

CHAPTER 12

INFORMATION AND TRAINING

Introduction

12.1 With State Governments and the Committee opting for enforced self-regulation as the system of administration to control animal experimentation, much responsibility falls on experimenters to fulfil the expectations of the community to maintain a high level of care and welfare in their use of animals. High standards of care and welfare depend on the attitudes and training of and information available to experimenters and animal technicians and attendants. The Committee has already discussed attitudes to the use of animals in experiments in this report. It now examines the role of information and training of experimenters. The training of animal technicians and attendants was covered in chapter 11.

Experimentation Standards

12.2 Representatives of institutions and experimenters generally adopted the attitude during the inquiry of the Committee that experimenters in Australia maintained high standards in the conduct of experiments on animals. Few witnesses questioned the effectiveness of the training and the level of skills of experimenters. An example of this attitude is contained in a special submission made by the Deputy Vice-Chancellor of the University of New South Wales concerning a report which the University had commissioned on animal facilities within the University. The view was expressed in the submission:

Central to this philosophical approach was the creation of an Animal Resources Unit as an academic unit

- to provide professional services to the activities of animal production, and experimentation and public accountability;
- to co-ordinate animal production to support teaching and research activities;
- to provide resources required in animal-based research within the institution in the most cost-effective manner practicable.

According to the report this Unit must be identified as an academic centre and demands on the levels of responsibility and time must be commensurate with other academic appointments.

What this means is that the staff employed in the Unit would spend about one-third of their time on research and would have access to study leave provisions and other benefits accruing to academic staff. In the words of an academic adviser to me on the report

'I believe that the creation of the ARU as an academic unit is the dream of many veterinarians involved in animal house management. I suspect such recommendations reveal more about the (academic) aspirations and ambitions of the writers than the needs of the researchers.'

I endorse this view. The rationale for the creation of an academic unit, stated or implied, is that researchers are hopelessly ill-equipped to conduct research on animals. This is patently not true. Researchers at the University of New South Wales will have trained with research groups either in Australia or overseas in which a core of procedures, techniques and animal models are well developed and at the forefront of international practice. The best expertise in the world is available in the University and in Australia and it is simple-minded to assume that our researchers who use animals approach their experimental tasks in a state of ignorance of, and experience in, the latest techniques of animal experimentation.¹

12.3 The Committee found it ironic when an advertisement appeared in 'The Sydney Morning Herald' of 24 June 1989 for applications for the position of Director of Animal Care at the University of New South Wales. Not only had the University now accepted the need for academic standing for the position, which was stated in the advertisement, but it also had upgraded it to professorial level.

12.4 Further on, the University, commenting on the proposal to establish an Animal Resources Unit as an academic unit, stated:

The ABHU (the central breeding unit) is in the business of ensuring that animal researchers are provided with experimental animals of the highest quality at least cost and it is expected that those who are in charge of production be doing just that and not carrying out personal research into animal experimentation techniques that may or may not be useful. Nor does the University with its advanced information retrieval systems and well-stocked library in the biomedical sciences see a need in present financial circumstances, to provide an information service to researchers who, if they are of the standard we expect in the University, will already be quite aware of, and use, the latest humane and efficient techniques.²

12.5 Despite these claims, there are serious criticisms overseas of experimenters' skills and there is enough evidence in Australia to question seriously the claims of many witnesses.

12.6 The Canadian Council of Animal Care prepared a syllabus in 1983 for training of students in laboratory animal science. In its introduction, it is stated:

A deficiency frequently observed by numerous Canadian Council on Animal Care (CCAC) assessment panels visiting the many institutions in Canada conducting animal based research, teaching and testing, is the number

of investigators who appear to lack an understanding of the basic principles of laboratory animal science. This is exhibited in many ways ranging from inappropriate animal models and poor experimental design, to inadequate handling methods, poor surgery techniques, which indicate an apparent lack of appreciation of basic surgical concepts, and a failure to recognize and make use of resources available to them.

This deficiency is probably at least partly due to inadequacies in the undergraduate and graduate programs in science and, in addition, to inadequate tutoring or preceptorship, particularly at the graduate level. All too often panels witnessed the propagation by investigators and teachers of poor or antiquated techniques of animal care and use.³

12.7 Dr M. Rose drew upon a Handbook published by the Foundation for Biomedical Research in America in her evidence to the Committee. She quoted from the Handbook as followed:

Environmental and biological factors may profoundly influence data from animal experiments by exerting a subtle influence on animal research and testing. Scientists have begun to appreciate that influence only recently.⁴

Dr Rose went on to refer to a report by the Council for International Organisations in Medical Sciences which is affiliated with the World Health Organization. She told the Committee:

In the covering letter to this report, the committee asked CRIMS to convey to WHO its view that for the benefit of health programs everywhere, this activity, the use of animals in research and teaching and testing, should be enhanced and that particular attention should be given to some matters. Its first statement related to education and training. It said that in addition to the development of specific guidelines there was a need for more education and training, both of investigators using animals and of personnel responsible for their handling and care.⁵

12.8 At Monash University in 1981, a review of services of the Central Animal House was done. Two-thirds of the respondents stated that further knowledge about one or more topics contained in a list of 13 topics concerning the use of laboratory animals would be advantageous to their work. In answer to another question, 'In respect of the topics stated above, do you believe that there should be an ongoing programme to keep post-graduates abreast of new developments', 47 of 67 respondents replied 'yes'.⁶ There are obviously Australian experimenters who believe that additional information on laboratory animal science would be advantageous to their work.

12.9 At present, most experimenters in Australia learn experimental techniques and practices on the job from the senior experimenters who are their supervisors. Not all senior experimenters have correct techniques or have kept abreast with developments in laboratory animal science. In these cases, bad habits and techniques are passed on to the junior experimenters, who may or may not have such techniques or practices corrected in subsequent appointments. Bad habits are therefore perpetuated. Many experimenters do not know that their experimental techniques are deficient or are out-of-date and resent suggestions that they are.

12.10 The Committee has already referred to the findings of the Canadian Council on Animal Care on this method of training. In the United Kingdom, a Working Party reported in 1983 on courses for experimenters. It stated:

The system of individual coaching has worked well over a long period and will continue to serve in many circumstances. However, it can be very time-consuming for the senior licensee carrying out the individual coaching, and the tutor is likely to concentrate on the task in hand to the detriment of background information and perspective. It also seems probable that any new legislation concerning animal experiments may require a wider

understanding of the principles of laboratory animal husbandry and related matters. From such considerations it became apparent that the principle of formal training courses would be generally welcomed.⁷

12.11 Technology can change quickly. New techniques, drugs or changes in experimental design are being developed all the time. Although it is desirable to embrace these changes, it is difficult to get information about them. There is also an inherent resistance to change. If something has worked well for a long time, why change to something new, even if the new product or technique has been proven to be better? There is a reluctance to try an alternative for fear that it will not work as well.

12.12 It must be emphasised that new products and techniques may not only improve animal welfare but may also result in more reliable data. They may also result in lower costs. For example, a new technique may result in fewer animals being used and hence less money spent on the purchase of animals. Animals are often expensive to breed and care for and savings forgone because of resistance to change will lead to fewer funds available for research and teaching.

12.13 Some institutions have held short courses on laboratory animal science for experimenters. The Committee was given information about 'training courses for the research worker' at the University of Melbourne:

At the commencement of each academic year the University of Melbourne runs a short training course for post graduate students and laboratory assistants embarking on Bio-medical research ... Emphasis in the training program is placed on the law, the relevant Code of Practice and investigator responsibility. Demonstrations cover the proper way to pick up, hold, restrain, administer substances, collect samples and generally care for each of the common laboratory animal species. Investigators are advised where they can go for help and are provided with useful reference material.⁷

12.14 At hearings in March 1987, the Committee was told by representatives of the Department of Physiology and Pharmacology of the University of Queensland that animal care workshops lasting one day were being held for honours year students. An outline of a longer course of one or two weeks duration for undergraduate students had been prepared but had not yet been approved. The Head of the Department, Dr A. Blackshaw, commented that he would like the course extended to post-graduate students.⁸

12.15 Little can be taught in a one day course. It is doubtful that a week is long enough to cover in enough depth the variety of ethical issues, legal and procedural requirements, scientific techniques and animal care and husbandry information that an experimenter needs to know to begin a career involving experiments on animals. Any course or workshop is, however, a step in the right direction and the conduct of such courses is evidence of an awareness within an institution of the need to equip young experimenters with a positive ethical attitude towards experiments on animals and information on scientific techniques and animal care.

12.16 There is no course available in Australia in laboratory animal science. However, the University of Sydney in its submission told the Committee that it was planning to introduce a course in laboratory animal science in the Faculty of Veterinary Science. In referring to this proposal in a public hearing, Professor Titchen of the University of Sydney said:

These developments would include the development of specialist pathological facilities for monitoring the standards and the care of the common laboratory animals, the development of specialist capacities in the control of pain and the dissemination of knowledge on the techniques of anaesthesia and analgesia in animals. They would include specialist instruction in animal handling. They would also include some level of

instruction and, perhaps, the performance of experimental surgical procedures. This is an ambitious and expensive undertaking to complete. We see no other way than entering into such an educational program for our undergraduates in science, veterinary science, and the biological sciences, and for postgraduate instruction and to contribute to improvements in animal welfare.⁹

12.17 The University's proposal for a course in laboratory animal science and the preparedness of the University to outlay considerable funds to establish the course is an acknowledgement of the need for such a course in Australia. The University has also sought additional funding from the Commonwealth Government under its key centre scheme.

