

easily visible hardware of defense, because the need for such hardware is readily comprehended and because, for economic and political reasons, these expenditures attract massive support. But it is a different matter when it comes to salaries that will permit the hiring and retention of men who can make the government a "sophisticated buyer"—the expression used in a recent report, *Government Contracting for Research and Development*, prepared for the President by the heads of the principal agencies engaged in research and development. The need for better salaries can easily be comprehended by anyone who is willing to listen, but the issue does not speak for itself, and the Administration has not chosen to give it the brass-band treatment in Congress.—D. S. GREENBERG

### Congress Shrugs at Proposals On Laboratory Animal Welfare

Legislative proposals intended to promote the humane treatment of laboratory animals provide a lively topic for indignant letters to the editor, pro and con, and are the subject of a fairly heavy volume of congressional mail. But through the smoke and noise, one thing is apparent: Congress is not the least bit interested.

The reason is that research, particularly medical research, which uses the bulk of laboratory animals, has Congress's blessing; when congressmen make inquiries among their scientific acquaintances, the almost unanimous opinion is that the proposals would interfere with scientific research.

Two such proposals are now before Congress. The most extreme, offered by Representative Morgan M. Moulder (D.-Mo.), would establish an Agency for Laboratory Animal Control. The Agency would, among other things, be empowered to pass on the use of animals in all laboratories receiving federal funds. Its head would, in effect, become a czar setting the rules for most animal research uses.

A less extreme proposal has been offered by Senator Clark (D.-Pa.) in the Senate and Congresswoman Martha Griffiths (D.-Mich.) in the House. This bill provides for licensing experimenters and for inspection under the direction of the Secretary of Health, Education, and Welfare. Neither measure is likely to come to a hearing in this session.—D. S. G.

## Announcements

The U.S. Office of Naval Research and the Air Force Office of Scientific Research have announced joint sponsorship of a **Research Center for Celestial Mechanics**, to be established at Yale University in July. Research at the \$90,000 facility will be directed toward new approaches for problems involving earth-circling satellites, lunar and interplanetary probes, and predetermination of trajectories for interplanetary vehicles. The center's initial staff, headed by Dirk Brouwer, director of the Yale Observatory, will consist of 8 to 10 postdoctoral fellows and graduate students. Future plans call for considerable expansion under continued Air Force and Navy support.

The first in a series of **regional primate centers** to be established by National Heart Institute grants was recently completed near Beaverton, Ore., about 10 miles west of Portland. The center will house approximately 800 rhesus monkeys to be used in study of processes in heredity, specialization and functional mechanisms of living cells, and organ systems. All essential laboratory facilities, technical equipment, libraries, and data processing equipment are situated on the 200-acre site. Through affiliation with the University of Oregon Medical School and other local academic institutions, the center also serves as a laboratory for graduate credit in the biological sciences.

Other primate research centers are planned for Washington, Wisconsin, and Georgia.

The National Aeronautics and Space Administration and Sweden's Committee on Space Research have signed an agreement for a **cooperative space-research program** in connection with the planned launch of four Nike-Cajun sounding rockets from the Vidsel Range in Sweden. The main objective of the launch, scheduled for late this summer, will be to recover and analyze sample cloud particles to determine the composition and origin of noctilucent clouds—faintly luminous, very high clouds which occur only in certain regions of the auroral zone for a short period during the summer months.

The U.S. is to supply an appropriate launcher, the necessary telemetry equipment and ground antennas, rockets, and the four scientific payloads and

payload checkout equipment. Sweden will provide supplementary payload instrumentation to measure energetic particles, portions of the noctilucent sampling instrumentation, launching pad, a control center, and housing for telemetry equipment and for assembly and testing of rockets and payloads. Data analysis will be performed by scientists of both countries.

The U.S. Atomic Energy Commission has approved the export of **fertilizer containing phosphorus-32** to the Research Institute for Irrigation and Rice Production in Szarvas, Hungary. The material, furnished by the Department of Agriculture, will be used in studies sponsored by the International Atomic Energy Agency to determine the best method of phosphate fertilizer placement in rice cultivation. Similar IAEA-sponsored studies are being undertaken in India, Austria, Pakistan, Burma, Thailand, United Arab Republic, the Philippines, and Indonesia.

