Current Events

MEETING REPORTS

International Meeting on the Human/Companion Animal Bond

The First International Conference on the Human/Companion Animal Bond, October 5-7, 1981 at the University of Pennsylvania, Philadelphia, brought together, for the first time, representatives concerned about animal welfare and a wide variety of health care professionals - psychologists, psychiatrists, and veterinarians, as well as ethologists and anthropologists. The benefits of the use of animals as adjuncts in various kinds of therapy were considered, as well as the costs, which include the question of the possible exploitation of animals in the pursuit of benefits to humans. The conference was co-sponsored by the American Veterinary Medical Association, the American Animal Hospital Association, the American Psychiatric Association, and the veterinary associations of Great Britain.

Pet-facilitated psychotherapy is now well established and was the theme of a number of papers. The positive results emerging from the relationship between a patient and a well-placed animal were impressively demonstrated; this proved to be the case even in some unpromising situations. These benefits included lowering of blood pressure and a reduction in the risk of heart disease. However, the importance of proper selection of cases and animals, and of adequate skilled supervision, were emphasized. Simply putting a dog with a person needing therapy and expecting everything to work itself out was likely to be unrewarding and potentially dangerous. In a similar vein, results of programs that combined companion animals with elderly and lonely people and the special role of animals in the city were reported.

Although the main emphasis of the meeting was on the relationships of dogs to people, other animals were also discussed - horses, dolphins, pigs, monkeys and even bears. It was interesting that cats, despite their popularity, attracted little attention.

Impressive work in which dolphins were used to help autistic children was reported. A videorecording was shown of an autistic child who had responded to virtually nothing, including the family dog, for many years, eventually communicating with a dolphin, after more than a year's work. The child learned to make clicking sounds indistinguishable from those used by dolphins themselves.

Cross-cultural studies were reported by several anthropologists. One of these explored the human/horse bond in the Crow Indian culture. The Crow acquired horses for the first time in about

1735 and quickly adapted to life as nomadic equestrians Recognizing the immense value of the horse in improving their quality of life, the Crow bestowed upon the animals great psychological, spiritual, and esthetic significance Another presentation looked at one aspect of the relationship between humans and two types of animals, pigs and dogs. The authors' hypothesis was this: people will tend to taboo, as food, those species that they regard as appropriate for pets. However, it was L:und that among the pig-raising New Guinea highlanders, the dingo-keeping Aborigines, and the dog- and pig-raising chiefdoms of precontact Polynesia, intimate contact with a species did nothing to interfere with the culturally sanctioned use of the animals as food. However, certain members of these species were specifically designated as pets, and actual consumption of these special animals was extremely rare.

Further information may be obtained from Dr. Alan Beck, Center for the Interaction of Animals and Society, Pennsylvania School of Veterinary Medicine, 3800 Spruce Street, Philadephia, PA 19104.

D.H. Murphy

The LOSO Test

Two symposia were held in Europe, during September 1981, on the topic of the LOSO test and its applicability (or lack of it) The first meeting, held in Utrecht, was sponsored by the unlikely amalgam of the Dutch Society of Toxicology, the Dutch Ministry of Health, and the Antivivisection Foundation. The second meeting, held in Uppsala, was sponsored by the National Board for Laboratory Animals of the Swedish Medical Research Council.

The general consensus at both meetings appeared to be that the LOSO test is wasteful of animals and that we need to institute modifications that can provide not only a rough quantitative estimate of toxicity, but that can also furnish a great deal more information about the specific organs at risk, the mechanism of toxicity, and any sublethal symptoms. In fact, Dr. B. Werner, of the Karolinska Poison Information Center, stated very forcefully that the quantitative information provided by the animal LOSO is virtually useless Apparently, many of her European colleagues agree. They would, however, be very interested in qualitative data on symptoms and the like.

The only definite conclusions to come out of these two meetings was the acceptance and partial endorsement by the Dutch group of a set of proposals drawn up by Dr. Gerhard Zbinden of the Institute of Toxicology in Zurich (see also *Arch Toxicol* 47:77-99, 1981) His proposals are as follows:

1. In all guidelines and regulations for toxicological studies, it must be stated *specifically* that the concept of acute toxicity testing (harmful effects of single doses) is not identical with the performance of a classical LOSO test.

