

Humane Laws: Action Unlikely on Variety of Animal Welfare Laws Still Pending in Congress

"What are you doing these days?" asked one monkey of another. "Space research," replied the second monkey, "and brother is it awful! They strap me down, press me into a tiny cabin, shoot me into orbit, and finally parachute me into the ocean." "That sounds rough," said his friend sympathetically. "Why don't you quit?" "What!" he replied. "And go back to cancer research?"

The eight bills lodged in the first session of the 88th Congress to promote the humane treatment of animals used in scientific research have gone the way of approximately 90 percent of all bills introduced in each legislative session—nowhere. Although outside of Congress the subject is passionately debated, the majority of legislators have shown no inclination to seek for the delicate balance between the humane societies who sympathize with monkeys and are pressing for federal regulations and the scientific organizations who feel that, but for the discomfort of the monkey, we might have lost an astronaut, and who are in near-unanimous opposition to federal laws. Legislative mail has been running high since a subcommittee of the House Interstate and Foreign Commerce Committee held hearings in September 1962. But, despite the preponderance of mail from well-meaning ladies and small children who say "don't let them hurt my Tippy," congressmen have learned enough about science to respect the integrity of, and the need for, animal experimentation, and they are not anxious to interfere with it. The chances that either of the two committees to which the proposals have been referred (Interstate and Foreign Commerce in the House, and Labor and Public Welfare in the Senate) will attempt to act on them in the session just beginning are about as high as the chances that Khrushchev will join the New York Stock Exchange.

The bills before Congress can be divided roughly into the six that would affect the uses of animals in actual experimentation and the two that concentrate on providing adequate facilities and humane care for laboratory animals before and after experimental use.

In the first category, the strongest bill is that introduced in the Senate by

Joseph Clark (D-Pa.) and Maurine Neuberger (D-Ore.). The Clark-Neuberger bill makes it the policy of the United States that "living vertebrate animals used for scientific experiments and tests shall be spared unnecessary pain and fear; that they shall be used only when no other feasible and satisfactory methods can be used to ascertain biological and scientific information for the cure of disease, alleviation of suffering, prolongation of life, the advancement of physiological knowledge, or for military requirements; and that all such animals shall be comfortably housed, well fed, and humanely handled."

The Clark-Neuberger bill also calls for licensing of researchers using such animals by the Secretary of Health, Education, and Welfare, and provides that the Secretary may limit the number of animals used in experiments that cause pain. A similar provision is found in the bill submitted by Representative William Randall (D-Mo.), only here the supervising agency would be a new Agency for Laboratory Animal Control, to be established in the Department of Justice.

Scientists Opposed

It is on these fairly restrictive bills that most of the alarms of the scientific community have been focused. In August the American Medical Association, the American Hospital Association, the American Veterinary Medical Association, the Association of American Medical Colleges, the Association of State Universities and Land Grant Colleges, and the National Society for Medical Research agreed that such federal regulation would be harmful to research, and they formed a joint task force to seek ways to combat it. Although at least one of these groups, the National Society for Medical Research, has been a vigorous opponent of the proposed legislation for some time, some of the others have refrained, through fear of jeopardizing their tax-exempt status, from lobbying against the bills too actively. Many independent scientists, however, have also spoken out privately in letters to popular magazines and the press, and during the course of the year, an ample testament to the views of the scientific community has been assembled.

The unanimity of scientists in opposing federal regulation of animal experiments breaks down a bit when it comes to proposals introduced by Con-

gressmen John Fogarty (D-R.I.) and Kenneth Roberts (D-Ala.) to establish federal standards for the "humane care, handling, and treatment of laboratory animals used by departments and agencies of the United States or by recipients of grants or contracts from the United States." The Fogarty and Roberts bills call upon the Surgeon General to promulgate standards for the treatment of laboratory animals, but they include no licensing or enforcement provisions and do not even mention the word *experiment*.

The six-organization task force is opposed even to this proposal (which would probably lead only to suggestions about the size of cages, the amount of food and fresh air provided, and so on), but in a report just issued, the New York Academy of Medicine has endorsed the principle of federal legislation of this variety, to serve as a model for state and local laws and as a tacit reminder to potentially wayward researchers that Uncle Sam is keeping an eye on them. The Academy believes, however, that the Fogarty and Roberts bills do not go far enough in ensuring compliance with the principles they establish.

Insofar as the New York Academy sanctions the principle of federal standards for humane treatment of animals it is decidedly in the vanguard of the scientific community. But to the degree that it stresses self-regulation of individual laboratories as the core of the problem, and urges increased attention to the housing, care, and handling of laboratory animals, it is occupying a middle position that has evolved this year as a by-product of the seeming imminence of federal action and as a constructive residue of the campaign against it. Federal agencies which neglected to publicize the subject before have been issuing pamphlets designed to illustrate how happy are the animals under their care; a voluntary organization, the Animal Care Panel, has been particularly active, devoting itself rigorously to the discussion of criteria for laboratory care, and publishing, under the imprimatur of the Public Health Service, a "Guide for Laboratory Animal Facilities and Care." At the same time, while the goodwill and high ethical standards of animal researchers have been proclaimed with great frequency, there has also been a growing tendency among scientists quietly to acknowledge that thoughtless procedures are sometimes employed in han-

dling animals and that painful experiments are sometimes unnecessarily performed. The airing of the issues, as well as congressional interest, has already had a beneficial effect in this respect.

