

for paying other costs of attendance at meetings or visits to foreign laboratories. NSF officials describe the competition for these grants as stiff. Different divisions of NSF handle the award of grants differently. Where many applicants are involved, scientists outside the agency may be asked to rate them. Where only a few are involved, the matter will be handled within the agency. Final decisions in both cases are made by NSF administrators, and the program directors in this are key men, as they are in so many other ways in the operation of NSF.

The matter of travel in general, whether financed out of an individual's research grant or by a special travel grant, is a special bureaucratic affliction, since agency approval is required for all travel and the administrator may feel that he is spending as much time on a request for authorization to travel as he is on an application for a research grant involving many times as much money.

Science-agency officials are aware that travel funds are a potential sore point with Congress, which is much more keenly watchful of spending on travel by the executive than by its own members. Agency officials therefore are expected to screen carefully and enforce the rules that decree economy jet fare only, and use of American-flag carriers wherever possible.

There are some indications that, for a number of reasons, including the gold drain and doubts within the agencies about the value of some meetings abroad, a tightening policy on international travel may become evident this summer.

Travel, foreign and domestic, is generally accepted as a legitimate part of the scientific life. It is a part where a kind of honor system prevails, for beyond a certain point there is really no way of telling who travels because of the meeting and who goes to the meeting because of the travel.

—JOHN WALSH

## Announcements

The National Science Foundation has reorganized its activities in support of **science education**, and has established three divisions to carry out its programs in the field. Each division will be responsible for improving curricula and course content at its own level, and for providing more study and research opportunities for both faculty

and students. In addition to the divisions, a planning and evaluation unit will carry out program development and analysis for Foundation activities in support of science education, and an operations unit will carry out the processing and record-keeping functions for the divisions. The three divisions and their heads are: Pre-College Education in Science, led by Keith Kelson, formerly deputy director of the division of scientific personnel and education, which has been abolished; Undergraduate Education in Science, headed by Leland Shanor, formerly head of the undergraduate education in the sciences section; and Graduate Education in Science, headed by Thomas D. Fontaine, who was in charge of the fellowships section.

The **Atomic Energy Commission** plans to discontinue formal courses at Oak Ridge School of Reactor Technology (ORSORT) and at the Argonne Institute of Nuclear Science and Engineering (AINSE) in June. The reasons given for the move include increasing capability of U.S. and foreign schools to provide advanced degree programs in the field; establishment of schools similar to ORSORT in several foreign countries; and increasing difficulties of foreign students in obtaining financial support for training at ORSORT. Some 2000 scientists and engineers from 50 countries have received training at the two schools during their 15 years of operation. Educational programs for U.S. colleges working closely with the two nuclear-research laboratories will continue, however, and foreign students who are eligible may still apply for admittance to these.

## Meeting Notes

The call for papers has been issued for the 1965 fall **joint computer conference**, sponsored by the American Federation of Information Processing Societies. The meeting will be held 30 November to 2 December in Las Vegas. There are no special restrictions on subjects for papers. State-of-the-art surveys and original research and development reports on hard- and software are invited; papers on design, selection, installation, and management of information-processing systems are welcome. Complete drafts of the papers and 150-word abstracts are required. Deadline: *15 June*. (R. Gray, P.O. Box 49, Santa Monica, California 90406)

A symposium on relaxation techniques in **chemical kinetics** in solution will be held 28–30 June at the State University of New York, Buffalo. The sponsors are the school's chemistry department and the U.S. Air Force Office of Scientific Research. In addition to the general lectures, sessions are scheduled on biochemical, complex ion, and inorganic systems. The registration fee is \$35 for persons who desire on-campus accommodations, \$18 for others. (Mrs. E. E. Schmidt, 193 Hayes Hall, State University of New York at Buffalo, Buffalo 14214)

A conference on **neurological mutations in the mouse** will be held at the Jackson Laboratory, Bar Harbor, Maine, 29 June to 1 July. The program will review the research potentialities of the mutants now available. The subjects to be presented include recognition and propagation of neurological mutants, metabolic and behavioral screening methods, demonstrations of normal anatomy and embryology of the mouse brain, and malformations of brain stem, cerebellum, cerebrum, and retina. Sessions will be held also on comparison of disease processes in mouse and man, especially regarding biochemical lesions. (J. L. Fuller, Jackson Laboratory, Bar Harbor, Maine 04609)