2. In all guidelines and regulations for toxicological s_tudies, the classical LOSO test carried out with large animals, such as dogs, monkeys, and pigs, must be prohibited In its place, a short-term test in small numbers of animals, incorporating a variety of clinical, chemical, and histopathological examinations, must be required

3. In all guidelines and regulations for toxicological studies, it must be pointed out that the classical LOSO test for small rodents, which uses large numbers of animals, is only permissible if the reason for the high level of precision is clearly stated and scientifically justified In all cases in which a high degree of precision in the LOSO determination is not required, a test using small numbers of animals must be used instead. For this test, supplementary clinical, chemical and histopathological examinations must be required

4. In all guidelines and regulations for toxicological studies, it must be stated that no LOSO test should be done with pharmacologically inert substances. It is sufficient to determine that, for example, a single oral dose of approximately 5 g/kg and a single parenteral dose of approximately 2 g/kg cause neither acute

symptoms nor death in the animals.

5. The requirement that LD50 tests be conducted in newborn animals must be eliminated from all guidelines and regulations. For the assessment of special risks and needs of newborn humans and infants, clinical, pharmacological, and pharmacokinetic studies must be required. These should preferentially be done in human subjects, but may be substituted by specifically designed studies in immature animals.

6. For classification of chemicals for the purpose of assigning them to a toxicity class in an official list of poisonous substances, the approximate LD50 values, determined in small numbers of animals by an appropriate method, must be accepted. Whenever possible, the classification should also consider other relevant data, including information concluded from pharmacological, biochemical, and long-term toxicological studies. Modern knowledge and concepts of structure-activity relationships should also be applied.

While these recommendations constituted the most specific product of the two meetings, much interesting information and argument also emerged from the proceedings. For example, in Utrecht, Dr. D. Walker of Wickham Research Laboratories in England suggested that a sublethal test should replace the LD50 as the routine acute test. He noted that the LD50 is not proportional to the highest nonlethal dose and that it is therefore of little use in estimating nonlethality. He cited three reasons why the LD50 measure is routinely determined. First, regulatory authorities insist that the test be done. Second, an LD50 test costs only about $500-600, while his proposed sublethal study would cost about $4,000. Third, he did feel that there was a real need for some sort of numerical index.

In Sweden, Dr. J. Fowler of ICI (U.K.) reported on some research that he and his colleagues had done to determine the maximum doses that could be reasonably administered under different conditions. In mice, they found that a reasonable upper limit for the oral dose was about 10 g/kg of body weight *(i.e.,* about 0.2 g per mouse). At 50 g/kg, the mouse suffered stomach distension. In intravenous dosing of mice, the upper limit was about 25 ml/kg: at this dose level, hyperpnea was evident. The equivalent upper dose limits in the rat were reported as 30 g/kg of body weight (oral) and 30 ml/kg (intravenous).

Dr. T. Malmfors of Astra Pharmaceuticals in Sweden argued that the LD50 test is a waste of animals and noted that he personally had not used doses higher than 4 g/kg of body weight. He had studied the ratio between the LD50 of various drugs and the highest nontoxic dose; he found that the LD50 was usually at least 5- to 10-fold higher than the highest nontoxic dose.

Several of the speakers at the Swedish symposium argued that the animal welfare movement was making a mistake by selecting the LD50 test as a target for criticism. Dr. E. Paget of Monsanto (St. Louis, U.S) noted_ that the Draize test was not a good test and that no toxicologist would defend it [he is, unfortunately, wrong on this point; many toxicologists defended it- *Ed.],* but that there is a fund·amental difference between the Draize and LD50 tests. The LD50 serves as a general safety net, which will demonstrate the probability of unusual reactions at any of the more than 7,000 points (enzymes) where things could go wrong in the mammalian system, whereas the Draize test is much more limited, both in scope and function.

Dr. A. Dayan of Wellcome Laboratories (England) noted that the LD50, and all acute toxicity testing in general, has come in for a great deal of ill-informed criticism. While a simple mortality test, as a general rule, has limited utility, acute testing can serve a wider range of functions. These include exploratory research of a new compound, screening for general or abnormal toxicity, and bioassays of biological therapeutics to determine factors like duration of action and formation of metabolites.

In the final analysis, Dr. Malmfors probably went to the heart of the problem when he noted that the terminology

used is confusing. He argued that we should make a clear distinction between acute toxicity studies and lethal toxicity studies. Most people agree with the need for some acute toxicity data and also for a rough index of the lethal dose. However, there is far less agreement on the need for a precise LOSO figure and, based on the discussions at the two meetings in Europe, it would appear that most toxicologists feel that the LOSO protocol must either be substantially modified or eliminated from regulatory requirements.

