

staining of histiocytes and macrophages; reaction of blood and tissue cells to acid colloidal dyes; development of mammalian spleen (with Thiel); alterations of lymphocytes by which infectious mononucleosis now can be clinically diagnosed even when the heterophil agglutination test is normal (with McKinlay); the myeloblast under normal and pathological conditions; a method for studying leucocytes (with Slider, in McClung's *Handbook of Microscopic Technique*); the nature of cells (especially as regards nuclear structure) found in monocytic leukemia and leukemic reticuloendotheliosis (presented in a chapter in his *Handbook of Hematology* and in a large series of papers published jointly with his students). Other jointly

published papers are those on the origin of megakaryocytes in the spleen and liver in atypical myelosis; the blood picture of the newborn; regeneration of lymph nodes and bone marrow; hematologic and histologic study of myeloid megakaryocytic hepatosplenomegaly; and regeneration of thymocytes after irradiation. Among his later papers are "The megaloblast-normoblast problem"; "Development of histiocytes and macrophages from lymphocytes"; and "The reaction of the great omentum to pipe tobacco tar," this 1959 paper being the result of a study in cancer research.

For thousands of his pupils and hundreds of his graduate students, the memories of the man and his work will

have lasting strength and inspirational force, for Dr. Downey was indubitably America's greatest morphological hematologist. His accomplishments in the advancement of our knowledge of blood cells and blood-forming organs rank with those of the world's greatest pioneer creators of hematology—Pappenheim, Naegeli, Maximow, Weidenreich, Ferrata, Jolly, and Minot. The record of the conference held in his honor under the auspices of the New York Academy of Sciences is a recent published effort (1955) to honor him in the eyes of the scientific world and of his family.

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News of Science

Congress Acts To Give States Radiation Control Authority; HEW's Role Increased

Legislation passed in the closing days of Congress has led to some definitive steps towards settling the long controversy over responsibility for developing and enforcing public standards for radiation safety. The Atomic Energy Act has been amended with respect to state regulatory authority over health and safety aspects of atomic energy activities, and the new National Radiation Council, formed by executive order in mid-August to advise the President on radiation matters, has become a permanent body established by law. These actions were effected by a bill that was passed in both houses on 11 September. Senator Clinton P. Anderson (D-N.M.), chairman of the Joint Committee on Atomic Energy, sponsored the measure, S. 2586, which was presented to the House as H.R. 8755 by Representative Carl T. Durham (D-N.C.), vice chairman of the Joint Committee. The bill that was passed was an amended version of S. 1987, and of its counterpart, H.R.

7214, introduced in May. The chief amendment was the addition of the clause on the National Radiation Council.

The need to change the Atomic Energy Act to permit greater federal-state cooperation has been a subject of concern to the members of the Joint Committee since passage of the act in 1954. Both Anderson and Durham have in past years unsuccessfully introduced bills that would have given the states such regulatory authority over atomic energy activities as they were ready to assume.

They have now been given this authority. The new legislation clarifies the role of the federal government, on the one hand, and of state and local governments, on the other, with respect to the regulation of byproducts, sources, and special nuclear materials, in order to protect the public from radiation hazards. It authorizes the AEC to withdraw its control over certain materials, principally radioisotopes, but not over more hazardous activities, such as the licensing and regulation of reactors. It requires that federal and state radiation stand-

ards be compatible and authorizes programs to assist the states to assume independent regulatory jurisdiction. The new law does not authorize a wholesale relinquishment by the AEC of its regulatory responsibilities, but only a gradual, carefully considered transfer on a state-by-state basis as individual states become qualified.

The section that establishes the Federal Radiation Council was added to give the new council the prestige and permanence of a statutory background. The section does not modify the basic functions of the council as described by the President in his executive order, but simply increases its membership from four to five by including the Secretary of Labor (see "News of Science," 28 August).

The Joint Committee report to the Senate on S. 2568 emphasizes that the committee was informed that the provision for the Radiation Council would meet with no objections from the director of the Bureau of the Budget or the Secretary of the Department of Health, Education, and Welfare. It was the budget director who this spring coordinated a study within the executive branch concerning the allocation of radiation-control responsibilities among federal agencies and the transfer of functions to states.

Roles of AEC and HEW

This study, which resulted in the formation of the Radiation Council, was precipitated by growing disagreement as to whether the Atomic Energy Commission or the Public Health Service should

have charge of radiological health activities, including the collecting, analyzing, and interpreting of data on environmental radiation levels. The controversy became a sharp public issue in March when the National Advisory Committee on Radiation, headed by Russell H. Morgan of Johns Hopkins University, held that it was unwise for a single agency—the Atomic Energy Commission—to be responsible both for promoting the uses of atomic energy and for regulating against health hazards. Morgan's report proposed that central control authority over radiation hazards be placed in the Public Health Service. This recommendation was incorporated in a bill introduced in April by Senator Lister Hill (D-Ala.). The proposed legislation (S. 1228), still pending, is called the "Radiation Hazards Act of 1959."

