SCIENCE NEWS

Science Service, Washington, D. C.

FEDERAL AID TO RESEARCH ON CANCER

A PLAN for Federal aid to cancer research, with an initial appropriation of $2,000,000, was presented recently by Dr. E. V. Cowdry, of Washington University and the Barnard Free Skin and Cancer Hospital, St. Louis, to the Senate Subcommittee on Health and Education.

The plan for Federally aided cancer research might serve as a pilot plan for future Federal aid to medical research, Dr. Cowdry told the subcommittee which, under the chairmanship of Senator Claude Pepper of Florida, is conducting hearings on the subject.

He pointed out that cancer is the most dreaded of all diseases. Heart, artery and kidney diseases are greater killers but more merciful. The $2,000,000 appropriation should, Dr. Cowdry believes, be made to the National Cancer Institute, a Federal agency which already leads in cancer research. This institute would disburse the money to institutions of recognized ability to conduct both short- and long-term research on cancer.

The provisions of Dr. Cowdry's plan indicate that the institutions receiving the money would be free to accept funds also from private sources. The additional Federal aid, he believes, would increase the value accruing from the private funds for cancer research.

An unusual feature of the plan is the suggestion that Congress should authorize the issue of a special series of government bonds to be nontransferable and bear 5 per cent. interest. These could be purchased only by privately managed, non-profit colleges and universities. In this way the less well-endowed institutions could get Federal aid without giving up their individual freedom.

The amazing speed with which such spectacular health aids as penicillin, DDT and blood substitutes, including plasma, were developed by Federally sponsored and aided research during the war was cited as evidence of what Federal aid to medical research can accomplish.

"In the postwar period, research can be neglected only at our own risk," Brigadier General James S. Simmons, chief of the preventive medicine section of the Office of the Surgeon General, told the subcommittee. "This nation affords unlimited natural resources in scientific talent which need only opportunity and facilities to bring them to bear upon the health problems of the nation in peace or in war. It is gratifying to see the interest of this subcommittee in making provision for the continuation of essential research activities in the postwar period."

Dr. Lewis H. Weed, chairman of the division of medical sciences, National Research Council, pointed out that Federal aid to medical research should be planned with regard to the total medical problem, which includes medical practice, hospitals and preventive medicine and public health.

ITEMS

THIRTEEN boy scientists in India are conducting Americans in the Armed Forces on hiking and hunting trips. Seven Americans are included among the students of the Woodstock School at Mussoorie, United Provinces, India, who make up the group. The boys range in age from 13 to 17. They are members of the first science club in India to affiliate with the Science Clubs of America, the organization for the promotion of scientific activities for school-age boys and girls, which has 125,000 members in 5,000 clubs in this country. For five months the club has been making displays of native mammals, reptiles, insects and plants under the direction of Robert L. Fleming, biology instructor. Now they have opened their headquarters to visiting service men and take these men on field trips to see the animals and plants in their native habitat.

VITAMIN C can be obtained by a new process developed at the National Bureau of Standards by Horace S. Isbell and Harriet L. Frush, who have found that an important source of the vitamin, galacturonic acid in the form of a salt, can be separated from solutions containing substantial amounts of impurities. Thus, a source of the acid is made available for the synthesis of the vitamin. In the process, beet pulp was hydrolyzed by a commercial pectic enzyme, after which the resulting galacturonic acid was separated from the residue in the form of a salt. It was found that the double salt, sodium strontium galacturonate, crystallizes from the hydrolyzates of beet pulp in the highest yield, but two other salts are of value in separating galacturonic acid from the hydrolyzates of pectic substances. The commercial use of beet pulp for the preparation of galacturonic acid presupposes a cheap source of pectic enzyme. Since these are produced in the growth of numerous molds, and occur in the culture media, they might be obtained economically as by-products in certain industries. Possible sources, the bureau states, are the aqueous solution remaining after the separation of penicillin, or the culture media of molds grown for food purposes.

A METHOD for producing "synthetic blood plasma" from a by-product of sugar manufacture has been developed by two Swedish investigators, Anders Groenwall and Bjoern Ingelman, working under the supervision of Professor Arne Tiselius, of the University of Uppsala, according to information received in New York City by the American Swedish News Exchange. Dextran is the name given the material. Unlimited production of it is said to be possible. It can be easily transported as a powder, is reasonable in price and its use is not dependent on the blood group of the recipient. Dextran has not yet come to the attention of medical authorities at Washington but a number of preparations, such as pectin and gelatin, have been tried as substitutes for blood plasma in the treatment of shock. One that the Germans developed has been investigated by authorities, but has not proved very effective. Blood plasma and serum albumen from human blood have not yet, however, been equalled as shock-combating substances by any of the substitutes so far investigated except, perhaps, under special circumstances.