The proceedings of both meetings will be published. Further information may be obtained from Symposium on Acute Toxicity, c/o Postbus 82030, 2508 EA Den Haag, The Netherlands and from First CFN Symposium, Department of Drugs, L4, Box 607, 751 25 Uppsala, Sweden.

A.N. Rowan

Swiss Symposium: "Medicine and Animal Experiments"

Physicians Against Animal Experiments, a society based in Zurich, Switzerland, held a symposium on the subject, "Medicine and Animal Experiments," at Zurich University on October 8, 1981. The society was founded with 165 members; since then, its membership has grown to 321. It is comprised of practicing physicians and medical students, the latter group representing one-third of the membership. The primary aim of the society is to make a critical assessment of the necessity, appropriateness, and procedures entailed in animal experiments, to assist in reducing the number of laboratory animals used and in excluding painful experiments, and to search for alternative methods.

The first speaker, Professor Dr. G. Teutsch of the Teachers' College, Karlsruhe (Federal Republic of Germany}, dealt with recent changes in the ethics related to animal experiments. According to the ethics governing animal experiments during the nineteenth century, medical scientists were held responsible for doing everything possible to ensure the welfare of humans and to alleviate their suffering. Another basic tenet was that they were permitted to conduct experiments with animals whenever such experiments were required, although there was to be some consideration for the well-being of the animals. Medical science does not usually take lightly any attacks on its conduct in regard to animals, given these traditional views. Yet, today, the humane movement, because it cannot afford to forego some level of cooperation with the medical profession, is expected to refrain from any inimical confrontation. However, within the general public, attitudes are beginning to change. People might not yet accept animals as equal brothers, but more and more of them are beginning to believe that animals are fellow creatures. Based on this new way of thinking, the ethical awareness of the medical profession is beginning to change, too. Not only is medicine beginning to become aware of its obligation to meet evolving ethical requirements; there are also new constraints introduced by recent legislation in several countries, which prescribes that the number of animals used in experiments be reduced to an "indispensable quantity."

Dr. P. Fischer, Director of the Swiss I ntercantonal Control Service, delivered a paper on drug safety requirements, from the point of view of the legislator and controlling authorities. He made particular reference to Switzerland, where a new Animal Protection Law has recently been enacted. Dr. E. Theiss, of the pharmaceutical company Hoffman-La Roche, Basel, defended the use of animals in experiments. He insisted that 75 percent of all results of animal experiments do have validity for man. However, he anticipated an increasing use of alternative testing mechanisms - in part, to reduce the total costs involved in the production of drugs. Dr. K. Fickentscher, from the Pharmaceutical Institute of the University of Bonn (Federal Republic of Germany), stated quite unambiguously that pharmaceutical research has already reached a point where no further pro-

gress can be expected. Our increasing knowledge about the negative side-effects of many drugs is making it increasingly evident that the therapeutic potential of drugs has simply reached a dead end. In light of this situation, he believes that animal experiments are no longer justified, for both scientific and ethical reasons. "The quality of life can no longer be improved through animal experiments," he stated, and concluded: "This, we'll have to do for ourselves."

Professo-rDr. G. Zbinden, from the Institute of Toxicology, Technical College, and the University of Zurich, in his criticism of the LOSO tests, remarked that the 2 million chemical substances that mother nature produces are often more poisonous than anything that the pharmaceutical industry of Basel could *ever* put on the market. The LOSO test on animals was developed quite a few years ago, he noted, in 1927, for the "biological standardization" of drugs that were *very* effective, but also extremely poisonous. The dose required for treating an illness had to be *very* carefully calculated, for this was still a time when one could not chemically analyze the effects of drugs. Since that time, the LOSO test has been an element in almost all *gov*ernment regulations on drugs, although its purpose has become obsolete. There are only a few drugs left, such as *vac*cines, that require "biological standardization." However, new applications have since been found for the LOSO test, in the toxicological testing of pesticides, cosmetics, industrial chemicals, food additives, etc. In this use of the test, it provides a basis for the categorization of substances into classes, according to their degree of toxicity. Millions of laboratory animals have been sacrificed to satisfy the legal requirements *involved* in establishing toxicity.

