

## MEDICINE

## Live To Be 125

Serum made from the bone marrow of cadavers is believed by Russian scientist to be possible weapon against old age, cancer and high blood pressure.

► FIRST-HAND reports of a Soviet scientist's efforts to develop a weapon against cancer, high blood pressure and premature old age by a special kind of serum which has proved useful in stimulating wound healing are brought to American medical scientists in *American Review of Soviet Medicine*. (December)

The serum, called anti-reticular cytotoxic serum, ACS for short, was developed by Prof. Alexander A. Bogomolets, director of the Institute of Experimental Biology and Pathology which has been moved from Kiev to Ufa for the duration of the war.

It is made by inoculating horses with the cells of the spleen and bone marrow taken from a human cadaver. Cadavers of persons who died a sudden death and had no infectious disease are most suitable. Details of preparing and testing the serum are given in the same issue of the medical journal by P. D. Marchuk of Prof. Bogomolets' staff.

Unlike anti-diphtheritic serum and other serums developed against specific diseases, ACS does not act as a weapon against specific disease germs or their poisons. Instead, Prof. Bogomolets explains, it acts to stimulate the reactivity of the connective tissue in the body.

This connective tissue, as the name implies, binds together and supports various structures of the body. The layman recognizes connective tissue in the bones and cartilage, but it is found in many other structures. According to the modern view, this connective tissue is not merely a kind of skeleton or framework for the body structures but has other functions as well.

Prof. Bogomolets takes the view that the physiologic system of the connective tissue is the arena in which disease processes develop. Keeping this system on a sufficiently high level of activity he therefore considers one of the most important problems in treating disease. That is what his serum is designed to do and that is why he believes it can be a weapon against such diverse conditions as scarlet fever, childbed fever and other infections; cancer; high blood pressure; the mental disease schizophrenia; and

the deteriorations of premature old age.

Forestalling premature old age has been the chief aim of Prof. Bogomolets' scientific investigations, according to a biographical note by Miss Dorothy A. Halpern, managing editor of the *American Review of Soviet Medicine*.

The usual life span of man, he believes, should be 125 to 150 years, since the life span of an animal is five to six times longer than its period of maturation. His serum was developed to stimulate the physiologic system on which, he believes, rests man's ability to resist infection and other disease processes like cancer which shorten the life span.

The war has curtailed his experiments on longevity and all activities of his

Institute are now directed toward producing enough of the serum to meet the needs of the battlefield, where Soviet physicians and surgeons have found it useful in stimulating wound healing and the union of fractured bones.

It would be desirable, Dr. Henry E. Sigerist, editor of the *American Review of Soviet Medicine*, states in a note on Prof. Bogomolets' report, to have experiments with the serum carried out in this country. Any institution interested in the matter can obtain additional scientific reports from the medical journal's editorial offices.

*Science News Letter, January 8, 1944*

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## Sulfa Drugs for Colds Are Disappointing

► LATEST REPORT on the much-discussed question of whether sulfa drugs should be given for the common cold is again disappointingly negative.

This time Dr. Russell L. Cecil, Maj. Norman Plummer, M.C., A.U.S., and Dr. Wilson G. Smillie report (*Journal,*



**SOLUTION**—Dynamite is the new answer to the problem of how to remove a drill broken off in a crankshaft. In this method, devised by Nels Sorenson, right, of the Ohio Crankshaft Co., a small amount—less than a thimbleful—of dynamite is pushed into the hole and set off with a fuse. The pressure of the blast is said to follow the drill flutes to the bottom of the hole, there reversing itself to drive the drill free. A plank laid over the hole stops the drill as it flies out.