

California Institute of Technology has announced the appointment of the following research fellows:

TOYOKI KOGA is on leave from Nagoya University, Japan, where he is professor of engineering and director of the automatic control laboratory.

HERBERT RHINESMITH is on sabbatical leave from Allegheny College, Meadville, Pa., where he is associate professor of chemistry.

JOHN SEDDON, previously with the Royal Aircraft Establishment, England, is joining the institute on a Commonwealth fellowship in aeronautics.

LLOYD S. SHAPLEY has been a senior research investigator with the Rand Corporation, Santa Monica, Calif.

Necrology

ROBERT H. HALSEY, New York, N.Y.; 82; heart specialist and a professor of medicine at Columbia University Postgraduate Medical School, 1917-39; since 1939, a consultant to Goldwater Memorial Hospital; one of the founders of the American Heart Association and its president 1932-33; 15 Sept.

REYNOLDS L. HAAS, Ann Arbor, Mich.; 41; associate professor of obstetrics and gynecology at the University of Michigan Medical School; 20 Sept.

ABRAHAM LEVINSON, Chicago, Ill.; 67; expert on mental retardation in children, professor of pediatrics at Northwestern University Medical School, and author of a number of widely used textbooks; 17 Sept.

JOHN M. MELICK, Cresskill, N.J.; 62; engineer at Bell Telephone Laboratories, New York; designer of military equipment and devices, contributor to rocket development and the Nike guided missile network; 18 Sept.

EDWARD NELSON, Arlington, Va.; 64; communications specialist, scientific chief of research and development of the Army Signal Corp; 21 Sept.

JOHN POTZGER, Indianapolis, Ind.; 69; specialist in paleobotany and forest history, professor and head of the botany department at Butler University; a former president of the Ecological Society of America and its 1955 representative to the AAAS council; 18 Sept.

DONALD REDDICK, Gainesville, Fla.; 62; emeritus professor of plant pathology at Cornell University; 2 Apr.

FREDERICK D. RICHEY, Knoxville, Tenn., 71, geneticist and for 37 years a member of the U.S. Department of Agriculture, 11 Sept.

CHARLES SOLOMON, Brooklyn, N.Y.; 59; specialist in internal medicine and a drug expert; professor at New York University Medical College, lecturer at Long Island College of Medicine and New York State University College of Medi-

cine, and a member of the advisory commission of *U.S. Pharmacopoeia*; 15 Sept.

D. H. UDALL, Ithaca, N.Y., 81, emeritus professor of veterinary medicine at Cornell University, 9 Sept.

MATHILDA K. WALLIN, Elmsford, N.Y.; 97; physician and since 1916 a member of the executive committee of the American Women's Hospitals; 21 Sept.

Education

■ A new physical sciences building to house the departments of astronomy, mathematics, and meteorology is under construction at the University of California, Los Angeles. Located at the north end of the Court of Sciences, the \$1,700,000 L-shaped structure will be connected to the Engineering-Physical Science Building No. 2, for which funds were recently provided. Expected completion date of the Physical Sciences Building is January 1957.

The new building will give the departments of astronomy, mathematics, and meteorology a teaching and research facility containing 18 classrooms, 18 laboratories, 13 office-laboratories, 51 faculty offices, 3 seminar and conference rooms, and a first floor lecture hall capable of seating 127 persons.

■ New research laboratories for the study of diseases of the lungs, heart, kidneys, and blood vessels are to be established by Northwestern University Medical School. Plans call for specially designed and equipped laboratories, examination and treatment rooms, and facilities for nursing care and social service on the third floor of the Montgomery Ward Memorial Building at the university's Medical Center in Chicago.

Chest and circulatory diseases are leading causes of death in this country, claiming more than 750,000 lives each year. The new medical unit will be devoted to research studies designed to advance understanding of these diseases, education to provide physicians with new knowledge to fight them, and improved treatment to aid those who are afflicted. Patients will be studied in the clinic as outpatients. This will make it possible to study chronic diseases in an early stage and to follow a patient's progress for years if necessary.

Special equipment for diagnosis and research will include a treadmill, used in testing the efficiency of heart and lung function under varying degrees of rest, exercise, and stress. Oxygen consumption is measured from collections of the air that the subject breathes while exercising. Equipment will also include electrocardiographs, a ballistocardiograph, x-ray and fluoroscope units, and heart catheterization equipment.

■ The F. W. Olin Science Building at Bucknell University was dedicated on 28 Sept., when Charles L. Horn, president of the Olin Foundation, formally presented the building to the university. A \$900,000 gift from Olin made the new structure possible; it will house the departments of chemistry, mathematics, and physics.

