News of Science

U.N. Committee on Effects of Atomic Radiation

The 15-nation Scientific Committee on the Effects of Atomic Radiation has concluded its second 2-week session at United Nations Headquarters in New York. The committee has reviewed the extensive series of reports reviewed in response to its request on the levels of radiation and radioactivity from natural and artificial sources [*Science* **123**, 928 (25 May 1956)].

Besides considering information submitted to it, the committee invited specialized studies by the Food and Agriculture Organization and other groups; surveyed methods for measuring radiation and endorsed World Health Organization and United Nations Educational, Scientific and Cultural Organization programs for supplying calibration standards and instruments in collaboration with the International Commission on Radiological Units and Measurements; invited reports on disposal of radioactive wastes in oceans and seas; decided to further consider genetic effects of radiation; and sought further information from governments on these and other pertinent subjects.

The committee also prepared its first yearly progress report to the General Assembly. A final report is to be submitted by July 1958.

Much of the session's work was carried on in working groups, which considered effects of small doses of radiation, radiological data—that is, measurements of natural and man-made radiation and calculations of radiation levels based on these measurements—measurement methods, and the genetic effects of radiation.

The committee noted the need for more research and data before final conclusions can be reached. The committee is continuing to obtain information from governments and specialized agencies. Radiological data submitted before 1 Feb. 1957 will be considered at the committee's next session.

The committee is also inviting governments to submit detailed descriptions of measurement methods; these will be made available to other governments upon request. It is also requesting the Secretary-General to assist in arranging exchange of standards and samples when requested by governments.

In relation to the possible ocean and sea disposal of radioactive wastes, the committee has invited UNESCO and FAO to prepare data arising from their present research programs in oceanography and marine biology. Governments are being invited to inform the committee, periodically through the Secretary-General, of any significant disposals of radioactive wastes from atomic energy installations.

Study of the biological effects of small doses of radiation is being urged by the committee as an important factor in its work in evaluating effects.

In addition to its requests for further information, the committee is proposing several specialized studies on various aspects of radiation effects. The hazard from radioactive strontium fallout and from industrial radioactive wastes is being studied and assessed. As calcium ingestion may influence uptake of radioactive strontium, FAO has been invited to assemble information on the calcium content of the diets consumed throughout the world. The fallout hazard resulting from tests of nuclear weapons continues to be a main subject of the committee's work.

Genetic effects of radiation were discussed at the present session, but detailed consideration was deferred to the next session. More information, some of which is already being prepared for the committee, will then be available.

The committee is proposing initiation of a technical study by specialized groups of ways in which medical exposures to radiation can be recorded and evaluated. The committee is also circulating a statement through the medical press urging the medical profession's cooperation in its work.

The committee will hold its next session in April 1957. The 15 nations represented on the committee are Argentina, Australia, Belgium, Brazil, Canada, Czechoslovakia, Egypt, France, India, Japan, Mexico, Sweden, the U.S.S.R., the United Kingdom, and the United States. At the current session, Carlos Chagas (Brazil) was chairman and Zenon Bacq (Belgium) was vice chairman.

Intermedin

Research to determine the structure and synthesis of the various pituitary hormones, which already has led to Vincent du Vigneaud's notable work on oxytocin and vasopressin, continues apace. The most recent development of importance is the isolation by I. I. Geschwind, C. H. Li, and L. Barnafi of intermedin and their determination of its structure [*J. Am. Chem. Soc.* (5 Sept. 1956)].

Intermedin, which was obtained from the pituitary glands of pigs, is the hormone that stimulates the expansion of melanocytes. Long thought to be limited in occurrence to the lower vertebrates, in which the pituitary has a definite intermediate lobe, it has now been isolated from the posterior lobe of the pituitary in a mammal. (In mammals the posterior side of the oral pouch that grows into the anterior pituitary gland fuses with the posterior part which grows from the brain, so that the posterior lobe actually includes what in other vertebrates constitutes a separate intermediate lobe of the pituitary.)

The work reported by Geschwind *et al.* demonstrates that intermedin is a peptide consisting of 18 amino acids, of which no more than two are of any single variety. The most striking feature of the structural analysis is that a central sequence of seven amino acids (methionine, glutamic acid, histidine, phenylalanine, arginine, tryptophan, glycine) is identical with a corresponding sequence that has been found to occur in all corticotropins so far isolated from the anterior lobe of the pituitary. The presence of this sequence thus probably explains the melanocyte-stimulating activity of pure corticotropin preparations. The adrenal-stimulating activity of the corticotropins must in that case depend on the specific sequences of the six amino acids on one end of the central sequence or on the five on the other. One may conjecture that the syntheses of intermedin and of the corticotropins are closely related.—B. G.

Second Atoms-for-Peace Team Visiting Latin America

A ten-man mission, composed principally of nuclear scientists, is visiting six Latin American nations to participate in discussions of the scientific potential of peaceful applications of atomic energy in the respective countries, especially in the areas of radioisotope applications and nuclear research and training. The mission, sponsored jointly by the Department of State under its International Educational Exchange Program, the U.S. Atomic Energy Commission, and the In-