NEWS and Notes

M. F. Ashley Montagu has resigned as associate professor of anatomy at Hahnemann Medical College, Philadelphia, to become chairman of the newly created Department of Anthropology at Rutgers University, New Brunswick, New Jersey, effective July 1.

James F. Bonner, professor of biology at the California Institute of Technology, has been elected president of the American Society of Plant Physiologists. He succeeds **Donald B. Anderson,** North Carolina State College.

Theodore L. Althausen, professor of medicine at the University of California Medical School, will spend six months at the Walter and Eliza Hall Institute for Medical Research at the Royal Melbourne Hospital in Australia. Dr. Althausen will conduct research in diseases of the liver and disturbances of intestinal absorption.

William Walter Greulich, professor of anatomy at Stanford University, has been appointed executive head of the Department of Anatomy to succeed **Charles Haskell Danforth,** who is retiring at the expiration of the academic year.

Hans Ris, associate in physiology at the Rockefeller Institute, has been appointed a professor in the Department of Zoology at the University of Wisconsin.

Douglas M. Whitaker, dean of graduate study at Stanford University, will attend, under the auspices of the Rockefeller Foundation and the U. S. Military Government, a series of conferences in Germany on German universities. Dr. Whitaker will serve as consultant on teaching and research in the biological sciences.

Lee E. Farr, director of research and physician-in-chief of the Alfred I. du Pont Institute of the Nemours Foundation in Wilmington, Delaware, has been appointed head of the Medical Department at Brookhaven National Laboratory.

Visitors

Recent visitors at the National Bureau of Standards included: **Lars Gunnar Sillen,** research associate, University of Stockholm, Sweden; **Douglas R. Hartree,** research associate, The Cavendish Laboratories, Cambridge, England; **T. H. Morton,** of Cortaulds Limited, England; **Herman Bertling Hederra,** professor of applied seismology, University of Chile, Santiago; **Tong H. Ahn,** director, National Central Research Laboratory, Korea.

Julio Enrique Toral, pediatrician at the School of Medicine of the University of Cuenca, Ecuador, after a brief visit to Washington, D. C., will make a tour of medical schools and centers throughout the country to confer with colleagues in his field.

Yngve Ohman, of the Stockholm Observatory at Saltsjobaden, Sweden, holds a research associate appointment at the High Altitude Observatory of Harvard University and the University of Colorado at Boulder. Dr. Ohman will continue his research at the observatory until October.

Grants and Awards

The 1949 Gold Medal of the American Society for Metals will be presented to Edgar C. Bain, vice president of Carnegie-Illinois Steel Company, on October 20, during the 31st National Metal Congress and Exposition.

The $1,000 Eli Lilly Award in Biological Chemistry has been granted to Irving M. Klotz, associate professor of chemistry at Northwestern University. Dr. Klotz is being honored for his research on proteins. The award will be presented on September 19, at the Atlantic City meeting of the American Chemical Society.

The Geological Society of South Africa has extended an invitation of membership to George B. Barbour, dean of the College of Liberal Arts at the University of Cincinnati. The society is honoring Dr. Barbour for his research in South Africa on prehistoric man.

The 1949 Award of Merit of the American Hospital Association was granted to Claude W. Munger, former director of St. Luke's Hospital in New York. Dr. Munger is a former president of both the association and the American College of Hospital Administrators.

The Francis J. Clamer Medal of the Franklin Institute of Pennsylvania has been awarded to William Hume-Rothery, lecturer in metallurgical chemistry at Oxford, in recognition of his work in determining and interpreting the structure and behavior of metallic equilibrium systems.

Fellowships

Five $1,500 predoctoral fellowships for the study of the applications and implications of atomic energy are available at the University of Michigan for 1949–50. Applications will be accepted through *August 15* and appointments will be made by September 1. Appropriate research for the fellowships should fall into one of the following divisions: the use of radioactive isotopes in biological, physical, and engineering sciences; the physical, mathematical, or chemical aspects of nuclear theory; the social, philosophical, legal, or economic aspects of nuclear energy; and educational needs of this field. Inquiries may be addressed to Dean Ralph A. Sawyer, Horace H. Rackham School of Graduate Studies, University of Michigan, Ann Arbor, Michigan.

The Department of Biology of Emory University, Georgia, has inaugurated a graduate program in biology involving advanced studies and research leading to the Ph.D. degree. The program represents an enlargement of the graduate program of studies leading to the M.A. degree, which has been offered in biology at the university for 30 years. Special emphasis will be

placed on cellular biology. Two nine-month fellowships for Ph.D. candidates are available, one of $1,200 and another of $1,000. Several fellowships and assistantships with stipends of $900 are available at the M.A. level.

