

ported observing directly an isotope of element 102 with a half-life of 10 minutes and emitting alpha particles of 8.5 Mev. They bombarded curium 244 with carbon 13 nuclei in the Stockholm cyclotron. The energy range of the carbon nuclei was from 80 to 100 Mev and averaged 90 Mev. Working under very difficult conditions, the international group said they observed small amounts of element 102 activity in 12 out of 50 bombardments.

Ghiorso said the Berkeley group had attempted to duplicate this reaction, with a curium target of the same composition. Their beam of bombarding carbon nuclei was about 10 times as intense. They made many attempts to produce the reported activity, using beams of particles of 90 Mev and also particles varying over a wide energy range (60 to 100 Mev). All of the efforts were unsuccessful.

Academy Oceanography Committee

The National Academy of Sciences-National Research Council has formed a Committee on Oceanography whose primary purpose is to promote the future development of oceanography in the United States. The committee is sponsored by the Office of Naval Research, the Atomic Energy Commission, and the U.S. Fish and Wildlife Service. Harrison Brown of California Institute of Technology is chairman.

The committee has organized six panels to examine particular areas: the Panel on New Research Ships, Columbus Iselin, chairman; the Panel on New Devices for Exploring the Ocean, Allyn Vine, chairman; the Panel on Radioactive Waste Disposal at Sea, Roger Revelle, chairman; the Panel on International Cooperation in the Marine Sciences, Athelstan Spilhaus, chairman; the Panel on Ocean Resources, Robert Snider, chairman; and the Panel on Basic Research in the Marine Sciences, Alfred Redfield, chairman.

The committee is attempting, with the assistance of the panels (i) to formulate recommendations concerning a long-range national policy with respect to oceanography; (ii) to assist in all possible ways in increasing both the quantity and quality of basic research in the marine sciences; and (iii) to advise specific government agencies concerning those problems which involve the marine sciences. It is attempting to produce a preliminary report sometime during the summer.

The committee would welcome comments and critical examination of its activities. Interested persons should write to the chairman; the executive secretary, Richard C. Vetter; or to any one of the

panel chairmen. The committee intends to keep marine scientists informed of its progress.

Pastore-Durham Bill Opposed

The national council of the Federation of American Scientists has released a statement opposing the Pastore-Durham Bill (S 3474 and HR 11926), which was introduced in Congress to facilitate the cooperation of the United States with certain of its allies in the field of atomic weapons. The FAS Council questions whether the proposed bill will contribute to the security of the United States, saying:

"It is generally recognized that an atomic stalemate now exists in the sense that total war would, in all likelihood, result in the destruction of all major powers engaged in such a war. . . . It would appear to be obvious that the greater number of nations coming into possession of atomic weapons, the more precarious becomes the stalemate. . . .

"We believe that the Congress and therefore the people should not delegate their responsibility in such matters to the administration. We feel that the U.S. should negotiate with other nations individual agreements concerning the transfer of nuclear weapons material and the exchange of restricted data; this can be done under the existing regulations of Section 121 of the Atomic Energy Act of 1954. These regulations require positive action of Congress as well as action of the Administration. We are strongly opposed to the Pastore-Durham bill which would, in effect, permit the Administration to make such arrangements without debate. It seems to use that the passage of this bill would be an irrevocable step which is likely to jeopardize our long-range goal of true security through worldwide, enforced disarmament.

Soviet Education Survey

The U.S. Department of Health, Education, and Welfare has announced that a survey of education inside the Soviet Union, the first Government-sponsored study of this kind, is being made by a team of 10 United States educators. The study team, headed by U.S. Commissioner of Education Lawrence G. Derthick, left for the U.S.S.R. on 6 May and will return around 10 June.

The survey has been made possible by the agreement of 27 January 1958 between the governments of the United States and the U.S.S.R. on exchange of missions in cultural, technical, and educational fields. Several technical and cultural missions have been exchanged, but

this is the first time that an official group from America representing a cross-section of education will have visited the Soviet Union to observe various aspects of Soviet education. A group of Soviet educators will make a similar study of education in the United States at a later date.

In addition to Derthick, the team includes: Herold C. Hunt, Eliot professor of education, Harvard University, and former Under Secretary of Health, Education, and Welfare; Harry C. Kelly, assistant director for scientific personnel and education, National Science Foundation; A. John Holden, Jr., State Commissioner of Education, Vermont; Henry Chauncey, president, Educational Testing Service; George Z. F. Bereday, associate professor of education, Columbia University; and four members of the U.S. Office of Education staff, John R. Ludington of the Secondary Schools Section, Lane C. Ash, of the Division of Vocational Education, John B. Whitelaw of the Teacher Education Section, and Helen K. Mackintosh of the Elementary Schools Section.

BCG Vaccination

After weighing the advantages and disadvantages of BCG (*bacille Calmette-Guérin*) vaccination, an ad hoc committee of the Surgeon General of the United States reported recently that: "It is believed that the advantages of vaccination outweigh the disadvantages for tuberculin negative persons who are exposed to a definite risk of infection, especially if they cannot be retested frequently with tuberculin." The committee recommended BCG vaccination for those groups named by the American Trudeau Society, the American College of Chest Physicians, the American Medical Association, and the Medical Advisory Committee of Research Foundation.

The American Trudeau Society list of groups includes: (i) doctors, medical students, and nurses who are exposed to tuberculosis; (ii) all hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis; (iii) individuals who are unavoidably exposed to infectious tuberculosis in the home; (iv) patients and employees in mental hospitals, prisons, and other custodial institutions in which the incidence of tuberculosis is known to be high; and (v) children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

The vaccine may be obtained by any licensed physician in the United States and its territories by writing to the Research Foundation, 70 W. Hubbard St.,

Chicago 10, Ill. The Research Foundation and the University of Illinois are the only institutions licensed to produce and distribute BCG in this country.