Scientists and engineers engaged in theoretical or experimental research in engineering science, physics, chemistry, mathematics, or engineering are invited to contribute original papers for the third technical meeting of the Society of **Engineering Science**. The meeting will be held 3–5 November at the University of California, Davis. Preference will be given to interdisciplinary studies, but work in highly specialized fields will also be considered. Three copies of each manuscript are required. Deadline: *1 July*. (A. C. Eringen, School of Aeronautics, Astronautics, and Engineering Sciences, Purdue University, Lafayette, Indiana 47907)

Papers are being solicited for presentation during the 12th national **vacuum** symposium, 29 September to 1 October in New York. Contributions should report results of original, unpublished work, either theoretical or experimental, in any area relating to production, measurement, or applications of vacuum. Special interest at this year's meeting will be given to "space-

related problems" and to electron microscope inspection of microcircuits. Abstracts of up to 150 words are required in triplicate. Deadline: *5 July*. (D. Alpert, *Journal of Vacuum Science and Technology*, Coordinated Science Laboratory, University of Illinois, Urbana)

The Council of Psychoanalytic Psychotherapists is inviting proposals for papers to be presented at its fourth annual scientific conference on **psychoanalysis**, next February in New York. The papers may cover clinical, theoretical, or applied psychoanalysis. Deadline: *30 June*. Persons whose proposals are accepted will be notified at a later date about the deadlines for receipt of completed papers. (D. M. Kaplan, 41 Fifth Avenue, New York 10003)

The third international conference on **hyperbaric medicine** is scheduled 17–20 November at Duke University medical center, Durham, North Carolina. It will be sponsored by the university and the committee on hyperbaric oxygenation of the National Academy of Sciences–National Research Council. Papers on hyperbaric medicine and hyperbaric physiology may be contributed for presentation. Abstracts of no more than 300 words are needed. Deadline: *1 July*. (I. W. Brown, Jr., Department of Surgery, Duke University Medical Center, Durham, North Carolina 27706)

The call for papers has been issued for the 22nd annual technical conference of the Society of **Plastics Engineers**, scheduled for next March in Montreal. Papers may cover any of SPE's professional activity groups, plastics processing or polymer science or applications. They may be presented in French or English. Abstracts of 100 to 200 words are required. Deadline: *15 June*. (G. L. Bata, P.O. Box 700, Pointe-Aux-Trembles, Quebec, Canada)

### Courses

The RAND Corporation invites applications from linguists in industrial firms to participate in a **computational linguistics** seminar during the 1965–1966 academic year. Three persons from industry will be chosen to take part in the program with three participants who have already been chosen from universities. The six linguists will

spend the year in Santa Monica, primarily engaged in research using the facilities of the RAND Corporation's linguistics research project directed by David G. Hays and Theodore W. Zieve. They will attend a weekly seminar for training in computer programming and related areas. Deadline for receipt of applications: *15 June*. (D. G. Hays, RAND Corporation, 1700 Main Street, Santa Monica, California)

The University of Bonn's organic chemistry institute will offer an advanced study institute on **optical rotatory dispersion and circular dichroism**, 24 September to 1 October. It is designed for graduate and postdoctoral students and for industrial chemists. Participation will be limited to 150 persons and the official language will be English. A limited number of NATO grants will be available. (G. Snatzke, Organisch-Chemisches Institut, Universität Bonn, 53 Bonn, Meckenheimerallee 168, Germany)

### Grants, Fellowships, and Awards

The University of California, Berkeley, has begun an interdisciplinary program for graduate and postgraduate study on **developmental physiology and aging**. The program is supported by a training grant from the National Institute of Child Health and Human Development. Postdoctoral fellows will receive a \$7400 annual stipend. Persons working toward the M.A. and Ph.D. will receive stipends of \$2400 and \$2700 a year, plus tuition, fees, and some travel allowance; and \$600 for research expenses. The graduate trainees will take courses and conduct research in mammalian physiology and anatomy, cellular and molecular physiology, and psychology. (P. S. Timiras, Department of Physiology and Anatomy, University of California, Berkeley 94720)

