

The whole story on animal research

To the editor:

To anyone knowledgeable about biology, assertions that animal research has not contributed in a meaningful way to human and animal health are absurd. But misperceptions like this are common among the public. Why is this the case? Perhaps it has to do with how the discussion is typically framed. In 2008, Phi Beta Kappa secretary John Churchill wrote about political campaigns that “candidates who reduce complexity succeed in proportion to the reduction... The skills needed to get elected—to falsify by oversimplifying things—are the reverse of those needed to govern effectively—to understand the complexities of things and to cope with them.” With a few words changed, this passage would describe a problem inherent in the debate over animal use in research: the complex understanding required to evaluate realistically the pros and cons of animal use in research cannot compete with the appeal of catchy sound bites. Thus, conversations between persons with opposing views on the subject typically proceed with much noise and very little illumination.

In truth, the question of an animal’s standing in our society is complex. As John Churchill implies, good decisions require acknowledging and coping with the complexities of an issue. Members of the scientific community need to explain how animal experiments are designed and carried out to answer biological questions that cannot be answered without using animals. Balancing that, they need to show in detail what happens to the animals. Both of these elements are critical components in the cost–benefit analysis that, by law, precedes approval of animal experiments. Omitting either piece of information from a discussion of animal research falsely simplifies this complex issue and renders informed decision-making impossible.

Faculty and staff at University of Wisconsin-Madison have recently taken on the challenge of discussing the complexities of animal use in research by holding a Forum on Animal Research Ethics (FARE; <http://www.science.wisc.edu/events-forum-on-animal-research-ethics.htm>). FARE was established in 2010 to “increase opportunities for citizens... to learn about our animal research program, raise issues and engage in dialog.” I was asked to chair the FARE organizing committee, which included animal researchers, veterinary school faculty, local animal activists, an animal behaviorist and an ethicist.

A key objective of FARE was to find a way to present a balanced and sufficiently complex story about animal research that would weave together both its benefits and its costs. First, we needed to demonstrate how science works. A scientific publication, a fundamental unit in science communication, describes the sequence of manipulations and measurements that allowed the investigator to answer a question (or to test a hypothesis). One publication alone, however, rarely equals a major breakthrough. Rather, breakthroughs are like castles made of blocks. Each block represents a publication, and some, but not all, may present research involving animals. Thus, explaining science requires showing how experiments produce

results and how those results fit together with other results to teach us something important.

Second, we needed to describe the experiences of research animals. Patricia McConnell, PhD, CAAB, an animal behaviorist and member of the FARE organizing committee, teaches an undergraduate course on human-animal relationships. When the discussion turns to animal research, most students’ first question is, “What happens to the animals?” Without this information, they feel unprepared to take a position on the issue. Thus, a balanced and appropriately complex description of animal research should convey the importance of the scientific question being asked, explain how the study approached answering this question, explain how the study’s findings might contribute to greater knowledge about human or animal health and describe what the animals used in the study experienced. All of this information should be conveyed in a format suitable for a lay audience.

The FARE organizers asked three investigators at the university who use non-human primates in research to create this type of presentation describing their own work (<http://vimeo.com/21819489>; <http://vimeo.com/30494140>; <http://vimeo.com/40338234>). Two of the presentations were followed by panel discussions, and all three left time at the end for the audience to ask questions. Each presentation was well received by most of the audience.

What did we learn from these presentations? First, it isn’t easy for scientists to adapt to making this type of presentation; typical scientific talks focus on presenting details of experiment design and outcomes, but say little or nothing about the experiences of the animals used. Additionally, most presentations are targeted for scientific colleagues who already understand the connections between the results and their larger significance. Thus, both the content and the context of the presentations needed to be redesigned for FARE.

Second, giving this kind of presentation can be uncomfortable. FARE presentations are intended to “raise issues, and engage in dialog” with interested citizens, including animal activists. It takes courage to explain and defend one’s work in front of vocal opponents, particularly when some make threatening comments like “violence is inevitable if animal research doesn’t stop.”

Because these presentations are time-consuming and stressful, few investigators will have the time and desire to address the public in this way. However, I hope that enough come forward so that the dialog can continue. One of the most effective ways to support a cause is to submit one’s views willingly to direct challenge. Through my interactions with animal activists, I’ve discovered that we share several beliefs. In particular, we each feel that the public will agree with ‘our side’ if they have all the facts. And that is precisely how the FARE talks are designed: to provide facts and avoid ‘falsification by oversimplification.’ By presenting these talks, the scientific community can help the public to make informed decisions about the ethics and value of animal research.

Eric P. Sandgren, VMD, PhD

*University of Wisconsin, Madison, WI.
email: sandgren@rarc.wisc.edu.*