Any questions about the meaning behind this madness have traditionally been repressed. Today, however, new questions are being raised, ever more loudly. A'mong other things, we have become distrustful about the "blessings" conveyed on us by the chemical industry, and are calling for more careful control of all of the chemical substances that enter into commerce and thereby frequently affect our environment. But, to spare the lives of the millions of animals that would be spent in testing these substances, there is considerable public pressure for devising new methods that can replace the useless and often misleading techniques that now comprise the antiquated catalog of test procedures. As one of these older tests, the LOSO has been proven to be unreliable, since results from it depend on too many biological variables such as animal species, age, sex, weight, feed, health, etc. To arrive at an approximate LO determination, one could reduce the number of animals used per test from 80-120 to 6-8; primates and dogs have already been excluded. Professor Dr. Zbinden (along with Dr. M.F. Roversi) have sent letters containing this information to recognized health authorities throughout the world, and the response so far has been overwhelming and encouraging. The Swiss Federation for the Protection of Animals has guaranteed, through considerable funding, the continuation of this research effort for identifying alternative testing procedures for the next 3 years.

While Dr. K. Sojka, a renowned lawyer from Hamburg, cited a pending court case that might lead to an important legal decision on the right of students to refuse to participate in animal experiments in a physiological practicum, Dr. R. Schenkel, President of the laboratory animals commission of the Swiss Federation for the Protection of Animals, presented various possible strategies, utilizing the existing provisions of the Swiss Animal Protection Law, for addressing the problem of the use of animals in experiments.

The consensus of speakers and audience alike, at the end of the symposium, was that there are too many unnecessary animal experiments being performed, but that we cannot- as yet- entirely forego their use.

Dr. Karl Frucht
Regional Director
World Society for the
Protection of Animals

National Society for Medical Research

The National Society for Medical Research (Washington, D.C.) organized a seminar on "adjunct" methods and regulation of animal research, in conjunction with their annual meeting held on December 15, 1981. Many of the usual arguments were raised by the various protagonists- for example, the American Heart Association argued that one could not "throw money" at the problem (developing and promoting non-animal methods), while the Animal Welfare Institute promoted the value of constructive legislation and regulation. However, there were indications of support for new initiatives.

Dr. Bernard Zook (George Washington University) discussed the idea of expanding the role of the animal care committee to review all uses of laboratory animals in the institution. He suggested that it would not be a bad idea to include a lay representative on the committee as a "spokesperson for the animals," but that it was unlikely that many medical institutions would feel comfortable if such an individual was an official from an animal welfare group. Dr. Robert Whitney (NIH) expanded on this theme when he noted that the University of Southern California has established an Animal Ethics Review Board to advise the Animal Care Committee and to review protocols. The members of the Board include a bioethicist (Professor of Religion), a Professor of Law, and a Professor of History as nonscientific representatives. Dr. Whitney felt that the "establishment of the review board is timely" and is a positive step. Dr. Thomas Malone (NIH) had previously commented that the biomedical organizations had not perfected their policies and standards on animal welfare and that they had not kept the public sufficiently aware of their animal welfare programs. He stressed that it was very important to find common ground and to accommodate legitimate animal welfare requirements within the need for animals in high-quality research.

Another theme that came up at the meeting was the issue of money for **"alternatives"** or "adjuncts." Dr. Wallace Fraser (American Heart Association) and Dr. William Gay (NIH) both argued that one could not "throw money at the problem." However, Dr. Norine Noonan (House Subcommittee on Science, Research and Technology) contended that one could certainly target money for specific research areas. NIH is already providing funds for development and promotion of techniques, some of which would qualify as alternatives. This is targetted money, which could be brought under the aegis of some co-ordinating body. In addition, several scientists have suggested that NIH could issue Requests for Proposals (RFPs) calling for ideas on alternatives research. This has been done in other areas of methods research, and there is no reason why this approach should not be applied to the alternatives idea.

In response to a question from Dr. Martin Dimm (American Society of Anatomists), who asked whether the British licensing system had been considered by the Subcommittee (he had been impressed by the system when he worked in Britain), Dr. Noonan commented that they had, but that they felt there was no need for such a draconian measure. Dr.James Will (University of Wisconsin) added his belief that the level of animal care in the United States is better than that in either Britain or West Germany, and both of these countries have more restrictive legislation than we have in the United States.

A.N. Rowan

Scientists Center for Animal Welfare

The first conference organized by SCAW focused on regulation of animal research and ways of assuring consideration of, and a commitment to, animal welfare. The meeting was unusual in that SCAW limited participation to scientists with some research experience, the intention being to encourage a freer exchange of ideas, opinion, and information than one might get in the presence

of animal welfare actIvIsts with no research training. On the other hand, animal welfare representatives wit_h the required qualifications (e.g., Dr. Michael Fox) were certainly present and made their views known.

