

MEDICINE

# Chemical Cure For Cancer Is Only a Matter of Time

**"Some Chemical in a Bottle Somewhere Might Be Just The Thing" Pharmacologist Tells Science Meeting**

FUNDAMENTAL knowledge of cancer which probably is paving the way for discovery of a chemical means of controlling the disease was reported to the American Association for the Advancement of Science by Drs. Carl Voegtlin, J. M. Johnson, M. E. Maver and J. W. Thompson of the U. S. Public Health Service's National Institute of Health.

This research team did not report a chemical cure for cancer or anything like that. But Dr. Voegtlin indicated, in an interview, that discovery of such a cure by some research group is probably only a matter of time and that the chemical itself is probably already on laboratory shelves.

"Some chemical in a bottle somewhere might be just the thing," he said.

On the other hand, it may be necessary for scientists to make a new chemical especially for this life-saving job, as salvarsan had to be created for the cure of syphilis.

Dr. Voegtlin himself made the comparison between the present world-wide search for a cancer cure and the situation with regard to syphilis before Ehrlich's development of salvarsan. The problem Ehrlich and other scientists of his generation faced was to find something that would kill the parasite of syphilis without injuring its host, the human body. Something like that will have to be found for cancer, in Dr. Voegtlin's opinion.

## Like Normal Cells

Research by himself and associates has shown that, so far as the need for protein nourishment is concerned, cancer cells are just like normal cells. Cancer growth can be stunted the same as normal growth by withholding certain chemicals, the amino acids which are the building stones for protein tissues and without which no tissue, normal or malignant, can grow.

The cancer cells need the same kind of materials for growth that normal cells do, the studies reported show.

But scientists do not yet know whether cancers need these materials in the same quantities that normal cells do. That now appears to be the crux of the problem. As with all drugs, it is a question of dosage, the quantity of the material. Even in the case of water or ordinary table salt, Dr. Voegtlin explained, there is a dose so small that it is ineffective, another, just right-sized dose that is remedial and finally a dose so large that it is poisonous.

## Distribution Important

The question of distribution of chemicals throughout the body must also be considered in searching for a chemical

cure for cancer. There is no reason, Dr. Voegtlin said, why some chemical cannot be found which would be taken up by malignant cells more than by normal cells.

## Not Seeking Cure

But Dr. Voegtlin and his associates are not devoting any time at present to searching directly for a chemical to cure cancer. They are approaching the problem in a much more fundamental way. They are first concerned with comparing diseased and normal states. When they have learned all about normal cells and their growth requirements, and how these differ from cancer cells, they will look for a way to change the diseased condition. They sum it up in the conclusion of their scientific report as follows:

"Progress in understanding the chemical mechanisms which regulate the proliferation (growth by multiplication) of malignant tissues depends on further progress in the study of the proliferation of normal tissues."

*Science News Letter, January 16, 1937*



DR. W. M. STANLEY



DR. FOREST R. MOULTON

*Dr. Stanley received the thousand dollar prize of the American Association for the Advancement of Science for his research erasing the border between living and non-living organisms (See SNL, Jan. 9). Dr. Moulton was elected permanent secretary of the A.A.A.S. at the Atlantic City Meeting. Dr. Moulton is a leading astronomer and has been professor at the University of Chicago. He leaves the Utilities Power and Light Corporation, Chicago, to administer A.A.A.S. affairs. Dr. Moulton succeeds Dr. Henry B. Ward, emeritus professor of zoology of the University of Illinois. The A.A.A.S. council adopted resolutions thanking Dr. Ward for "his long and faithful services and . . . his sincere devotion to the office of the permanent secretary in advancing the cause of science."*