

MEDICINE

Virus Is Cancer Carrier

► COMMON HUMAN VIRUSES act as carriers in causing cancer by interacting with cancer-causing chemicals, experiments indicate.

Immunization against such viruses may be possible, thus reducing the chances of cancer formation, four scientists at Seton Hall College of Medicine, Jersey City, N. J., report in *Science*, 134:1985, 1961, the journal of the American Association for the Advancement of Science.

Cancer-causing substances too small to produce tumors by themselves became active when combined with single doses of virus pairs. Malignant tumors appeared in five groups of injected mice.

The viruses used were vaccinia, ECHO 9, Coxsackie B-4 and poliovirus 2 in fully infected tissue cultures of monkey kidney. Half of a group of 108 male Swiss white mice (Webster strain) were immunized against vaccinia virus and half against fro-

zen-thawed monkey kidney cells. All mice were then injected with combined virus and cancer-causing chemical.

After eight months the only tumors observed were in a group of eight mice not immune to vaccinia virus. This led the scientists to believe that it may be possible to reduce the occurrence of tumors supposedly caused by cancer-causing chemicals by immunization against a virus.

Drs. Christopher M. Martin, Sigmundur Magnusson, Philip J. Goscienski and Gerard F. Hansen are reporting the study. They point out that viruses also may activate other cancer-causing substances besides chemicals in the environment.

The cancer-causing chemicals were DMBA (9, 10-dimethylbenzanthracene-1, 2), AF (2-aminofluorene) and DBA (1, 2, 5, 6-dibenzanthracene).

• *Science News Letter*, 81:7 January 6, 1962

exhibits for the P.T.A. during the annual Education Week. Discussions of science magazine articles on new developments and student projects have proven to be most effective for their club programs.

SCA headquarters office at 1719 N St., N.W., Washington 6, D. C., welcomes news of what your club is doing.

• *Science News Letter*, 81:7 January 6, 1962

MEDICINE

New Technique Will Aid Tumor-Relation Study

► A TECHNIQUE has been developed that will allow more accurate study of tumors and their relationship to the person or animal on which they grow.

The technique, developed by scientists of the U. S. Public Health Service's National Cancer Institute, Bethesda, Md., consists of growing "isolated" tumors in laboratory animals. The tumors are isolated from surrounding organs and connected with the host animal by only a single artery and vein, from which blood can be drawn.

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PUBLIC HEALTH

Birth Rate Remains High

► THE BIRTH RATE in the United States has maintained a fairly high level despite a slight drop in 1960, the latest figures from the U.S. Public Health Service show.

The final figure for 1960 live births registered in the U.S. was 4,257,850, which is about 4,000 less than were registered in the 50-state area in 1959. Information collected for the first nine months of 1961 indicates there will be appreciably more births in 1961 than in 1960, but the number of live births may decline slightly.

During the last four years total births have alternately increased and decreased, but the number of live births per 1,000 population has decreased slightly each year, from 25.0 in 1957 to 23.7 in 1960.

Alaska, with 33.4 live births per 1,000 population in 1960, led the country in the

number of live births per 1,000 population. In 1950 it was fourth. Hawaii, with 27.2, is now ranked sixth with Mississippi.

The lowest birth rate in 1960 was recorded for West Virginia with 21.2. In 1950, West Virginia was 22nd with a rate of 25.2.

State-by-state changes in birth rates are attributed to several causes, including the probable postponement of births in certain areas where unemployment is high. Also implicated are the migration of young adults of childbearing ages and differences in age composition of state population.

The Public Health Service predicted that beginning about 1965, more young women will reach childbearing age each year because of the increase in births immediately after World War II.

• *Science News Letter*, 81:7 January 6, 1962

GENERAL SCIENCE

News From Science Clubs

► CLUBS CONTINUE to report interesting, worthwhile club projects to Science Clubs of America.

The BIOLOGY CLUB of the Benjamin Franklin High School, New York City, has divided its members into two divisions, one group specializing in the study of anatomy and dissection and the second in genetics and animal behavior.

SPALDING SCIENCE CLUB members from Spalding Institute, Peoria, Ill., wash cars and use this income to donate equipment to their science department.

The science and community activities of the SCIENCE CLUB at St. Joseph's High School, Hilo, Hawaii, include the annual school science fair, a tree nursery and field

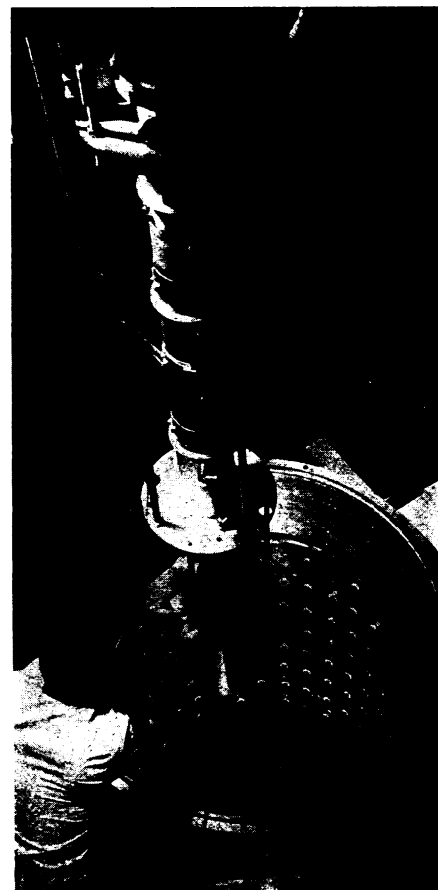
trips to the Hawaiian Volcano Observatory.

The JONAS SALK SCIENCE CLUB at the Hilda Roberts Elementary School, New Iberia, La., sponsors a science fair and the Schoolground Safety Patrol for their school.

The new VIKING DISCOVERERS, Northside High School, Roanoke, Va., held a contest and awarded a prize to the student who suggested the best club name. The club has three sections of interest: astronomy, biology and ham radio.

The members of the FAYETTEVILLE HIGH SCIENCE CLUB, Fayetteville, Ark., present science demonstration programs to the community civic clubs.

The SLOCOMB SCIENCE CLUB at Slocomb High, Slocomb, Ala., displays science



CANCER FOE—A 12.5 million watt power amplifier is lowered into an oven for vacuum bakeout. This type amplifier, developed for high power radar systems by Sperry Electronic Tube Division, Great Neck, N. Y., will also be used in electron accelerators for cancer treatment and sterilization of foods, medical supplies and instruments.