Engaging the IACUC through comprehensive training

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The IACUC is one of the most important committees at a research institution and plays a critical role in the success of an animal care and use program. It is the responsibility of the institution to provide IACUC members with adequate and appropriate training. The authors explore various IACUC training options.

While there are federal mandates\(^1,2\) for the composition of the Institutional Animal Care and Use Committee (IACUC), such as the requirement for a veterinarian and a nonaffiliated member, there are several aspects of Committee membership that affect the performance of the IACUC. The membership should represent the research and teaching strengths of the institution. It is beneficial if the scientists on the Committee use animals in research or teaching so they understand better the challenges faced by other investigators submitting protocols for review by the Committee. In addition, there are less tangible characteristics to Committee membership that can contribute in a positive manner to the quality of the work done by the Committee, such as the right 'chemistry' among IACUC members that can lead to a cohesive, rather than a divisive, approach to decisions and actions taken by the Committee. The intangible characteristics of an IACUC extend beyond the scope of this article; however, the more concrete issue of IACUC training is of concern to every institution that uses animals for research, testing, and/or teaching. It is essential that individuals appointed to the IACUC fully understand their responsibilities—in other words, that they are adequately and appropriately trained for this key service position.

**WHY IS IACUC TRAINING IMPORTANT?**

The US Department of Agriculture's (USDA) Animal Welfare Regulations (AWRs) mandate the training of IACUC members: "It shall be the responsibility of the research facility to ensure that all scientists, research technicians, animal technicians, and other personnel involved in animal care, treatment, and use are qualified to perform their duties...." Interpreted broadly, this would include IACUC members because of their responsibility for oversight of "animal care, treatment, and use." The AWRs go on to say, "This responsibility shall be fulfilled in part through the provision of training and instructions to those personnel."

The Guide for the Care and Use of Laboratory Animals\(^3\) (Guide) very specifically states that "It is the institution's responsibility to provide suitable orientation, background materials, access to appropriate resources, and, if necessary, specific training to assist IACUC members in understanding and evaluating issues brought before the committee." Furthermore, because the Public Health Service Policy on Humane Care and Use of Laboratory Animals (PHS Policy), as implemented by the Office of Laboratory Animal Welfare (OLAW), and the Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International require institutions to base their animal care and use programs on the Guide, IACUC training becomes a pivotal component of institutional responsibility for the three principal oversight bodies.

The IACUC, as one of the more important committees at the institution, must understand its responsibilities and the importance of its role not only in the animal care and use program, but also to the institution as a whole. The IACUC that is properly trained recognizes the scope of its responsibilities. A good training program will also facilitate the conduct of required functions of the Committee. A knowledgeable Committee understands the checks and balances inherent in the oversight system and ensures that they are in place. When IACUC members are well informed of their responsibilities and the means by which to

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Implement them, there is some distribution of various duties of the Committee among its members, thereby avoiding the pitfalls associated with one person shoulder- ing most or all of the responsibilities on behalf of the Committee members (for a discussion of the problems associated with the animal care and use "magician," see ref. 4). Committee members who understand their role can assist in reducing the regulatory burden that can otherwise result when an institution generates another layer of policies and procedures that go far beyond those required by the PHS and the USDA. The knowledgeable Committee member can serve as an ambassador for the entire IACUC process—for example, during the semiannual inspections of animal research laboratories. During these visits to the laboratories, the Committee member can take the opportunity to explain what the IACUC does in support of the animal program and can educate investigators about the collaborative (rather than policing) approach the Committee uses to ensure animal welfare while facilitating the successful conduct of research. Likewise, an informed Committee can more easily address questions about regulatory requirements for protocol review and facilitate this process for the investigators.

WHAT SHOULD BE INCLUDED IN THE TRAINING?
Once appointed to the Committee, members should receive orientation to the general animal program at the institution and to IACUC procedures. Topics may include:

IACUC Procedures
- Expectations and responsibilities
- Description of the animal care and use program
- Processes (e.g., quorum and conflict-of-interest issues)

Regulations and Policies
- Semiannual review of the program and facilities
- Protocol review (e.g., what are the steps?)
- Review of animal welfare concerns
- Suspending activities (e.g., the IACUC's role in suspensions and activities that might warrant suspension)
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cfm), the American Veterinary Medical Association's (AVMA) 2000 Report of the Panel on Euthanasia7, and the Guide for the Care and Use of Agricultural Animals in Agricultural Research and Teaching® (if applicable). Also, Committee members should receive copies of institutional policies related to the animal care and use program, copies of recent IACUC meeting minutes and perhaps the last semiannual program review/facility inspection report, and copies of any IACUC guidelines. If the new member has not completed the protocol form for his or her own research, it may be useful to give that member a blank form for the experience of filling it out. This helps the new member understand better what the investigator has to do and helps the Committee to assess the form periodically to determine if it is clear and obtains all necessary information. Recent inspection reports from the USDA and letters from AAALAC International also provide a good source of information about the program's status. In the orientation it is helpful to the new member to include a discussion of the respective roles of the Attending Veterinarian, the IACUC support staff, the Institutional Official, and the faculty. A well-designed orientation for new members will allow them to become more effective members is a shorter time period.