Principal speaker for the occasion was JOHN C. WARNER, president of Carnegie Institute of Technology, who also was awarded an honorary degree. Other degree recipients were ROBERT B. WOODWARD of Harvard University; LEONARD W. LABAREE of Yale University; HAROLD K. SCHILLING of the Pennsylvania State University; RAYMOND L. WILDER of the University of Michigan; and RAY G. DAGGS of the Army Medical Research Laboratory at Fort Knox, Ky.

Grants, Fellowships, and Awards

■ The National Academy of Sciences-National Research Council is prepared to award a limited number of senior postdoctoral fellowships in physiological psychology beginning this year. These awards, which are made possible by the generosity of the Carnegie Corporation of New York, will be for a period of 1 year. They are renewable. Stipends will be appropriate to the candidate's academic qualifications and will in general parallel those in other, advanced postdoctoral programs.

The principal objective of the new senior-fellowship program is to stimulate wider development and correlation of knowledge in physiological psychology. One approach to this goal consists of increasing the number of investigators who are qualified to pursue research in physiological psychology because of their familiarity and proficiency in more than one discipline. Another approach involves increasing the number of research centers in which this interdisciplinary research is supported and encouraged.

The senior fellowships are intended to enable young psychologists to spend 1 or 2 years in an environment where physiological research is in progress and where contact with nonpsychologists, expert in their own fields, will be maximized. Of equal importance will be the support of young physiologists who wish to spend the period of their fellowships in a working relationship with psychological investigators. The sponsors of the program hope in this manner the techniques and points of view of the psychologist will be made familiar to a growing number of physiologically oriented groups, and that at the same time modern physiological methods and theories will become a part of the thinking of more and more research psychologists.

Because it is hoped that the program will have an influence on both the fellows and the staffs of the laboratories to which they go, special attention will be given to the qualifications of each applicant and his actual and potential contributions to the field. The ideal fellow is one capable of acting as a "catalytic agent" in stimulating interdisciplinary thinking and research.

Candidates should be individuals of sufficient maturity and research productivity to function independently, although not in isolation, in the laboratory where they serve as fellows. It is expected that the majority of candidates will be at or near the level of assistant professor, but any individual holding a doctor's degree is eligible.

The new fellowships will be administered by a special board, which is presently constituted as follows: Frank A. Beach, Yale University, *chairman*; H. K. Hartline, Rockefeller Institute; Horace Magoun, School of Medicine, University of California at Los Angeles; Karl Pribram, Institute of Living, Hartford, Conn.; Eliot Stellar, Institute of Neurological Sciences, School of Medicine, University of Pennsylvania; S. S. Stevens, Harvard University; Harry Harlow, University of Wisconsin (ex officio); Paul Weiss, Rockefeller Institute (ex officio).

Direct applications for senior fellowships in physiological psychology will not be accepted. Instead, senior scientists are invited to nominate candidates for a fellowship. The nomination should include a record of the candidate's training, experience, and research activities. A sponsor should indicate his reasons for believing that the candidate is qualified for a fellowship, why the particular laboratory that has been selected is the best place for the candidate to serve his fellowship, and why his problem area is suited to interdisciplinary research. It is not essential that a specific laboratory be designated, but this is desirable whenever possible.

The board would also like to have the names of other senior workers who could evaluate the candidate independently. Subsequently the board may request additional information either from the sponsor or from the candidate. All communications concerning the program should be addressed to Physiological Psychology Fellowship Board, NAS-NRC, 2101 Constitution Ave., Washington 25, D.C.

■ Research grants and research fellowships in the field of nursing are available from the U.S. Public Health Service, Department of Health, Education, and Welfare. A total of \$625,000 was appropriated by the Congress to support these awards. Previously, grants for research

in nursing were made in limited numbers from non-earmarked funds that were available for general medical research.

The expanded program of grants and fellowships is designed to support investigations into ways and means of improving the quality of nursing care, training nurses in research methods applicable to nursing problems, and making better use of the limited supply of professional nurses. The grants in most cases will be made directly to universities, hospitals, health agencies, or professional groups, under whose auspices the research projects will be carried out.

The fellowships will be offered only to nurses who wish to receive special postgraduate training in research methods. Fellowships may be used for graduate research study in universities or for research training provided by any health agency or research center.

To be accepted for a fellowship, a nurse must be sponsored by the university or agency where the training will be given. Applications may be submitted to the Division of Research Grants, National Institutes of Health, Bethesda 14, Md.