A **Society for Tropical Medicine** has been established in Düsseldorf, Germany, to organize training of students from developing countries. The society, headed by Walter Kikuth, professor of tropical medicine and parasitology at Düsseldorf Medical Academy, will continue the tradition of the defunct German Society for Tropical Medicine, founded in 1907.

The U.S. Public Health Service's special **task force on syphilis control**, whose formation last year was prompted by the report of 19,000 cases of infectious syphilis in fiscal 1961, has outlined various control activities which, if continued unabated for at least 10 years, it believes could eliminate syphilis as a public health hazard in this country. The proposals include a national effort providing for at least two visits a year by a qualified health worker to the country's 100,000 general practitioners, and one visit per year to the remaining 130,000 physicians; establishment of a program to insure that all blood-processing laboratories report all positive specimens to health departments by name of patient; extension of current interview-investigation services to cover all infectious cases; development of a comprehensive education program for professional workers and the general public; continuation of research in syphilis immunology, therapy, and laboratory pro-

cedure together with greater expansion of research in adolescent and young-adult sex behavior; and continued support of the program by federal, state, and local governments even after the number of reported cases begins to decline.

### Grants, Fellowships, and Awards

Nominations of candidates for the first **National Medal of Science** are being sought from recognized national professional societies and academies, and editors of the associated professional journals. Selection of candidates will be essentially based on total accumulated effect of an individual's work on the present state of physical, biological, mathematical, or engineering science. Recent achievements of a dramatic nature, with primary judgment of its potential effect on the development of scientific thought; and distinguished service in support of science and engineering, when accompanied by contributions to the content of science, will also be considered. Nominations of persons who have been honored by major national or international awards, such as the Nobel or Fermi prizes, should emphasize the candidate's achievements since the earlier recognition; other than this, there are no limits on the time at which the work was carried out. Deadline for receipt of nominations: *1 August*. (Frederick Seitz, National Science Foundation, 1951 Constitution Ave., NW, Washington 25, D.C.)

Graduate assistantships in **meteorology and climatology** are available at Colorado State University's recently formed atmospheric science department. A hydraulics laboratory, low-velocity wind tunnel facility, and varied equipment for field work will be available to participants. (Herbert Riehl, Department of Atmospheric Science, Colorado State University, Fort Collins)

Applications are being accepted for the following 1963-64 James Picker Foundation awards in **radiological research and nuclear medicine**:

*Advanced fellowships* (2-year) for intensive study in academic radiology. Applicants, preferably under 34 years of age, must have completed a 3-year residency in radiology.

*Postdoctoral research fellowships* (1-year, \$5000 to \$6500) for full-time re-

search on a specific problem, in preparation for an investigative career. Candidates should be under 30 years of age.

*Scholar grants* (2-year, \$6000), awarded to individual departments for support of specific individuals, their research, or both.

*Research grants* (2-year), awarded to institutions for support of specific projects oriented toward diagnostic aspects; not to be used to contribute to the salary of the principal investigator.

All awards are renewable. Deadline: *1 October*. (Committee on Radiology, National Academy of Sciences, 2101 Constitution Ave., NW, Washington 25, D.C.)

Two fellowships for study in **neurophysiology, psychology, and biophysics** at Britain's National Physical Laboratory (Teddington) are being offered by Carnegie Institution of Washington. Research will be carried out in the laboratory's Autonomics Division, concerned with the development of self-governing machines dealing with neural organization and the learning processes. The 1-year fellowships, limited to Americans holding recent doctorates in the field, carry average stipends of \$7000. (Albert Uttley, Autonomics Division, National Physical Laboratory, Teddington, England)

A limited number of scholarships (without stipend) and research appointments for graduate study in **nutrition** are available at Rutgers University. Applicants should have completed introductory courses in mathematics (through calculus), chemistry (through organic), and a year each of physics and biology (including zoology). Deadline for second term: *15 September*. (M. W. Taylor, 329 Lipman Hall, Rutgers University, New Brunswick, N.J.)