12.18 The Committee considered the proposal and RECOMMENDS that extra funds be made available by the Commonwealth Government to enable the University of Sydney to establish a course in laboratory animal science.

12.19 Earlier in the inquiry the University of Queensland proposed the establishment of a course on animal welfare and behaviour. In a written proposal, the University said:

Current public interest in animal welfare issues is high. Livestock industries are in the process of preparing codes of practice for domestic animals. These efforts ... have highlighted many aspects which need proper scientific investigation (e.g. mulesing, tooth and nail clipping, branding, transport, intensive housing, reproductive behaviour, etc.). In addition, topics such as the role and use of companion animals, the use of animals for entertainment and research, and the behaviour and management of wild animals are all due for consideration. Scientific investigations into most of these topics are few, fragmented and they lack focus ...

A Chair in Animal Behaviour and Welfare would act as a focal point for research and expertise in the above areas. Whilst requiring Governmental support for establishment, there is every indication that it would attract support from groups and industries interested in, or concerned about, animal welfare. The Senate Select Committee on Animal Welfare could envisage such a Chair as a positive contribution towards the welfare of all animals with which humans are associated. In addition, this Chair would be an invaluable aid ... to the public in providing factual and impartial evidence on many contentious issues.¹⁰

12.20 There are many areas of animal welfare that need further research in order to refine current procedures and practices or to find alternative ways of solving husbandry and other problems. Animal behaviour is a component of animal studies, albeit an important component. However, the focus of the course should be on animal welfare generally rather than on animal behaviour. With that qualification, the Committee supports the proposal. The Committee RECOMMENDS that funds be made available to the University of Queensland to establish a chair in animal welfare and behaviour.

Australian Council for the Care of Animals in Research and Teaching

12.21 For some years there has been a move to establish an Australian Council for the Care of Animals in Research and Teaching (ACCART) based on the model of the Canadian Council on Animal Care. This has been in response to the perceived need to improve the flow of information to experimenters and to provide a resource centre for experimenters who need particular information which may not be readily available from institutional libraries and other normal sources.

12.22 In a submission to the Committee, ACCART stated that it was established as an independent body:

... to provide a national forum for effective communication between persons with concerns for the care and use of animals in research and tertiary teaching, and to provide information and advice on optimal standards for their care and use.¹¹

12.23 Although ACCART was modelled to some extent on the Canadian Council on Animal Care, after lengthy deliberations among the proponents (AVCC, CSIRO and NHMRC) and other interested organisations, it was decided to exclude accreditation, a major function of the Canadian Council, from the role of ACCART. It was decided that accreditation should remain the responsibility of State Governments.

12.24 As at August 1988, 16 organisations had joined ACCART and another had been granted observer status at its own request. Although both ANZFAS and RSPCA Australia had been invited to join, neither has yet accepted the invitation. ACCART so far lacks input from animal welfare organisations. The Committee believes that animal welfare organisations have a contribution to make to ACCART as ACCART will be preparing and publishing information on a wide range of technical and other matters relating to the use of animals in experiments. The Committee has often espoused the need for discussion among the parties to the animal welfare debate. ACCART will provide an ongoing forum for discussion on issues relating to animal experimentation and it is an opportunity for animal welfare organisations to participate in the work of the Council bringing a different perspective from the other members. The exchange of ideas in a neutral forum will help to find a middle ground on issues where there is a difference of opinion and so enable enduring improvements to animal welfare to be made.

12.25 It was suggested at one stage that ACCART be made an advisory committee to a Commonwealth Minister. The strength of ACCART is its independence from government. It can draw on a wide range of expertise in Australia to provide information and other resources. It can and should give technical advice to government and government authorities, as well as to institutions and individual scientists. The fact that it is not beholden to any government means that it will be accepted more readily by the scientific community.

12.26 ACCART will also provide a forum for Australian and overseas experts to focus attention on a range of animal experimentation matters. Through seminars and conferences, run either by ACCART itself or in association with specialist bodies, such as ASLAS, complicated or controversial issues can be discussed to enable experimenters to keep abreast of developments in these fields.

12.27 Although ACCART's commencement was delayed, despite the efforts of the AVCC and the CSIRO, which were two of the three sponsors of the organisation, it has quickly made its mark with the publication of a newsletter, which has received wide acclamation overseas. Several monographs are also in production. ACCART is beginning to fulfil its important role of disseminating information to the scientific community, filling the void which has existed for a long time.