



GROWTH FACTOR CRYSTALS—A microscopic view of crystals of thioctic acid, a growth factor related to the B-complex vitamins and isolated by researchers at Lederle Laboratories, is here enlarged 50 times.

MEDICINE

Cancer Growth Rate

➤ A PERSON with a fast-growing cancer has a tendency to conceal his inner feelings and is less able to reduce tensions by "getting them off his chest" than a person with a slow-growing cancer.

This was suggested by Dr. Philip M. West of the University of California at Los Angeles Medical School in a report to the American Association for Cancer Research meeting in New York.

He and two colleagues, Dr. Eugene M. Blumberg, University of Southern California, and Dr. Frank W. Ellis, in charge of the tumor service at the Long Beach, Calif., Veterans Administration Hospital, have been engaged in what Dr. West calls "a new attack on the cancer problem."

The results of their recent research at the Long Beach VA Hospital point to the fact that at least a partial solution to cancer may be hidden in the emotional make-up of the individual.

"It seems reasonable," Dr. West said, "that the mind and body are as much a single functioning unit in cancer as in other diseases with unknown causes, such as stomach ulcers, colitis, hypertension, etc. Even such an infection as tuberculosis can be influenced by emotional stresses."

The U.C.L.A. scientist pointed out that there are often-observed but unexplainable differences of growth rate in cancer. For example: Some people with Hodgkin's dis-

ease have died within a few weeks while others have lived for more than 20 years. Also, some victims suffering from stomach cancer may live only a short period while others may live for many years.

The three-man medical-psychologist team of Drs. West, Blumberg and Ellis conducted many psychological tests among patients with fast-growing cancers as well as those with slow-growing cancers. One test, the Minnesota Multiphase Personality Inventory, showed an 88% correlation with the relative rapidity or slowness of cancer progression in an individual patient.

"Significant differences in personality were found by this test between the two groups of patients," Dr. West said. "The findings suggest that the person with a rapidly-growing tumor is less able to reduce tensions than is the person with slowly-growing tumor."

"It appears possible in many cases, therefore, to predict at the beginning of a malignant disease, long before either the patient or the doctor can have any idea of the future course, how the patient will respond to treatment, and how rapidly or slowly his tumor may grow."

Dr. West emphasized that this research is but one small facet of the huge problem of cancer and the results are still in the experimental stage.

Science News Letter, April 26, 1952

AERONAUTICS

Release First Photograph of Liquid Rocket Motors Tests

See Front Cover

➤ THE FIRST photograph to be released by the U. S. Air Force showing the liquid rocket motor activities of Bell Aircraft Corporation, Buffalo, N. Y., is shown on the cover of this week's SCIENCE NEWS LETTER. Two rocket motors, designed for use in guided missiles, are pictured being fired simultaneously.

Science News Letter, April 26, 1952

NUTRITION

Fat Persons Eat No More Fat Than Normals Do

➤ JACK SPRAT to the contrary, normally lean persons eat as many of their daily calories in fat as do very fat persons. Both groups choose more than the proportion generally regarded as normal for grown-ups on moderate calorie diets.

This was the case for 125 grown women, some very fat and some normal in weight, as reported by Drs. Rachel Beaudoin and Jean Mayer of Harvard School of Public Health at the meeting of the Federation of American Societies for Experimental Biology in New York.

Both groups, fat and normal, choose from 35% to 40% of their calories as fat rather than the 25% generally considered normal.

The very fat women, again contrary to what might be expected, did not eat a larger proportion of starches and sugars than the normal weight women.

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CHEMISTRY

Diesel Fuel Ignition Bettered by Chemical

➤ A FUEL additive which has been developed to improve ignition qualities of diesel fuel was announced in New York by B. Bynum Turner, vice-president in charge of research and engineering of the Ethyl Corporation.

Mr. Turner said as little as one-tenth of one percent by volume of the ignition improver is enough to raise the cetane number of many distillate heating oils within the range of commercial diesel fuels.

Cetane fuels, used in diesel engines, ignite more quickly than do octane fuels which are used in gasoline engines. The cetane number is an indication of the speed at which the fuel will ignite.

The fuel additive, called DB-36 amyl nitrate, will enable refiners to supply the required grades of diesel fuels in the needed quantities and at low cost, Mr. Turner speculated.

Science News Letter, April 26, 1952