

2) Even if all the states do pass satisfactory statutes, the need for supplementary federal legislation is apparent, for there will still be loopholes in interstate and international control. It is therefore recommended that, at an appropriate time after the Council of State Governments has had a chance to act, an effort be made to interest a congressional committee in arranging hearings on the need for supplementary federal legislation. A major advantage of such hearings is that they would place on the record, with full congressional immunity, a large body of factual information about these "colleges"—their names and locations, their proprietors and activities—and examples of the serious international implications of their operations. Complete exposure would give additional ammunition to all agencies now frustrated by this problem.

Documentation Unit Formed

The National Academy of Sciences—National Research Council has announced the establishment of a new Office of Documentation, under the directorship of Karl F. Heumann, previously research director at Chemical Abstracts Service. The office will operate in three major areas: it will (i) give advice to the National Science Foundation and others as appropriate in broad problems of scientific documentation; (ii) provide a mechanism for the participation of United States scientists and documentalists in international documentation activities; and (iii) give advice and assistance to the several activities of the Academy—Research Council in the documentation problems they encounter from time to time.

It is anticipated that an advisory panel of scientists and documentalists will be set up to assist the office. Close liaison will be maintained with the NSF's Office of Science Information Service and with other interested groups.

Grants, Fellowships, and Awards

Foreign. The Institute of International Education is reminding prospective applicants that little time remains to apply for some 900 Fulbright scholarships for study or research in 28 countries. Applications are being accepted

until 1 November. Requests for forms must be postmarked before 15 October. Inter-American Cultural Convention awards for study in 17 Latin American countries have the same filing deadline.

Recipients of Fulbright awards for study in Europe, Latin America, and the Asia-Pacific area will receive tuition, maintenance, and round-trip travel. The IACC scholarships cover transportation, tuition, and partial maintenance costs. The Institute of International Education administers both of these programs for the U.S. Department of State.

General eligibility requirements for both categories of awards are: U.S. citizenship at time of application; a bachelor's degree or its equivalent by 1960; knowledge of the language of the host country; good health; and a demonstrated capacity for independent study. Preference is given to applicants under 35 years of age who have not previously lived or studied abroad.

Enrolled students at a college or university should consult the campus Fulbright adviser for information and applications. Others may write to the Information and Counseling Division, Institute of International Education, 1 E. 67th St., New York 21, N.Y. or to any of IIE's regional offices.

General. Colleges, universities, and nonprofit research and higher educational institutions have been invited by the National Science Foundation to submit proposals for summer (1960) and academic year (1960-61) study-training-research projects designed to provide educational opportunities for secondary-school students, college undergraduates, and teachers. Building on the successful experience of similar projects of the past summer and the present school year which attracted thousands of students and teachers, the foundation plans to continue three experimental programs next year. Proposals from colleges and universities will be considered in all three. They are:

1) *Summer Science Training Program for Secondary-School Students.* This program is designed to encourage scientific interests of high-ability secondary-school students by providing, during the summer of 1960, opportunities for them to study and work with experienced scientists and mathematicians in classrooms, laboratories, and research facilities. Because a primary purpose in this program is to permit superior students to take advantage of the resources of colleges and universities through spe-

cial programs developed by these institutions and conducted by their faculties, it is expected that a major portion of the instruction will be provided by regular staff members. The deadline for postmark of proposals for the summer of 1960 is 12 October 1959.

2) (i) *Undergraduate Research Participation Program*, and (ii) *Undergraduate Research Training Program.* It is the purpose of these programs to help colleges and universities provide new and expanded means for high-ability students to advance in their understanding of scientific methods and in their ability to employ investigative procedures.

One means is to introduce more actual research activity into the undergraduate educational pursuits of potential scientists. Such activity typifies the Undergraduate Research Participation Program under which students participate in established programs financed primarily for objectives other than undergraduate education. Another is to make it possible for colleges and universities to initiate new programs with the primary objective of providing educational experiences for undergraduates and financed largely from funds for educational purposes. This method is typical of the Undergraduate Research Training Program. Proposals for these programs beginning in the summer of 1960 should be postmarked not later than midnight 15 November; those beginning in the academic year 1960-61, not later than 8 January 1960.

3) *Research Participation for Teacher Training.* This program is designed to encourage colleges and universities to provide research experience for science and mathematics teachers in high schools, and for instructors in science, mathematics, and engineering in colleges (including junior colleges) which have but few, if any, research facilities. The fundamental purpose of the foundation in supporting this type program is to encourage the development of opportunities for the further training of teachers. Training in these cases is to be provided through participation in research activity under the tutelage of experienced scientific investigators. Actual research experience, full time in the laboratory, in the field, or in theoretical investigations, should form the basis of a research participation program. It is expected that teachers participating in such experience will receive individual and special consideration, and that they will be provided guidance which will effectively aid them in obtaining a type

of experience which will enrich their teaching. These are summer programs only, and proposals should be postmarked not later than midnight 26 October.

Suggestions for the preparation of proposals may be obtained from the Special Projects in Science Education Section, Scientific Personnel and Education Division, National Science Foundation, Washington 25, D.C.

