were: physics 183, engineering sciences 114, mathematical sciences 86, zoology 64, earth sciences 41, biochemistry 33, psychology 25, medical sciences 20, botany 16, microbiology 16, genetics 13, anthropology 12, agriculture 9, astronomy 6, biophysics 6, general biology 2. In addition 14 awards were made in areas where the natural sciences converge with the social sciences.

Of the regular postdoctoral awards, 33 were made in the life sciences, 17 in chemistry, 15 in physics and astronomy, 13 in the mathematical sciences, 3 in the earth sciences, 2 in the engineering sciences, and 1 in areas where the natural sciences converge with the social sciences.

Fellows may attend any accredited nonprofit educational institution of higher learning in the United States or abroad. Predoctoral fellowships carry stipends of $1600 for the first year, $1800 for intermediate years, and $2000 for the terminal year of graduate study. Regular postdoctoral fellowships carry a stipend of $3800. All fellowships include additional allowances for dependents, tuition, and other normal expenses.

The foundation has also announced that 345 grants totaling $13,853,350 were awarded during the quarter ending 31 Dec. 1956 for the support of basic research in the sciences, for conferences in support of science, for exchange of scientific information, and for training of science teachers. This is the second group of awards to be made during fiscal year 1957. Since the beginning of the program in 1951, 3166 such awards have been made totaling almost $49,900,000.

AEC Aids Nuclear Technology Training

The Atomic Energy Commission has announced approval of grants totaling $1,193,450 to 15 American educational institutions for equipping laboratories for training nuclear scientists and engineers. The commission also has made 16 loans to universities and colleges of material such as uranium metal and neutron sources.

More than 40 proposals for grants in this category have been received by the AEC since last September. All proposals will be reviewed and evaluated, and additional announcements of awards are planned for the near future. The largest grant—$216,950 to the University of Puerto Rico—is for the establishment there of a nuclear training center. Copies of the criteria used in evaluating institutional proposals for AEC assistance may be obtained from the Director, Division of Reactor Development, Atomic Energy Commission, Washington 25, D.C.

Norelco Diffraction School

The 27th Norelco X-ray Diffraction School for research and industrial registrants who can visit the Midwest will be held in the Morrison Hotel, Chicago, Ill., during the week of 3–7 June. Registration for the course will be limited to 125 for the first 4 days and to 150 on Friday, the day devoted to actual application problems when guest speakers deal with current methods used by modern plants.

Until the final day, the sessions will consist of classroom and laboratory work during which participants discuss their problems and become familiar with the use of all equipment types. The basic subjects to be covered by well-known educators and scientists include x-ray diffraction, diffractometry, and spectrography. There will also be discussions of new high- and low-temperature camera techniques, electron microscopy, and electron diffraction.

Application for attendance at the three Norelco Diffraction Schools held last year far outnumbered the available accommodations. It is recommended that those planning to attend the coming June meetings make their reservations at the earliest possible date. There is no registration fee. For information, write to Philips Electronics, Inc., 750 South Fulton Ave., Mount Vernon, N.Y.

Gypsy Moth Eradication

The U.S. Department of Agriculture has announced plans for a federal-state cooperative spray program this spring to eradicate the gypsy moth from almost 3 million acres of forest land in parts of New York, New Jersey, and Pennsylvania. Spraying against this destructive forest pest from the air with DDT is scheduled to begin on about 15 Apr. and will continue to mid-June. The insecticide will be applied at the rate of 1 pound in 1 gallon of light oil to each acre treated. In area, this will be the largest single aerial spraying job ever conducted in the United States.

About $5 million have been appropriated by state governments and the Federal Government for gypsy-moth control and eradication programs in the nine northeastern states during the current season. More than half of this amount will be used in the federal-state spray program along the southern and western periphery of the area generally infested with gypsy moth. In addition, state control operations will continue in other infested portions of the nine states.

