SUSANNA HAIGH, New York, N.Y.; 64; former faculty member of the New York Psychoanalytic Institute; 7 Nov.

FRITZ HOFFMAN, Hanover, Germany; 89; inventor of synthetic rubber, who had to decline the Nobel prize for his development on order of the Nazis; 31 Oct.

HARVEY J. HOWARD, Clearwater, Fla.; 76; former head of ophthalmology at the University of Canton Medical School; 6 Nov.

ALBERT G. KELLER, New Haven, Conn.; 82; professor emeritus of the science of society at Yale University; 31 Oct.

LUTHER C. SCOTT, Toledo, Ohio; 92; professor emeritus of geology at the University of Toledo; 31 Oct.

Sir FRANCIS SIMON, London, England; 63; physicist, professor of experimental philosophy at Oxford University and head of Clarendon Laboratory; 31 Oct.

Education

■ High-school teachers of biology who are especially interested in improving laboratory and field work in secondary-school biology courses are invited to apply for appointment to a group that will prepare a source book of laboratory and field studies for such courses. The project is sponsored by the Committee on Educational Policies of the Biology Council, Division of Biology and Agriculture, National Academy of Sciences–National Research Council, and by Michigan State University, with the support of grants from the National Science Foundation. The source book will be developed at an 8-week writing conference, to be held 24 June to 16 Aug. 1957, at Michigan State University.

Despite their importance in high-school biology, laboratory and field study are often pedestrian and unimaginative. One way to improve the situation is to supply teachers with a collection of superior exercises, realistically adapted to high-school situations. All teachers could then use procedures developed by particularly capable teachers. This is the purpose of the source book, which will contain a series of complete exercises from which individual teachers can draw ideas, studies for particular topics, or the laboratory and field work for entire courses.

The material will be developed by a group of 20 high-school teachers and 10 college and university biologists. The latter group is already selected. The prime requirement for participants is a creative, imaginative approach to laboratory and field studies. All interested high-school biology teachers are invited to apply. Biologists and school administrators are also urged to submit the names of teachers who are well qualified for the assignment.

Each applicant or nominee will be sent a form asking for information on his background and experience and evidence of his ability to contribute to the preparation of the source book. The final selection will be made on the basis of two essays submitted by each applicant who passes a preliminary screening. One essay will illustrate how a topic supplied by the committee can be converted into a study for high-school use; the other will present an exercise that the teacher has devised.

The essays will form a part of the pool of ideas for the source book. Manuscripts so used will be credited to their authors, who may thus appear in the publication even if they are not selected to participate in the conference. The writing team also will have access to other collections of exercises, including those gathered by the committee in preparing a series of source books of laboratory and field studies for college courses in the biological sciences.

Each participant will receive a stipend of $1000. His round-trip travel expenses between his home and East Lansing, Mich., will also be paid. From the stipend he will be expected to pay his own living expenses during the conference. The university will provide housing and dining facilities at reasonable prices for teachers and their families. The conference will be directed by C. A. Lawson, head of the department of natural sciences in the Basic College at Michigan State.

Completed applications should be submitted by *31 Jan. 1957*. All correspondence concerning the project should be addressed to: Committee on Educational Policies, Division of Biology and Agriculture, National Research Council, 2101 Constitution Ave., NW, Washington 25, D.C.

■ The Committee on Reactor Materials of the Atomic Industrial Forum, New York, has announced that a concentrated 2-week course on reactor materials will be held at New York University from 26 Nov. to 7 Dec. As in the case of an earlier course at Northwestern University last January, lectures will be presented by outstanding scientists on properties, technology, and applications of reactor materials.

Cochairmen for the course are Lyle Borst, chairman of the N.Y.U. physics department, and David Gurinsky, head of the metallurgy division at Brookhaven National Laboratory. Participation will be limited to 60 persons. Tuition for the course is $125 and does not include transportation expenses, hotel accommodations, or living expenses.

