HORACE W. MAGOUN, professor of anatomy at the University of California in Los Angeles, has received the Jacoby award of the American Neurological Association. He was honored for his work in basic neurology.

REUBEN L. KAHN has retired after 27 years of service to the University of Michigan as professor of serology in the medical school and director of serologic laboratories in the university hospital. Discoverer of the test for syphilis that bears his name, Kahn plans to devote himself full time to research. His interests include the serology of syphilis, a universal blood test which he developed several years ago, and the role of the body tissues in immunity.

COLIN M. MacLEOD, chairman of the department of microbiology at New York University College of Medicine since 1941, has been appointed John Herr Musser professor of research medicine and chairman of that department in the School of Medicine of the University of Pennsylvania. His special fields of interest are infectious diseases, microbial genetics, and immunology. MacLeod succeeds WILLIAM C. STADIE, who retired as emeritus professor on 30 June.

VLADIMIR WALTERS has been named assistant curator of fishes at the American Museum of Natural History, New York. A research associate in the museum's department of fishes since October 1955, Walters completed 2 years of service with the U.S. Army Chemical Corps in May 1956. He is a specialist in the zoogeography of arctic fishes and has conducted research on the climatic adaptation of arctic and tropical plants and animals.

Walters will work on a special project for the Office of Naval Research, investigating the metabolic efficiency of large, fast-swimming marine fishes. The study, which will last about 3 years, is expected to provide further insight into the movements of objects through media of various densities. This use of biological models to study hydrodynamic characteristics may affect the design of future sea and aircraft.

JOHN A. SCHILLING, assistant professor of surgery at the University of Rochester School of Medicine and Dentistry, has been named professor of surgery and chairman of the department at the University of Oklahoma.

The following members of the Columbia University faculty have retired: WALTER H. BUCHER, Newberry professor emeritus of geology; HANS T. CLARKE, professor emeritus of bio-

chemistry; WALTER A. CURRY, professor emeritus of electrical engineering; HENRY E. GARRETT, professor emeritus of psychology; MICHAEL HEID-ELBERGER, professor emeritus of immunochemistry; JOSEPH SCHROFF, William Carr professor emeritus of oral surgery; and ALAN DE FOREST SMITH, professor emeritus of orthopedic surgery.

RICHARD COURANT, head of the graduate mathematics department at New York University and scientific director of the university's Institute of Mathematical Sciences, has been elected to foreign membership in the Royal Netherlands Academy of Sciences and Letters "in view of the great esteem in which he is held by its members."

Another member of the institute staff has also been honored recently. JAMES J. STOKER, Jr., associate director, received the \$5000 Dannie Heineman prize for his two books, Non-Linear Vibrations and Theory of Water Waves. The award committee characterized the two volumes as "outstanding contributions to the field of classical mathematical physics and mechanics."

WILLIAM H. ZACHARIASEN, professor of physics at the University of Chicago, has been appointed chairman of the department. Zachariasen, a specialist in x-ray crystallization, succeeds ANDREW W. LAWSON, professor of physics, whose 3-year term as chairman has expired.

JOHN KIRTLAND WRIGHT, director of the American Geographical Society from 1938 to 1949 and a member of its staff since 1920, retired on 1 July. Wright's many contributions to the field of geography have been recognized by several awards in recent years—the Charles P. Daly medal of the American Geographical Society in 1954, the Patron's medal of the Royal Geographical Society in 1955, and the Outstanding Achievement award of the Association of American Geographers in 1956.

RAYE R. PLATT, who joined the society's staff in 1921 and was for many years associated with its Millionth Map of Hispanic America program, also retired on 1 July. During his long service with the society, Platt edited a number of books in its Special Publications and Research Series and most recently has directed the preparation of a series of geographic handbooks on strategic countries, sponsored by the Office of Naval Research.

DAVID LOWENTHAL, formerly chairman of the department of geography at Vassar College, and WILLIAM WARNTZ, assistant professor of economics and geography at the Wharton

School of Finance and Commerce, University of Pennsylvania, have accepted appointments as research associates on the staff of the American Geographical Society as of 1 July.