The American Association of Anatomists has established a Charles Judson Herrick award for work in **comparative neurology**, including morphological, experimental, and physiological studies but excluding studies in clinical neurology, psychiatry, applied psychology or pathology. The awards, to be provided through individual contributions, will be made to younger researchers in North America for either a single investigation or an extended series of studies. (Paul G. Roofe, Department of Anatomy, University of Kansas, Lawrence)

Graduate research and teaching fellowships in **tuberculosis and respiratory diseases** are available through the National Tuberculosis Association. Research fellowships are offered for predoctoral work towards an advanced degree (other than M.D.), and for postdoctoral training in scientific investigation. Teaching fellowships are intended for physicians entering their second or third year of residency in internal medicine or thoracic surgery who are interested in a medical teaching career. Trudeau fellowships are available for a limited number of young physicians who have completed residency training and are assured of a teaching or research faculty appointment.

Awards, granted for a 1-year period, are determined by individual circumstances and are paid directly to the fellow on a quarterly basis. Research and teaching fellowships are renewable for a total of 3 years, Trudeau fellowships for 4 years. Deadline: *1 November*. (Julius L. Wilson, American Thoracic Society, 1790 Broadway, New York 19)

The National Science Foundation has announced that the next closing dates for receipt of **basic research proposals** in the life (biological/medical) and social sciences are *15 September* and *1 October*, respectively. Proposals received prior to these dates will be disposed of within approximately 4 months. Proposals received after these dates will be reviewed after the winter closing dates, 15 January and 1 February. (NSF, Washington 25, D.C.)

### Films

*Eaton Agent Pneumonia*; 17 minutes, color, short-term loan. Reports study of a typical virus pneumonia from experiments performed at Parris Island and on human volunteers at National Institute of Allergy and Infectious Diseases. (Communicable Disease Center, Atlanta 22, Ga. Order M-479)

*Atomic Weatherman, Strontium 90 Isotopic Applications*; 18 minutes, color, purchase or free loan. Semitechnical, covers major areas in the development, testing, and use of strontium-90 thermoelectric sources, with emphasis on the world's first radioisotope-powered weather station operating in the Canadian Arctic. (Audio-Visual Branch, Division of Public Information, Atomic

Energy Commission, Washington 25)

*Diagnosis of Viral Meningitis*; 33 minutes, color, free loan. Covers clinical diagnosis and epidemiological considerations, collecting and handling of specimens for the laboratory, definitive laboratory procedures for isolation and identification of etiologic agents, and new methods of laboratory diagnosis. (Department of Professional Education, National Foundation, 800 Second Ave., New York 17)

*Phagocytosis*; 3½ minutes, black-and-white. Rental fee: \$1.50. Phase contrast, time-lapse cinemicrography showing ingestion of both live and dead bacteria. (Public Film Rental Library, University of California Extension, Berkeley 4)

### New Journals

*The Michigan Botanist*, vol. 1, No. 1, Mar. 1962. E. G. Voss, Ed. L. T. Roberts, 2120 Washtenaw Rd., Ann Arbor, Mich. Semiannually. \$2 per year.

*ICARUS International Journal of the Solar System*, vol. 1, No. 1, 1962. Z. Kopal and A. G. Wilson, Eds. Academic Press, 111 Fifth Ave., New York 3, N.Y. Bimonthly. Institutions, \$18 per year; individuals, \$10 per year.

*Phytochemistry: International Journal of Plant Biochemistry*, vol. 1, No. 1, Sept. 1961. T. Swain, Ed. Pergamon Press, Inc., 122 E. 55 St., New York 22, N.Y. Quarterly. Institutions, \$20 per year; individuals, \$10 per year.

*Excerpta Criminologica*, vol. 1, No. 1, Jan./Feb. 1961. M. W. Woerdeman, M. Fishbein, and Sir H. Ogilvie, Eds. Excerpta Medica Foundation, New York Academy of Medicine Bldg., 2 East 103 St., New York 29. Bimonthly. \$30 per year.

*Journal of Chemical Engineering Education*, vol. 1, No. 1, Mar. 1962. R. Lemlich, Ed. R. Lemlich, Dept. of Chemical Engineering, University of Cincinnati, Cincinnati, Ohio. Irregular.

*Journal of Verbal Learning and Verbal Behavior*, vol. 1, No. 1, summer 1962. L. Postman, Ed. Academic Press, 111 Fifth Ave., New York 3, N.Y. Bimonthly. Institutions, \$15 per year; individuals, \$8.50 per year.

*Neurospora Newsletter*, No. 1, Apr. 1962. B. J. Bachmann, Ed. B. J. Bachmann, Department of Microbiology, Yale University, 310 Cedar St., New Haven 11, Conn. Irregular. Free of charge.

