

PHYSIOLOGY

Mosquito Gives Cancer

Mosquitoes fed on the blood of hamsters with cancer can transmit cancer cells to previously cancer-free hamsters causing tumors to develop—By Faye Marley

► **CANCER CELLS** can be transmitted by mosquito, at least between hamsters, it has been proved for the first time in experiments at the National Institutes of Health, Bethesda, Md.

One of the researchers, Dr. Paul A. Woke, told **SCIENCE SERVICE** that "there might be possible applications to human neoplasms."

The mosquito in question is the *Aedes aegypti*, famous for transmitting yellow fever and dengue fever in humans.

Dr. Woke, of the laboratory of tropical virology, National Institute of Allergy and Infectious Diseases, said that the tumor cell transmission by an arthropod was the first to be done as far as he knew. Viruses have been transmitted, but not cells.

The type of tumor transmitted was the transplantable contagious reticulum cell sarcoma TM with "leukemia manifestations," and contained no virus.

In one experiment, mosquitoes fed on anesthetized hamsters and carried tumor cells from their blood to cancer-free hamsters. Within 23 days, five of the 50 recipients developed tumors that resembled those of the donors. The first tumor observed developed in a hamster that had been bitten by mosquitoes 13 days previously. In some of the hamsters, the cancer cells spread. Some of the cancers were under the skin

but others were found in kidneys, thymus, lungs, liver and other viscera.

Collaborating in the study besides Dr. Woke were Dr. William G. Banfield of the National Cancer Institute, project director; Carol M. MacKay, also of the Cancer Institute; and Dr. Herbert L. Cooper of the National Institute of Dental Research's Section on Cellular Biology and Cytogenetics, Bethesda.

The scientists reported several experiments in *Science*, 148:1239, 1965, but did not speculate on their human applications.

• *Science News Letter*, 87:371 June 12, 1965

PSYCHOLOGY

Male Alcoholics Seek 'Nurse Type' Wives

► **SOCIAL WORKERS** have discovered in work with male alcoholics that the latter often marry rather energetic nurse-type wives who like responsibility and enjoy having a dependent and irresponsible child as a husband, whom they can care for.

It has also been found that once a husband stopped drinking his wife either became depressed or ill herself or managed by subtle means to undermine the improvement so that the man started drinking again. This state of affairs was revealed by

Miss G. M. Goldberg, research officer of the National Institute of Social Work Training, at the Royal Society of Health congress in Eastbourne, England.

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MEDICINE

Shedding Lung Cells Cause 'New' Disease

► **IF THE CELLS** lining the bronchial tubes of a person's lungs shed and die, clogging the air passageways, he could be suffering from a newly discovered lung disease.

The disease, which was detected by Dr. Bernhard Steinberg, associate professor of research, Loma Linda University School of Medicine, Loma Linda, Calif., is probably caused by an unidentified virus.

Dr. Steinberg first noted the condition seven years ago in an autopsy of a man who had apparently died of suffocation. The air sacs of his lungs and bronchi were so filled with dead cells that oxygen could not penetrate the passageways.

Known clinically as "exfoliative bronchoalveolar disease," or EBAD, the condition brings fever, a dry and hacking cough, pains in the chest and back, discomfort, shortness of breath and the bluish color of cyanosis to its victim.

EBAD interferes with the exchange of gases in the lungs necessary for breathing and survival. It may cause death itself, or complicate and aggravate a pre-existing disease, Dr. Steinberg told the Annual Meeting of the National Tuberculosis Association and the American Thoracic Society in Chicago.

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MEDICINE

Antibiotic's Danger Less If Dosage Is Reduced

► **THE RISK** of dangerous aplastic anemia to patients taking the antibiotic chloramphenicol (trade name, Chloromycetin) can be reduced by limiting the dose and length of time given, a team of California physicians reported.

Chloromycetin is prescribed widely by some physicians because it has advantages over other antibiotics in some conditions. Serious reactions are sometimes fatal.

Forty-one middle-aged or elderly men at Wadsworth Hospital, Veterans Administration Center, Los Angeles, 25 of them with staphylococcal infections, were treated daily with either two grams or six grams of Chloromycetin. Toxic bone-marrow depression, predominantly affecting the formation of red blood cells, developed in two of 20 patients who got the lower dose, but in 18 of 21 who received six grams.

Blood and bone marrow changes promptly disappeared after the drug was stopped, but the researchers said even mild toxicity should be avoided by "limitation of dosage and duration of therapy."

Researchers were Drs. James L. Scott, Sydney M. Finegold, Gerald A. Belkin and John S. Lawrence.

• *Science News Letter*, 87:371 June 12, 1965



Kanthal Corporation

ELECTRIC WAND—An electric "wand," operated by means of an iron-base resistance heating wire made by the Kanthal Corporation, Bethel, Conn., makes a neat circular cut around the top of eggs which must be opened yet must be kept completely sterile.