pared with only 124,000 scholarships, worth approximately $27 million, in 1950–51.

The survey also indicated that, in 1955–56, 1562 institutions of higher learning, which enroll more than nine-tenths of the college and university students in the country, reported some form of student financial aid. This figure compared favorably with the figure for 1950–51, when 1198 institutions reported that they gave scholarship aid.

These facts and figures are part of a survey released by the Office of Education which is intended to keep parents and young people informed of the types and amounts of financial aid available. Copies of two publications bearing on the subject, "Financial Aid for College Students: Undergraduate" and "Financial Aid for College Students: Graduate" can be obtained from the Superintendent of Documents, U.S. Government Printing Office. ($1.00 and $0.50, respectively).

News Briefs

Industrial Exhibitions Limited of England has announced that the 1958 Instruments, Electronics, and Automation Exhibit will be fully international for the first time and that overseas firms will be able to show their products at its exhibition in London. Further information can be obtained from Industrial Exhibitions Limited, 9 Argyll Street, London W.1.

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The Sister Elizabeth Kenny Foundation has announced that it will continue to award post-doctoral scholarships to promote work in neuromuscular diseases. Depending upon the applicant's qualifications, grants vary from between $5000 and $7000 a year for a 5-year period. Appointments are made annually. Those interested may write to Dr. E. J. Huenekens, Medical Director, Sister Elizabeth Kenny Foundation, 2400 Foshay Tower, Minneapolis 2, Minn.

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The National Cancer Institute's 20th anniversary was celebrated by a special symposium in the August issue of the *Journal of the National Cancer Institute*, which took note of both the growth of the Institute's program and progress in research during the past 20 years.

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A 73-page paper-bound booklet entitled "U.S. Research Reactors" has been released by the Atomic Energy Commission. It describes more than 30 research reactors and contains drawings, photographs, and charts; it was prepared for scientists, engineers, and administrators. The reactors are grouped according to major types, and one or two examples of each are described at some length as typical examples. The booklet is available from the Office of Technical Services, U.S. Department of Commerce ($1.50).

* * *

A new series of 13 educational television programs entitled "The World of Medicine" has just been launched under a grant from the Schering Corporation. Among the programs to be included in the series are "The nurse," "Recovery room," "The eye," "Geriatrics," "Veterinary medicine," and "Allergy."

* * *

The third U.S. Atoms-for-Peace mission is currently visiting Central America, including Panama, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua. The purpose of this mission, as of the two preceding ones which visited ten other Central and South American Republics, is a discussion of the programs for practical applications of nuclear energy in agriculture and medicine, and in nuclear education and training. The U.S. team is meeting with scientists, educators, and government officials of the six host countries.

* * *

Three Agriculture Department researchers have isolated a new chemical compound from the seeds of green beans and kidney beans. The compound, which may play an important role in the germination of bean seeds and in the metabolism of the plants, was discovered by Robert M. Zacharius, Clayton J. Morris, and John F. Thompson. It is a peptide, γ-glutamyl-S-methyl-cysteine, consisting of two amino acids—glutamic acid and S-methyl-cysteine—linked together.

* * *

The Atomic Energy Commission has issued a temporary regulation, effective 26 Sept. 1957, designed to give immediate protection to the public and to licensees and their suppliers against losses arising from reactor accidents. The regulation is based on Public Law 85-256, the indemnity legislation signed by the President on 2 Sept. The temporary regulation will provide protection while a permanent regulation is prepared, issued for public comment, and reissued as an effective regulation.

Public Laws

During the 85th Congress, which recently recessed, members introduced 14,013 bills. According to the *Congressional Quarterly*, this sets a new record for recent years, but the number of bills passed and signed into public law by the President was only 316, a number somewhat below the average for a first session of Congress. Those of the public laws that have a special bearing on science or education are as follows:

Public Law 155. HR 2460. Improve career opportunities of nurses, medical specialists of Army, Navy, and Air Force.

Public Law 164. HR 1058. Preserve key deer and other wildlife resources in Florida Keys.

Public Law 175. HR 9379. Fiscal 1958 appropriations for Atomic Energy Commission.

Public Law 177. HR 8992. Concerning the International Atomic Energy Participation Act.

Public Law 208. HR 7914. Amend Career Compensation Act of 1949 to provide incentive pay for human test subjects.

Public Law 245. S 268. Provide that the Secretary of the Army return certain mineral interest in land acquired by him for flood-control purposes.

Public Law 247. HJ Res. 404. Provide for recognition and endorsement of second World Metallurgical Congress.

Public Law 253. HR 3377. Promote national defense by authorizing construction of aeronautical research facilities and acquisition of land by National Advisory Committee for Aeronautics necessary to effective prosecution of aeronautical research.