The National Science Foundation recently awarded over \$15 million in **education grants to U.S. universities**, under its Graduate Trainee Program. The program was initiated last year to allow schools with Ph.D. programs to help graduate engineering students; this year it was expanded to include those in the mathematical and physical sciences. Funds this year went to schools in all 50 states and Washington, D.C., and included continuation grants for the support of some 925 persons who started in the program last year. The

traineeships provide 12-month stipends of \$2400 the first year, \$2600 the second, and \$2800 the third. Dependent allowances are given, and a \$2500 "cost-of-education" allowance goes to the school instead of tuition and fee payment for each grantee. The program is open to citizens and nationals of the U.S. Information and applications are handled directly by the universities involved, not by NSF. However, lists of the participating schools are available from the Foundation: Graduate Traineeship Program, Graduate Education in the Sciences Division, NSF, Washington, D.C. 20550.

Postdoctoral fellowships in the biology of **human reproduction** are being sponsored by the Ford Foundation for work at the Center for Reproductive Biology, University of Michigan Medical Center. The program will provide a year of basic research with emphasis on the physiology of reproduction, from spermatogenesis and oogenesis through implantation. Applicants may be physicians who have completed, or are still in, residency training, or persons with a degree in biochemistry or physiology. Recipients of the fellowships will be registered in the university's department of postgraduate medicine, and their stipends will vary according to their training and experience. (S. J. Behrman, Department of Obstetrics and Gynecology, University of Michigan Medical Center, Ann Arbor 48104)

### Scientists in the News

**Everett W. Maynert**, associate professor of pharmacology and experimental therapeutics at Johns Hopkins, will join the University of Illinois as a professor of pharmacology, 1 June.

The University of Illinois has appointed **Sheldon Dray** professor and head of the department of microbiology, as of 1 September. He is now head of the immunochemistry section, in the National Institute of Allergy and Infectious Diseases laboratory of immunology.

The Department of Commerce recently awarded its highest honor, the gold medal, to **David S. Johnson** and **S. Fred Singer**, for their "unusual ingenuity, leadership and guidance in the development and implementation of a National Operational Meteorological Satellite System." Johnson, now direc-

tor of the National Weather Satellite Center at Suitland, Md., was deputy director under Singer from 1962 to 1964, when their work on the satellite system was done. Singer last year became dean of the University of Miami's school of environmental and planetary sciences.

**David B. Clark**, associate professor of medicine and pediatrics at Johns Hopkins University, has been named chairman of the recently created department of neurology at the University of Kentucky medical center, as of 1 June.

**Myron G. Domsitz**, formerly executive vice president of the Weinschel Engineering Company, Gaithersburg, Md., has become chief of the electronic instrumentation division, National Bureau of Standards.

The National Academy of Sciences elected 35 new members and six foreign associates during its annual meeting last week. Election to the Academy is in "recognition of distinguished and continuing achievements in original research." The new members are:

**Robert Arnold Albery**, professor of chemistry, University of Wisconsin

**James Gilbert Baker**, research associate, Harvard College Observatory, and consultant in optical physics

**R. H. Bing**, professor of mathematics, University of Wisconsin

**David Harold Blackwell**, professor of statistics, University of California, Berkeley

**George H. Büchi**, professor of organic chemistry, Massachusetts Institute of Technology

**Joseph Wyan Chamberlain**, associate director, space division, Kitt Peak National Observatory

**Erwin Chargaff**, professor of biochemistry, Columbia University College of Physicians and Surgeons

**Robert Frederick Christy**, professor of physics, California Institute of Technology

**Vincent Gaston Dethier**, professor of zoology and psychology, and associate, University of Pennsylvania Neurological Institute