The results more than justified the organizers' intent as a constructive debate developed on a number of topics, including the relative advantages of including public representatives on research review committees. These discussions followed a series of formal talks, highlighted by a presentation from Dr. Thomas Malone, Acting Director of NIH. His major point, after reaffirming the importance of animal research in the advancement of biomedical knowledge, was that NIH would become more aggressive in monitoring institutions for compliance with NIH guidelines for animal care and use. In 1982, NIH will make a number of site visits to randomly selected institutions to assess the actual level of compliance.

Many interesting points were also made by the other speakers. Dr. Henry Baker (University of Alabama Medical Center) argued that review of ongoing research is more important than prior review of protocols, since it is not uncommon for researchers to assign research problems of considerable complexity to relatively untrained staff members. He also noted that his group is looking at the possibility of involving nonscientists in their institutional animal care committee, since these individuals can provide a "perspective and sensitivity" about animals that scientists who work with them may not have.

Dr. Frederick Kerr (Mayo Medical School, Minnesota) discussed the problems of research on pain and argued that much useful research could be conducted within the constraints that investigators should do nothing to an animal that they are not prepared to have done to themselves. He noted that a number of scientists use techniques that he questioned, such as injection of bradykinin or formalin, or the use of local anesthetics with paralytic agents when conducting neurophysiological research. He then noted that he had been a little hard on certain scientists and proceeded to redress the balance by warning those who oppose research that they may be held responsible for the "heinous crime" of preventing the advance of biomedical knowledge and the development of new and better therapies.

The afternoon discussion periods addressed the four possible stages of regulating animal welfare- individual, institutional, funding agency, and editorial review. Dr. James Will (University of Wisconsin, Madison) made several interesting points in regard to individual and institutional activities. He noted that he had been involved in a review of the literature on lung research and had noted that 47% of the papers did not use the most appropriate research model. This investigation confirms the belief that relatively few scientists are capable of providing detailed explanations about the advantages and disadvantages of particular animal models. At the institutional level, he and his colleagues were planning to start a new system in which everyone using animals would be required to attend a 2½-hour course on laboratory animal welfare.

Other points discussed during the workshops and in the general debate included the issue of instituting upgraded animal care committees with external participation (broad agreement that this would be a good move), the development of guidelines to distinguish between various grades of painful research, the use of random-source dogs, the need for a higher priority for Animal Welfare Act enforcement by the USDA, and the need for more training about ethical responsibilities.

Perhaps the last word should be given to Dr. Malone, who drew attention to the circumstances of Claude Bernard's professional and family life, which epitomize what can happen in animal research and the evolution of protests against the practice. After his training, Bernard wanted to continue with research but, for a while, it looked as though he would have to go into private practice, since he did not have private

means. He thus took the only other course open to him- he married into money. However, fate had the last laugh since his wife began to object more and more strongly to his work. Ultimately, she not only became an outspoken and committed antivivisectionist, she also persuaded their two daughters to take up her cause and, between them, made Bernard's home life thoroughly miserable.

A.N. Rowan

FORTHCOMING MEEt/NGS

Southwest Foundation: Symposium on "The Use of Nonhuman Primates in Exotic Viral and Immunologic Diseases," February 28-March 3, 1982, San Antonio, Texas. Sessions will include general considerations (husbandry, spontaneous diseases, primate viruses, alternative methodologies, and germ-free and SPF nonhuman primates), immunology and immunologic alterations (including blood diseases and genetic aspects and viral diseases), comparative medicine (animals other than simians for the study of disease) and biohazards. Attendance **will** be limited to 250 persons. Abstracts will be required from speakers. All reports will be published. Contact Dr. S.S. Kalter, Southwest Foundation for Research and Education, P.O. Box 28147, San Antonio, TX 78284.

Charles River Foundation: 5th Charles River International Symposium on Laboratory Animals, March 9-10, 1982, Sheraton Airport Frankfurt, Frankfurt-am-Main, Federal Republic of Germany. Contact Symposium Chairman, Charles River Foundation, P.O. Box 430, Wilmington, MA 01887.

Wisconsin Humane Society: "North American Symposium, Chemical Immobilization of Wildlife," April 4-6, 1982, Milwaukee, Wisconsin. Twenty-six new or recent papers will be presented by veterinarians and wildlife biologists from the Unitecl States and Canada. The emphasis of the conference will be on the use of immobilization instrumentation and techniques in the larger North American mammals, as well as on specific techniques appropriate for zoos, African mammals, waterfowl and gamebirds, fur bearers, and small carnivores. Other sessions will be devoted to capture myopathy, currently available chemical compounds, emergency treatment during immobilization, and human exposure to drugs. Contact Leon Nielsen, 4151 N. Humboldt Avenue, Milwaukee, WI 53212.