The legislation that has just been enacted does not substantially alter the roles of the AEC and HEW in the area of radiation health control, although, through its membership in the President's Radiation Council, HEW will now play an active part in the formulation of standards and policies and in the coordination of responsibilities at the federal and state levels. Further, the President has issued a directive that HEW, in order to advise him and the general public, should "intensify" its radiological health effort and have "primary responsibility" within the executive branch for the collection, analysis, and interpretation of data on environmental radiation levels, such as fallout.

The Department of Health, Education, and Welfare's current appropriation for radiological work is \$3.2 million compared to \$1 million for fiscal 1959. The biggest increase in funds is in the Public Health Service's division of radiological health, which will receive \$2.5 million for fiscal 1960, compared to \$634,000 for fiscal 1959.

In the Senate debate before Anderson's bill was passed, Senator Hubert Humphrey asked whether the new measure in any way lessened the need for the legislation described in Senator Hill's bill. Senator Anderson replied that his proposal had been redrafted to make sure that it applied only to "materials now regulated by the AEC." He emphasized that it was not intended "to prejudice in any way Senator Hill's bill." He added that if at a later date the Congress should decide to "enact the policies or provisions of Senator Hill's bill, that would be within the power of the Congress at that time."

Because of the Administration's efforts to resolve the radiological health questions, Senator Hill has not pressed for action on his bill. However throughout the discussion of the issue it has seemed to some observers that the Atomic Energy Commission has protested publicly that it does not oppose a transfer of authority, yet, as one spokesman put it, seems to be "jealously trying to hang on to control authority." It will be interesting to see to what extent the new National Radiation Council can influence the situation.

Senate Committee Seeks Views on Water Resource Problems

A new governmental group, the Senate Select Committee on National Water Resources, will work in the field this fall and winter to determine the public's views on a wide range of water problems. Hearings at 19 points throughout the country are scheduled between 7 October and 8 December.

The 17-man committee was created earlier this year to study prospective national water needs for the periods 1959-1980 and 1959-2000. Water for domestic uses, agriculture, industry, power generation, flood control, recreation, and so forth, will be considered. Attention also will be given to increasing the usefulness of available water resources through weather modification, evaporation reduction, conversion of salt water, pollution abatement, and application of nuclear energy.

Conservation agencies and groups are expected to testify on such problems as pollution abatement, wet-land drainage, and protection of stream fisheries. The committee also may work on developing a formula for deciding how much water is needed for federal fish and wildlife projects in comparison with the needs for irrigation, power generation, and other uses.

Federal agencies concerned with water resources have already been asked to prepare reports. The committee is to transmit results of the study to the Senate, with recommendations, by 31 January 1961. Initial funds for the work amount to \$175,000. Senator Robert S. Kerr (Okla.) is chairman of the select committee, and Senator Thomas H. Kuchel (Calif.) is vice chairman. Persons wishing to testify are invited to communicate with the staff director, Theodore Schad, at Room 3206, New Senate Office Building, First and C Sts., NE, Washington 25, D.C.

Mental Health Committee Formed to Advise PHS

Surgeon General Leroy E. Burney has announced the appointment of an *ad hoc* committee to develop a basis for improved planning of mental health facilities throughout the nation. The committee is composed of ten state health officials and two representatives of the Public Health Service. The group will work with PHS in formulating treatment and administrative guidelines which could be used in developing statewide plans for mental health facilities.

In the past, emphasis has been placed on providing large institutions for the care of the mentally ill. Services now being developed include outpatient and emergency service through hospital clinics or mental health centers, increased use of general hospitals for the treatment of psychiatric patients, "half-way houses," and nursing homes. The committee will hold its first meeting in Washington on 12-13 October.

Education Act Graduate Fellowships Awarded

United States Commissioner of Education Lawrence G. Derthick has announced that 997 graduate students have been awarded fellowships under terms of Title IV of the National Defense Education Act, designed to increase the number of college and university teachers. The fellowships are set up in 272 new or expanded graduate programs in 123 institutions of higher education. The programs were selected from among 1038 programs proposed by 168 colleges and universities. Selection of fellows was based on recommendations to the commissioner by the 272 graduate schools whose proposals were approved.

Each fellow will receive \$2000 in the first year, \$2000 in the second year, and \$2400 in the third year, together with an allowance of \$400 per year for each dependent. The institution will receive up to \$2500 per year per fellow. Total cost of the program during the first year is \$5,294,000.

Radiation Protection Measures Agreed on by OEEC Countries

The 17 countries of the Organization for European Economic Cooperation have agreed on common measures for safeguarding their populations from the dangers of nuclear radiation. This sum-