

THE INTERNATIONAL COMMITTEE ON LABORATORY ANIMALS

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IN December 1956, the International Committee on Laboratory Animals was formed, and a report of this event appeared two months later in *Nature* (179, 240; 1957), describing its background, composition and purpose. After three years, it is timely to review its work and achievements.

The Committee is to-day supported, by direct grant and by representation, by the Council for International Organizations of Medical Sciences; the International Unions of Biological and of Physiological Sciences; and by direct assistance other than cash grants by Unesco. It consists of: Prof. J. H. Maisin (Belgium), chairman of the Committee and representative of the Council for International Organizations of Medical Sciences; Prof. W. K. Hirschfeld (Holland), vice-chairman; Prof. G. Montalenti (Italy), representing the International Union of Biological Sciences; Prof. J. A. B. Gray (United Kingdom), representing the International Union of Physiological Sciences; three members co-opted under the by-laws for a two-year term from October 1958: namely, Dr. Dale W. Jenkins (United States), representing the International Committee on Laboratory Animals in the American Continent; Monsieur M. Sabourdy (France), treasurer; and Dr. W. Lane-Petter (United Kingdom), secretary-general; and an observer from Unesco. Meetings of this Committee have been held in December 1957 (Paris), October 1958 (Paris) and April 1959 (London). The next meeting will be held in April 1960 in Rome.

Already in December 1956, Unesco had initiated surveys on the production and utilization of laboratory animals in a number of countries, and further surveys have since been commissioned and carried out, on the advice of the Committee. Some have been published, in consolidated form, by the Committee as mimeographed documents: Vol. 1 including India, Italy, Japan, Switzerland and the United Kingdom; Vol. 2, Denmark, Finland, Iceland, Norway, Sweden, and Turkey (first supplement); Federal Republic of Germany and Austria (second supplement); and Australia (third supplement). A third volume will include Belgium, Netherlands, France, Israel, Poland, Czechoslovakia, and probably a partial survey of the United States.

From these surveys has come a clear picture of the actual production and utilization of laboratory animals in many different countries; of the varying special problems, and of the underlying basic needs, which are everywhere the same; and an indication of the way in which an international organization such as the Committee can make itself most useful.

As a further attempt to clarify the task that the Committee had undertaken, a symposium was held in Paris in October 1958; a report of this is still in preparation, but will appear very shortly. At the symposium three main questions were examined. First, what were the detailed requirements in the main biological disciplines using animals: namely, cancer research, radiobiology, microbiology, physio-

logy, cell and tissue culture, endocrinology, and pharmacology and the pharmaceutical industry. Secondly, to what extent were these needs being met to-day in different countries. Thirdly, what were the future possibilities, with special reference to genetics, the control of latent infections, the introduction of new species into laboratory use, and the problems of large-scale production of familiar species.

Since September 1957, the Committee's *Bulletin* has appeared regularly every six months. It contains current news of the work of the Committee and also an excellent bibliographical service on laboratory animals.

Consultant members of the Committee have paid numerous visits to other countries, mainly in Europe, to advise on the creation or organization of national laboratory animal centres and to co-ordinate the efforts being made in this field. Indeed, this sort of personal contact has been of great value in stimulating interest, in encouraging the setting up of new national organizations and in linking the activities of all these in a common effort. In 1956, three national centres only existed, in the United Kingdom, the United States and France. To-day, centres of one kind or another have been formed in Australia, Belgium, the Federal German Republic, Holland, India, Italy, Japan, and more are likely to form in the near future. Almost all owe something, some even their very existence, to the stimulus provided by the Committee.

In 1959, Unesco placed a contract with Monsieur M. Sabourdy, treasurer of the Committee, for the preparation of a list of definitions of terms used in describing laboratory animals of high quality. Such definitions have been attempted in the past, notably among geneticists, but in the absence of a recognized code widely agreed, they tend to lose their exact meaning and in time to become almost valueless. A code of this kind is a necessary adjunct to drawing up specifications for animals; but it should be emphasized that attempts to draw up specifications should not wait on the completion of a glossary of terms, because the need to define many of the terms will become apparent only when specifications are attempted. There must be mutual reaction between the two endeavours, definition and specification.

Most of the surveys already referred to have directed attention to a universal need, namely, for animal technicians who are systematically trained and qualified for the work of breeding and maintaining the animals of high quality that research workers need in nearly every field. Great Britain has been the pioneer in this field, through the work of the Animal Technicians Association, now about ten years old, but training schemes for animal technicians are in operation in United States, France and Czechoslovakia. In the *Bulletin* of September 1959, detailed notes for training animal technicians were published, based largely on the British experience, but taking into account the different needs and opportunities in

other countries. The animal technician is coming to take his place alongside the laboratory technician as an indispensable member of the biological team.

