Thank you Matt. I too would like to welcome everyone to our second webinar on the 8th Edition of the *Guide for the Care and Use of Laboratory Animals*. Since I have spent some time reviewing the new *Guide* in preparing these webinars, I have come to appreciate the difficulty that the committee had in trying to craft language that delivered their intended message. It is always easy to question the language that is used in such a publication, but in general the issue should not be about semantics, but about the substance of the recommendations. I will try to adhere to my own recommendations in this regard in this webinar.

As you know this webinar is entitled, “The New *Guide*: Diving into the Details of Chapters 1 & 2.” For starters, I think it is important to remember how we finished our last session with my attempt to paraphrase the purpose of the *Guide*. 

The New *Guide*: Diving into the Details of Chapters 1 & 2

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To assist your institution in laying the foundation for a comprehensive animal care and use program that relies on the use of performance standards and professional judgment to assure that such use is in accordance with the highest scientific, humane and ethical principles.

• Tailor the animal care and use program to the unique needs of your institution

The Guide has always been intended to be used by institutions to tailor the animal care and use program to the unique needs of your institution. It is important that you carefully review the recommendations in light of your program and what I have to say in the next few minutes represents my take on things and may or may not be applicable at your institution.

OLAW is now reviewing comments submitted during the public comment period. When a thoughtful and in-depth analysis has been completed, comments will be posted on the OLAW website. Personally identifiable information (except organizational affiliations and addresses) will be removed prior to posting.

Also at that time, OLAW will issue position statement(s) that will be posted on the OLAW website and a 60 day public comment period will commence to permit the public to provide feedback regarding their understanding of the position statement(s). If OLAW decides to adopt the eighth edition of the Guide, an updated implementation plan will be posted on the OLAW website.

The Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals (Policy) requires that Assured institutions base their programs of animal care and use on the Guide for the Care and Use of Laboratory Animals. As of June 2011, and until notified of a change through the NIH Guide for Grants and Contracts, this guidance for Assured institutions refers to the seventh edition of the Guide. OLAW recognizes that the Association for Assessment and Accreditation of Laboratory Animal Care, International (AAALAC) will require accredited institutions (or those seeking accreditation) to evaluate their animal care and use programs according to the eighth edition of the Guide beginning in the fall of 2011. OLAW does not consider compliance with the eighth edition of the Guide to conflict with the seventh edition of the Guide.
Chapter 1 of the 8th edition of the *Guide for the Care and Use of Laboratory Animal Care* is entitled Key Concepts and includes the Applicability and Goals of the Guide, the Intended Audiences and Uses, Ethics and Animal Use, the Three Rs, Key Terms, Policies, Principles and Procedures and the definitions of Must, Should and May as they relate to their use within the text.
The first paragraph in Chapter 1 sets the tone for using the Guide and managing an Animal Care and Use Program; “...all who care for, use, or produce animals for research, testing, or teaching must assume responsibility for their well-being.”

The second paragraph indicates that the Guide, “...establishes the minimum ethical, practice, and care standards for researchers and their institutions.”

The introductory paragraphs ends with a sentence that speaks to the issue of incorporating humane care into all aspects of laboratory animal care and use.
The section on Applicability and Goals contains only one *should*, but it may be the most important one in the *Guide*. “Institutions should use the recommendations in the *Guide* as a foundation for the development of a comprehensive animal care and use program and a process for continually improving this program.”
The section on Intended Audiences and Use contains three *shoulds*, but only one has programmatic impact; “In all instances where *Guide* recommendations are different from applicable legal or policy requirements, the higher standard *should* apply.”
The section on Ethics and Animal Use highlights the U. S. Government Principles and mentions the references contained in Appendix A. It is important to remember that the PHS Policy is intended to implement and supplement those principles, which should be clearly incorporated into your Animal Care and Use Program (ACUP).
The section on the 3R’s contains 1 must and 5 shoulds of which only one or maybe two at the most are programmatic shoulds.

The must is one that was discussed in the last webinar. This statement seems to address two issues. One is unanticipated pain and distress. The other is withholding treatment for pain and distress. When the former occurs it should only end up in Column E if the latter took place. On the other hand, if the latter was anticipated, the consultation should have taken place before hand as part of the protocol design and review process.