■ Appropriations for grants-in-aid of research by the National Vitamin Foundation during 1954 amounted to \$151,333.33, and those for educational purposes amounted to \$21,330.99, a total of \$172,664.32. In reporting these figures to the board of governors of the foundation, Robert S. Goodhart, scientific director, pointed out that the science of nutrition is opening new avenues of treatment in such widely diverse conditions as irradiation effects, emotional stress, cancer, pregnancy, diseases of the aged, obesity, chemical poisoning, and chronic degenerative diseases. Goodhart commented that "Results of Foundation supported projects that have proven to be of considerable practical importance include, among others, evidence that vitamin B₁₂, vitamin B₆, folic acid and pantothenic acid are dietary essentials for man; considerable progress toward the elucidation of the symptomatology of deficiencies of these vitamins and of their places in the therapy of a variety of conditions in man and animals; proof of the importance of adequate nutrition with vitamins and protein during pregnancy and of the pernicious effects of obesity or underweight on the course of pregnancy; major advances toward the understanding of the part played by intrinsic factor in vitamin B₁₂ metabolism; understanding of the importance of the time element in the efficient utilization of amino acids; demonstration of the prevalence of chronic deficiencies of vitamin A, vitamin C, riboflavin and niacin, and the response of such deficiencies to adequate vitamin therapy continued over

a sufficient period of time. Work now in progress promises to demonstrate the importance of vitamin E in human nutrition."

■ The American Psychiatric Association and the Smith, Kline and French Foundation of Philadelphia have announced the initiation of a 3-year fellowship program designed to provide staff psychiatrists in public mental hospitals and in schools for the retarded with new knowledge of therapies, techniques, and practices. Six to 12 fellowships will be awarded yearly beginning on 15 Nov. Grants will vary according to individual situations but in general will not exceed \$600 per month. A committee of eight psychiatrists is now accepting applications for these grants. The committee chairman is Kenneth Appel, head of the department of psychiatry at the University of Pennsylvania School of Medicine.

The program is expected to stimulate research activity as well as to help overcome the serious lag between development of psychiatric skills in medical centers and their application in "backwater areas." It is anticipated also that the fellowship grants will encourage matching financial support by communities and states so that research in mental disease may be accelerated.

The Smith, Kline and French Foundation has already made an initial contribution of \$30,000 to cover the first year's operation of this program. At least \$90,000 will be expended for fellowships during the next 3 years.

An applicant's fellowship project may include education, training, and experience in any of a number of specialties, for example, hospital administration, biochemistry, physiology, group psychotherapy, chemotherapy, family care programs, rehabilitation techniques, treatment of emotionally disturbed children, operation of mental hospital outpatient clinics.

Applications should be in the hands of the fellowship committee by 1 Nov. Members will meet regularly to consider applications on 1 Nov. and 1 May each year. For information, write to the Smith, Kline and French Foundation Fellowship Committee, American Psychiatric Association, 1785 Massachusetts Ave., NW, Washington 6, D.C.

■ John M. Russell, executive director of the John and Mary R. Markle Foundation, 511 Fifth Ave., N.Y., has announced that the fund will continue for the ninth year its program of 5-year grants for medical school faculty members who are planning careers in academic medicine. During the 8 years of the program the fund has appropriated a total of \$4,600,000 toward the support

of 158 doctors in 66 medical schools in the United States and Canada. The number of Markle scholars appointed annually has varied from 13 to 25; approximately 20 appointments will be made in 1956.

The dean of every medical school in the United States and Canada is invited to nominate a candidate *on or before 1 Dec.* The grants will be made at the rate of \$6000 annually to the medical school where the scholar will teach and conduct research. A publication outlining the plan is available on request from the foundation.

In the Laboratories

■ The Borden Co.'s chemical division has announced plans to build a synthetic resin manufacturing plant in Manila to meet the Philippine plywood industry's need for adhesives. The first such plant in the Philippines, the new facility is to be incorporated as the Casco Chemical Co.

■ Bio-Basic, Inc., is a new organization that will be concerned with the application of scientific advances to problems in the food and pharmaceutical field. The firm intends to engage in development, manufacturing, and consulting work. Its initial effort will be devoted to improved dermatological preparations.

■ A regulation defining the scope, procedure, and limitations of the authority of advisory boards established by the Atomic Energy Commission has been issued. The Atomic Energy Act of 1954 gives the AEC authority to appoint boards to advise with, and make recommendations to, the commission on legislation, policies, administration, research, and other matters.

The new regulation is based on recommendations of the Attorney General concerning regulatory controls to be maintained by Government agencies over industry advisory committees in order to minimize the possibility of violation of antitrust laws.