### Scientists in the News

**Constantine J. Alexopoulos**, professor and head of the department of botany at the State University of Iowa, has resigned to accept a position as professor of botany at the University of Texas. He is succeeded as chairman by **Robert L. Hulbary**, a member of the department since 1946.

**Joseph D. Matarazzo**, chairman of the University of Oregon's department of medical psychology, and **Ogden R. Lindsley**, associate in psychology at Harvard Medical School, are joint recipients of the American Psychiatric Association's \$1500 Hofheimer award.

Recently appointed staff chemists at Bjorksten Research Laboratories, Madison, Wis.:

**Chester E. Underwood**, research assistant at the University of Wisconsin, has joined the inorganic and high-temperature materials research division.

**Ralph W. Noe**, formerly with the U.S. Department of Agriculture Forest Products Laboratory in Madison, has joined the biochemical sciences research division.

**Wilbur D. Crater**, recently resigned president of engineering at Operations Research Incorporated, is vice president (engineering) of Management Technology Incorporated, a new privately financed management-sciences organization with offices in Los Angeles and Washington, D.C.

**William C. Schall**, former associate editor of *Chemical Engineering*, has been appointed editor of *ISA Journal*, official organ of the Instrument Society of America.

**Arthur W. Elias**, of Warner-Lambert Research Institute, has been appointed head of Wyeth Laboratories' scientific information section.

**Norman L. Munn**, professor of psychology at Bowdoin College, has been appointed visiting professor at the University of Adelaide (South Australia) for the 1962-63 academic year.

Recent staff appointments at Vanderbilt University:

**Eugene C. Klatte**, associate professor at Indiana University School of Medicine, has been named professor and

head of the department of radiology.

**Charles E. Pittinger**, professor of surgery at the State University of Iowa Medical College, has been named professor and head of the department of anesthesiology.

Recent staff appointments at the National Bureau of Standards, Washington, D.C.:

**Jeremiah N. Silverman**, former research scientist at the University of Texas, has joined the crystallography section of the inorganic solids division.

**Charles H. Popenoe**, of the University of Maryland, has joined the heat division to make general studies of plasma thermometry.

**Lloyd A. Currie**, assistant professor of chemistry at Pennsylvania State University, will study nuclear reactions and low-level radiochemical techniques in the radiation physics division.

**Eric R. Weber**, former staff member of General Nuclear Engineering Corporation, has joined Internuclear Company (Clayton, Mo.) as a senior nuclear engineer.

**W. Tresper Clarke**, vice president of manufacturing at William Neilson, Ltd., in Toronto, Canada, is the 1962 recipient of the Stroud Jordan candy technology award.

At National Aeronautics and Space Administration:

**Clark T. Randt**, first director of NASA's Office of Life Science Programs, will become professor of neurology at New York University, effective 1 July.

**John Stack**, recently retired as NASA's director of aeronautical research, has joined Republic Aviation Corporation in Farmingdale, N.Y., as vice president and director of engineering.

**Landis S. Gephart**, director of reliability and quality assurance for NASA, has been named director of products assurance for space systems at Lockheed Missiles & Space Company, Sunnyvale, Calif.

Recent staff appointments at the Squibb Institute for Medical Research:

**Keith B. McCall**, of the Michigan Department of Health, is head of the newly established biological products laboratory.

**Charles K. Gorby**, former executive secretary of the Pennsylvania Drug Ad-

visory Board, has been named clinical pharmacology director.

**Philip L. Rothbart**, who recently completed his internship at Memorial Hospital in Wilmington, Del., has been named assistant medical director.

**Kent E. Erickson**, of Johns Hopkins University, has been appointed research physicist with Keuffel & Esser Company's optics and metrology division in Hoboken, N.J.

**Milton A. Grodsky**, of the Martin Company's space systems division in Baltimore, Md., will receive the 1962 achievement award of the American Rocket Society's Maryland section for his work in human factors related to manned space flight.

**John H. Edgcomb**, pathologist at the National Cancer Institute, has been appointed director of the West Africa Research Unit in Accra, Ghana. The project, the first of its kind in Africa, was established jointly by the National Institutes of Health and the Ghanaian National Institute of Health and Medical Research to study biomedical problems of mutual interest to both countries.