One of the shoulds that interested me involves the reuse of animals as a means of reducing the number of animals used and the other is the should related to the issue of endpoints. The section on reuse caught my eye because the language in the EU European Directive for the Protection of Animals Used in Scientific Procedures (2010/63/EU) appears to encourage such use under clearly defined criteria.

The endpoint should emphasize that not using commonly accepted endpoints requires science-based justification. I will have more to say about endpoints in Chapter 2.

In my mind the first sentence in the last paragraph of this section contains an important message and that is the need to balance the goals of refinement and reduction on case-by-case basis.
The section on Key Terms is pretty self-explanatory.

While the explanation of the terms engineering and performance standards are outstanding, I am concerned that the explanation of practice standards may lead to some confusion. In my mind a practice standard is something that is an accepted practice in a given region of practice and not just the use of professional judgment to a task within a given institution. That said, this section does make a strong case for the use of professional judgment in establishing processes within your institution.

The section on Policies Principles and Procedures is also self-explanatory.
I know I said that I was going to avoid a semantic dissection of the Guide, but the use of the word individual in the definition of should did catch my eye. I do not think that would have been the case had the word been institutional. To me this raises the issue of whether shoulds can be applied at the programmatic level or must be applied at the protocol level, which is a nice lead in to the next bullet.

The final paragraph of Chapter 1 clearly states the fact that the Guide contains recommendation that require the use of professional judgment to the circumstances that exist within an individual program.
Chapter 2 is entitled Animal Care and Use Program and an analysis of the shoulds and musts by sections reveals the following facts. There are 17 musts, 16 of which are programmatic, compared to 10 musts in the analogous chapter in the 7th edition and 153 shoulds compared to 91.
Chapter 2

- Animal Care and Use Program
  - Regulations, Policies and Principles
  - Program Management
    - Program Management Responsibility
    - Personnel Management
  - Program Oversight
    - The Role of the IACUC
    - Postapproval Monitoring
  - Disaster Planning and Emergency Preparedness

The table of contents indicates that there are four major topic areas in this chapter: Regulations, Policies and Principles; Program Management which has two major subtopics Program Management Responsibility and Personnel Management; Program Oversight which also has two major subtopics, The Role of the IACUC and Postapproval Monitoring; and Disaster Planning and Emergency Preparedness.
The introduction to chapter 2 on page 11 contains several interesting points. The first is the definition of an animal care and use program, which is basically all activities which have a direct impact on the well-being of the animals.

There is one should in the introduction which indicates that each institution should establish and provide sufficient resources for a Program that is managed in accordance with the Guide and in compliance with applicable regulations, policies, and guidelines.

The introduction also indicates that Chapter 2 defines the overall Program and key oversight responsibilities and provides guidelines to aid in developing an effective Program.

A look at the total musts and shoulds in the major topics and subtopics would appear to provide some indication of the importance that the authors of the Guide placed on these components of an Animal Care and Use Program (ACUP).
This table depicts the musts and the shoulds in the four major sections and the major subsections of the table of contents. I find it interesting that personnel management has almost 50% of the must and over 50% of the shoulds. The Role of the IACUC is a distant second with 38% of the musts and 1/3 of the shoulds.
The section on Regulations, Policies and Principles is just a page long and contains one should and for someone who places a lot importance in the written word, “Programs should be operated in accord with the Guide and relevant regulations, policies, and principles.” I doubt the authors meant that everything in the Guide is simply a strong recommendation because that would diminish the meaning of the must statements.

This section also very succinctly points out that in the, “The use of laboratory animals is governed by an interrelated, dynamic system of regulations, policies, guidelines, and procedures.”
In terms of page length the major sections are about the same, but in terms of the shoulds and the musts the section on Program Management has 9 and 90 respectively and Program Oversight 6 and 53. It gets even more interesting when you look at the major subheadings. Within the Program Management heading, Program Management Responsibility has 2 musts in the section on Attending Veterinarian and 7 shoulds, of which 3 are in that same section. The heading on Personnel Management has 7 musts and 83 shoulds of which 4 and 60 respectively are in the Occupational Health and Safety of Personnel section.

