
May 5, 2017
University of Maryland – College Park
3972 Campus Drive
Stamp Union
College Park, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00</td>
<td>Registration</td>
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<tr>
<td>8:00</td>
<td>Continental Breakfast</td>
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<tr>
<td>8:30</td>
<td>Introduction and Welcome to IACUC Training</td>
<td>Gregory R. Reinhard, DVM, MBA, DACLAM</td>
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<tr>
<td>8:45</td>
<td>Keynote: To Understand Where You Are, It Helps to Know How You Got There</td>
<td>Ernest D. Prentice, PhD</td>
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<tr>
<td>9:30</td>
<td>How Does Your IACUC Rise to Challenges?</td>
<td>J. G. Collins, PhD</td>
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<tr>
<td>10:00</td>
<td>Break</td>
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<tr>
<td>10:30</td>
<td>How Does an IACUC Deal with Noncompliance? Ways to Right the Ship</td>
<td>Randall J. Nelson, PhD</td>
</tr>
<tr>
<td>11:00</td>
<td>The IACUC: A View From Inside the Cage</td>
<td>John F. Bradfield, DVM, PhD, DACLAM</td>
</tr>
<tr>
<td>11:30</td>
<td>Promoting High Quality Data and Reproducibility in Your Animal-Based Research</td>
<td>Paul G. Braunschweiger, PhD</td>
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<tr>
<td>Noon</td>
<td>Lunch</td>
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</tr>
<tr>
<td>1:00</td>
<td>Are You Up To Date with APHIS, OLAW? Q &amp; A for You and Me</td>
<td>Gregory R. Reinhard, DVM, MBA, DACLAM</td>
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<tr>
<td></td>
<td>Introduction and Moderator:</td>
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<td></td>
<td>OLAW Representative</td>
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<td>USDA/APHIS/AC Representative</td>
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<tr>
<td>2:00</td>
<td>Case(s) in Point: PHS- and USDA-Based Scenarios</td>
<td>Ernest D. Prentice, PhD</td>
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<td>Randall J. Nelson, PhD</td>
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<td>OLAW Representative</td>
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<td>USDA/APHIS/AC Representative</td>
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<td>3:00</td>
<td>Break</td>
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<tr>
<td>3:30</td>
<td>NEW Afternoon Concurrent Sessions - Choose One Track NEW</td>
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<tr>
<td>3:30</td>
<td>Track One</td>
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<tr>
<td>3:30</td>
<td>Active Learning as a Component of IACUC Training</td>
<td>J. G. Collins, PhD</td>
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<tr>
<td>3:30</td>
<td>(Registration limited to 20 participants. Please email <a href="mailto:info@scaw.com">info@scaw.com</a> to</td>
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<td></td>
<td>become a registrant. You will receive a return email confirming that you are a participant.)</td>
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<tr>
<td>4:00</td>
<td>Track Two</td>
<td></td>
</tr>
<tr>
<td>4:00</td>
<td>IACUC Oversight: PAM, Compliance Liaisons</td>
<td>Gregory R. Reinhard, DVM, MBA, DACLAM</td>
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<tr>
<td>4:00</td>
<td>Under the Microscope: Examining Your Programs Before Others Do</td>
<td>Randall J. Nelson, PhD</td>
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<td>James R. Swearengen, DVM, ACLAM, DACVPM; AAALAC Representative</td>
<td>Ernest D. Prentice, PhD</td>
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<td>OLAW Representative</td>
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<td>USDA/APHIS/AC Representative</td>
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5:00 End of Workshop
## Schedule of Activities 2017

### March
- **Publication of SCAW Newsletter**

### May
- **SCAW IACUC Training Workshop**
  - **College Park, Maryland**
  - **May 5, 2017**

### June
- **Publication of SCAW Newsletter**

### August
- **Alternatives and Animals in the Life Sciences**
  - **Seattle, WA**
  - **August 20-24, 2017**
  - **(SCAW Exhibiting)**

### September
- **SCAW IACUC Training Workshop and IACUC 301 Scenarios**
  - **The City University of New York**
  - **New York, NY**
  - **September 14-15, 2017**

### October
- **AALAS National Meeting**
  - **Austin, TX**
  - **October 15-19, 2017**
  - **(SCAW Exhibiting)**
- **SCAW Wildlife IACUC Training Workshop**
  - **Sheraton Hotel and Marina**
  - **San Diego, CA**
  - **October 30, -November 1, 2017**

### November
- **Publication of SCAW Newsletter**

### December
- **SCAW Board Meeting**
  - **San Antonio, TX**
  - **December 3, 2017**
- **SCAW Winter Conference**
  - **Menger Hotel**
  - **San Antonio, TX**
  - **December 4-5, 2017**

For any of SCAW's Workshops or Annual Winter Conference go to: [http://www.scaw.com/conferences-workshops/](http://www.scaw.com/conferences-workshops/)