Nolan D. C. Lewis will be chairman, and various aspects of the subject will be discussed by Drs. Detlev W. Bronk, Ernst Gellhorn, R. W. Gerard, Harold E. Himwich, Hudson Hoagland and S. Bernard Wortis. Besides discussion of the papers it is hoped that there will be time for short reports by others present. Those wishing to present such a report should inform Dr. Lewis or Dr. Elliott before the meeting.

ALL meetings of the British Astronomical Association have been postponed until further notice.

THE International Association for Dental Research celebrated on December 10 its twentieth anniversary at the St. Moritz Hotel, New York. Wilmer Souder, of the National Bureau of Standards; Dr. William J. Gies, of Columbia University, president and founder of the association, respectively, and Brigadier General L. C. Fairbanks addressed the meeting.

IT is announced that requests to the National Research Council Committee for Research in Endocrinology for aid during the fiscal period from July 1, 1941, to June 30, 1942, will be received until January 31. Application blanks may be obtained by addressing the Division of Medical Sciences, National Research Council, 2101 Constitution Avenue, Washington, D. C. In addition to a statement of the problem and research plan or program, the committee desires information regarding the proposed method of attack, the institutional support of the investigation and the uses to be made of the sum requested. No part of any grant may be used by the recipient institution for administrative expenses. Applications for aids of endocrine research on problems of sex in the narrower sense can not be given favorable consideration, but the committee will consider support of studies on the effects of sex hormones on non-sexual functions—*e.g.,* on metabolism.

THE Board of Directors of the Josiah Macy, Jr. Foundation, founded by Mrs. Walter G. Ladd in memory of her father, held on November 19 its annual meeting making the tenth anniversary of the official operation of the foundation. Two new members were elected: Clarence G. Michalis and Nelson Macy, Jr. Other members of the board are Robert E. Allen, S. Bayne-Jones, Charles S. Burwell, John Dewey, Harry Emerson Fosdick, Ludwig Kast, Dave H. Morris, Lawrence Morris, Willard C. Rappleye, Dean Sage, Paul H. Smart, Edwin S. S. Sunderland and Samuel Trexler. The following officers were elected: the Honorable Dave H. Morris, *Chairman of the Board;* Dr. Ludwig Kast, *President;* Robert E. Allen, *Treasurer,* and Edwin S. S. Sunderland, *Secretary.* Other officers of the foundation are Lawrence K. Frank, *Vice-president,* and Dr. Frank Fremont-Smith, *Director of the Medical Division.* At the meeting the sum of $50,000 was appropriated in support of research bearing on health problems affecting national defense. Last year $135,000 was appropriated, and during the entire period of ten years, the sum of $1,500,000 has been granted to institutions in the United States and in other countries for research in the field of medicine and health care. Support of work in foreign countries, owing to the international situation, was discontinued a year ago.

NORTHWESTERN UNIVERSITY has received $635,000 from the estate of the late Dr. John S. Appleman. Of this sum $135,000 is restricted to the use of the clinics of the Medical School. A gift of $162,000 has also been received from the Clara A. Abbott trust for the advancement of medical, chemical and surgical science.

AN agreement was signed on December 3 between New York City and the American Museum of Health for the establishment of a permanent health museum in the Medicine and Public Health Building on the grounds of the New York World's Fair in Flushing Meadow Park. Dr. Louis I. Dublin, chairman of the board of the American Museum of Health, and Park Commissioner Robert Moses signed the contract, which provides that the museum will coordinate policies with the Department of Health and the Board of Education to provide instruction in matters of public health. Alterations to the existing structure will be completed on May 1. The American Museum of Health was incorporated in 1937 with George McAneny as president; Frederick Osborn, vice-president, and Sam A. Lewisohn, treasurer. Homer N. Calver will be in charge of the museum.

OWING to reduction in income and shortage of paper, the Scottish *Geographical Magazine* has been compelled to reduce its size and the number of issues per annum. It is hoped to publish annually three issues of forty-eight pages each. It was also found necessary to dispense with the services of a paid editor. J. F. Stewart, a member of the council of the society, has undertaken the honorary editorship in the meantime.