The National Research Council's Committee on Growth, acting for the American Cancer Society, is accepting applications for grants and fellowships. Applications for new grants in cancer research are acceptable until *October 1.* Investigators now receiving grants will be notified regarding applications for extension. Final decisions on applications will be made in most cases soon after February 1, 1950, and grants approved at that time will become effective July 1. Fellowship applications may be submitted at any time. Those received prior to November 1 will be acted upon by the committee in December, those received between November 1 and March, in April. Fellowships will begin July 1, 1950, unless otherwise indicated by the applicant. Communications should be addressed to the Executive Secretary, Committee on Growth, National Research Council, 2101 Constitution Avenue, Washington 25, D. C.

Colleges and Universities

Columbia, Harvard, Princeton, and Yale Universities will receive $150,000 each for scientific education and research during the academic year 1949–50 under the first distribution of the $34,000,000 Eugene Higgins Scientific Trust.

At Columbia, the largest single allocation of the initial grant will be used for work on nuclear, atomic, and molecular physics in the Pupin Laboratories, and at the new cyclotron plant at Nevis. The Harvard program will include expansion of basic research projects in medicine and dental medicine. Princeton's Departments of Science and Engineering will use the funds for support and expansion of research projects in physical and analytical chemistry, and chemical and electrical engineering. The Yale grant will be applied to fields of medical research, including a major project in microbiology.

The Higgins Scientific Trust was established by the late Eugene Higgins, son of a pioneer textile manufacturer. Benjamin Strong, president of the United States Trust Company of New York, is chairman of the board of control, which is composed of the presidents of the four beneficiary universities.

Ohio State University has received a gift of $9,000 from the Edward Orton, Jr. Ceramic Foundation for research in ceramic engineering. The study will be conducted by H. G. Wolfram, former vice president of Pemco Corporation, Baltimore, Maryland, manufacturers of porcelain enamels, who will join the university's Department of Ceramic Engineering as research associate.

Meetings and Elections

The American Institute of Chemical Engineers will hold a regional conference in Montreal, Canada, September 6–9. The program will include discussion of Canadian natural resources, the economic significance of Newfoundland, the development of water power, and the aluminum industry. Papers on oil technology and metallurgy will also be presented. A complete program can be obtained from the American Institute of Chemical Engineers, 120 East 41st Street, New York City 17.

Thermodynamics in physical metallurgy will be the subject of a two-day symposium, sponsored by the American Society for Metals, to be held October 15–16 in Cleveland's Public Auditorium preceding the opening of the 31st annual National Metal Congress and Exposition, October 17–21. Clarence Zener, professor of physics, Institute for the Study of Metals, University of Chicago, is chairman of the symposium series and will speak on the "Contributions of Statistical Mechanics" during the morning session, October 15. Among the other participating scientists are P. W. Bridgman, Hollis Professor of Mathematics, Harvard University; A. W. Lawson, associate professor of physics, Institute for the Study of Metals, University of Chicago; John Chipman, professor and head of the Department of Metallurgy, Massachusetts Institute of Technology; and Frederick Seitz, professor and head of the Department of physics, Carnegie Institute of Technology.

A symposium on small angle X-ray scattering will be held at the University of Missouri in Columbia, on October 21 and 22. Contributed papers will be welcomed. The tentative schedule thus far includes papers by R. D. Dragsdorf, A. Heyn, P. J. Kaesberg, P. C. Sharrah, G. Vineyard, and K. L. Yudowitch. On October 21, P. Debye, of Cornell University, will give an O. M. Stewart Lecture on "The Interpretation of Scattering Experiments in Terms of Structure," in which he will include references to recent work on light scattering. Those who are interested in attending the symposium or in presenting a contributed paper should write to Prof. George H. Vineyard, Department of Physics, University of Missouri, Columbia.

The 96th convention of the Electrochemical Society will be held at the La Salle Hotel, Chicago, October 12–15. Symposia on electrodeposition, corrosion, and organic electrochemistry, and special round table sessions on batteries and organic electrochemistry are being scheduled. Additional information may be obtained by writing to Henry B. Linford, Secretary of the Electrochemical Society, 235 West 102nd Street, New York 25.

The annual meeting of the **American Society for the Study of Arteriosclerosis** will be held November 5–7 at Hotel Knickerbocker, Chicago. Information may be obtained from Cowles E. Andrus, Program Chairman, 24 East Eager Street, Baltimore, Maryland.

The Annual Conference of Midwestern Parasitologists elected the following officers for 1949–50 at its first conference, held at the University of Wisconsin June 20–21: presiding officer, R. V. Bangham,

Wooster College; secretary-treasurer, R. J. Porter, University of Michigan.

