

712 To Upgrade Graduate Biomedical Studies.

Five universities will share a \$3 million HEW grant to upgrade graduate biomedical studies. The Department of Health, Education, and Welfare (HEW) grants are awarded to the University of Colorado, Boulder and Denver; University of Oregon, Eugene; Purdue University; Vanderbilt University; and Washington University, St. Louis, Mo. The grants are part of the continuing National Institutes of Health's health sciences advancement award program. Awards may be used to initiate or further biomedical research. Clearly defined institutional plans of study are required for receipt of the grants, but research may cover diverse subjects in medicine, such as biomathematics and behavioral research. -- Chem. Eng. News 45, 33 (July 17, 1967).

713 Aviation Accidents.

General aviation accidents accounted for 80%—or, 1,069—of the 1,340 civil aviation deaths reported by the Civil Aeronautics Board in 1966, the National Safety Council reported. It was the third straight year in which deaths in general aviation, as opposed to commercial or military aviation, topped the 1,000 mark. -- AMA News 10, 1 (June 5, 1967).

714 Swimming Pool Fatalities.

A prediction that 350 people, mostly youngsters under 10, will die in residential swimming pool accidents this year has been made by the U.S. Public Health Service. The PHS said that more than half of all pool fatalities could be prevented by adequate fencing and other protection around the pool, adult supervision of youngsters in the water, and instruction of young children in water-survival knowledge and skills at the earliest possible age.

-- AMA News 10, 2 (June 5, 1967).

715 Reading X-Ray Films by Digital Computer.

In NASA Tech. Brief No. 67-10005 a process is described for the use of a computer for enhancing areas of x-ray photographs to provide better comparison and easier reading. The photograph is converted to a suitable form for input to the computer by a cathode-ray tube device that scans the film with a light beam on a line-by-line basis and converts each point of the picture to a number proportional to the film optical density. Each sample (typically 500,000 samples for a one square inch transparency) is recorded on magnetic tape which is subsequently fed into a computer. Reconstituting the film from the computer data permits many useful manipulations of the picture. Loss of detail resulting from the use of fluorescent x-ray intensifying screens can be overcome or specified areas of the film can be intensified. The computer also permits image subtraction of x-rays taken at different times thus highlighting any changes which may have occurred. Inquiries concerning this innovation may be directed to: Technology Utilization Officer, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, California 91103. Please refer to Reference: B67-10005.

-- Am. Ind. Hyg. Assn. J. 28, 290 (May-June, 1967).

716 To Study Effect of Laser on Cancer.

The National Cancer Institute will study the effect of laser beams on cancer. A laser instrument developed by the U.S. Army Missile Command is being installed and modified at the National Institutes of Health, Bethesda, Md. The device arises from year's combined study by the Missile Command and the National Cancer Institute (NCI) scientists. It has already been used to expose internal and external cancer growths of laboratory animals to pulses of infrared light. Headed by Dr. Alfred S. Ketcham and Dr. Robert C. Hoye of NCI, a research team will make further animal studies to determine the laser's use for treating malignant tumors in humans.

-- Chem. Eng. News 45, 33 (July 17, 1967).

717 Arsenic Not a Cumulative Poison.

Arsenic is not a cumulative poison in the body, contrary to common belief, according to Dr. S.A. Peoples, Professor of Comparative Pharmacology at the University of California, Davis. In most instances, the body eliminates the element about as fast as it takes it in, he says. Rats, however, do store it in their tissues, causing their eventual death. Arsenic is a normal constituent of plants and animals (including man) through food intake. Some organic arsenicals, in fact, promote growth of livestock, Dr. Peoples notes.

-- Chem. Eng. News 45, 29 (June 26, 1967).

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