The new emphasis on the care of research animals is denounced by the humane societies and antivivisectionists as a smokescreen for the painful experience of the dog actually under the knife, and they too have had a busy year. But the scientific community can argue that the dog may save a child, and it has found congressmen, whose own children may have benefited from such researches, easy to persuade. In sum, although there is still groping for a proper role for the government to play, it is clear that that role will not be a restrictive one, and that what it will be will not be decided in a hurry.—ELINOR LANGER

Announcements

A 2-year **exchange program** is scheduled to begin 1 February between the medical schools of Tulane University and the University of Antioquia, in Medellin, Colombia. The program will provide an opportunity for Colombian physicians to study for varying periods of time at Tulane, while Tulane faculty members will help conduct and advise the medicine teaching programs in Medellin. The exchange, supported by a W. K. Kellogg Foundation grant, aims to help the South American school to develop its department of medicine, and will supply clinical material in nutrition, hematology, parasitology, endocrinology, and general internal medicine for research projects.

Meeting Notes

The fourth international **photobiology** congress is scheduled 26–30 July, in Oxford, England. Seven sessions will be held, consisting of contributed papers on the following topics: basic photochemistry in relation to photobiology; photochemistry of nucleic acids, and its biological implications; human color vision; photoreception; photoenvironment; energy conversion and photosynthetic unit; micro-irradiation of cells. (Fourth International Congress of Photobiology, Blandford Site, Whiteknights Park, Reading, U.K.)

The National Academy of Sciences is seeking funds from U.S. government

agencies to provide travel grants to the meeting for U.S. scientists. Deadline for receipt of applications for these grants: *1 March*. (Miss Inger Hermann, Division of Biology and Agriculture, NAS, 2101 Constitution Ave., Washington, D.C. 20418)

Grants, Fellowships, and Awards

Travel grants are available for participation in the second international congress of **histochemistry**, scheduled 16–21 August, in Frankfurt, Germany. Deadline for receipt of applications: *1 March*. (M. Wachstein, Department of Biology, St. Catherines Hospital, Brooklyn 6, N.Y.)

The National Council to Combat Blindness is offering its 1964–65 Fight for Sight awards. Applications should include proposals for basic and clinical research in **ophthalmology**. Last year's awards included 71 grants and fellowships, totaling approximately \$250,000. Deadline for receipt of applications: *1 March*. (S. A. Mayers, The Council, 41 W. 57 St., New York 10019)

Approximately nine Guggenheim graduate fellowships in **rocket propulsion** and **jet structures development** are available for work at Princeton University's Guggenheim Laboratories for Aerospace Propulsion Sciences, the Guggenheim Jet Propulsion Center at California Institute of Technology, or the Institute of Flight Structures at Columbia University. Candidates must be residents of the U.S. or Canada and be interested in a career in astronautics, rockets, flight structures, or related disciplines; a B.S. degree is required. Each fellowship includes tuition and a stipend of up to \$2400. Candidates must apply directly to the school they wish to attend. Deadlines: for Columbia, *15 February*; for Princeton and Caltech, *1 March*. (Graduate School of each of the three institutions.)

Applications are being accepted for an institute in **anthropology**, scheduled 15 June to 21 August at the University of Colorado, Boulder. The program, conducted under an NSF grant, will be limited to 40 junior college and college teachers who must teach at least one course in anthropology, although their principal education has been in other disciplines. Participants will receive stipends and dependency and partial travel allowance; some dormitory hous-

ing will be available. Application deadline: *15 February*. (J. Kelso, Department of Anthropology, University of Colorado, Boulder)

Scientists in the News

At Texas A&M University:

Howard G. Applegate, formerly with the University of Arizona, has been appointed associate professor of plant sciences; and **Robert D. Powell**, formerly at the University of Florida, has become associate professor of plant physiology.

Harlan J. Smith, formerly associate professor of astronomy at Yale, has been appointed professor and chairman of the department of astronomy at the University of Texas, Austin, and director of the McDonald Observatory, Fort Davis. Operation of the observatory was transferred from the University of Chicago to the University of Texas, with both schools continuing to use it.

Wolfgang K. Berthold, formerly at Standard Elektrik Lorenz, AG, an associate of International Telephone and Telegraph in Nuremberg, Germany, has been appointed director of research for the ITT Industrial Laboratories Division, Fort Wayne, Ind.

Paul C. Tompkins, former chief of the U.S. Public Health Service's division of radiological health, has been appointed executive director of the Federal Radiation Council, Washington, D.C.

Gerrit Toennies, senior member emeritus of the Institute for Cancer Research, Philadelphia, has become research professor of microbial physiology at the medical school of Temple University.

George O. Clifford, formerly associate professor of medicine at Wayne State University, has become an associate professor of medicine at Cornell. **Fred H. Allen, Jr.**, who had been with the U.S. Naval Hospital, Chelsea, has joined Cornell as a clinical associate professor of pediatrics.

Erratum: In the report "Neurospora mutant lacking an arginine-specific carbamyl phosphokinase" by R. H. Davis [*Science* **142**, 1652 (27 Dec. 1963)], the last sentence of paragraph 1 should read: "Early in the orotic-acid pathway of pyrimidine synthesis it [carbamyl phosphate] is used in the carbamylation of *aspartate* to form ureidosuccinate, a reaction catalyzed by aspartate transcarbamylase (ATC)." In the original, *ornithine* was substituted for *aspartate*.