Institutions should view training as a continuous process. Often training can serve as a refresher for incumbent IACUC members. Topics that can be covered include a review of institutional policies pertaining to the animal care and use program. The research program may have begun using new animal species since the last review of the policies, or certain species may no longer be in use at the institution. Perhaps there are new animal use procedures (such as surgical techniques) in use or recent changes in the regulations or policy that warrant institutional guidance. In any case, updating the policies and guidelines so they remain attuned to the research program is important. IACUC meetings can include time for training using resources such as the "Protocol Review" column in Lab Animal and the protocol review scenarios used in IACUC 101 workshops. One excellent time to provide training for members is during the semiannual reviews and inspections. For example, visits to the research laboratories allow Committee members to observe the protocols they approved, with the added benefit of providing training to the investigator and his or her staff. Investigators can communicate any concerns they might have to the Committee members at this time, and the members may see the need for development of a new policy or guideline to address a particular question (e.g., appropriate environmental enrichment for rodents).

There is a wealth of online material to assist the training of IACUC members. Such materials include the OLAW tutorial (http://grants.nih.gov/grants/olaw/tutorial/index.htm); the Veterans' Affairs Office of Research and Development training modules (http://www.researchtraining.org); and (http://www.iacuc.org; listservs such as the IACUC-Forum and CompMed hosted by the American Association of Laboratory Animal Science (AALAS); the OLAW listserv: IACUC Talk hosted by the Scientists' Center for Animal Welfare, SCAW); and electronic newsletters such as the "AMP News Service Digest" from the Americans for Medical Progress, "e-Clips" from the Foundation for Biomedical Research, and the AAALAC International list of IACUC resources (http://www.aaalac.org/resources/iacucinfo.cfm).

All of these resources can help keep IACUC members aware of what is happening in laboratory animal science both nationally and internationally. In some cases, the IACUC staff may participate in filtering this flow of information to customize and prioritize materials. Several print publications have articles that target IACUC members or help IACUC members remain up to date. These include Lab Animal, Contemporary Topics in Laboratory Animal Science, the ILAR Journal, Animal Lab News, Laboratory Animals (the official journal of the Federation of European Laboratory Animal Science Associations), and the AAALAC International Connection Newsletter (http://www.aaalac.org/publications/newsletter.cfm). Books that should be part of an IACUC library include the Institutional Animal Care and Use Committee Guidebook® and the IACUC Handbook®. The AAALAC Learning Library (http://www.aaalac.org/) contains both print and electronic tools for the IACUC. Of particular note is the AAALAC publication, "Working with the IACUC: Writing an Animal Protocol."

During discussions with the IACUC, AAALAC International site visitors often try to determine the level of commitment the institution has for ensuring appropriate training of the Committee members. Frequently, a part of this determination is based on whether Committee members have institutional support for attending IACUC-specific conferences or other meetings with an emphasis on topics related to the Committee's functions. Many consider the IACUC101 workshops and Public Responsibility in Medicine and Research (PRIM&R)/Applied Research Ethics National Association (ARENA) spring conferences to be the gold standard of IACUC-specific educational meetings. Representatives of USDA, OLAW, and AAALAC International participate strongly at both meetings. Case scenarios presented at the IACUC 101 training sessions provide good practical experience for groups of participants to review sample protocols and exemplify the types of discussions that should be held by IACUCs. The SCAW offers IACUC advanced workshops that address specific (and often challenging) topics frequently encountered by IACUCs (e.g., endpoints, pain, and distress). The SCAW also hosts an annual conference in December that focuses on IACUC functions but in a broader manner. Customized workshops designed for an institution may be of particular assistance if a significant concern has developed at the institution or if there has been a turnover of key
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personnel. Recently, state biomedical research organizations have sponsored an increasing number of training sessions that have applicability to IACUC functions. The programs presented at the AALAS annual meetings include a broad range of subjects, many of which would be of interest to IACUC members. Finally, AAALAC International periodically hosts a “Trends and Expectations” conference, the latest of which has been made available on CD (http://www.aaalac.org/resources/available.cfm), which describes AAALAC International site visit findings and provides ways in which to prevent or correct program deficiencies.

SUMMARY

It is important to the success of the animal care and use program to keep training at the forefront. Assessment of the level of need for training may include individualizing the training program for Committee members. Because members come to the Committee with different backgrounds (in animal species, science, etc.), some may need more training than others. Institutions also should take into consideration the potentially different training needs of the nonaffiliated member on the Committee. This individual may benefit most from a more personal orientation. Make it easy for the Committee members. IACUC activities are typically not the primary job of the members, so they are all busy with conflicting demands on their time and energy. Making the information readily ‘digestible’ will enhance their performance on the Committee.

COMPETING INTERESTS STATEMENT

The authors declare that they have no competing financial interests.

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1. 9CFR, Chapter 1, Subchapter A—Animal Welfare.