Autocorrelation. Because of the extensive interest in uses of autocorrelation analysis for scientific problems, the Woods Hole Oceanographic Institution organized a symposium for the Office of Naval Research on June 13 and 14. The purpose of the conference was to present and interpret results of applications of the relatively new and powerful method of autocorrelation analysis of finite amounts of data. Since the applied mathematician has the job of solving the problem as it comes to him from nature, he must generally modify the mathematical methods he proposes to use in such a fashion as to fit the data. For instance, in the case of time records of natural phenomena, the resulting time series is not stationary, its mean is usually not zero, and the series is seldom long enough to be considered infinite. Consequently, experimentation with theoretical mathematical procedures is essential if the resulting representation is to possess physical significance. It is, for instance, the application of certain mathematical procedures to time series analysis, where the theoretical conditions are not fulfilled, that has resulted in claims of a bewildering variety of periods or cycles which cannot be substantiated.

The underlying concept of autocorrelation analysis is that the behavior of a physical phenomenon, and of the dynamics causing it, is directly associated with the problem of predicting the future course of a time series from its past behavior. Also, the distance into the future which the phenomenon may be accurately forecasted gives an indication of the amount of dynamics associated with the phenomenon itself. This procedure is to be distinguished from one in which a mathematical theory is set up, as, for instance, that obtained by application of periodogram or Fourier series analysis to time series, but which will have a physical significance only if it can be extrapolated into the future.

Autocorrelation analysis is employed both as a prediction mechanism and as a means of generalized harmonic analysis. The correlogram and the Fourier transform of the autocorrelation functions into power spectra serve to describe finite amounts of basic data by measuring the physical properties of period, amplitude and damping coefficients. It can be shown that the autocorrelation function may be obtained from the spectrum of the series, and the spectrum may also be obtained from the autocorrelation function.

Edwin B. Wilson acted as chairman during the two-day session at Woods Hole. Papers were given by Edwin B. Wilson, Y. W. Lee, David Middleton, G. P. Floyd, John W. Tukey, Philip Rudnick, A. T. McNish, George P. Wadsworth, Carl Eckart, and H. R. Seiwell. The proceedings were recorded and are in process of editing for publication.

H. R. SEIWELL

Committee of the National Academy of Sciences on the Investigation of Cortisone. The recent publication by Hench, Kendall, Slocumb, and Polley of the dramatic effectiveness of the adrenal cortical steroid, Cortisone (first isolated by E. C. Kendall), in the treatment of rheumatoid arthritis has posed an important problem of distributing the very limited amount of that substance which will be obtainable during the remainder of this year. Originally obtained from the cortex of the adrenal gland, it is now being prepared synthetically from a bile acid. While the value of Cortisone in controlling the symptoms of rheumatoid arthritis is regarded as established, much remains to be learned concerning its possible untoward effects, its usefulness in other diseases, and the mechanism of its action. It has been decided, therefore, that the small amount which can be made during the last five months of 1949 shall be used only for clinical and experimental research. It will be made available to those investigators who are in the best position to provide the information vitally needed to insure its safe and effective use.

The Research Corporation, a nonprofit organization which administers patents in the interest of public welfare and for the furtherance of scientific research, has aided in the development of the synthetic processes for making Cortisone. The corporation will continue to further the development of these processes and to stimulate research on the mechanisms of action of the compound. In fulfilling these functions, the Research Corporation has requested the president of the National Academy of Sciences to appoint a Committee on Investigation of Cortisone, with assurance that its recommendations will be accepted as final with respect to all of the available 1949 supply.

The membership of the committee, appointed with the sanction of the Council of the Academy, is as follows: Chester S. Keefer, chairman; Hans T. Clarke, E. A. Doisy, Robert F. Loeb, C. N. H. Long, E. K. Marshall, Jr., Joseph T. Wearn. David E. Price has been appointed by the Acting Surgeon General to act as liaison between the committee and the U. S. Public Health Service.

The committee is planning arrangements designed to utilize to the fullest possible extent the resources of the National Research Council and the information and advice of experienced and competent investigators in the United States and Canada. Not only will the fields of rheumatism and other diseases for which relief may be anticipated continue to be investigated, but also fields of physiology and pharmacology which are basic to fuller understanding and further advance.

While the Academy has no funds with which to buy Cortisone or to support investigations, it is confidently expected that the needed funds will become available from both public and private sources.

The Academy committee has accepted this responsibility because of the deep conviction that a new discovery of the greatest importance to the health and welfare of countless people has been made and that it is vital to promote its most rapid

and intelligent development.

Applications for a supply of Cortisone must be submitted on a form that can be obtained from the chairman of the committee, Dr. Chester S. Keefer, 2101 Constitution Avenue, Washington 25, D. C. It must be emphasized that consideration will be given only to requests from institutions where adequate facilities for investigation and clinical control are available.