The Committee has already given prominence to the need for national laboratory animal organizations, the four functions of which are: (a) to act as an exchange for information about all aspects of animal supply and management; (b) to conduct research into current problems in their production and care; (c) to maintain primary type colonies of animals conforming to exacting specifications, supplying authentic breeding stock for expansion in production units; (d) to train scientists and technicians specializing in this field. For the future, it is planning a second symposium for some time in 1961, on transmissible disease (other than of genetic or nutritional origin); the preparation of world lists of primary type colonies of specified strains of animals, and sources of less commonly used species of vertebrates and invertebrates; as well as continuing the labours already undertaken.

The International Committee on Laboratory Animals started as an informal group, largely self-appointed, to examine a problem that was recognized in many quarters, namely the difficulty in obtaining enough laboratory animals of the right quality for current and future research. It is international in the sense that its membership and interests are already widespread, but it is not yet internationally representative. It is still self-recruiting, and no reason so far exists for it to be otherwise, for its present membership has a strong desire to attract the support of all who share its interests.

The very substantial support so far given by Unesco cannot be expected to continue indefinitely, and the grants given by the international unions are not, and probably never can be, sufficient to cover all

its actual and intended activities. If the Committee is to carry on as it has started and to develop usefully, other international governmental agencies should be encouraged to help. Of these, the World Health Organization is an obvious candidate for patronage, because of its involvement in medical research, which is so vitally dependent on good laboratory animals. It is satisfactory to note that the World Health Organization has sent an observer to the last two meetings of the Committee.

It would also be reasonable to expect all countries supporting an active laboratory animals organization to have some representation on the Committee. At present only a few enjoy membership of the Committee, and these would appear to have been somewhat arbitrarily selected. There is little doubt that the lop-sidedness of the Committee, in this respect, will be corrected, and the sooner the better.

There is not only a need, but also great scope for international collaboration in defining and producing good laboratory animals. Without such collaboration there is a danger, already unhappily apparent in many parts of the world, of duplicated effort in solving the major problems in this field; of parallel but isolated developments in the use of animals which appear different but are similar, or appear similar but are differently or misleadingly designated; and of research effort being vitiated by the use of inadequate animal material. This fragmentation of endeavour has to be corrected before it goes too far. By the end of the decade we have just entered, we shall probably consider, in retrospect, our current ideas of quality in laboratory animals with astonishment bordering on incredulity that they served our purposes even as well as they do. If this is so, the International Committee on Laboratory Animals will have played an important part in our animal house revolution.

TRAINING SKILLED WORKERS

ALTHOUGH much is made of the skill of British craftsmen and operators, investigations over the past decade have shown how little is known about the components of skill. The result has been that much of the training provided for manual workers is conducted in a hit-or-miss fashion because those concerned with the training are not at all clear about the nature of the skill they are trying to impart and, consequently, even less clear about the teaching of it. One whose researches have been almost entirely concerned with the teaching of skills to unskilled and semi-skilled operatives in a variety of industries is W. D. Seymour, and, in a broadsheet published by the Institute of Personnel Management, he presents some of the experience he has gained in training unskilled and semi-skilled operatives in manufacturing industry. This broadsheet should be warmly welcomed by all concerned with the training of operatives as the clearest and most concise statement which has yet appeared.

The types of work customarily undertaken by unskilled and semi-skilled workers in manufacturing industry can be grouped into the following categories:

Handwork, that is, work which is done exclusively with the operators' bare hands, without the intervention of any tools or machinery. This group of operations still employs a large number of operators

and includes wrapping and packing operations, some assembly work, pottery decoration and other examples of very fine work. Some types of inspection work also fall into this category.

Handwork with Tools. This category includes all types of manual work in which hand tools are used, but which do not involve the use of mechanical power. In spite of the increasing mechanization of modern industry, very large numbers of workers are still engaged in these operations with hand tools, which may be of a general nature, for example, screwdrivers and pliers, or may be specially designed for the purpose, for example, the wig-maker's hook. Examples of this type of work are provided by most types of assembly work, pottery figure making, automatic telephone wiring, coil fitting on electric motors, etc.

Single Purpose Machine Work. This category covers all operations where a mechanically or electrically driven machine is used for a single specific purpose. The increasing use of special-purpose machines tends to augment the number of workers employed in this category, though the numbers employed on any one type of machine may be small. Examples are provided by hosiery seaming and linking machines, coil winding machines and cigar making machines.