



MAKING THINGS STICK—Using the gas adsorption apparatus shown here, scientists at the Chrysler Corporation, Detroit, are trying to tell how strongly molecules cling to surfaces under very pure conditions.

BIOCHEMISTRY

Male Hormone Change By Cancer Cells Irregular

➤ BETTER RESULTS from male hormone treatment of cancer are expected as a result of studies by Dr. Henry M. Lemon and associates of Boston University School of Medicine.

A method has been developed by these scientists "for determining the chemical action between cancer cells and male sex hormones," the American Cancer Society, which supports the research, has announced. It involves the use of chromatography.

Normal tissue, the scientists find, changes male hormone into other chemical compounds at a fairly uniform rate. Cancerous tissue changes the hormone at a rate that varies widely and has no uniformity.

Dr. Lemon reported the findings at a meeting of the American Federation for Clinical Research in New York.

Science News Letter, December 20, 1952

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MEDICINE

Trace Cancer Spread

Intravenous injections of human serum albumin combined with radioactive iodine can be used to spot cancer of the liver only.

➤ THE SPREAD of cancer from other parts of the body to the liver can be traced by a promising new method developed by three University of California at Los Angeles scientists and reported at the Radiological Society of North America meeting in Cincinnati.

The technique was developed at the Los Angeles Veterans Administration Center by Drs. Lloyd A. Stirrett and Eric T. Yuhl of the surgical staff and Dr. Raymond Libby, consultant physicist.

The method involves the use of small, intravenous injections of human serum albumin combined with radioactive iodine. For some reason, cancerous tissue takes up more of the radioactive iodine than normal tissue.

A scintillation counter, an instrument much more sensitive to the gamma radiation from radioactive iodine than a Geiger counter, is used to detect the malignant area. The scintillation counter was developed at the U.C.L.A. Atomic Energy Project. It has been used with considerable success by Drs. Yuhl and Stirrett for the diagnosis of brain tumors.

To date, the test has been applied to more than 150 patients with proved cancers

and has been 95% accurate in diagnosing whether or not the cancer has spread to the liver. Occasional false positives occur in patients with diseases which produce accumulations of fluid within the abdomen.

The test takes only 20 minutes to perform, is harmless and there is no discomfort whatsoever to the patient. It has been used extensively in the surgical department of the Veterans Administration Hospital in the study of patients before and after cancer surgery.

The doctors emphasized that this procedure is not a test for cancer in general, but only for cancer of the liver.

As for the future possibilities of the technique being used to locate cancer anywhere within the body, the researchers are uncertain. Their work has only been concerned with cancer that spreads to the liver from other sources. Investigations along this line are planned, but the doctors emphasize that it may be several years before its application for the general diagnosis of cancer can be determined.

Science News Letter, December 20, 1952

ASTRONOMY

Mrkos Makes Discovery Of Second Comet in 1952

➤ A NEW comet has been discovered in the constellation of Virgo, the virgin, visible from the United States in the early morning hours.

Of tenth magnitude, the comet was spotted close to the brightest star in the constellation of Virgo, Spica, which is the 16th brightest star in the sky. It is too faint to be seen with the naked eye or binoculars, but can be picked up by a small telescope.

The diffuse stellar object will be known as Comet Mrkos after its discoverer, Antonin Mrkos of the Astrophysical Observatory at Skalnaté Pleso, Czechoslovakia. This is the third comet to the astronomer's credit. The two others were also of the tenth magnitude. One was spotted in May, 1952, and the other in January, 1948.

Report of the Dec. 9 discovery was cabled by Miss J. M. Vinter-Hansen of Copenhagen University Observatory to Harvard College Observatory, clearing house for astronomical information in the western hemisphere.

When discovered, the comet's right ascension was 13 hours, 27.0 minutes; its declination, minus 11 degrees, 50 minutes.

Science News Letter, December 20, 1952

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