American Society of Agricultural Engineers: 2nd International Livestock Environment Symposium, April 20-23, 1982, Iowa State University, Ames, Iowa. Topics include Environmental Effects on Production, Environmental Effects on Health and Reproduction, Environmental Effects on Physiology, Environmental and System Design and Animal Comfort, Genetic and Environmental Interactions, Animal Care, and Meeting Governmental Regulations in Animal Housing Systems. Contact Cathy Burg, Meetings Secretary, American Society of Agricultural Engineers, P.O. Box 410, St. Joseph, MI 49085.

Federation of American Societies for Experimental Biology: "Symposium on Pain Perception in Animals," April 21-22, 1982, New Orleans. This 1 ½-day meeting is being jointly sponsored by the American Veterinary Medical Association's Council on Research, the American Physiology Society, and the American Society for Pharmacology and Experimental Therapeutics. The first day's sessions will concentrate on research findings concerning pain in animals, while the last half day will bedevoted to the control and prevention of pain. More information is available from the

Office of Scientific Meetings, Federation of American Societies for Experimental Biology, 9650 Rockville Pike, Bethesda, MD 20814.

Humane Research Trust: The Role of Animals in Scientific Research and their Effectiveness as Substitute Models for Man, April 21-23, 1982, Manchester University, Manchester, UK. Scheduled speakers: Dr. H. Muir, Prof. G. Marsden, Prof. M. Panigel, Mr. R.N. T.-W.-Fiennes, Air Commodore J. Malcolm, Mrs. R. Clayton, Dr. E. Carson, Prof. D. Davies, Prof. D. Parke, Prof. P. Turner, Dr. J. Fry, Dr. S. Vine, Prof. J. Bridges, Dr. T. Connors, Dr. J. Parry, Dr. M. Dawson. Registration fee is £50, including accommodation and meals. Contact the Conference Organizer, Humane Research Trust, Brook House, 24 Bramhall Lane South, Bramhall, Stockport, Cheshire SK7 2DN, UK.

Zoological Society of Philadelphia and the Institute for Cancer Research: Symposium on Animal Counterparts of Human Disease, With Particular Reference to Hepatitis B-like Viruses, May 16-20, 1982, Franklin Plaza Hotel, Philadelphia, Pennsylvania. Contact Theresa Mullarkey, Philadelphia Zoological Garden, 34th St. and Gerard Ave., Philadelphia, PA 19104.

International Primatological Society: IXth Congress, August 8-13, 1982, Atlanta, GA. The annual meeting of the American Society of Primatologists will be held jointly with the Congress. Contact Dr. Frederick A. King, Director, Yerkes Regional Primate Research Center, Emory University, Atlanta, GA 30322.

The Second European Conference on the Protection of Farm Animals will be held in Strasbourg on May 25 and 26, 1982. See "Announcements" for further details.

ANNOUNCEMENTS

European Conference on Protection of Farm Animals

The Second European Conference on the Protection of Farm Animals will be held in the Council of Europe Assembly Chamber in Strasbourg on May 25 and 26, 1982. The meeting will concentrate on animal transport problems.

Papers on the first morning will review the progress of farm animal welfare legislation in the EEC and the Council of Europe. This will be followed in the afternoon by papers reviewing the logistics and economics of animal transport in Europe. The whole of the second day will focus on the physiology of stress during transport. The conference languages will be German, French and English with simultaneous translation facilities available.

The proceedings of the first European Conference were published by Elsevier *[Anim Reg Stud* 3:3-174). Further details are available from the RSPCA, The Causeway, Horsham, Sussex, U.K.

AVMA Sets Up Welfare Committee

In July 1980, the American Veterinary Medical Association (AVMA) established an ad hoc committee to consider the establishment of a standing committee on animal welfare. Now, one year later, the Board has authorized a standing Board Committee on Animal Welfare. According to the *Journal of the American Veterinary Medical Association (179* (8):753, 1981), the Board Committee will have eight members and will spend the next two years " ...reviewing and cataloging publications on animal rights, factory farming, and the use of live animals in research and industry; attending national meetings of animal welfare groups and identifying and developing position papers for the specific areas where the AVMA may wish to become involved."