In the Program Oversight section, the subsection on The Role of the IACUC contains all of the musts and all but two of the shoulds in the entire section. Based upon the number of musts and shoulds, the topic of Physical Restraint would appear to be an important topic in this subsection.

At this point I would like to take a look at some of the shoulds that peeked my interest from a programmatic point of view.
These are important because the first one clearly identifies who is ultimately responsible and thus should be fully aware of the program and kept in the loop at all times. That said I don’t think it is realistic to expect the IO to be fully engaged as implied by the language, but the IO should rely on the IACUC and particularly the attending veterinarian to keep him or her in the loop.

As I read the 8th Edition of the Guide, the role of the attending veterinarian as a key partner in providing oversight and management input has been emphasized as compared to the language in the 7th Edition.
On page 14 under the section on *The Attending Veterinarian*, I found a should where I thought a must was required from a programmatic standpoint, especially if covered species are involved.
On page 15 under the section on Collaboration, there is a should that could have saved me a few headaches when trying to help out a colleague at another institution or an investigator with ties to another institution, so I would recommend that you incorporate it in your program.

Further down on page 15 in the section on Training and Education is another should that seemed to raise concerns among some of our members for reasons I do not understand.

If you are going to train them, why not document it? All it takes is a record of attendance. Put another way, if it is not in the records, it did not happen.
On page 18 in the section on Hazard Identification and Risk Assessment is a should that everyone should incorporate into their programs.

It has been my experience that too often the veterinary staff and/or IACUC members or staff take on this responsibility and I think that this should be left to professionals. The potential liabilities to the institution are just too great not to get professionals involved in the process.
At the top of page 20 in the section on Facilities, Equipment and Monitoring is an important management should and one that may not be in place in programs that are not operating under GLP SOPs and should really apply to all equipment used to protect personnel or gather data.
Personnel Security on page 23 is a new section and it would appear that they are using the phrase contingency plans and disaster plans as addressed under the major heading on Disaster Planning and Emergency Preparedness to mean the same thing.

Specifically they state “While contingency plans normally address natural disasters, they should also take into account the threats that criminal activities such as personnel harassment and assault, facility trespassing, arson, and vandalism pose to laboratory animals, research personnel, equipment and facilities, and biomedical research at the institution. Preventive measures should be considered, including preemployment screening and physical and information technology security (Miller 2007).”

I would be remiss if I did not point out that another benefit of NABR membership is access to NABR’s Crisis Management Guide for dealing with animal rights activist activity.
Investigating and Reporting Animal Welfare Concerns on page 23 is a new section and it would appear to be consistent with the Animal Welfare Regulations and the PHS Policy and subsequent guidance from OLAW.

In this section they indicate that responsibility for review and investigation of these concerns rests with the IO and the IACUC. I think from a practical standpoint the IACUC and AV will be responsible for doing the work which must be included in the report required in the next bullet.

“Response to such reports should include communication of findings to the concerned employee(s), unless such concerns are reported anonymously; corrective actions if deemed necessary; and a report to the IO of the issue, findings, and actions taken.”

Reported concerns and any corrective actions taken should be documented.
Another should that could well have been a must appears on page 25 in the section on IACUC Constitution and Function and refers to the semi-annual reports. This is an area where institutions are cited by the USDA, particularly as it relates to the timeliness of providing these reports to the IO.

Further down on page 25 in the section on Protocol Review is a should that precedes the topics which need to be addressed in the protocol form which in effect are 15 shoulds that would make an excellent check list for evaluating your protocol form. In fact if you had a checklist of these 15 points for use when reviewing protocols, it might eliminate some of the inconsistency that the USDA finds and which often results in citations.
• Page 27 - Experimental and Humane Endpoints – (1/7)
  – “The PI...should identify, explain, and include in the animal
    use protocol a study endpoint that is both humane and
    scientifically sound.”
  – “Information that is critical to the IACUC’s assessment of
    appropriate endpoint consideration in a protocol includes
    precise definition of the humane endpoint (including
    assessment criteria), the frequency of animal observation,
    training of personnel responsible for assessment and
    recognition of the humane endpoint, and the response
    required upon reaching the humane endpoint.”