The combined program calls for eventual complete eradication of the gypsy moth. By defoliating trees, the gypsy moth caterpillar destroys millions of board feet of valuable timber and does great damage to forest and shade trees in recreation areas, on watersheds, and around homes. If left uncontrolled, the pest would threaten hardwood forests from Maine to the Ozark Mountains in the south-central United States.

Chinese Birth Control Measures

The Associated Press has reported that the People's Republic of China has announced that it is starting a large-scale birth-control program. In addition, physicians are now permitted to perform abortions and sterilization operations when patients request them. The new program was described by the Minister of Health, Li Teh Chuan, in a speech to the National Committee of the Chinese People's Political Consultative Conference that was broadcast by the Peking radio. China's population is estimated at more than 600 million; it is increasing by about 15 million persons a year.

Proposed Legislation

Of the many bills introduced in Congress, some have a special relevance to science and education. A list of such bills introduced recently follows:

S 872. Provide school-construction assistance to states; establish a program of scholarship aid and long-term loans to students in higher education; provide facilities assistance to institutions of higher education; provide a 30-percent credit against Federal individual income tax for amounts paid as tuition or fees to certain public and private institutions of higher education; provide assistance to and cooperation with states in strengthening and improving state and local programs for diminution, control, and treatment of juvenile delinquency; study use of conservation programs to provide healthful outdoor training for young men; establish a Youth Conservation Corps. Humphrey (D Minn.) Senate Labor and Public Welfare.

S 844. Provide program of national health insurance. Murray (D Mont.) Senate Labor and Public Welfare.

HR 3865. Provide for further research and technical assistance required for control of mosquitoes and other arthropods capable of adversely affecting the health and welfare of man. Rogers (D Fla.) House Interstate and Foreign Commerce.

H Res 130. Authorize creation of a Select Committee on Problems of Aging. Powell (D N.Y.) House Rules.

HR 3764. Provide program of national health insurance. Dingell (D Mich.) House Interstate and Foreign Commerce.

S 845. Authorize Secretary of Army, Secretary of Navy, and Secretary of Air Force to make grants to certain educational institutions for construction of military and naval science buildings. Murray (D Mont.), Mansfield (D Mont.) Senate Armed Services.

H J Res 186. Provide for observance and commemoration of the 50th anniversary of the official founding and launching of the conservation movement for protection in public interest of the natural resources of the U.S. Dingell (D Mich.) House Judiciary.

HR 3631. Provide for an experimental research program in cloud modification. Hull (D Mo.) House Interstate and Foreign Commerce.

HR 3639. Relating to certain inspections and investigations in metallic and non-metallic mines and quarries (excluding coal and lignite mines) for purpose of obtaining information re health and safety conditions, accidents, and occupational diseases therein. Metcalf (D Mont.) House Education and Labor.

S 868. Provide a 30-percent credit against Federal individual income tax for amounts paid as tuition or fees to certain public and private institutions of higher education. Humphrey (D Minn.) Senate Finance.

Scientists in the News

J. ROBERT OPPENHEIMER, director of the Institute for Advanced Study at Princeton, N.J., has been selected to deliver the William James lectures at Harvard University during April and May. The eight lectures on "The hope of order," which are being given under the joint auspices of the department of philosophy and psychology, will analyze the unprecedented nature of our times compared with the high cultures of the past in the rapid increase of knowledge, the multiplicity of human communities, and the increasing difficulty of communication. Oppenheimer will discuss how science has contributed to this state of affairs through the rapidity of its advance, the radical and varied nature of its means of acquiring new knowledge, and through its application to technology and a new economy.

ELMER HUTCHISSON, dean of the graduate school and director of the research division of the Case Institute of Technology, has been named director of the American Institute of Physics. He succeeds HENRY A. BARTON, who has been director of the AIP since its formation in 1931, and who will continue to be associated with the institute on a part-time basis with the title of associate director. The change will take place on 1 July.