RAYMOND K. APPLEYARD, a British physicist; HENRI P. JAMMET, French radiologist; and EIZO TAJIMA, physics professor from Rikkyo University in Japan, have been appointed to serve on the staff of the United Nations Scientific Committee on the Effects of Atomic Radiation. They will do preparatory work on reports submitted by governments for the consideration of the committee at its meeting on 22 Oct.

JOSEPH C. AUB will retire this summer as professor of research medicine, Harvard University; as chairman of the department of medicine, Harvard Medical School; and as director of the medical school's laboratories in the Collis P. Huntington Memorial Hospital. He will become professor of research medicine, emeritus. Aub was one of the first medical investigators to point out that studies of normal cells could lead to an understanding of abnormal cell growth, including cancer.

As a member of the Cancer Commission of Harvard University, Aub directed research in the roles played by glands of internal secretion in the control of cell growth. The commission's activities are primarily centered in the Huntington Memorial Hospital.

Aub's early research (1917-25) in basal metabolism, led to the discovery of the importance of calcium metabolism in lead colic ("painter's colic") and to investigation of the entire problem of lead poisoning and calcium metabolism in man.

As a teacher, Aub is regarded by his colleagues as having great and continuing influence on both medical students and graduate students. His students are to be found in leading academic roles throughout the world.

Recent Deaths

FLOUENCE CROWLEY, Chester, Pa.; 72; design engineer; 30 June.

WINFRED M. HARTSHORN, New York, N.Y.; 82; emeritus professor of pediatrics at the New York Polyclinic Medical School and Hospital; 2 July.

JAMES D. McCLINTOCK, Pound Ridge, N.Y.; 55; mining engineer; 2 July. EDGAR M. MEDLAR, Ithaca, N.Y.;

EDGAR M. MEDLAR, Ithaca, N.Y.; 69; principal pathologist for the New York State Tuberculosis Service at Herman Biggs Hospital in Ithaca; research expert on tuberculosis; 30 June.

OSCAR G. MELCHIOR, Ridge-wood, N.J.; 58; mechanical engineer;

foreign projects manager for M. W. Kellog Company; 1 July.

CARL T. SCHWARZE, Greer, S.C.; 78; emeritus professor of civil engineering at New York University; 28 June.

HOMER R. SEELY, Woodbury, N.J.; 58; civil engineer; 23 June.

JOSEPH F. TAYLOR, Rochester, N.Y.; 67; chairman of the board and former president of the Bausch & Lomb Optical Co., 13 June.

EMANUEL WALDINGER, Old Saybrook, Conn.; 57; former medical director of the Saybrook Rehabilitation Center; 30 June.

PHILIP ZENNER, Cincinnati O., 104; professor emeritus of neurology at the University of Cincinnati; 25 June.

Education

- The Carnegie Corporation of New York has awarded \$277,000 to the University of Illinois Committee on School Mathematics so that it may continue its work of devising a new mathematics course for the four high-school years, preparing classroom materials and teachers' manuals, and conducting teacher training courses on new teaching techniques to be developed. The 4-year-old program, in which mathematics is treated as an integrated body rather than as a group of isolated courses, is directed by a committee composed of representatives of the colleges of education, engineering, and liberal arts and sciences at Illinois. Its staff is already experimenting with curriculum changes for highschool freshman, sophomore, and junior classes, and is testing new materials in five different high schools in Illinois and Missouri, with the cooperation of 14 teachers and almost 500 students.
- The department of natural sciences of Hofstra College has announced that in September the department of geology will become the department of geology and geography. Roger H. Charlier, now acting chairman of the department of geology, will become chairman of the new department.
- A recent innovation at the Worcester Foundation for Experimental Biology, Shrewsbury, Mass., has been its Summer Science Program for high school students. This involves a collaborative arrangement with St. Marks School in Southboro, Mass., wherein selected students are lodged at the school for a 10-week term.

