COMMENTARY

FRAMING THE ANIMAL RIGHTS ISSUE

by Bernard Dixon

During the 1970s, when I was editing the weekly magazine *New Scientist*, several of the scientific community's more scientific members criticised me for giving space to sane and sensitive voices from the "anti-vivisection" movement. In particular, we lent editorial support to the Fund for the Replacement of Animals in Medical Experiments (FRAME, Nottingham, U.K.), established in the U.K. in 1969 to campaign for reductions in the use of laboratory animals and to finance research into alternatives.

FRAME recognized that "immediate and total abolition is not possible if medical research is to continue and the remaining diseases which lessen the quality of human and animal life are to be overcome, and if new consumer products, drugs, and industrial and agricultural chemicals are to be adequately tested in attempts to identify potential hazards to human and animal health." But founders Dorothy Hegarty and Charles Foister also believed that targeted research could eliminate some animal procedures that had persisted through habit and a lack of innovative thinking; that better science and improved experimental design could diminish animal use in research and screening; and that suffering could be reduced by similar means.

These were reasonable aims and beliefs. Yet so widespread was antipathy towards anything smacking of so-called anti-vivisectionism that some blinkered bioscientists insisted that no such initiatives were necessary. Everything that could be done *had* been done—not least because financial pressures had stimulated the substitution of animals by *in vitro* approaches wherever possible. It was naïve to imagine that animal experimentation could be diminished one iota further by tissue culture or computer modelling. An even stronger criticism—expressed with astonishing intolerance by one luminary who came to my office in response to a *New Scientist* article about FRAME—was that *any* support given to *any* faction of the animal rights movement would simply encourage its more militant members. "You will live to regret what you have done," the luminary fumed.

Without benefit of a controlled experiment, we cannot be sure whether publicity for FRAME contributed in any way to the increasing violence now being visited upon laboratories and individuals involved in bioscience and biotechnology. It seems wholly unlikely. We can, however, be certain that the impetus towards change fostered by FRAME and other bodies has paid off, bringing concrete rewards that contrast vividly with the counter-productive activities of the extremists. The number of animals used in laboratories in the U.S. and Britain has halved since the peak of the mid-1970s; Avon and Revlon have announced the closure of animal facilities, and certain pharmaceutical and chemical companies have set up programs on alternative techniques.

The recession of the early 1980s undoubtedly contributed to this trend. But the principal factor has been

technical innovation, coupled with a determination to evolve assay and other methods demanding fewer animals or replacing them altogether. The Mario Negri Institute in Milan, Italy announced recently that it reduced its use of animals by 67 percent between 1980 and 1988—although staff numbers rose from 318 to 514 over the same period, while publications in international journals went up from 184 to 240. The Institute achieved this by harnessing developments such as modern electrochemical techniques that require only a few milligrams of brain tissue to determine serotonin. More than ten measurements can now be made on different regions of a single brain, whereas the older spectrofluorimetric approach required several pooled brains to achieve the desired accuracy.

Changes of this sort have not occurred simply as a result of the momentum of technical innovation. They have required conscious decisions and mission-oriented research efforts. FRAME's own program for 1990–93 will cost £600,000 (\$1,085,220), and among the companies sponsoring the work are SmithKline Beecham, Pfizer, Unilever, Bristol-Myers, Lilly, and Rimmel International. As well as running its own validation trials for replacement methods, FRAME has been consulted by the West German and Swedish governments regarding the operation and management of their validation schemes.

In addition to research funding, one of the most effective means by which FRAME influences the international biosciences community is through an excellent journal, which carries both original papers and news. The current issue of *Alternatives to Laboratory Animals* (17:335, 1990) contains one particularly apposite paper, whose disturbing findings should be studied by authors, editors, and referees throughout the biological sciences and technologies. Although devoted specifically to the use of non-human primates in U.K. laboratories between 1984 and 1988, it has much wider implications.

Written by Judith Hampson and colleagues, the paper is the outcome of a survey sponsored by FRAME and the Royal Society for the Prevention of Cruelty to Animals. It describes many important and humanely conducted projects in fields such as pharmacology and toxicology. But the paper also highlights poor-quality research and criticises the ways in which some work is communicated. "It was impossible to tell from many of the published papers what had been done to the animals, why they had been used, where they had come from, what post-operative care had been given, how they had been generally cared for, or what had eventually happened to them," Hampson and her co-authors conclude. "It was quite impossible to tell from most of the published papers what, if any, ethical or animal welfare concerns had been taken into account."

As long as such failings exist, there is work for FRAME to do. All concerned with the conduct and communication of biological research should study this well conducted survey—and examine their own procedures accordingly.