News of Science

AAAS Editor

The AAAS is very pleased to announce that Graham DuShane will continue on a permanent basis as editor of *Science* and *The Scientific Monthly*. Since 1 Jan. DuShane has served as editor, while on leave of absence from his position as professor of biology at Stanford University. He has submitted his resignation to Stanford in order to accept the editorship.—D. W.

National Academy Elections

The National Academy of Sciences at its 93rd annual meeting in Washington, D.C., elected a treasurer, two members of the council of the academy, 30 members, and four foreign associates. William J. Robbins, director of the New York Botanical Garden, New York, was reelected treasurer for a 4-year term, beginning 1 July. In addition to Robbins, present officers of the academy, all of whom are members of the council, are as follows: president, Detlev W. Bronk; vice president, George W. Corner; home secretary, Hugh L. Dryden; and foreign secretary, John G. Kirkwood.

I. I. Rabi, professor of physics at Columbia University, and F. E. Terman, provost and dean of the School of Engineering at Stanford University, were elected to the academy council to succeed James Gilluly and Edwin B. Wilson. Other members of the council are Farrington Daniels, E. A. Doisy, Theophilus S. Painter, and Merle A. Tuve.

New members of the academy are Georg von Békésy, senior research fellow in psychophysics, Harvard University; Manson Benedict, professor of nuclear engineering, Massachusetts Institute of Technology; Konrad E. Bloch, professor of chemistry, Harvard University; Kenneth S. Cole, director, laboratory of biophysics, National Institute of Neurological Diseases and Blindness, Bethesda, Md.; Bryce L. Crawford, Jr., professor of physical chemistry, University of Minnesota; William A. Fowler, professor of physics, California Institute of Technology; Caryl P. Haskins, president, Carnegie Institution of Washington, Washington, D.C.; Emil W. Haury, professor of anthropology, University of Arizona; Polykarp Kusch, professor of physics, Columbia University; Albert L. Lehninger, professor of physiological chemistry, Johns Hopkins University; Maria G. Mayer, senior physicist, Argonne National Laboratory, Lemont, Ill.; Charles P. Miller, professor of medicine, University of Chicago; William W. Morgan, professor of astronomy, Yerkes Observatory, University of Chicago, Williams Bay, Wis.; Walter H. Munk, professor of geophysics, Scripps Institution of Oceanography, La Jolla, Calif.; and

Melvin S. Newman, professor of chemistry, Ohio State University; Robert F. Pitts, professor of physiology, Cornell University; John D. Roberts, professor of organic chemistry, California Institute of Technology; Karl Patterson Schmidt, emeritus curator, department of zoology, Chicago Natural History Museum, Chicago, Ill.; Martin Schwarzschild, professor of astronomy, Princeton University; Claude E. Shannon, research mathematician, Bell Telephone Laboratories, Inc., Murray Hill, N.J.; Folke K. Skogg, professor of botany, University of Wisconsin; Norman E. Steenrod, professor of mathematics, Princeton University; Walter H. Stockmayer, professor of physical chemistry, Massachusetts Institute of Technology; Albert Szent-Györgyi, director of research, Institute for Muscle Research, Inc., Marine Biological Laboratory, Woods Hole, Mass.; Charles H. Townes, professor of physics, Columbia University; Francis J. Turner, professor of geology, University of California, Berkeley; Jean Verhoogen, professor of geology, University of California, Berkeley; Maurice B. Visscher, professor of physiology, University of Minnesota; John C. Warner, president, Carnegie Institute of Technology, Pittsburgh, Pa.; Walter H. Zinn, director, Argonne National Laboratory, Lemont, Ill.

New foreign associates are Frederick G. Gregory, director, Research Institute of Plant Physiology, and professor of plant physiology, Imperial College of Science and Technology, London, England; Kariamanikkam Krishnan, director, National Physical Laboratory, New Delhi, India; Albert E. Michotte, professor of psychology, University of Louvain, Louvain, Belgium; Joseph Jean Camille Pérès, dean, Faculty of Sciences, and professor of rational mechanics, University of Paris, Paris, France.

Soviet Nuclear Explosion

Seitaro Koyama of Niigata University in Japan recently told a research panel of the Japan Meteorological Society that the Soviet nuclear explosion in March may have used thorium-232 as the principal element. Tests of radioactive rain that fell in the Niigata area on Japan's west coast on 21 Mar. and 24 Mar. produced results different from those made following previous thermonuclear blasts.

In other tests following reports of thermonuclear blasts, neptunium-239 and uranium-237 were abundant in rainwater, but this time these elements were absent. Also, for the first time the contaminated rain yielded an equal or greater amount of strontium as compared with barium; in the past, strontium has been one-third to one-tenth of the barium content. Koyama reported that, in addition, he had found rubidium-86 in quantities up to 2 percent. This element had not been detected in previous tests.

Humanities for Engineers

After a 3-year survey, the American Society for Engineering Education has reaffirmed the importance of studies in the humanities and social sciences in the training of professional engineers. A special committee of engineering and social studies teachers in American engineering schools, as well as a number of industrial representatives, say in their report that

"The humanities and social sciences are, in a deeply serious sense, practical and useful. To meet his growing responsibilities and to realize his capacities as a human being, the engineer needs both professional competence and a broad understanding of himself and of the world in which he lives. He needs depth, flexibility, and a capacity for growth in directions which we ourselves can today only dimly visualize. Like other professional men, he does not graduate from college with a completed education.

"Given this view of the engineer as a professional man and as a human being, the humanities and social sciences can take their place as an integral part of his total education. They do not stand apart from the rest of the curriculum."