Albert Schweitzer Medal

On October 15, 1981, Dr. Dallas Pratt was awarded the 1981 Albert Schweitzer Medal by the Animal Welfare Institute. Dr. Pratt is the author of *Painfu l Experiments on Animals* (1976) and *Alternatives to Pain in Experiments on Animals* (1980). Presented for the first time in 1954 to Dr. Schweitzer, the medal, along with $1,000, is given to individuals who have made an outstanding contribution to animal welfare. Past recipients include former Vice President Hubert Humphrey, author of the first federal humane slaughter bill (1958); Rachel Carson, author of *Silent Spring* (1962); former Supreme Court Justice Abe Fortas, author of the first federal bill to require the humane treatment of laboratory animals (1965); and Roger and Katharine Payne, for leadership in the protection of whales through scientific studies (1980). Senator Mark Hatfield (R-Oregon) presented the award in Washington to Dr. Pratt, formerly a practicing psychiatrist and Fellow of the American Psychiatric Association.

Death of Major Charles Hume

Charles Westley Hume, OBE, MC, BSc, died in October of last year, at 95 years of age. He was the founder, in 1926, of the University of London Animal Welfare Society and, in 1939, of the Universities Federation for Animal Welfare (UFAW).

He was born on January 13, 1886 and educated at the University of London. He became a Fellow of the zoological society and an Honorary Life Member of the British Peer Society. Major Hume wrote two books on subjects related to animal welfare: *Man and Beast* and *The Status of Animals in the Christian Religion,* as well as a number of articles. In 1956, he led the successful fight for the prohibition of the gin trap. He also worked in other areas of modern science, for the Physical Society, the British Science Guild, as a manager of a campaign that resulted in Patents Act, and as a Scientific Intelligence Officer.

In Hume's views, "welfare" represented a concept that goes beyond the less sophisticated beliefs about protection of life and prevention of cruelty, in that "welfare" stresses the positive side of the issue: the presence of well-being. As humans' capacity to improve their own living conditions increases, this same technology should be used to improve the lot of animals as well. Hume envisioned that those in the UFAW could assist the animal welfare movement through the use of objective experiments and careful reasoning, and by avoiding emotionalism and sensationalism.

As a memorial to Major Hume, the UFAW is attempting to raise sufficient funds to endow a series of lectures on the rational, but sympathetic, appraisal of human use and abuse of animals.

New Chairman of ILAR

Dr. Franklin M. Loew, director of the Division of Comparative Medicine at Johns Hopkins University, has been named to a three-year term as chairman of the National Academy of Science's Institute for Laboratory Animal Resources (ILAR). Dr. Loew is also chief of the Johns Hopkins medical school's laboratory animal medicine unit, which is responsible for overseeing the care and use of animals in the university's extensive research programs. Holder of a D.V.M. from Cornell University and a Ph.D. from the University of Saskatchewan, Dr. Loew is on the board of directors of the Association for Biomedical Research (formerly the Research Animal Alliance) and a member of the editorial advisory board of this journal.

FRAME Toxicology Program Receives Boost

On November 17, 1981, Bristol-Myers handed a check for $100,000 to FRAME (Fund for the Replacement of

Animals in Medical Experiments) to support one of their five proposed research projects concerning alternatives in toxicology testing. Progress in their research, as well as the results of the FRAME Toxicology Committee review of test methodology, will be announced at a symposium to be held at the Royal Society, London from November 1-3, 1982.

Further information on the program may be obtained from Dr. Andrew Sincock, FRAME, Sb The Poultry-Bank Place, St. Peter's Gate, Nottingham NG1 2JR, U.K.

The Johns Hopkins Center for Alternatives to Animal Testing

The Johns Hopkins University has established The Johns Hopkins Center for Alternatives to Animal Testing within the Johns Hopkins School of Hygiene and Public Health (Department of Environmental Health Sciences). The Cosmetic, Toiletry and Fragrance Association provided the initial funding of approximately 1 million dollars for 3 years. Bristol-Myers has just added another $200,000 to that sum, for the purpose of investigating test methods of interest to industries other than cosmetic manufacturers. The specific purposes of the Center include the following:

1. Encouragement of research in the development of *in vitro* test procedures or other nonanimal test procedures to examine the toxicity of chemicals and chemical compositions
2. Development and validation of methodology that will provide alterna tive approaches to whole-animal studies for the evaluation of safety
3. Solicitation of additional funds for the Center from other potentially affected and interested groups
4. Development of procedures for promoting and gaining acceptance of positive findings and methods of nonanimal safety testing
5. Providing the cosmetic industry and other interested groups with the best available practical methodological approaches for safety evaluation.

An Advisory Board has been established to set and approve the policies of the program. hve ot the Hoard Members, Dr. A. Goldberg, Dr. G. Green, Dr. D.A. Henderson, Dr. F.M. Loew and Dr. H. Wagner, are from Johns Hopkins University. The other members are Dr. L. Goldberg (Duke University), Dr. Kotin (former Director of NIEHS), Mr. J. McNerry (CTFA), Dr. A. Rowan (Institute for the Study of Animal Problems), and Dr. P. Ward (University of Michigan).