The Atomic Energy Commission has announced that cyclotron-produced radioisotopes are to be made available to U. S. researchers, to augment the present distribution of isotopes produced by the Oak Ridge pile. Although the pile far surpasses the cyclotron in quantity production, the cyclotron produces a wider variety of isotopes. Because no one laboratory can satisfy the demand without seriously interfering with its research program, arrangements for irradiation will be made with a number of institutions.

The initial group will include the Massachusetts Institute of Technology, the University of Pittsburgh, Washington University at St. Louis, and the Crocker Radiation Laboratory at the University of California. The Department of Terrestrial Magnetism of the Carnegie Institution will participate in the general program.

Processing of irradiated targets will be carried out by the Oak Ridge National Laboratory, in facilities already provided for handling reactor-produced isotopes, and the commission's Isotopes Division will handle allocation. Cyclotron-produced isotopes are relatively costly and the commission will subsidize the program to some extent. All isotopes are made available free of production charges for cancer research.

At first only isotopes having half-lives of more than thirty days will be distributed. Included in this group are: 43-day beryllium 7, 3-year sodium 22, 44-day iron 59, 4-year iron 55, 250-day zinc 65, 90-day arsenic 63, and 56-day iodine 125. Others will be added later.

Distribution under the new program will be limited to the U. S. because cyclotrons are in operation in many other countries and the isotopes they produce are more readily available abroad than pile-produced isotopes.

Judges in the **Third Annual International Photography-in-Science Salon** were announced today by *The Scientific Monthly*, which, in cooperation with the Smithsonian Institution, sponsors this annual contest. Merle A. Tuve, of the Carnegie Institution, will be the judge for the physical sciences; Ronald Bamford, of the Department of Botany, University of Maryland, for the biological sciences; A. A. Teeter, recently of Charles Pfizer & Company, New York City, for chemistry; Emanuel Krimsky, of Polyclinic Hospital, New York City, for the medical sciences; and Alexander J. Wedderburn, of the Graphic Arts Division, Smithsonian Institution, for photography.

Entries in the competition, which was established to encourage and extend the use of photography as a basic research tool, will be received by the Editor of *The Scientific Monthly*, 1515 Massachusetts Avenue, N.W., Washington, D. C., from August 24 to September 14, 1949.

First, second, and third awards and five honorable mentions will be given in each of two divisions, black-and-white and color. The Judging Committee will consider the initiative, originality, and results obtained more than the composition and pictorial quality. All photographs must be taken for scientific purposes.

The prints selected for awards and display will be shown at the U. S. National Museum during October 1949, and at the New York Meeting of the AAAS, December 26–31, 1949. They will then go on a tour of important scientific institutions in this country and abroad.

A contribution to the CARE book program to replace scientific, professional, and technical books lost during the war years in Europe and Asia (see *Science*, July 22, p. 106) has been proposed in bills S. 1998 and H. R. 5186, recently referred to the Senate Armed Services Committee and the House Foreign Affairs Committee. The contribution is to be in an amount equal to a fund which was created during the war out of wages earned by conscientious objectors, working on farms and in hospitals. The wages were paid to the Treasury, where they were kept in a special deposit until the end of the war. On March 7, 1947, the fund, totaling $1,245,-018, was listed as miscellaneous receipts by the Treasury and technically, therefore, no longer existed as a separate fund. The Comptroller General ruled that the payments belonged to the United States but, since they were not collected from taxes, the Treasury Department indicated no objection to the appropriation of the fund for relief purposes, which is the preference expressed in an informal poll among the men whose earnings created the fund. In 1949 the National Service Board for Religious Objectors, after examination of the CARE Book Program, requested the use of this fund for replacement of war-destroyed books, as provided in the proposed legislation.

Recently Received—

Clinical Problems of Advancing Years. (Symposium presented by Smith, Kline & French Laboratories.) Smith, Kline & French, Philadelphia 1, Pa.

Our Dwindling Resources (articles relating to scientific conservation of America's resources as reprinted from *Monsanto Magazine*). Monsanto Chemical Company, St. Louis 4, Mo.

Hybrid Corn (Maize) in Theory and Practice by Gordon Haskell. John Innes Horticulture Institution, Merton Park, London, S.W.19, England. $1.00.

Make Plans for—

Meteoritical Society, 12th annual meeting, September 6–7, University of Southern California, Los Angeles.

American Psychological Association, September 6–10, Shirley Savoy Hotel, Denver, Colorado.

Biological Photographic Association, 19th annual meeting, September 7–10, Hotel Cleveland, Cleveland, Ohio.