Public Law 287. HR 8994. Amend Atomic Energy Act of 1954, as amended, to increase salaries of certain executives of the Atomic Energy Commission.

Public Law 296. HR 9280. Facilitate conduct of fishing operations in the Territory of Alaska, to promote conservation of fishery resources thereof.

Scientists in the News

NIELS BOHR, director of the Institute for Nuclear Physics, Copenhagen, Denmark, will receive the first $75,000 Atoms for Peace Award during a special convocation at the National Academy of Sciences in Washington, D.C., on 24 Oct. President Eisenhower will head the body of government and UN officials, scientists, diplomats, and industrial leaders invited to attend the convocation.

The award to be presented to Bohr is the first of ten to be granted to those persons anywhere in the world who have made the greatest contributions to the peaceful uses of atomic energy. The prize is given without regard for nationality, politics, or any other consideration except the merit of the contribution. Bohr was selected from among 75 candidates proposed by scientific bodies in 23 countries.

The Atoms for Peace Awards were created in 1955 as a memorial to Henry Ford and Edsel Ford. Funds are provided

by the Ford Motor Company Fund, which has authorized $1 million for the purpose.

Bohr's award will be presented by James R. Killian, Jr., president of Massachusetts Institute of Technology and chairman of the board of trustees of Atoms for Peace Awards. In addition to the $75,000 prize, Bohr will receive a sculptured gold medal that was executed by Sidney Waugh. Key address at the convocation will be delivered by Arthur H. Compton; sharing the platform with Compton will be John A. Wheeler of Princeton University, long a colleague of Bohr's.

Prior to the convocation, Bohr will be honored at a luncheon to be given by the president and council of the National Academy of Sciences. President Eisenhower is expected to be among the guests.

JACK G. MAKARI, former associate professor of immunology at the University of Texas and head of the section of immunology at the M. D. Anderson Hospital and Tumor Institute, has been appointed director of research at the Muhlenberg Hospital, Plainfield, N.J.

DONALD K. COLES, a member of the staff of Westinghouse Research Laboratories, has been appointed head of the solid-state laboratory at Farnsworth Electronics Co., Fort Wayne, Ind.

WILLIAM B. COOK, former acting program director for the Summer Institutes Program of the National Science Foundation, will assume new duties as head of the department of chemistry at Montana State College, Bozeman. Cook will be succeeded by GRANT W. SMITH, professor of chemistry at Pennsylvania State University. P. C. GAINES, retiring head of the department of chemistry at Montana State College, will remain at the college as vice president and dean.

At the National Science Foundation GEOFFREY KELLER, professor of physics and astronomy at Ohio State University, has been named program director for astronomy, Division of Mathematical, Physical, and Engineering Sciences; WALTER J. PETERSON, head of the chemistry department at North Carolina State College, has been named program director for special projects in science education, Division of Scientific Personnel and Education; and NELSON T. SPRATT, JR., professor of zoology at the University of Minnesota, has been named program director for developmental biology, Division of Biological and Medical Sciences. All three men are taking a year's leave of absence from their universities.

The following people received awards during the American Chemical Society's 132nd national meeting, which took place in New York, 8–13 Sept.

WILLIAM S. JOHNSON, Homer Adkins professor of chemistry at the University of Wisconsin, the ACS Award for Creative Work in Synthetic Organic Chemistry, sponsored by the Synthetic Organic Chemical Manufacturers Association, ". . . for his work in the total syntheses of steroids and related compounds."

JACOB BIGELEISEN, senior chemist at Brookhaven National Laboratory, the ACS Award for Nuclear Applications in Chemistry, sponsored by the Nuclear Instrument and Chemical Corporation, ". . . for his work on the isotopic effect in chemical reactions."

DUBOIS EASTMAN, director of research, Montebello, Calif., Laboratories of the Texas Company, the ACS Award in Industrial and Engineering Chemistry, sponsored by Esso Research & Engineering Company, ". . . for developing a new basic process for production of synthesis gas and hydrogen."

CARL DJERASSI, professor of chemistry, Wayne State University, the ACS Award in Pure Chemistry, sponsored by Alpha Chi Sigma Fraternity, ". . . for pioneer work on the structure of natural products and for his use of rotatory dispersion as a tool for analyzing conformational effects in complex molecules."

MAURICE F. HASLER, director of research, Applied Research Laboratories, the Beckman Award in Chemical Instrumentation, sponsored by Beckman Instruments, Inc., ". . . for contributions to instruments and techniques suitable for industrial use of spectrochemical analysis."