The report restates an earlier recommendation of the ASEE: engineering students should spend at least one-fifth of their time studying the humanities and social sciences. The survey commit-

tee observes that "Our evidence indicates that a majority of schools do not measure up to this standard; the national average is something less than 17 percent."

The committee also deplores the conflict between arts and engineering faculties that exists in some institutions: "The sober truth is that the attitudes of the engineering faculty communicate themselves to engineering students. At institutions where the faculty exhibited the greatest belligerence about their colleagues in the arts, we invariably found the greatest student complaint about the work in humanities and social studies.

"On the other hand, we have evidence that the conflict disappears almost completely on those campuses where the arts and engineering faculties are thrown together as colleagues on an equal footing."

A grant from the Carnegie Corporation of New York supported the survey, which was directed by George A. Gullette, head of the department of social studies at North Carolina State College. Edwin S. Burdell, president of the Cooper Union, was chairman of the special survey committee that developed the Society for Engineering Education's recommendations on the education of engineers that are contined in the report that has just been released.

Physicists Visit the Soviet Union

With Governmental approval, a group of physicists have accepted the Soviet Union's invitation to a conference of high-energy nuclear physics that will take place in Moscow, 14–20 May. The National Science Foundation will pay travel expenses for most of the group.

The invitations, signed by the U.S.S.R. Academy of Sciences, were sent separately to the following men: Luis Alvarez, Owen Chamberlain, and Emilio Segrè of the University of California; Keith A. Brueckner of Brookhaven National Laboratory; F. J. Dyson and A. Tais of the Institute for Advanced Study; Murray Gell-Mann of California Institute of Technology; Robert E. Marshak of the University of Rochester; John Marshall, Jr., of the Enrico Fermi Institute for Nuclear Studies, University of Chicago; Wolfgang Panofsky of Stanford University; Lyle Smith of Brookhaven National Laboratory; Jack Steinberger of Columbia University; Victor Weisskopf of Massachusetts Institute of Technology; and Robert R. Wilson of Cornell University.

The Soviet Union has also asked some American scientists to attend a conference on the physics of magnetic phenomena that will take place this month in Sverdiovak, Siberia. Those invited include Richard M. Bozorth of the Bell Telephone Laboratories, Charles P. Bean of the General Electric Company, and A. F. Kik of the University of California.

Serotonin and Bleeding

The U.S. Public Health Service has announced that serotonin in the blood, generally considered to be involved in the normal control of bleeding, apparently does not have this function. Serotonin is a substance in brain and intestine, and in blood platelets. Although its presence in the brain has puzzled investigators until recently, there has been an acceptable explanation for the presence of serotonin in blood platelets almost from the time that its action there was discovered in 1918.

Serotonin can constrict blood vessels, and it was thought that its liberation from ruptured platelets at the sites of wounds slowed bleeding and encouraged the formation of clots. This assumption has been challenged by the new research findings.

Research workers in the Laboratory of Chemical Pharmacology of the National Heart Institute have found that by giving reserpine, they can liberate bound serotonin from the blood platelets of laboratory animals. As a result, the platelets are depleted of their serotonin. The time required for wounds to stop bleeding in rats, rabbits, and guinea pigs so treated was the same as that required for untreated animals.

Parkhurst A. Shore, Bernard B. Brodie, and their associates have described this work in a recent issue of the *Journal of Pharmacology and Experimental Therapeutics.*

AAAS Academy Grants for Student Research

The AAAS announces a new program for the use of the research funds that are awarded by the association to the academies of science. Effective at once, but optional until 1957, the academies are requested to use the grants for the assistance of high-school and college students rather than senior scientists.

Carefully selected students will receive modest amounts to buy equipment or books to assist them in carrying out original investigations. Each recipient will have to report his project in the same way that a senior scientist must when he seeks support from a foundation or a Federal Government agency.

The association believes that experience in original investigation cannot begin too early; further, the solving of even a simple problem in the laboratory or in the field can provide an important stimulus to the young mind.

It should be noted that these grants are not "prizes" for work well done. The emphasis is on the encouragement of, and assistance to, a student who has an idea that he wants to develop. However, students who have already won prizes or awards are not excluded from consideration for grants for new projects.

The academies are being asked to give preference to high-school students. College students in the smaller colleges may be eligible if the college is unable to supply what is needed. Each academy may decide whether equipment purchased for any project is to become the property of the grant recipient or the school or college, or whether it should be turned over to the academy for reissue to other students.

The amount of an academy award depends on the number of members who are also members of the AAAS. The association provides a minimum of $50 to each participating academy. If all grant funds are not used in a given year, the balance may be spent at any time within 2 years. Students and teachers interested in this new program should communicate with the nearest academy that is affiliated with the AAAS or write to the association for information.—JOHN A. BEHNKE.

News Briefs

■ The Oceanographic Institution at Woods Hole, Mass., has announced that underwater sounds by baleen whales have been recorded for the first time. The recording was made when three right whales, a variety of baleen whale, spent several days within 10 miles of the institution.

Instead of teeth, baleen whales have growing in their mouths a horny substance called whalebone. It has been known for several years that toothed whales frequently make a great variety of sounds, but attempts to establish this for baleen whales have been inconclusive.

■ The U.S. Atomic Energy Commission has announced that it has reviewed 30,773 research and development reports and informal memoranda in an accelerated program to make more information available to private industry. The review work was done at the Oak Ridge Operations Office by a team of 35 scientists and engineers from major AEC installations. This was a special project within the program for continuous review of all current technical reports that is carried on by the commission as normal procedure.

Of the 30,773 classified reports reviewed, 10,916 were declassified, 8574 were labeled "Confidential," and 11,283