**Harry George Drickamer**, professor of chemical engineering and physical chemistry, University of Illinois

**Wendell Richard Garner**, professor of psychology, Johns Hopkins University

**Louis Sanford Goodman**, professor of pharmacology, University of Utah

**Sam Granick**, member and professor Rockefeller Institute

**Joseph Harold Greenberg**, professor of anthropology, Stanford University

**Irwin Clyde Gunsalus**, professor of biochemistry, University of Illinois

**Leland John Haworth**, director, National Science Foundation

**Terrell Leslie Hill**, professor of chemistry, University of Oregon

**Leon Orris Jacobson**, professor of medicine and director, Argonne Cancer Research Hospital, University of Chicago

**Clarence Leonard Johnson**, vice president for advanced development projects, Lockheed Aircraft Corporation

**Harold Sledge Johnston**, professor of chemistry, University of California, Berkeley

**Mark Kac**, professor, Rockefeller Institute

**Leon Max Lederman**, professor of physics and director, Nevis Laboratories, Columbia University

**Bernd T. Matthais**, professor of physics University of California, San Diego, and member, Bell Telephone Laboratories, Physical Research Laboratory

**Harden Marsden McConnell**, professor of chemistry, Stanford University

**Charles Duncan Michener**, professor of entomology, University of Kansas

**David Nachmansohn**, professor of biochemistry, Columbia University College of Physicians and Surgeons

**John Richard Pappenheimer**, visiting professor of physiology, and career investigator of the American Heart Association, Harvard Medical School

**William Thomas Pecora**, chief geologist, U.S. Geological Survey

**Gregory Pincus**, research professor of biology, Boston University, and research director, Worcester Foundation for Experimental Biology

**James Augustine Shannon**, director, National Institutes of Health

**Sol Spiegelman**, professor of microbiology, University of Illinois

**Alfred Tarski**, professor of mathematics, University of California, Berkeley

**Ernst Weber**, president, Polytechnic Institute of Brooklyn

**Waldo Rudolph Wedel**, head curator of anthropology, U.S. National Museum

**Chen Ning Yang**, professor of theoretical physics, Institute for Advanced Study

The foreign associates are:

**Jean Brachet**, professor and director, Laboratoire de Morphologie Animale, Université Libre de Bruxelles, Belgium

**James Merritt Harrison**, deputy to deputy minister of mines and technical surveys, Ottawa, Canada, and former director, Geological Survey of Canada

**William Rede Hawthorne**, professor of applied thermodynamics, University of Cambridge, England

**Peter Brian Medawar**, director, National Institute for Medical Research, Medical Research Council, England

**Jean Leray**, professor, Collège de France, Paris

**Sin-Itiro Tomonaga**, president, Science Council of Japan

## Recent Deaths

**Charles F. Bodecker**, 84; professor emeritus of oral histology at Columbia University and editor of the *New York State Dental Journal*; 11 February.

**Arthur L. Cook**, 86; retired director of the school of science and technology, Pratt Institute, Brooklyn; 19 March.

**John A. Ferrell**, 84; retired associate director, International Health Division of the Rockefeller Foundation; 18 February.

**Alexander Forbes**, 82; professor emeritus of physiology at Harvard; 27 March.

**E. Thomas Gilliard**, 52; curator of the department of ornithology, American Museum of Natural History; 26 January.

**Oliver R. Grawe**, 63; professor of geology at the University of Missouri, Rolla; 22 March.

**Gerhart R. Hennig**, 45; senior chemist in the solid state science division, Argonne National Laboratory; 2 April.

**Carl C. Hyde**, 73; professor emeritus of biology at Skidmore College; 19 January.

**David H. Russell**, 58; professor of education at the University of California, Berkeley; 28 January.

**Henry Schmitz**, 72; former president of the University of Washington; 30 January.

**Torald H. Sollmann**, 91; dean emeritus of the school of medicine, Western Reserve University; 11 February.

Rear Adm. **Charles S. Stephenson**, 77; retired director of the U.S. Typhus Commission; 9 February.

**Lewis Hanford Tiffany**, 70; professor emeritus of botany and former head of the department, Northwestern University; 13 March.

*Erratum:* The title of the report "Faint ring around the spiral galaxy M82" by H. Arp (16 Apr., p. 363) should have read ". . . spiral galaxy M81."