

# Adrenal Extract Combats Cancer

Medicine

THE accidental discovery of two San Francisco doctors that adrenal cortex extract causes disintegration of dangerous and hopeless cancers may prove to be an important addition to weapons of medical science.

So important is this new development in the fight on cancer that the University of California's medical departments and the Hooper Foundation are mobilizing to aid Dr. Walter Bernard Coffey, chief surgeon of the Southern Pacific Hospital in San Francisco, and his assistant, Dr. John D. Humber, in further researches on the promising preparation.

An extract made from the endocrine gland, the adrenal cortex, of sheep was being used by Drs. Coffey and Humber to produce lowered blood pressure, and they noted that it had a disintegrating action upon a tumor in the same subject. In their preliminary report to the San Francisco Pathologic Society they told how they then used the gland extract in the treatment of three hopeless cases of human cancer, one of them cancer of the tonsil. Graduated doses of the extract were injected under the skin and necrosis was caused, to such an extent that the tumors sloughed and the patients were better temporarily.

The new extract is not yet ready for wide use and much more research must be done to discover its applications and limitations. The method of preparation of the extract has not yet been announced by Drs. Coffey and Humber and its composition is not yet known. The adrenals are small organs just above the kidneys.

The work of Dr. Coffey and Dr. Humber is, in effect, a continuation of the line of research reported by Dr. Boris Sokoloff, of the Institute of Cancer Research, Columbia University, New York, who discovered and reported to the International Physiological Congress recently that cancer growths are killed in a few hours by a mixture of adrenal cortex extract, an iron salt and a chemical, pyrrol blue.

Dr. Sokoloff has recently been working at the Institute of Cancer Research at Columbia University and he formerly worked at the Rockefeller Institute for Medical Research.

No human beings have been treated by Dr. Sokoloff's methods, all research being done on animals. He emphasized in his reports that he had not developed a "cancer cure" and that the work was entirely in the experimental stage. When cancerous mice and rats were treated with his preparation the malignant tissue was reduced to a liquid, turned black and finally became hard. The healthy tissue was uninjured and the animals lived for months whereas otherwise they would have died.

His observation that cancerous animals had a sort of fatty degeneration of the adrenal cortex led Dr. Sokoloff to the theory that there must be some kind of physiological connection between malfunction of that gland and cancer. The mixture used by Dr. Sokoloff differs from that used by the San Francisco experimenters in that it includes a chemical that gives off active oxygen which is deadly to the cancer cells.

Further research on treatment of cancer by a mixture containing adrenal cortex extract is being undertaken in St. Louis by Dr. Sokoloff, it was learned from Prof. Leo Loeb of the Washington University Medical School there. Dr. Sokoloff will work in Prof. Loeb's laboratories.

CLOSER cooperation between physician, surgeon, biologist and chemist, which is expected to result ultimately in the solution of the cancer problem, will be established as a result of a gift of \$210,000 from

an anonymous donor which has just been made to the Cancer Research Fund of the Graduate School of Medicine of the University of Pennsylvania.

Plans for the equipment of a new clinic for modern diagnosis and treatment of tumors in the American Oncologic Hospital are being developed. This cancer hospital will be developed gradually into an anti-cancer center of the most complete character. Joint research has been undertaken with the Bartol Research Foundation of the Franklin Institute, thus securing the cooperation of physicists whose work with radium and X-rays forms such a vital ally to the medical man in his fight against cancer.

"It has been realized for some time that progress in cancer research work depends upon the association of the physician, the biologist and the chemist and upon the close cooperation of related clinics and laboratories," Dr. Josiah H. Penniman, provost of the university, stated in announcing the gift. "Today, as the result of the generous support which has just been given to us by a philanthropist from whom the Cancer Research Fund will receive over \$70,000 annually over a period of three years, we have been placed in a position to carry on the cancer research work along these broad cooperative lines to an extent which heretofore was impossible."

At the central laboratories of the Cancer Research Fund there is a complete tissue culture department and an experimental animal cancer department. Research work in radiation is also being carried on there, while at the Philadelphia General Hospital a research laboratory for the study of biochemistry of the blood before and after exposure to radium or X-rays is maintained.

In addition the Cancer Research Fund has made a number of grants for investigations to be carried on by research workers in collaboration with the work of the Fund.

Science News-Letter, February 1, 1930

## In This Issue

Royal tomb, p. 67—Best baby milk, p. 68—Celestial news, p. 70—Con-tagion, p. 74—Cosmic rays, p. 76—Nature, p. 77—The Diesel grows light, p. 78—Einstein riots, p. 79—New books, p. 80.



SCIENCE NEWS-LETTER, The Weekly Summary of Current Science. Published by Science Service, Inc., the Institution for the Popularization of Science organized under the auspices of the National Academy of Sciences, the National Research Council and the American Association for the Advancement of Science.

Edited by Watson Davis.

Publication Office, 1918 Harford Ave., Baltimore, Md. Editorial and Executive Office, 21st and B Sts., N. W., Washington, D. C. Address

all communications to Washington, D. C. Cable address: Scienserve, Washington.

Entered as second class matter October 1, 1926, at the postoffice at Baltimore, Md., under the act of March 3, 1879. Established in mimeographed form March 13, 1922. Title registered as trade-mark, U. S. Patent Office.

Subscription rate—\$5.00 a year postpaid. 15 cents a copy. Ten or more copies to same address, 5 cents a copy. Special reduced subscription rates are available to members of the American Association for the Advancement of Science.

In requesting change of address, please give old as well as new address.

Advertising rates furnished on application.

Copyright, 1930, by Science Service, Inc. Reproduction of any portion of the SCIENCE NEWS-LETTER is strictly prohibited since it is distributed for personal, school, club or library use only. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service, details and samples of which will gladly be sent on request.