News of Science

NSF Special Committee

A Special Committee on Medical Research has been named by the National Science Board to review and evaluate the medical research programs of the U.S. Department of Health, Education, and Welfare, according to a joint announcement made on 12 Aug. by Secretary of Health, Education, and Welfare Marion B. Folsom and Alan T. Waterman, director of the National Science Foundation. The review is being made at the request of the Department of Health, Education, and Welfare.

The special committee is headed by C. N. H. Long, chairman of the department of physiology, Yale University School of Medicine. Other members of the committee are E. A. Doisy, professor of biochemistry, St. Louis University School of Medicine; Ernest W. Goodpasture, Armed Forces Institute of Pathology, Walter Reed Army Medical Center; A. B. Hastings, department of biological chemistry, Harvard Medical School; Charles Huggins, director, Ben May Laboratory for Cancer Research, University of Chicago; Colin M. MacLeod, department of microbiology, New York University School of Medicine; C. Phillip Miller, department of medicine, University of Chicago; W. M. Stanley, director, Virus Laboratory, University of California. Joseph W. Pisani, on leave of absence from the State University of New York College of Medicine in Brooklyn, where he is assistant dean, is serving as executive secretary of the committee.

The department's request to NSF was made in a letter addressed to the director by former Secretary Oveta Culp Hobby earlier this year. She pointed out that the department's program comprises a major portion of the Federal activity in medical research and expressed the view that it should be subjected to critical review, particularly with regard to its scope and the distribution of support among the various special areas of medical research.

Specifically, the Secretary requested that the review of the department's program include the following: consideration of the rate of growth of the programs of the National Institutes of Health, other research units of the Public Health Service, and other units of the department in the light of the responsibilities of the Federal Government with respect to health, medical, and related research; a general appraisal of the present level of support of medical research by the department; careful consideration of the proper balance of effort with respect to the support of basic research and research aimed more directly at the prevention, diagnosis, and cure of diseases; and the relative distribution of effort among the major special fields of health research.

The Department of Health, Education, and Welfare took cognizance of the foundation's survey of the national scientific research and development effort, including the medical research activities of universities, industry, and government. The department's request was for an interim appraisal of its medical research programs by a special committee appointed by the foundation, pending completion of the over-all survey.

The basis of the Secretary's request was NSF's statutory authority to evaluate scientific programs undertaken by agencies of the Federal Government. In accepting the responsibility for an interim study, Waterman pointed out that it would not be possible to relate the medical research program of the Department of Health, Education, and Welfare to the national effort in medical research in any complete sense until the findings of the foundation's over-all survey are complete. Nevertheless, he expressed a willingness to provide for a preliminary review and has asked the Special Committee on Medical Research to submit its findings to the National Science Board in time for the December 1955 meeting of the board.

Australian Plant Introduction

A number of countries, including Australia, have an active import and export business in the exchange of seeds and grasses and crop plants. Australia has a Plant Introduction Section in the Commonwealth Scientific and Industrial Research Organization that does a flourishing business in meeting requests by other countries for seeds of Australian plants and in arranging similar importations from abroad. Since the Plant Introduction Section was established in 1929, something like 20,000 items have been imported into Australia for experimental purposes.

When the early settlers discovered that there was an almost complete absence of native plants suitable for crops, they arranged to bring out the seeds of English crop and garden plants and grasses. However, it soon became clear that there were vast areas of Australia where plants from England and from many parts of Europe could never be established.

The early introductions of cereal seeds and grasses formed the basis for the development of Australia's primary industries. Besides the cereals, the importation of such pasture species as subterranean clover, the rye grasses, phalaris, and others, have completely revolutionized grazing and agriculture. Many millions of acres are now seeded with these introduced grasses.

Today efforts are being particularly directed toward finding new plants for the tropical, subtropical, and semiarid areas of Australia, as well as toward searching for better strains of the pasture plants already established in southern Australia.

On arrival in Australia, overseas plants and seeds are given initial trials in the quarantine nurseries that have been established in most states and in the Northern Territory. During these trials an assessment of a plant's suitability is made, and supplies of the more promising seeds are built up for more extensive tests, which may include grazing by animals. This procedure takes a number of years and it may be some time before seed can be released with confidence for use on a commercial or semicommercial scale.

Decision on Cole Case

In a 2-to-1 decision handed down on 28 July, the U.S. Court of Appeals ruled against Kendrick M. Cole, a former food and drug inspector in the Department of Health, Education, and Welfare who was dismissed from his job in January 1954. Cole was removed on security grounds because of charges that he had associated with persons reported to be Communists and had made donations to, and attended meetings of, an organization designated as subversive by the Attorney General.

Cole's case was based on the premise that the Federal Employees Security Program does not apply to men in nonpolicy-making positions. He challenged the presidential authority to issue a security-risk order instructing all agency heads to make sure that retention of every worker is "consistent with national security."

The majority decision of Judge E. Barrett Prettyman and Judge Walter M. Bastian held that the basic law authoriz-

ing security firings makes no mention of sensitiveness and policy-making. The section of the Security Act that the majority cited as the key one reads:

"The provisions of this act shall apply to such other departments and agencies of the Government as the President may, from time to time, deem necessary in the best interests of national security."

Prettyman and Bastian felt that, in the light of this section, the President's 1953 executive order extending the security program to all Federal agencies was justified. It is this 1953 order that permits summary dismissal of any Federal worker for security reasons.