■ Wabash College has received a 180-acre tract of woodland from the estate of W. C. Allee. Allee served for 30 years on the faculty of the University of Chicago, from which he retired as professor of zoology to teach for five more years at the University of Florida, where he was chairman of the biology department.

As one keenly interested in the relationship between environment and living things, it was Allee's wish that the tract, which is near Turkey Run State Park, be kept inviolate. The college has agreed to follow this wish for 99 years. During this period records will be kept of the changes in the animals and plants on the tract. The president of Wabash has appointed a committee to look after the land and to plan ecological studies.

Grants, Fellowships, and Awards

■ The National Science Foundation, Washington 25, D.C., will award individual grants to defray partial travel expenses for a limited number of scientists who wish to attend the following international meetings sponsored by the International Union of Pure and Applied Chemistry.

Second International Congress on Surface Activity, London, England, 8–12 Apr. 1957; application deadline, *1 Jan. 1957*.

International Symposium on Purity Control by Thermal Analysis, Amsterdam, Netherlands, 24–26 Apr. 1957; application deadline *1 Jan. 1957*.

Sixteenth International Congress on Pure and Applied Chemistry, Paris, France, 16–23 July 1957; application deadline *1 Feb. 1957*.

■ The Association of Official Agricultural Chemists has announced the establishment of the Harvey W. Wiley award for analytic methods. The award honors the memory of the founder of the federal pure food and drug laws, who was also one of the founders of the association.

The $500 award will be presented annually to the scientist or group of scientists who make an outstanding contribution to development of methods of analysis of foods, cosmetics, drugs, feeds, fertilizers, pesticides, and soil, as well as for methods in general analytic chemistry. The first award will be given at the 71st annual meeting of the association in October 1957. All scientists, whether members or nonmembers of the AOAC are eligible for the award.

■ The Atomic Energy Commission has established a program of special fellowships to encourage more students to pursue courses of study in the physical sciences and nuclear engineering. The fellowships are part of the commission's

general program of assistance in the field of education for the purpose of alleviating the shortage of trained nuclear scientists and engineers.

The new program will be administered by the Oak Ridge Institute of Nuclear Studies, under the supervision of the Oak Ridge Operations Office of the commission. The institute now administers the AEC's special fellowships in radiological physics, the special fellowships in industrial hygiene, and the ORINS graduate fellowship program.

Applications will be processed before 1 Mar. 1957. About 150 fellowships, carrying stipends of $1800, plus tuition and dependency allowances, will be awarded to students registered in, or accepted by, a college or university where a program of graduate study in nuclear energy technology has been developed that is comparable to the 1-year course of study at AEC schools. Because of the time required to review applications and select fellows, it is expected that only a limited number of fellowships will be awarded for studies in the current academic year.

Fellowships will be awarded on a 1-year study basis and options to renew them for an additional year will be considered only under special circumstances. The final selection of candidates will be made by a committee of representatives of ORINS and the commission. Details of the program, including the criteria for acceptance of candidates, will be announced later.

■ The National Wildlife Federation has announced that there will be available for the school year 1957–58 a series of graduate fellowships and undergraduate James Hopkins scholarships in conservation education. Application for these fellowships and scholarships must be on file at the office of the National Wildlife Federation, 232 Carroll St., NW, Washington 12, D.C., *by 13 Dec. 1956.* An applicant's research program must have the approval of a director or departmental head of the applicant's university.

The scholarship funds are available to exceptionally well qualified students and may be used for the normal expenses of an undergraduate. The fellowships are designed to support research studies in the field of conservation education. Awards will be made to individuals who can show records of accomplishment in this field and who are qualified for, and preferably accepted for, graduate school studies.

These fellowships and scholarships are supported in part by the sale of the Wildlife stamps issued annually by the National Wildlife Federation, by a permanent grant yielding a limited endowment, and by other income available to the federation, the amount of which cannot be determined before the beginning of the year. Awards granted in the past have ranged from $500 to $1000.