**James A. and Elizabeth C. Miller**, of the University of Wisconsin's McArdle Memorial Laboratory, will receive the Ann Langer Research Foundation's annual \$1000 award for their work in cancer research.

**Hugh R. Vickerstaff**, former assistant director of the Veteran's Administration Hospital in Houston, Tex., has been appointed assistant to the dean at Baylor University College of Medicine.

**Emanuel Epstein**, of the University of California (Davis) department of soils and plant nutrition, has received the Cherubim gold medal of the University of Pisa (Italy) for his work on selective ion transport in plants.

**Nicholas J. Jacobs**, research bacteriologist formerly with the University of Illinois, has been appointed to the staff of the American Meat Institute Foundation in Chicago.

**Walter S. Hyler**, technologist formerly with Huck Manufacturing Company in Detroit, has joined the staff of Batelle Memorial Institute in Columbus, Ohio.

Recently named professors at Rice University:

**George T. Trammel**, physicist at Oak Ridge National Laboratory and visiting professor at Rice, has been appointed to the department of physics.

**John L. Margrave**, of the University of Wisconsin, will become professor of chemistry.

**E. Lendell Cockrum**, professor of zoology and curator of mammals at the University of Arizona, will be lecturer and visiting professor for the 1962 summer session at Southern Illinois University.

**Warren Litsky**, Commonwealth professor of microbiology at the University of Massachusetts' Agricultural Experiment Station, has been named director of the university's newly established Institute of Agricultural and Industrial Microbiology.

**Carl B. Allendoerfer**, chairman of the department of mathematics at the University of Washington, has resigned his administrative duties but will continue as professor of mathematics. He is succeeded by **Richard S. Pierce**, currently on leave at the University of California (Berkeley) under a National Science Foundation fellowship.

**Robert A. Good**, professor of pediatrics at the University of Minnesota, has received the American Society of Experimental Pathology's \$1000 Parke-Davis award for his work in immunology and related mechanisms.

**Frank E. Bothwell**, director of the University of Chicago's applied sciences laboratory, has been appointed chief scientist at the Franklin Institute's recently established Center of Naval Analyses in Philadelphia.

**Melvin V. Simpson**, associate professor at Yale School of Medicine, will become an American Cancer Society research professor of biochemistry at Dartmouth Medical School, effective 1 September.

**Herbert R. Levine**, of General Electric Company's laminated products department in Coshocton, Ohio, has been named vice president in charge of research and development for New England Laminates Company in Stamford, Conn.

**Paolo Caldini**, of the University of Manitoba (Canada) School of Medicine, has joined the National Jewish Hospital at Denver as assistant chief of the cardiopulmonary physiology department.

**Donald L. McKernan**, director of the U.S. Fish and Wildlife Service's Bureau of Commercial Fisheries, has received the 1962 service award of the National Fisheries Institute, Inc.

**Marion D. Bailey**, information officer in the National Institutes of Health's division of general medical sciences, has been appointed scientific publication program director of the National Library of Medicine's extramural program.

**Leon Van Hove**, head of the theory division at CERN nuclear research center in Geneva, is the second European to receive the Dannie Heineman mathematical physics prize, awarded jointly by the American Physical Society and American Institute of Physics.

## Recent Deaths

**Julio Dantas**, 86; former president of the Portuguese Academy of Science; 25 May.

**Frank M. Jones**, 93; retired entomologist in Wilmington, Del.; 22 May.

**Benjamin Karpman**, 75; psychiatrist and retired chief psychotherapist at St. Elizabeths Hospital in Washington, D.C.; 21 May.

**Harper Kelley**; archeologist at Musée de l'Homme in Paris; 3 May.

**Francis C. Lawler**, 56; chief of the bureau of laboratories at Vermont State Department of Health and president of the American Society of Professional Biologists; 12 Apr.

**John M. Miller**, 79; physicist and retired superintendent of the Naval Research Laboratory's radio division; 16 May.

**Ruric C. Roark**, 75; retired head of insecticide research at U.S. Department of Agriculture; 9 May.

**Hartland S. Snyder**, 49; senior physicist at Brookhaven National Laboratory, on leave at the University of California's Lawrence Radiation Laboratory; 22 May.

**Edward T. B. Weidner**, 77; retired colonel and surgeon with the Army Medical Corps; 21 May.