An intensive course of lectures and laboratory work in chemistry and biology is given to a junior group in the first summer. In a second summer the group which has had the first summer's work is assigned to the foundation laboratories for work on specific research problems. This is part of a program designed to interest secondary school students in a scientific career.

Grants, Fellowships, and Awards

- The John A. Hartford Foundation has granted \$159,000 to the New York University—Bellevue Medical Center to support studies of pancreatitis, a disease that, in acute form, has a mortality rate of about 50 percent.
- The first payment by the Ford Foundation under its endowment program to help raise faculty salaries was made the first week in July. Six hundred thirty colleges and universities received checks totaling \$130 million, which is half of the total grant. The program includes all 4-year regionally accredited, privately supported colleges and universities that offer degrees in the liberal arts and science or bachelor's degrees in professional fields. In a second program, 126 of these institutions will receive accomplishment grants as well.
- The Philadelphia College of Physicians and Surgeons has awarded the 1956 Alvarenga prize to G. N. Papanicoloau, Cornell University Medical College, for his work in the early detection of cancer. Pedro Francisco DaCosta Alvarenga of Lisbon, Portugal, established the prize to be awarded yearly on the anniversary of his death, 14 July 1883.
- The Population Council, Inc. of New York is offering fellowships for advanced training in the study of population at the predoctoral and postdoctoral levels. Fellowships are available for study both in the United States and abroad; the awards will be divided between students from the United States and those from other countries. An applicant may select his own university.

Fellows will normally receive support for full-time study for a period of 1 year. The basic stipend of \$2500 per year may be supplemented to provide for maintenance of dependents, and especially in the case of foreign students, for travel and exceptional expenses. The amount may be diminished in accordance with lesser need or partial support from other sources. Somewhat larger stipends may be granted to postdoctoral than to predoctoral fellows.

Preference will be given to candidates who are not over 40 years of age. Applications for 1957–58 should be received before 1 Mar. 1957. Requests for further information and for application forms should be addressed to the Population Council, Inc., 230 Park Ave., New York 17, N.Y.

■ The American Academy of Arts and Sciences invites applications for grants from its Permanent Science Fund. Awards are made in support of research in any field of science whatsoever in amounts that ordinarily do not exceed \$1500. Applications for grants to be made in the early fall should be filed by 1 Sept. on forms available from the Chairman, Permanent Science Fund Committee, American Academy of Arts and Sciences, 77 Massachusetts Ave., Cambridge 39, Mass.

Special consideration will be given to projects on new frontiers of science; those that lie between, or include, two or more of the classical fields; and those proposed by investigators who may be on the threshold of investigational careers or who are handicapped by inadequate resources and facilities. The committee does not ordinarily approve grants for research the results of which constitute partial fulfillment of requirements for an academic degree.

- The Research Corporation has granted \$247,775 for basic research in science to 72 colleges and universities in the United States and three in Canada. The corporation, which was established in 1912 by F. G. Cottrell, has distributed a total of \$8.5 million.
- New York University has received a grant of \$70,000 from the Rockefeller Foundation in support of a study of public attitudes toward science reporting. The project, which is an extension of a pilot study begun last year, is jointly sponsored by the university and the National Association of Science Writers.
- Forty fellowships for graduate students specializing in services for the blind have been established by Columbia University and the New York Guild for the Jewish Blind. Recipients will get \$1200 for each of 2 years of study. They will be enrolled at the university's New York School of Social Work and will attend workshop classes at the guild center. The \$96,000 program is to be offered over a 5-year period beginning this fall, when six students will be admitted to study under the plan.

In the Laboratories

■ The formation of the first scientific organization in the United States designed expressly to conduct research and development in interplanetary space travel has been announced by John L. Barnes, president of the newly established Systems Laboratories Corporation, Los Angeles, Calif. Barnes is a professor of engineering at the University of California, Los Angeles. The corporation has been