■ The International Academy of Proctology has announced its annual prize contest for 1956–57. The best unpublished contribution on proctology or allied subjects will be awarded $100 and a certificate of merit. Certificates also will be awarded to physicians whose entries are considered of unusual merit. This competition is open to all physicians in all countries, whether or not they are affiliated with the academy. Entries of not more than 5000 words, typewritten in English, must be submitted in quintuplicate, *before 1 Feb.* to the International Academy of Proctology, 147–41 Sanford Ave., Flushing, N.Y.

■ The U.S. Public Health Service has announced that awards of more than $700,000 for a 4-year investigation into the causes of cerebral palsy and mental retardation have been made to the Yale University School of Medicine and to Brown University. These awards mark the beginning of a large coordinated research program which, during the next 10 to 20 years, will attempt to identify factors responsible for such disorders as cerebral palsy, mental retardation, blindness, and deafness.

Brown and Yale universities are the first of a dozen or more institutions that are expected to join in this research program. Yale's grant for the first year is $107,799; Brown is receiving $97,633. Under present plans, more than $1 million yearly will be awarded to medical institutions under the program, which will be conducted by the National Institute of Neurological Diseases and Blindness.

In the Laboratories

■ The Carbide and Carbon Chemicals Company, a division of Union Carbide and Carbon Corporation, has announced plans for a new development laboratory. The facilities, when completed in mid-1958, will bring together a majority of the scientists and engineers now working in the separate buildings of Carbide's development laboratories in South Charleston, W. Va. In recent years, the Chemicals Company has launched an average of 15 new chemicals a year; it also produces plastics and resins marketed by Bakelite, another division of Union Carbide. Last year the two divisions accounted for nearly 50 percent of the corporation's $1.187 billion sales.

The development department, for which the new facilities are being built, is concerned with turning laboratory chemicals into commercial products and in developing feasible industrial processes. Its staff is made up of organic chemists, physical chemists, and chemical engineers. The new center will include a main laboratory building, a high-pressure laboratory building, a plastics pilot scale building, and separate facilities for studies utilizing gamma radiation and radioactive tracers.

■ To consolidate and expand programs of basic research in the fields of chemistry, physics, and nuclear energy, the Mine Safety Appliances Company, Pittsburgh, Pa., has formed a new wholly owned subsidiary, the MSA Research Corporation. The new organization will handle basic research projects for the parent firm as well as for MSA's domestic and overseas subsidiary and affiliated companies. In addition, it will perform similar activities under contracts with government agencies and private industry.

Principal laboratories of the research firm will be at Callery, 30 miles north of Pittsburgh. C. B. Jackson has been selected to serve as vice president and director of research. He has been research director of MSA's operation at its Callery, Pa., plant and of a subsidiary, the Callery Chemical Company.

■ An Air Force contract for $2,229,970 has been awarded to North American Aviation, Inc., by the Air Matériel Command for research to determine the adaptability of new titanium alloys for supersonic aircraft and missiles. This is the first separate titanium research contract ever awarded the company, which has previously done such research as part of its regular airplane production contracts. The work will be done in the firm's Los Angeles plant.

The contract will run for 3 years and will involve the testing and evaluation of new titanium alloys that with heat treatment can reach a tensile strength of 170,000 to 180,000 pounds per square inch. This represents a 40- to 50-percent increase in strength over titanium alloys now in use. The research group hopes to form these new alloys in a soft condition, when they will be as easy to work as present low-strength alloys, and then heat-treat them to get high-strength properties. This technique has been used on steel and aluminum for many years.

■ Construction has begun on the Plum Brook Research Reactor Facility of the National Advisory Committee for Aeronautics, near Sandusky, Ohio. The new facility will be used by NACA in the study of problems of aircraft nuclear propulsion systems. The reactor unit will be staffed and operated by the NACA Lewis Laboratory, of which it is a part.