



*Integrating
the Life Sciences
from Molecule to
Organism*

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The American Physiological Society

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May 30, 2006

Chester A. Gipson, DVM
Associate Deputy Administrator
USDA/APHIS/AC
4700 River Road, Unit 84
Riverdale, MD 20737-1234

Dear Dr. Gipson:

On May 11 the Physicians Committee for Responsible Medicine sent letters urging a number of medical schools to eliminate their animal teaching laboratories. PCRM claims that “every reasonable criterion for elimination of live animal use has been met” because “excellent non-animal alternatives are available.” PCRM went further in a press release announcing its letters, asserting that animal laboratories are “unlawful” under the Animal Welfare Act because interactive CD-ROM programs, videos, and high-fidelity patient simulators can replace them.

The American Physiological Society is writing to challenge these assertions. The APS, which was founded in 1887, is a scholarly society, whose members teach physiology courses to medical and veterinary students throughout the U.S. Physiologists are leaders in developing and refining educational tools, including interactive CD-ROM programs, videos, and simulators mentioned in the PCRM letter. However, these alternatives do not provide the same educational experience as animal laboratories. Consequently, in November 2004 the APS Council adopted a position statement affirming the educational value of animal teaching laboratories. This statement is available on our web site at <http://www.the-aps.org/pa/action/news/animalsinteaching.htm>. It notes:

“Teaching laboratories that actively engage students in observation of and interaction with living systems enhance student understanding of physiology, providing experiences that are qualitatively and quantitatively different from those gained through lecture, small group discussion, or multimedia presentations.”

The Position Statement goes on to point out that such experiences not only “foster active learning and the development of critical thinking skills in students,” they also “provide a unique opportunity for students to develop a

lasting appreciation of the complexity of living systems and an abiding respect for living organisms.”

The Position Statement emphasizes that animal laboratories should only be offered for “valid educational reasons, where the use of the laboratory builds important knowledge, skills, and/or attitudes.” Moreover, “instructors who incorporate animal laboratories into their course or curriculum must ensure that the students are appropriately prepared for the experience and that the laboratory is conducted humanely.”

The APS Council also endorsed a Rationale prepared by the APS Education Committee in support of the Position Statement. This document notes that “[l]earning is more than the acquisition of facts.” Specifically:

“Students, particularly in the sciences, need to be able to think critically, to analyze information, and to apply information and solve problems. These skills are characteristics of the higher cognitive domains in the taxonomy proposed by Bloom. Educational research shows clearly that active learning experiences such as student laboratories help develop higher cognitive skills.”

A copy of the APS Position Statement on Animals in Teaching and the supporting Rationale are enclosed. Also enclosed is an article on “The evolving role of animal laboratories in physiology instruction” from *Advances in Physiological Education* (*Adv Physiol Educ* 29: 144-150, 2005). The abstract of this article notes that cost rather than educational considerations has been the “single most important reason” why simulations and multimedia presentations have been substituted for animal teaching laboratories in recent years. Although physiologists have embraced such teaching tools, it is apparent that “the elimination of animal laboratories [from the medical school curriculum] has occurred with relatively little consideration of the educational impact of this change.” Moreover, while computer simulations do help students learn basic physiological concepts, there is evidence that some students acquire a more thorough understanding of the material through animal laboratories.

The American Physiological Society believes that animal laboratories remain valid teaching tools in medical and veterinary education. The PCRM's assertions are baseless, and should be ignored.

I will be happy to discuss this with you further. Please feel free to contact me through APS Executive Director Martin Frank at 301-634-7118 or mfrank@the-aps.org.

Sincerely,

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Dale J. Benos, Ph.D.
President