

The use of animals in medical education is the subject of controversy on some campus. Dr. Barbara Horwitz, president of the American Physiological Society, wrote the following commentary on the issue in Friday's San Diego Union Tribune. I think you will find it of interest.

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UCSD dog labs do have value
By Barbara A. Horwitz

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Critics have urged the UCSD School of Medicine to eliminate dog labs demonstrating basic principles of physiology and pharmacology to medical students. Drs. Lawrence Hansen and Nancy Harrison have argued on this page that such labs cause animals to suffer without serving a useful educational purpose. They say that UCSD should follow the lead of other medical schools in eliminating dog labs from the basic science curriculum.

As president of a learned society whose members are researchers and educators in the field of physiology, I respectfully disagree. The American Physiological Society believes that animal labs make an important contribution to the education of students. Furthermore, the reasons most schools discontinued them have little to do with their educational value.

Medical schools have a limited number of instructional hours in which to teach students everything from the basic medical sciences to clinical skills. A well-run animal lab is expensive, time-consuming, and resource-intensive. It requires special equipment and supplies; personnel specially trained in the care and monitoring of animals; and dedicated space that cannot readily be used for other activities. Skilled instructors are needed, and they have to work with small groups of students to ensure a meaningful experience. Consequently, even though animal labs are educationally valuable, they have been crowded out of the curriculum at many medical schools due to a lack of time, space, money and instructors.

Computer simulations have been suggested as alternatives to animal labs. Simulations can be a practical and economical way to reinforce textbook and lecture material on the basic principles of physiology and pharmacology and can be used to advantage in a variety of ways in medical school programs. Nevertheless, even the best simulations have their limitations.

Animal labs are more challenging in every sense of the word but can produce genuine insights into the sciences that underlie modern medicine. Labs give students an opportunity to touch and manipulate live tissue and to experience the complexity of the body along with the surprising individuality of living creatures. In the labs, students perform experimental manipulations of physiological systems such as respiration and blood pressure and learn how potent drugs affect these systems. The practice of modern medicine depends upon correcting diseases and pathologies, and many doctors will encounter situations in which a thorough understanding of physiology and pharmacology is literally a matter of life and death for their patients.

Animal labs should only be offered for valid educational reasons and should always be conducted humanely. Animals' lives have value, and instructors should convey a sense of respect for the animals. The dogs in the UCSD labs will be fully anesthetized beforehand and will be euthanized at the end of the procedure so they will not suffer. Yes, they live in cages, and yes, their lives will be taken, but the education of physicians is important because these men and women will be entrusted with their patients' lives.

Several recent letters to this newspaper came from doctors who found the lab experience a valuable part of their medical training.

Decisions about the form and content of medical education ought to be made by a curriculum committee that gives careful consideration to what students need to learn to practice their profession. Even so, because this activity involves animals, it also has to be approved by a federally mandated oversight panel, which at UCSD is called the Animal Subjects Committee. This committee, whose membership includes researchers, veterinarians and a representative of the community, had to review the proposed labs to determine if animals were necessary to accomplish the educational objective and to make sure they would be treated humanely.

In recent years we have seen a retreat from whole animal physiology and pharmacology. This was partly due to the scientific community's interest in genetics and cellular and molecular biology, but it was also a result of pressure from those who oppose any use of animals for research or education. The question at UCSD is whether its teaching labs are appropriate since

those who have raised this issue agree that the humane use of animals can be ethically justified.

Efforts to redirect any other part of the medical school curriculum would be met with strong resistance, and rightfully so. The use of animals in medical education should be no different. UCSD is fortunate to have faculty who are willing to share their expertise in the dynamics of living systems with aspiring physicians. To surrender to political pressure in this area would set a dangerous precedent for medical education. If the curriculum committee finds these labs to have educational value, they should be continued.