WILLIAM G. GORDON, supervisory chemist in charge of protein structure unit, animal proteins section, Eastern Regional Research Laboratory of the U.S. Department of Agriculture, the Borden Award in the Chemistry of Milk, sponsored by the Borden Company Foundation, Inc., ". . . for definitive studies on alpha-, beta-, and gamma-casein, and of a-lactalbumin."

JAMES J. LINGANE, chairman of the chemistry department, Harvard University, the Fisher Award in Analytical Chemistry, sponsored by Fisher Scientific Company, ". . . for pioneer work in coulometric analysis and for defining the extent of the field and capacities of the coulometric technique."

GEORGE H. BUCHI, associate professor of organic chemistry, Massachusetts Institute of Technology, the Fritzsche Award, sponsored by Fritzsche Brothers, Inc., ". . . for outstanding contributions to structure determination of terpenes."

ARDA A. GREEN, research associate, McCollum-Pratt Institute, Johns Hopkins University, the Garvan Medal, ". . . for successful crystallization of the enzyme luciferase from firefly lanterns."

WILLIAM L. LAURENCE, science editor of the New York Times, the James T. Grady Award, ". . . for pre-eminence in interpreting science to the public."

PAUL H. EMMETT, professor of chemistry, Johns Hopkins University, the Kendall Award in Colloid Chemistry, ". . . for contributions to the Brunauer-Emmett-Teller method of measuring surface areas of solids."

LESTER J. REED, research scientist at the Biochemical Institute, University of Texas, the Eli Lilly and Company Award in Biological Chemistry, ". . . for his investigations on the chemistry and functions of lipoic acid, the most recently characterized member of the vitamin B complex."

EUGENE P. KENNEDY, professor of biochemistry, University of Chicago, the Paul-Lewis Award in Enzyme Chemistry, ". . . for investigation on lipide biosyntheses, in particular, the discovery of the role of cytidine nucleotides in the enzymic synthesis of lecithin."

ROBERT P. EISCHENS, chemist, Texas Company, the Precision Scientific Company Award in Petroleum Chemistry, ". . . for contributions to fundamental knowledge of catalysis in petroleum and its products."

FRANK E. BROWN, professor of chemistry, Iowa State College, the Scientific Apparatus Makers Award in Chemical Education, sponsored by Scientific Apparatus Makers Association, ". . . for enthusiastic concern to improve chemical education, and his efforts to promote the experimental approach in teaching chemistry."

JOHN L. GEORGE, former assistant professor of zoology at Vassar College, has been named associate curator of mammals at the New York Zoological Park.

ROBERT L. BOGNER, formerly a research pharmacologist in the department of pharmacology at the Walter Reed Army Institute of Research, has been appointed senior pharmacologist in the department of biology and medicine of the Nuclear Science and Engineering Corporation, Pittsburgh, Pa.

WALTER P. TAYLOR, until recently a faculty member at Claremont College, has been named visiting professor of zoology at Southern Illinois University. EDWIN C. GALBREATH, formerly of the University of Kansas Medical School at Lawrence, is another new member of the Southern Illinois zoology staff. He is serving as professor for research and teaching in vertebrate paleontology.

IAN AIRD, chief of the surgical service and head of the department of surgery at the Postgraduate Medical School of the University of London, England, will deliver the Charles H. Mayo Memorial Lecture at Northwestern University Medical School on 25 Oct. Aird, who is known for his contributions to abdominal surgery, will speak on "Pancreatectomy."

W. H. LARRIMER has been made director of the Office of the Handbook of Biological Data at the National Academy of Sciences–National Research Council. Larrimer's career in the U.S. Department of Agriculture has been about equally divided between entomology and forestry, with emphasis on research administration in both. He retired from the Forest Service in 1955.

WILLIAM H. CHARCH has received Columbia University's Charles Frederick Chandler Medal for 1957 in recognition of his outstanding achievements in the development of moisture-proof cellophane and of synthetic fibers. Charch is director of the Pioneering Research Division, Textile Fibers Department of E. I. duPont de Nemours and Company. His award lecture dealt with "Synthetic Fiber Structure and Property Relationships."

PAUL R. CANNON has retired after 17 years as chairman of the department of pathology at the University of Chicago. He has been on the university's medical faculty for 32 years. As professor emeritus, he will maintain an office and will continue as chief editor of the American Medical Association's *Archives of Pathology*.

Cannon is best known for his work on tissue antibodies and on the foods the body needs to maintain them. His earliest work proved that antibodies in tissues and cells are similar to those of the blood. Antibodies can increase or lessen tissue inflammation, depending on how they react to invading microbes.

To form antibodies, he found, human beings need steady quantities of eight protein-building amino acids. During infection or injury and after operations, extra amounts are needed. His recent studies have shown that the body needs potassium in order to use these proteins properly.

