

EDITORIALS

received from readers and on the quality of items submitted for publication. The format and content are not immutable — in fact, a number of relatively new ideas for an academic publication are being explored. Your suggestions will be vital in helping to produce a quality, comprehensive and responsive Journal. Ultimately, success will depend on the extent to which the perceived or actual needs of the potential readership can be met. Your active participation in determining those needs is essential.

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Editors-in-Chief

References

- Brumbaugh, R.S. (1978) Of man, animals, and morals: a brief history. In *On the Fifth Day: Animal Rights and Human Ethics*, R.W. Morris and M.W. Fox, eds., Acropolis Books, Washington, D.C., pp. 6-25.
- Dixon, B.D. (1976) *What is Science For?* Penguin Books, London, U.K.
- Godlovitch, S., Godlovitch, R. and Harris, J. (1971) *Animals, Men and Morals: An Enquiry Into the Maltreatment of Nonhumans*. Victor Gollancz, London, U.K.
- Harrison, R. (1964) *Animal Machines — The New Factory Farming Industry*. Vincent Stuart, London, U.K.
- Mulder, J.B. (1979) Who is right about animal rights. *Lab. Anim. Sci.* 29:435-436.
- Russell, W.M.S. and Burch, R.L. (1959) *The Principles of Humane Experimental Technique*. Methuen, London, U.K.
- Salt, H.S. (1894) *Animals' Rights Considered in Relation to Social Progress*. Macmillan, London, U.K.
- Singer, P. (1975) *Animal Liberation: A New Ethics For Our Treatment of Animals*. Random House, New York, N.Y.

Toward a Science of Animal Welfare

It would be difficult to overestimate the significance of medical research, especially in the past 100 years, for the relief of human suffering. Many of the infectious diseases such as diphtheria, whooping cough, tetanus, poliomyelitis and smallpox are either entirely preventable or have been virtually eliminated. Surgical techniques inconceivable even twenty years ago are almost commonplace today. Life expectancy in this country, while not the highest in the world, is higher than it has ever been. In addition, many animal diseases such as canine distemper, rabies, or feline panleukopenia, are now preventable by vaccines developed in research laboratories.

The research which has been the basis of most of this progress was usually carried out in animals. Indeed, without animals, mankind would either not have the knowledge gained from their use or the knowledge would have had to have been gained in some other way — human experimentation, research on other forms of

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life (e.g. plants), contemplations, or sudden insight. As a result of all this, criticism of all or some aspects of the use of animals in research has usually fallen on deaf ears.

However, the increasing use of animals in research has been challenged by persons and organizations (often indiscriminately called "antivivisectionists") ethically or otherwise opposed to this practice. The various arguments used by either critics of all or some animal use or by scientists will be familiar to most readers. Often, these arguments are based on assertion, and are won or lost on the basis of glibness or emotion (e.g. puppies vs. leukemic children); they can be said to suffer from a lack of facts.

Short of the abolition of the use of animals in research, what is urgently needed is an expansion of the body of knowledge concerning animal requirements for space, social interaction, and other environmental components on the one hand, and on the other, an increasing realization by scientists that in certain fields, animals may no longer be the best means of obtaining scientific information. Since nonanimal techniques are also usually less expensive, attempts to develop them scientifically have potential for cost-effectiveness (as long as their results are acceptable).

In other words, we need to supplement the bodies of information called laboratory animal science or laboratory animal medicine with what the Institute for the Study of Animal Problems has called "animal welfare science." In so doing, the ways of maintaining animals in laboratories can only be improved. If, as well, animal replacement techniques can be developed that really do replace certain animal uses, then perhaps scientific, humane, and probably economic aspects of research will have been enhanced.

Veterinarians in laboratory animal medicine, scientists conducting research, technicians responsible for animal care, and all others involved in the use of animals in research are asked to consider some of these problems and to develop scientific solutions. Finally, reference should be made to the fact that some animal experiments involve the experience of pain and discomfort by the animals. Surely, ways must be found to continue to improve the systems designed to reduce these types of experiments to the true minimum.

This new journal is an attempt to provide a forum for scientifically acquired information which bears on the sorts of animal problems in research referred to above. I hope that members of the scientific community will give it a chance to fill a role in the evolution of ever improving animal care and use in research.

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Editorial Advisory Board**