The first public event organized by the Center will be a symposium at the Johns Hopkins School of Public Health on ocular and dermatological toxicity. The meeting will be held on May 13 and 14, 1982. For further information, contact Dr. Alan Goldberg, Department of Environmental Health Sciences, Johns Hopkins School of Hygiene and Public Health, 615 N. Wolfe Street, Baltimore, MD 21205; (301) 955-3045.

Nonanimal Research Methodologies Symposium Proceedings Available

Nonanimal Research Methodologies: Proceedings of a Symposium has recently been published by The George Washington Ethics and Animals Society. As reported earlier in the *Journal* (2(3):156-157, 1981), this conference was held, in part, as a response to some perceived shortcomings in a concurrently held, more formal gathering, the NIH-sponsored, "Trends in Bioassay Methodology: *In Vivo, In Vitro,* and Mathematical Approaches." The NIH meeting was, in itself, a response to a congressional demand that, in turn, arose from public pressure, for a review and assessment of the current outlook in the development and use of alternatives to the use of animals in research. However, when the focus and content of the NIH symposium were finally announced, members of the animal welfare/rights movement were disappointed: clearly, the intent was a wide-ranging look at bioassay techniques, rather than a careful assessment of the available alternatives, their

limitations, and the opportunities for development of new alternatives.

The symposium on nonanimal research methodologies, therefore, provided an opportunity for addressing the specific issues related to the use of alternatives. These included the general concept that underlies this approach, with several examples of its application; a narrative description of the development of an organ culture system for assessing the tumorigenicity of cell cultures, which seems to correlate well with *in* vivo results; a more general discussion of the factors involved in converting to nonanimal systems for detecting potential carcinogens, in light of the limiting aspects of animal studies such as time, cost, and reliability of results; and a presentation on the rational, moral, and factual grounds that ought to compel society toward the vigorous development of alternatives to experimentation with animals.

The *Proceedings* is available from The George Washington University Ethics and Animals Society, P.O. Box 56272, Washington, DC 20011.

Book News

ANIMAL RIGHTS AND HUMAN MORALITY, Bernard E. Rollin (Prometheus Books, Buffalo, NY, 1981, $17.95, cloth; $9.95, paper).

This is an excellent book. It should be read by all subscribers to this *Journal* and by thousands who (alas) will never see this review.

Those who believe that we humans need to clean up our act regarding nonhuman animals may be classified, on the grounds of tactics, as quietists, meliorists and revolutionaries. The quietists pursue their goal of helping animals by individual good works, perhaps prayer and meditation, and maybe frank answers if animal users or abusers happen to ask their opinions. Meliorists work to improve the treatment of animals without urging immediate and revolutionary change. The ultimate goals of some me-l'iorists are in fact revolutionary, but this is not so for others. What makes meliorists meliorists is the willingness to work with, and to attempt to reform, the existing system of animal users. This the revolutionaries are unwilling to do. The entire system is profoundly evil, they believe, and it must be directly attacked and overthrown. Revolutionaries (Rollin calls them "kamikazes," underestimating, I believe, the military efficacy of the real kamikazes) disdain meliorists as dupes of the establishment, wittingly or unwittingly collaborating with murderers.

Professor Rollin is a meliorist, and his book may be denounced as a "sell-out" by some of the revolutionaries (grandly ignoring the fact that he was never with them to begin with). He takes it for granted that humans will continue to use ("exploit" if you prefer) nonhuman animals for a number of purposes, and inquires as to the rights and wrongs of the conditions of such use. Rollin is willing to accept "half-measures" in many circumstances, at least for the present. Some true believers, of course, will be deeply offended.

The basic structure of the book is well indicated by the titles of the four parts. Part One, "Moral Theory and Animals," (62 pp.) and Part Two, "Animal Rights and Legal Rights" (22 pp.), provide the theoretical basis for Parts Three, "The Use and Abuse of Animals in Research," (60 pp.) and Four, "Morality and Pet Animals" (26 pp.). As the titles indicate, the book concentrates- on the practical side- on research and pets, arid has relatively very little to say about farming, hunting, or other animal uses.

While the structure is systematic, the book is strikingly anecdotal. Many points are illustrated from Professor Rollin's personal experience. And many of the most distinctive positions in the work stem from research of Rollin's that began without special reference to ani-