Government-University Relationships

The National Science Foundation released a report last month on *Government-University Relationships in Federally Sponsored Scientific Research and Development* that urges increased Federal support of basic research at colleges and universities and emphasizes the need for continuity of support in the interests of effective conduct of basic research. The report noted that Federal contracting and grant procedures could be simplified with reference to research and development contracting with institutions of higher learning and other organizations of a nonprofit character. It emphasized the need for Federal grant and contracting officers to be continually alert for ways and means to avoid needless procedural steps or other delays in negotiation, review, and payment of research contracts and grants.

Among the recommendations in the report are the following:

1) Problems of Government-university relationships in the Federal support of research at colleges and universities should be explicitly and completely dissociated from the budgetary needs and crises of the institutions and from the general issue of Federal aid to higher education.

2) Continuity of support is unanimously agreed to be essential for the effective conduct of basic research. To this end, it should be the general practice for Federal agencies to make grants and contracts for more than 1 year, where the research warrants. When necessary, legislative authority should be provided for this purpose. Agencies should also be encouraged to establish reserves or otherwise to plan renewal of contracts or grants in advance, so that renewals of longer term undertakings can be announced to institutions at least 1 year before expiration.

3) Federal agencies should consider other alternatives before establishing within universities large-scale applied and development projects (particularly those concerned with development and testing), except in such specialized fields as engineering, agriculture, and medicine, where applied research is frequently related to educational objectives. Alternatives include Federal laboratories, industrial or other private laboratories, and research centers organizationally separated from the institution proper.

Funds to cover almost two-thirds of all expenditures for research and devel-

opment activities at colleges and universities come at present from the Federal Government. These Federal funds approximate a half-billion dollars, most of which sum supports research in applied fields, and come largely from defense and defense-oriented agencies.

4) No Federal agency should agree to reimburse institutions for salaries of faculty members engaged in Government-sponsored research at a rate in excess of the university rate; provided, however, that this should not apply to those faculty members granted leaves of absence to serve at research centers.

5) Government-sponsored classified research on college campuses should be reduced to a minimum consistent with national security.

6) Federal agencies should have legal authority to give the institutions title to research equipment procured by them through grant or contract funds unless a clear and definite need exists for Government control or use of the equipment. The time and expense involved in keeping records of research equipment may sometimes exceed the original value of the equipment. Much time and labor are frequently spent at the termination of research contracts in the formal and often fruitless circulation throughout the Government of long lists of highly specialized equipment which, in many cases, it would be unduly costly to relocate.

Copies of *Government-University Relationships in Federally Sponsored Scientific Research and Development* may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., for 40 cents.

Sarton Memorial Foundation

Henry Guerlac of Cornell University, president of the History of Science Society, has announced the organization of the George Sarton Memorial Foundation, Inc., a nonprofit corporation whose purpose is to promote the efforts of the late Dr. Sarton in the history and philosophy of science. The initial object of the foundation is to aid in maintaining the publication of *Isis*, the international journal for the history of science founded by Sarton in 1913, and to provide lecture-ships and fellowships to advance the study of the history of science.

The president of the Sarton Foundation is AAAS board member Chauncey D. Leake of Ohio State University; May Sarton, authoress and daughter of Dr. Sarton, is vice president. Morton Pepper of New York is secretary and William D. Stahlman of Massachusetts Institute of Technology is treasurer. The incorporators were C. Doris Hellman, Carl B. Boyer, William H. Stahl, Brooke Hindle, and I. E. Drabkin.

Members of the board of directors of the foundation include Elmer Belt, Marshall Clagett, Bernard Cohen, Bern Dibner, Stillman Drake, Louis Dublin, Frederick Kilgour, Giorgio de Santillana, Dorothy Stimson, Lynn White, Jr., and L. Pearce Williams.

Grants, Fellowships, and Awards

Scientific Reporting. The 1958 Waverly Gold Medal essay competition has been announced by *Research*, a monthly publication of Butterworth Scientific Publications, London. The Waverly Medal and £100 will be awarded for the best essay of about 3000 words based on some recent scientific research or new development (whether the author's work or not), giving some indication of the scientific background, the experimental results, and potential application in industry. The essay should be written in such a form that it is clearly intelligible to a scientist engaged in another field or a director of an industrial firm. The essays will be judged for technical content by specialists in the field, and for clarity of presentation and style.

A second prize of £50 will be awarded, and an additional prize, also of £50, will be given for the best entry from a competitor under 30 years of age. The competition is only open to persons at present engaged in scientific work. Entries should be posted to reach The Editor, *Research*, 4/5 Bell Yard, London W.C.2, on or before 31 July 1958.

SEATO research fellowships. Ten to 15 fellowships will be awarded for 1958-59 to nationals of SEATO member states under the program initiated last year by the Southeast Asia Treaty Organization. The program's objective is to sponsor research into the area's social, economic, political, cultural, scientific, and educational problems. Grants provide a \$400 monthly allowance and air transportation. Candidates must have high academic and professional qualifications. United States citizens should apply no later than 1 Aug. 1958 to the Committee on International Exchange of Persons, Conference Board of Associated Research Councils, 2101 Constitution Ave., NW, Washington, D.C.

Tropical Medicine. Louisiana State University has received a grant from the National Institute of Allergy and Infectious Diseases to continue the program of fellowships in parasitology and tropical medicine that has been conducted for the past 3 years under a grant from the China Medical Board of New York. The new program will begin 1 Sept. 1958 and will be extended to include teachers and graduate students from nonmedical as well as medical institutions.

The fellowships will be of two types.