

MEDICINE

Cancer Proved Contagious

The virus of Rous sarcoma, one form of poultry cancer, has been transmitted to healthy chickens in direct contact with diseased birds for the first time.

► **CANCER** has been proved contagious for the first time.

Rous sarcoma, a virus-caused cancer found in chickens, can be transmitted from bird to bird by direct contact, Dr. B. R. Burmester of the U. S. Department of Agriculture's Regional Poultry Laboratory, East Lansing, Mich., has found.

Until now Rous sarcoma, which has been used in research for 50 years, was thought to be non-contagious. Studies to date suggest that similar virus-caused cancers may also prove contagious.

The new find not only lends weight to the belief of many scientists that viruses cause some forms of animal and human cancers, but also may aid in fighting these diseases.

The experiments that led to proof of the Rous sarcoma virus' contagious nature gave clear-cut results. Dr. Burmester inoculated a number of chickens with the virus, either by under-the-skin injection or intravenous injection, placed these birds in the same pen with healthy chicks and raised them to maturity.

In one test, 35 of 45 healthy birds raised in direct contact with birds inoculated subcutaneously died of Rous sarcoma. Of 59 chickens reared in direct contact with 118 birds inoculated intravenously with a low dose of the virus, six developed tumors and died.

Virus taken from the tumors of contact-infected birds was found to be the same as the virus used for inoculation. The concentration of virus in tumors from contact-infected birds was directly proportional to the amount used to inoculate the chickens to which the contact-infected birds were exposed. Under the microscope tumors from chickens infected artificially or by contact were the same.

In another experiment, healthy chickens were put in the same cubicles with virus-inoculated chickens, but were separated by a wire-mesh screen. None of the healthy birds died with tumors. Direct contact is thus far superior to indirect contact for transmitting the virus.

How the virus is transferred from bird to bird is still unknown, but a few facts have been established. Chickens made to breathe high virus doses in aerosol form did not develop tumors, but more than half developed tumors when the virus was artificially instilled in the nasal passages.

No tumors resulted when virus was placed under the chicken's tongue or when it was applied to a nonfeathered area of intact skin. But 80% developed tumors when the virus was rubbed into a skin scratch or on an area where immature feathers had been extracted. It has also been established that the virus can enter a bird's body through a feather follicle

and cause local as well as internal tumors.

Dr. Burmester emphasizes that the chickens used in the experiments belong to a highly inbred line known to be susceptible to the Rous sarcoma virus. He also noted that it took much longer for tumors to develop and for death to occur in the contact-infected birds than in the inoculated birds. First tumor deaths in contact-infected birds occurred 37 days after penmates were inoculated compared with 14 days in the inoculated chicks.

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MEDICINE

Unique Israeli Medical Center Is Opened

► **AN ULTRA-MODERN \$25,000,000** medical center, entirely financed and designed in the United States, has been officially opened in suburban Jerusalem.

The facility, the only one of its kind in the Middle East, is the gift of Hadassah, the Women's Zionist Organization of America. It will be known as the Hadassah-Hebrew University Medical Center. The design of the Center is the work of Joseph Neufeld, New York architect.

The opening and dedication of the Center in Israel was observed in Washington by officials of the U. S. Department of Health, Education and Welfare and the Embassy of Israel at a special meeting sponsored by Washington representatives of Hadassah.

The unique 500-bed hospital of the Center may be the forerunner of hospitals of the future both here and abroad. Among its unusual features is the concentration of all nursing and medical care at the center of each semi-circular floor. This gives the medical and nursing staff easy and more complete observation of patients.

Hospital rooms can be converted from single to double to triple accommodations by means of easily maneuverable panels on the outside of the architectural circle. The hospital also will serve as a teaching institution with service laboratories.

The center comprises 17 structures, making it the largest complex of buildings in Israel. Besides the hospital, there is a separate mother and child pavilion for maternity and infant care; an outpatient department that can handle more than 200,000 patient visits annually; the Hebrew-University Hadassah Medical School, Israel's only medical school, founded in 1949 by the Hebrew University and Hadassah; and the Henrietta Szold School of Nursing and Residence.

In keeping with Hadassah policy, medical treatment will be available to Arab, Christian and Jew alike.

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PSYCHOLOGY

Vitamin A Maintains The Sense of Taste

► **VITAMIN A** maintains the sense of taste, experiments at the Long Island Jewish Hospital have revealed. The Nutrition Foundation in New York reported that laboratory animals deprived of the vitamin were unable to distinguish between regular tap water and ultra-sour quinine water. Chief sources of vitamin A are milk, egg yolk, yellow fruits and the yellow and dark green vegetables.

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