■ The Gulf Oil Corp. has announced plans for a nuclear science laboratory that is to be located at the company's research center in Harmorville, Pa. Principal unit in the laboratory will be a 3-million-volt Van de Graaff particle accelerator that is being built by High Voltage Engineering Corp., Cambridge, Mass. The unit will be installed by approximately 1 Sept. 1956.

■ During each 5-year period since 1930, the count of x-ray analysis installations has at least doubled, according to questionnaires submitted in a nationwide

survey sponsored by the educational department of North American Philips Co., Inc. Only 1.2 percent of the installations on the 1955 count existed prior to 1930, 4.8 percent prior to 1935, 8.5 percent prior to 1940, 21.9 percent prior to 1945, and 42.6 percent prior to 1950.

The survey was initiated as an educational project about a year ago in order to provide a source of up-to-date information for those concerned with various x-ray analysis techniques. The roster includes not only users of Norelco equipment but also those who employ instruments made by other manufacturers; some 35 companies have reported data.

To date, the survey also tabulates 40 private and government research laboratories and universities where work involves vital and difficult industrial projects.

A summary giving partial information gathered so far has been distributed to all contributing organizations. Others who have not yet filled out a questionnaire and who wish to be properly registered in the survey are urged to write for a copy by addressing a letter or card to C. J. Woods, 750 S. Fulton Ave., Mount Vernon, N.Y.

Many organizations have furnished extensive lists of papers that have been published by their personnel on x-ray analysis subjects. If and when the survey includes the majority of users in the United States and Canada, it may be possible to publish all of the information in a volume of "Who's Who in X-ray Analysis."

■ In commemoration of the one millionth rat born since the founding of its animal colony in 1923, Foster D. Snell, Inc., New York, has published a booklet, *Rats for Research*. The booklet describes the Snell-Supplee colony of albino rats, Wistar strain, which was purchased 5 years ago from the estate of George Cornell Supplee.

The late Dr. Supplee, a biochemist, established the colony from the Wistar strain in 1923. The colony has been operated as the Supplee Division of Foster D. Snell, Inc., since 1950. Copies of the booklet are available from the Public Relations Department, Foster D. Snell, Inc., 29 W. 15 St., New York 11.

Miscellaneous

■ A competitive examination for appointment of sanitary engineer officers to the regular corps of the U.S. Public Health Service will be held in various places throughout the country on 10, 11, and 12 Jan. 1956. Appointments provide opportunities for career service in sanitary engineering, including research. They will be made in the ranks of junior

assistant, assistant, and senior assistant grades. Entrance pay, including dependency allotments, ranges from \$4268 to \$6017.

Application forms may be obtained by writing to the Chief, Division of Personnel, U.S. Public Health Service, Department of Health, Education, and Welfare, Washington 25, D.C. Completed application forms *must be received by 9 Dec.*

■ *Critical Years Ahead in Science Teaching* is again available for distribution without cost through the auspices of the Carnegie Corporation. Copies may be obtained by writing to Mr. Elbert C. Weaver, Phillips Academy, Andover, Mass. Self-addressed stickers for envelopes are appreciated.

■ The American Board of Nutrition will hold the next examinations for certification of specialists in human nutrition in April 1956. Applications for certification must be submitted *not later than 1 Feb. 1956*. Forms may be obtained from the secretary, Otto A. Bessey, Department of Biochemistry and Nutrition, University of Texas School of Medicine, Galveston, Tex.

■ The Indian Council on Ecological Research at the Forest Research Institute, Dehra Dun, is attempting to build an ecological library. The council trains teachers and postgraduate students in ecological research and offers facilities to research workers for carrying on original work.

An appeal is made to all ecologists, ecological societies, and publishers of ecological works to send as many publications as can be spared. Contributions will be gratefully received by the secretary of the council, Dr. G. S. Puri, Forest Research Institute, P. O. New Forest, Dehra Dun, India.

■ The articles in the October issue of *The Scientific Monthly* include "Equal temperament and the thirty-one-keyed organ," A. D. Fokker; "Soviet cosmology and Communist ideology," Maxim W. Mikulak; "Changing place of soils in agricultural production," Roy W. Simonson; "Are there rules for writing history of chemistry?" Aaron J. Ihde; "Mendel and the rediscovery of his work," Edward O. Dodson; and "How does rock break?" Fred C. Bond.

The letters in this issue are from Gerald C. Helmstadter, David M. Pratt, James C. Crumbaugh, Sherman Ross, and Ray C. Hackman. There are also the reviews of 18 books.

Erratum: In the issue of 16 Sept., page 526, the American Mathematical Society which will hold its 62nd annual meeting in Houston, Tex., on 27-29 Dec. was incorrectly listed as the American Meteorological Society.