On page 27 in the section on Experimental and Humane Endpoints are two
shoulds that could be turned into excellent checklist for evaluating protocols. The second
bullet also contains points for a checklist on whether the endpoint has been adequately
defined.
Chapter 2

• Page 28 – Unexpected Outcomes – (0/2)
  – Genetically modified animals
    • “The first offspring of a newly generated GMA line should be carefully observed from birth into early adulthood for signs of disease, pain, or distress.”
    • “When the initial characterization of a GMA reveals a condition that negatively affects animal well-being, this should be reported to the IACUC...”

Unexpected Outcomes on page 28 is a new section which deals almost entirely with the potential for unexpected phenotypes in genetically modified animals and the requirements as depicted on this slide.

It will be important to clearly define who is responsible for these two functions.
This is a expanded section which references the USDA definition for major operative procedure to differentiate between major and minor surgical procedures, but emphasizes that determining which category to use should be determined on a case-by-case basis.

Regardless of the classification, multiple surgical procedures on a single animal should be evaluated to determine their impact on the animal’s well-being.

While the Guide indicates that “Justifications for allowing animals not regulated by the USDA to undergo multiple survival procedures that meet the above criteria should conform to those required for regulated species,” please do not submit a request to the USDA/APHIS to receive approval in order to allow a unregulated animals to undergo multiple major survival surgical procedures in separate unrelated research protocols.

The Guide also states, “If multiple survival surgery is approved, the IACUC should pay particular attention to animal well-being through continuing evaluation of outcomes,” but I think this would best be done by the vet staff reporting to the IACUC.

Lastly the Guide states, “Some procedures characterized as minor may induce substantial postprocedural pain or impairment and should similarly be scientifically justified if performed more than once in a single animal.” This statement is consistent with requirement for a case-by-case assessment.
On page 31 under the section on Food and Fluid Regulation is another potential checklist.

Also on page 31 is the section on Non-Pharmaceutical Grade-Chemicals and Other Substances, which contains three shoulds. Several members expressed concerns about this section. As I read this section, a PI would have to describe and justify such usage and the examples provided: necessary to meet scientific goals or when pharmaceutical grade compounds are not available. Also I would think it reasonable to consider, where applicable, the criteria that follows the third should related to the makeup of the substance.
Finally I would like to call you attention to the two shoulds on page 34 in the section on Postapproval Monitoring which clearly describes a performance standard and not a one size fits all process.
In summary, I would again like to emphasize that the *Guide* is written in general terms and IACUCs have a key role in interpretation, implementation, oversight, and evaluation of institutional animal care and use programs.

The purpose of the *Guide* is to assist institutions in caring for and using animals in ways judged to be scientifically, technically, and humanely appropriate.

It is also intended to assist investigators in fulfilling their obligation to plan and conduct animal experiments in accordance with the highest scientific, humane, and ethical principles.

Institutions should use the recommendations in the *Guide* as a foundation for the development of a comprehensive animal care and use program, recognizing that the concept and application of performance standards, in accordance with goals, outcomes, and considerations defined in the *Guide*, is essential to this process.
In Closing

- Use the Guide
  - Honest assessment of your program
  - Use your professional judgment to justify your interpretation of the recommendations
  - Carefully review OLAW’s position statements in terms of your program and your interpretation of the Guide

You need to use the *Guide* to do an honest and rigorous assessment of your animal care and use program.

You will need to be prepared to use your professional judgment to justify your decisions in interpreting the *Guide* in terms of your program.

You should carefully review OLAW’s proposed position statements in terms of your program and your interpretation of the *Guide* and submit comments where you have concerns.
Finally

• Remember
  – “The goal of the Guide is to promote the humane care and use of laboratory animals by providing information that will enhance animal wellbeing, the quality of research, and the advancement of scientific knowledge that is relevant to both humans and animals.”
  – I think we all share that goal everyday when we get up and go to work.
Save the Date

• November 1, 2011

09/12/2011