DISCUSSION

COLLECTING PELAGIC FORAMINIFERA

DURING the last few years rather intensive work in submarine geology has been conducted at the Woods Hole Oceanographic Institution under the direction of Henry C. Stetson. In connection with this work study of the Foraminifera contained in the bottom sediments

taken from the western North Atlantic has been undertaken by Dr. Joseph A. Cushman, Miss Frances L. Parker and the writer. The immediate purpose of this study has been twofold: first, to determine the distributions, according to depth, temperature, etc., on the continental shelf and slope; and second, to use these data as a yardstick in interpreting environments represented by faunas occurring in sediments of submarine cores and tows. This latter applies directly to the Pleistocene history of the North Atlantic. Another purpose in pursuing such a study is that the data obtained on foraminiferal ecology may be used in interpretation of certain marine sediments of Cretaceous and Cenozoic age.

In submarine cores collected from the continental slope and basin of the western North Atlantic there occurs a fauna of Arctic type, beneath the warm temperate fauna occurring in the sediments at the surface of the ocean bottom. This Arctic fauna is of Pleistocene age and represents different oceanic conditions than those obtaining to-day. In order to interpret accurately the environmental conditions represented by such a series of faunas found in the cores it is necessary to know the ecologic conditions under which the animals live. It is known from the records of the expeditions of the *Challenger, Meteor* and others, that certain species are pelagic in habitat, particularly of the families Globigerinidae and Globorotalidae. It is generally assumed that all other species are bottom-living, and in the case of species having arenaceous tests this must certainly be true. Relatively little other pertinent information appears to have been recorded.

The impression that living pelagic Foraminifera are now rare or almost absent in the waters of the western North Atlantic seems to have gained headway in recent years. This is due to the fact that they have not been observed to occur in plankton tows, especially in the experience of the biologists at the Woods Hole Oceanographic Institution who are doing intensive work on the plankton from the area in question. It is true that most of this plankton is being collected for other purposes and the nets are too coarse to retain Foraminifera. Moreover, preservation of plankton in formalin dissolves the calcium carbonate tests of Foraminifera, due to the acid nature of this preservative. The procedure used in the treatment of phytoplankton, which is collected in fine mesh nets, is even more radical in the use of acid, and under these conditions no calcium carbonate test could possibly survive solution.

During a short cruise of the research ship *Atlantis* made during the early part of August, 1940, the writer successfully collected Foraminifera in zooplankton tows. The tows came from the surface waters above the upper half of the continental slope between north latitudes 37 and 39 degrees. Four samples were taken with fine mesh silk nets of the type ordinarily used for the collection of diatoms (about 150 strands to the inch) at depths of 30, 40 and 50 meters at noon, early evening, midnight and early morning. The content of Foraminifera was relatively small in proportion to the amount of plankton obtained, being a maximum of about 100 specimens in approximately 5 cc of plankton. This material was placed in a 70 per cent. solution of alcohol, which coagulates the protoplasm and does not affect the calcareous test. In the laboratory the material was examined suspended in water after the sample had been washed and the amount of fluid reduced to a minimum.

The species obtained in these tows are *Globigerinoides rubra, G. sacculifera, G. aequilateris, Globigerina bulloides, G. inflata, G. dubia* and *Orbulina universa. Globigerinoides rubra* was by far the most common species, and several specimens of this species retained long, delicate spines protruding from the test (never preserved in bottom samples), in many cases the length of these spines is about three times the diameter of the test. In a great many the coagulated protoplasm was observed protruding from the aperture or partially surrounding the test. In other cases the protoplasm was discovered inside the test after breaking the shell with a dissecting needle. The specimens of *Globigerina dubia* were reddish brown in color; some of these were mounted in tragacanth glue and were white when dry.

Using this technique it will be possible to check the vertical and areal distribution of pelagic Foraminifera and a beginning on this work in the western North Atlantic is planned for the near future. Quantitative and seasonal collecting should give data on the present rate of accumulation of foraminiferal deposits in bottom sediments. These are some of many problems pertaining to the general ecology of the Foraminifera which need extensive study.

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ON THE SPECIFICITY OF RENIN

IT has been found that by the action of the kidney protein renin on a blood globulin a thermostable pressor substance is formed (angiotonin[1]), or hypertensin.[2, 3, 4] Crystalline derivatives of this substance

[1] I. H. Page and O. M. Helmer, *Jour. Exp. Med.*, 71: 29, 1940.
[2] E. Braun-Menendez, J. C. Fasciolo, L. F. Leloir and J. M. Muñoz, *Rev. Soc. Arg. Biol.*, 15: 420, 1939.
[3] J. M. Muñoz, E. Braun-Menendez, J. C. Fasciolo and L. F. Leloir, *Nature*, 144: 980, 1939.