Scientists in the News

The following surgeons were made honorary fellows of the International College of Surgeons during the congress of the college's North American Federation that was held recently in Chicago, Ill.

Mother **Anna Marie Dengel**, superior general of the Medical Mission Sisters of Rome, the first woman to receive the honor. She is the founder of the Roman Catholic medical missionary society and has established 30 hospitals in Africa, India, Venezuela, Indonesia, and Pakistan.

Jean Creyssel of the University of Lyon, France.

Sten A. Friberg, rector of the Karolinska Institute, Stockholm, Sweden.

Rear Admiral **Bartholomew W. Hogan**, surgeon general and chief of the U.S. Navy Bureau of Medicine and Surgery.

Arnold S. Jackson, director of the Jackson Clinic and chief of staff of Methodist Hospital, Madison, Wis.

Donatien Marion, governor of the University of Montreal.

Louis McD. Orr, president of the American Medical Association.

Samuel Rosen, associate clinical professor of otolaryngology at Columbia University.

Curtice Rosser of the University of Texas Southwestern Medical School, Dallas.

Ralph E. Snyder, dean of New York Medical College.

J. Andre Thomas of the faculty of sciences at the Sorbonne, Paris.

Pietro Valdoni, professor of surgical pathology at the University of Rome.

Recipients of honorary membership were: **Cecil J. Birtcher**, maker of electronic medical instruments, Los Angeles, Calif., **Tomlison Fort**, vice president of the Westinghouse Electric Corporation, and **David L. Helfferich**, president of Ursinus College, Collegeville, Pa.

The following engineering scientists recently joined the University of California at Berkeley.

Thomas H. Pigford, chairman of the engineering department at the General Atomics Division of General Dynamics Corporation, has become chairman of the department of nuclear engineering.

Lofti A. Zadeh, associate professor of electrical engineering at Columbia University, has been appointed professor of electrical engineering.

Charles K. Birdsall, former group leader and consultant in electron physics for the General Electric Company and technical specialist with the Hughes Aircraft Company, is associate professor of electrical engineering.

Douglas W. Fuerstenau, manager for mineral engineering for the Kaiser Aluminum and Chemical Corporation, has become associate professor of metallurgy.

Georg Bruun, former faculty member of the Royal Technical University of Denmark and director of the Radio Receiver Research Laboratory of the Danish Academy of Technical Sciences, became acting associate professor of electrical engineering.

Clifford T. Morgan, formerly professor of psychology at Johns Hopkins University, has been appointed visiting professor of psychology at the University of Wisconsin for the academic year 1959-60.

Karl Meyer, professor of biochemistry at Columbia University College of Physicians and Surgeons, received the \$6500 T. Duckett Jones Memorial Award during the annual meeting of the Helen Hay Whitney Foundation in Princeton, N.J.

Siegfried Muessig, project chief of the mineral deposits branch of the U.S. Geological Survey, has been appointed chief geologist at the U.S. Borax and Chemical Corporation.

Albert H. Taylor, retired chief consultant in electronics of the Naval Research Laboratory, Washington, D.C., will receive the Stuart Ballantine Medal from the Franklin Institute on 21 October.

L. J. Markwardt has retired as assistant director of the U.S. Forest Products Laboratory, Madison, Wis. He will continue as consultant for industrial concerns in the forest products fields.

William A. Mason, assistant professor of psychology at the University of Wisconsin, and **John M. Warren**, assistant professor of psychology at Stanford University, have been appointed research associates at the Yerkes Laboratories of Primate Biology, Inc., of Emory University, Orange Park, Fla.

Carl O. Dunbar, retired director of the Peabody Museum of Natural History at Yale University, has received the Hayden Geological Award of the Academy of Natural Sciences of Philadelphia.

Walter F. Leverton, assistant manager of the Research Division of Raytheon Company, Waltham, Mass., has been appointed engineering manager of the company's Semiconductor Division.

Recent Deaths

Paul Alexander, Princeton, N.J.; 63; physicist and high vacuum specialist; director of research at the Continental Can Company, New York; 18 Sept.

Rev. **Thomas D. Barry**, Weston, Mass.; 58; head of the astronomy department and professor of mathematics at Weston College; 19 Sept.

Kenneth W. Chapman, Washington, D.C.; 48; specialist on narcotics addiction; associate director of the clinical center at the National Institutes of Health, Bethesda, Md.; 18 Sept.

Abraham Flexner, Falls Church, Va.; 92; educator who revolutionized this country's medical education; founder and director emeritus of the Institute for Advanced Study, Princeton, N.J.; 21 Sept.

George N. Raines, Washington, D.C.; 51; professor and director of the department of psychiatry at the Georgetown University Medical Center and a retired captain, Navy Medical Corps; 16 Sept.

Albert A. Somerville, Carmel, N.Y.; 75; physicist and retired vice president and manager of the rubber products department of the R. T. Vanderbilt Company; 20 Sept.

Gregory Zilboorg, New York, N.Y.; 68; private practitioner in psychoanalysis and psychiatry in New York since 1931; historian of psychiatry and medical psychology; assistant professor of clinical psychiatry at New York Medical College and clinical associate professor of psychiatry at the State University of New York College of Medicine; 17 Sept.