In his dissent, Chief Judge Henry W. Edgerton said of the President's order:

"I think this blanket extension [of the President's] is unauthorized and invalid. Congress had specified some agencies that have something to do with national security. Committee reports describe them as 'sensitive' or concerned with 'vital mattters' affecting national security. . . .

"Evidently Congress thought some other agencies might likewise be concerned with national security. Accordingly, Congress authorized the President to extend the act. There is, I think, not the slightest reason for supposing that Congress intended to authorize the blanketing in of all agencies."

Edgerton also pointed out that Cole's agency head did not make a determination that the firing was "necessary or advisable in the interests of the national security," as is authorized by the security act. Cole's superior found only that his continued employment "is not clearly consistent with the interests of national security," a yardstick which Edgerton felt the President laid down in his executive order without authority. The dissenting opinion held that this concept of the President's "differs vitally from the 'necessary or advisable' test that Congress prescribed."

News Briefs

■ A group of experts from 13 countries, called together by United Nations Educational, Scientific and Cultural Organization, met 23–24 June at UNESCO headquarters in Paris to discuss problems raised by the rapidly increasing use of radioisotopes. Pierre Auger, director of the UNESCO department of natural sciences, was chairman of the conference, which made several recommendations. First, it asked that UNESCO study various national procedures for the safe transport of radioisotopes and draft a set of international regulations. Next, it asked that UNESCO collect and evaluate existing regulations for waste disposal and, in collaboration with qualified scientific consultants, suggest international standards. In connection with waste disposal, the group noted that the problem has not only dangerous implications but that it is also extremely difficult to deal with, partly because of the widespread lack of agreement among the experts themselves.

On the basis of UNESCO's experience in drawing up and obtaining the adoption by a number of countries of a system facilitating the rapid transit of delicate measuring instruments, the group urged that UNESCO undertake to establish a similar system for the rapid customs clearance of radioisotopes. The meeting participants held that such clearance is essential for the effective utilization of radioisotopes, especially those with a very short half-life. Finally, the experts asked that UNESCO collect and publish as soon as possible all available information on labelled molecules and recommend ways for closer international collaboration in the production and use of these tracers. It was pointed out that the synthesis of certain molecules is too great a burden for a number of less well-equipped countries.

Any international regulations drawn up by UNESCO as a result of these recommendations are to be circulated to the member states and to the specialized agencies concerned. A second meeting of the group will take place in Paris, 13–14 Oct. Howard A. Robinson, special assistant to the United States Ambassador to France, is this country's representative.

■ The Atomic Energy Commission has declassified all technical information on current extraction processes for recovering uranium from uranium-bearing materials to produce unrefined uranium concentrates. The declassification is expected to benefit the commission's program for developing more efficient methods of processing uranium ores by encouraging the participation of private enterprise. The declassification action does not include information relating to the refinement of uranium concentrates into highly purified forms, nor does it include technical information on any new and important extraction processes that may have been developed.

Unrefined uranium concentrates are produced in 12 processing plants in Colorado, Utah, New Mexico, Florida, and Illinois. Four additional plants are under construction. With one exception, all of the plants are privately owned and operated.

■ The pigment that tints the eyes of one species of euphausiid has recently been isolated by Elizabeth K. Boden, assistant research biologist at the University of California's Scripps Institution of Oceanography. This is the first time a photosensitive pigment has been extracted from the eyes of any of the arthropods. Boden proposes the name *euphausiopsin* for the new pigment.

Euphausiopsin was found to be linked with vitamin A_1, already known to be present in particularly high concentrations in the eyes of euphausiids. A_1 is the vitamin in the eyes of human beings that makes it possible to see in near darkness.

Tests have indicated that the euphausiopsin may be especially sensitive to blue-green light. The euphausiid swims up and down in the ocean in apparent response to the intensity of sunlight, always being found at a level where the light maintains a constant dim value. Often these creatures form part of a deep scattering layer.

Boden has described her discovery in a paper that appeared in a recent issue of *Nature*. Her work has received support from the Office of Naval Research.

■ A new disease, pancreatic necrosis, is killing up to 80 percent of the young brook trout in three West Virginia hatcheries, placing the state's hatchery program in danger. The disease, unknown until last year, affects fingerling trout, causing them to whirl violently.

The malady appeared first at the Leetown, W. Va., Fish and Wildlife Service Station in January 1954; by July 1954, it had spread to hatcheries at Dorcas and Marlington. S. F. Snieszko of the Leetown Microbiological Laboratory, Kearneysville, and his colleagues E. M. Wood and W. T. Yasutake, reported the disease in the July *Archives of Pathology*.

■ A new signaling system for telephone dialing, a polytonic coder, has been developed by C. A. Lovell, J. H. McGuigan, and O. J. Murphy of Bell Telephone Laboratories, New York. A test model of the signaler can send 100 digits a second reliably over almost all telephone connections. The device may eventually make it possible to discard telephone dialing.

The term *polytonic* was coined because the system uses five separate frequencies; each digit is represented by a different two-tone combination.

Scientists in the News

IMMANUEL ESTERMANN, deputy science director for coordination and director of the material sciences division of the Office of Naval Research, Washington, D.C., has received the 1955 Pittsburgh physics award. He was honored for his contributions to fundamental physics while he was a professor at Carnegie Institute of Technology. With assistance from ONR and from the Research Corp., he organized and developed the low-temperature laboratory at C.I.T.