

Role of the Student's Supervisor/Advisor In Science Fair Projects

F.M. Loew

Students undertaking projects for science fair competitions are required to have an advisor. This is to increase the likelihood that a project is developed which is scientifically sound, a learning experience for the student, and within the capabilities of the student. In the case of projects involving the use of live animals, the advisor's role is of great importance not only in ensuring the above, but also in preventing painful or stressful experiences by the animal(s) involved. Too often, supervisors have failed to genuinely supervise such projects, and as a result, animal use in science fairs is being increasingly curtailed. True supervision should entail the proper use of a literature review, a plan (protocol), and expert knowledge of the biology and care of the animal species concerned.

The student's supervisor or advisor must really assume absolute responsibility for the appropriateness of the techniques selected and the acquisition, care, and disposition of any animals used. Most of the reported irregularities in animal use by science fair competitors could have been prevented by supervisors who really examined the plans and execution of experiments.

The science fair networks, so potentially useful in education, must create rigorous procedures for advising and supervising animal projects. If this cannot be done, then certain types of animal projects ought not to be carried out.

Fundamental Criteria for Determining the Educational Value of Live Animal Experimentation in High School Science Fairs

David H. Neil

Abstract

The author contends that great and very detailed attention to one minuscule facet of experimental animal biology, particularly if it requires the skilled and uniform alteration of a significant number of animals, is of no real educational value to a high school student. This type of work, the necessity for it, and the full understanding of its significance to the furtherance of human understanding must be the province only of those who are intellectually prepared. The suggestion is made that projects, which develop a more complete understanding of common and profoundly important elements in life (as we know it), should comprise the first steps for the aspiring bioscientist. Unfortunately, this is by no means a universal point of view, and educational programs still tend to be prematurely piecemeal and fragmented. The author concludes the presentation with examples of animal experimentation which might well serve as a catalyst to a sound understanding of biology where life is perceived as a fully integrated process.

Introduction

It might be contended by some that I ought to be in a torment of ambivalence on this issue, and when I glance over the last decade I can see why. During that period I have been happily involved in teaching people about animals. For three years in the early seventies I was a science fair judge in the Biology division of the Ottawa Regional Science Fair in Ontario, Canada, and I also served on the Animal Care Committee of the Canadian Youth Science Foundation. Last year I was invited onto the board of the Longs Peak Science Foundation in Colorado, which operates our local high school Science Fair. Throughout the last sixteen years, I have been a practicing laboratory animal veterinarian with ultimate responsibility for the care of countless numbers of laboratory animals in four major research institutions in three countries. In many instances I have been directly responsible for deliberately interfering with the health of these animals by the administration of noxious agents of one sort or another, or by surgical intervention.

My principal extracurricular pursuit since 1977 has been an active commitment to