STUART PATTON, associate professor of dairy science at Pennsylvania State University, received the $1000 Borden award in the chemistry of milk at Miami, Fla., on 8 Apr. during the 131st national meeting of the American Chemical Society. Patton has done outstanding work in dairy chemistry, especially on the identification and method of formation of objectionably flavored compounds in dairy products. His diversified research includes studies of heat-induced flavors in milk, the manufacture of butter-oil, and the color changes in evaporated milk. Others who were presented with awards at the same time included the following:

PETER J. W. DEBYE, emeritus professor of chemistry, Cornell University, received the $1000 Kendall Company award in colloid chemistry. Debye, who earned the Nobel prize in 1936 for his contributions to knowledge of the structure of molecules, was honored for his continuously active research. The light-scattering techniques that he devised have proved their worth in the study of polymers and are now finding extended use in colloid chemistry. Debye's recent work has included studies of polymer solutions and of solutions of soap and silicates.

G. ROBERT GREENBERG, associate professor of biochemistry at Western Reserve University's School of Medicine, received the $1000 Paul-Lewis Laboratories award in enzyme chemistry for his contributions to the understanding of how purines—components of nucleic acids—are formed. Greenberg's investigations of purines have led to new concepts in body chemistry.

RALPH MÜLLER, staff member in charge of special instrumentation problems at the Los Alamos Scientific Laboratory of the University of California, received the $1000 Beckman award in chemical instrumentation. Müller is credited with playing a major role for the past 15 years in the growth of instrumentation as a distinct branch of science. His pioneering studies on instruments to analyze compounds by specific measurement of such properties as light intensity, radiant energy, and color have resulted in the development of automatic devices that have proved valuable to chemists. He is coauthor of one of the first books on electronics written especially for the chemist, and since 1946 has been describing progress in analytical instrumentation in a monthly column that appears in *Analytical Chemistry*.

CLARENCE B. LINDQUIST, head of the department of mathematics and engineering at the University of Minnesota, Duluth, has been appointed chief for natural science and mathematics in the Division of Higher Education of the U.S. Office of Education.

JAMES C. LANDES, who recently completed 3 years as a project engineer in the industrial waste department of Infilco, Inc., Tucson, Ariz., has accepted a position as bacteriologist in Eli Lilly Company's biological development department.

ARTHUR W. WESTON, former assistant director of development at Abbott Laboratories, Chicago, Ill., has been appointed as the laboratory's director of research. He succeeds ROBERT D. COGHILL, who has resigned but who will continue until April to serve as a consultant.

DARYL M. CHAPIN, CALVIN S. FULLER, and GERALD L. PEARSON, all members of the technical staff of the Bell Telephone Laboratories, have rereceived John Scott medals for their development of the Bell solar battery. The medals were accompanied by a premium of $2000 that was divided equally among the three recipients.

The Scott medal is named for John Scott, a chemist of Edinburgh, Scotland, whose will in 1816 established the award and entrusted its administration to the City of Philadelphia. He instructed that it be given to "ingenious men and women who make useful inventions." Originally the premium accompanying the medal was $20, but over the years the legacy of $4000 has grown to approximately $110,000, and the premium has been increased.

GEORGE SASLOW, who is at present clinical professor of psychiatry at Harvard University Medical School and chief of psychiatry, Massachusetts General Hospital, Boston, has been named to head the University of Oregon Medical School's department of psychiatry. He succeeds HENRY H. DIXON, who will continue on the staff as clinical professor of psychiatry.

A second appointment at Oregon is that of JOSEPH D. MATARAZZO as professor of medical psychology. Matarazzo is associate psychologist at Massachusetts General Hospital and research associate at the Harvard Medical School. Both appointments become effective on 1 June.

Two new departments have been created in Eli Lilly and Company's pharmacological division. Named to head the pharmacodynamics department is FRANCIS G. HENDERSON; IRWIN H. SLATER has been promoted to head of the neuropharmacology department. Neuropharmacology deals with all drugs that act on the nervous system. The pharmacodynamics department is concerned with drug action on systems of the body other than the nervous system.