For his work in immunity and nutrition, Cannon in 1948 was given both the Ward Burdick Award-Medal of the American Society of Clinical Pathologists and the William Hood Gerhard Gold Medal of the Pathological Society of Philadelphia.

Cannon's interest in studying the prevention of disease led him to other areas of research. In 1931, with William H. Taliaferro, now chairman of the department of microbiology at the university, he was one of the first Americans to study rare, severe cases of malaria in human beings and to urge that this disease be combatted by bacteriological methods.

With Eugene M. K. Geiling, now retired chairman of the university's department of pharmacology, he found that diethylene glycol, a sweet, glycerinlike base of a new drug, had caused the deaths of 80 Americans in 1937. This research led to revision of the Pure Food and Drug Laws in 1939.

Cannon has also been a spokesman for academic pathologists, refuting the criticisms of some that autopsies are needless and after-the-fact. Post-mortem examinations, he recently told the House Interstate and Foreign Commerce Subcommittee on Health and Science, are being performed so rarely outside of academic institutions that "medical science is wallowing in a great deal of incomplete evidence."

Cannon took his A.B. degree from James Millikin University (Decatur, Ill.) in 1915, his Ph.D. in bacteriology from the University of Chicago in 1921, and his M.D. from Rush Medical College (Chicago) in 1926.

T. A. GEISSMAN, professor of chemistry at the University of California, Los Angeles, has been elected the first honorary fellow of the Royal Australian Chemical Institute. Geissman recently arrived in Australia for a 9-month stay on a senior Fulbright fellowship with the Division of Industrial Chemistry, Commonwealth Scientific and Industrial Research Organization. He is a specialist in the chemistry of plant constituents and will join the CSIRO group working in this field.

JOSEPH E. IMBRIGLIA has been appointed professor and head of the department of pathology at Hahnemann Medical College. Imbriglia, who has been a member of the Hahnemann faculty since 1950, is studying the pathogenesis of arteriosclerosis by histochemical methods.

LEWIE C. ROACHE, associate professor of biology at South Carolina State College, Orangeburg, has been appointed head of the biology department. He has been a member of the college faculty since 1947.

ROBERT L. SINSHEIMER, formerly of Iowa State College, has been named professor of biology at California Institute of Technology. A specialist in the development and use of modern biophysical techniques, he has made original contributions to knowledge of the chemistry of nucleic acids. Another appointment at C.I.T. is that of JOHN TODD as professor of mathematics. He has been chief of the numerical analysis section at the National Bureau of Standards since 1954.

HOWARD J. LEWIS has been appointed director of public information for the National Academy of Sciences–National Research Council. A former magazine editor and free-lance writer, Lewis recently served as a reporter for *Scope Weekly*.

Recent Deaths

FREDERICK ANDERSON, Ottawa, Canada; 89; head of Canadian Hydrographic Service, 1920–36; in 1913 supervised the commissioning of the first vessel specifically designed for hydrographic work; 21 Sept.

BETTY BLOSSOM (ELIZABETH T. B. JOHNSON), New York, N.Y.; 48; botanist, writer, and former garden editor of *House and Garden*; 21 Sept.

REGINALD A. DALY, Cambridge, Mass.; 86; Sturgis Hooper professor emeritus of geology at Harvard University; author of eight books on the nature and structure of the earth; 19 Sept.

ALBERT G. DAVIS, Elizabeth, N.J.; 75; chemical engineer for the M.W. Kellogg Company, Jersey City; 20 Sept.

RALPH FULTON, Bound Brook, N.J.; 52; infrared spectroscopist; project leader in the Bakelite Company's Development Laboratories, Bound Brook; 27 Aug.

ROBERT LOWIE, Berkeley, Calif.; professor emeritus of anthropology at the University of California, Berkeley; specialist in the Indians of North and South America; 21 Sept.

ALBERT P. MATHEWS, Albany, N.Y.; 85; professor emeritus of biochemistry at the University of Cincinnati; made investigations in parthenogenesis and the nature of nerve impulses; 21 Sept.

MERRILL MOORE, Quincy, Mass.; 54; psychiatrist and neurologist; taught psychiatry at Harvard Medical School; specialist on the psychiatric aspects of alcoholism and suicide; 20 Sept.

WILLIS M. RAYTON, Hanover, N.H.; 48; professor of physics at Dartmouth College; project director for an ionospheric research program for the International Geophysical Year; 21 Sept.

FERRIS SMITH, Grand Rapids, Mich.; 73; pioneer in plastic surgery; author of *Reconstructive Surgery* and *Plastic and Reconstructive Surgery*; 18 Sept.

HENRY A. STRAUS, Waban, Mass.; 43; physicist at Lincoln Laboratory of Massachusetts Institute of Technology; aided development of the earliest microwave radar equipment; 21 Sept.