PHS APPROVES 22 SPECIAL CANCER CONTROL GRANTS

Twenty-two special cancer control grants totaling $265,000--including two of key importance to the Nation's defense efforts--have been awarded to universities and other research organizations by the Public Health Service.

The grants were approved by Surgeon General Leonard A. Scheele following recommendation by the National Advisory Cancer Council.

The two awards of special defense significance will finance studies of possible harmful effects of radioactive ores and dusts from uranium mines and mills, and of certain petroleum products.

At the University of Utah, Salt Lake City, Dr. John Z. Bowers will set up research facilities to expose animals to dusts under conditions similar to those found in uranium mining and milling.

Hydrocarbons found in crude oil and in products formed in oil refining and catalytic cracking will be studied by Drs. John W. Mehl and Hugh A. Edmondson at the University of Southern California School of Medicine, Los Angeles.

The grants to the foregoing universities are a part of NCI's program to support cancer prevention studies in universities located in areas where possible cancer hazards are present. Utah is a uranium mining and processing area, and southern California is subject to waste fumes and gases from its oil refineries.

The 22 special cancer control grants went to universities and other non-Federal agencies in 12 States, the District of Columbia, and the Territory of Hawaii to aid development of cancer control methods and services.

NIH ORIENTS ARMY MEDICAL OFFICERS

Group Here Two Days To View Lab Research

Sixty-five medical officers enrolled in the graduate school of the Army Medical Center in Washington, D.C., received a broad and intensive orientation at NIH on March 15-16.

The two-day program was designed to give the visitors a general understanding of NIH research objectives and methods through laboratory demonstrations, lectures, and films. The officers are undergoing training in basic medical science and military medicine at the Army's graduate school.

After an over-all briefing on NIH programs the first morning, the officers split into smaller groups and were taken into the laboratories for one-hour presentations.

Subjects covered in the first elective period included chemical problems of cortisone; a test of resuscitation methods; studies in polio; studies in cell survival and its relation to cancer; and experimental pathology in radiation injury and blood substitutes.

The second period covered nutritional research; instrument development for heart research; neurophysiological research; tuberculosis studies; and a demonstration of the growth-promoting effect of vitamins and hormones.

In the afternoon the group viewed an NCI teaching film on gastrointestinal cancer, which was followed by an explanation of the NIH research grants program and a discussion of photosynthesis studies.

The program for the second day began with a discussion of the Clinical Center, followed by laboratory presentations of such subjects as synthetic pain-relieving drugs, virus diseases, shock treatment, and electron microscopy of tissues. With the afternoon activities, the officers completed the busy two-day schedule, viewing a documentary film on ACTH and listening to discussions on blood research and drug addiction studies.
Of the world's some two billion inhabitants, a staggering number suffer from such parasitic diseases as trypanosomiasis and schistosomiasis. The latter disease alone affects more than a hundred million people in Asia and Africa. During World War II, it afflicted 1,700 fighting men on Leyte in the Philippines.

Fundamental aspects of trypanosomiasis and schistosomiasis are being studied by NMI's Laboratory of Tropical Diseases, Subsection on Physiology. This unit is headed by Dr. Theodor von Brand, whose staff includes Dr. Eugene C. Weinbach, Benjamin Mehlman, Charles E. Clayget, and Mrs. Rachel Dudley. Principal objective of their studies is to learn how drugs act on parasites and on intermediate hosts of parasites.

The trypanosomes causing African sleeping sickness live and multiply in the blood plasma and lymphatic glands of man. These parasites are transmitted by the bites of tsetse flies, causing a chronic disease that gradually undermines health and vitality.

As a result of studies utilizing blood from infected rats, Dr. von Brand and his colleagues have explained why arsenical drugs prove effective against the parasite causing African sleeping sickness, while the closely related organism of the South American disease does not react to the drugs. This is because the arsenicals act by inhibiting certain respiratory enzyme systems, which differ in the two groups of organisms. Cyanide inhibits the oxygen consumption of the South American organism, but is entirely inactive in the case of the African forms.

Other investigations concern the metabolism of snails that carry the agent of schistosomiasis in humans. Of special interest is the study of the anaerobic metabolism of snails—metabolism in the absence of oxygen. Field experience has shown that many snails escape the toxic action of molluscacides by burrowing into oxygen-poor mud and waiting until the poison in the treated water has dissipated.

In the absence of oxygen, some snails were found to accumulate relatively large amounts of lactic acid, a toxic product of anaerobic metabolism. Resistant snails do not. What little lactic acid they produce is excreted into the water. However, they do form relatively large amounts of fatty acids. In both cases the snails appear to die from acid accumulation.
NEW INTERCOM SYSTEM
AIDS NMI OPERATIONS

How does a laboratory working with contagious diseases handle the communication problems peculiar to its surroundings?

The answer at NIH is provided by Building 7, where a new intercommunication system was installed in the past year to serve staff members of the Laboratory of Infectious Diseases. Now that the "bugs" have been eliminated by several weeks' trial and adjustment, NMI believes the new system is functioning according to plan and providing the answer to many a vexing headache.

Here is how the system works. A caller who wishes to talk to scientist X dials extension 343, a trunk line with several feeder lines. The call is answered at a switchboard in the lobby of Building 7. The operator locates the scientist by paging him over the monitor circuit, which has loudspeaker outlets in all the labs and corridors. She may call over individual loudspeakers or, if necessary, over all of them at once. The scientist can also signal the operator and talk to her.

Notified that a call awaits him, the scientist then takes it over the nearest telephone. Unlike other buildings at NIH, Building 7 has no telephones in the laboratory workrooms. They are located in the corridors to reduce the hazard of transfer of contagious diseases under study.

The old system had proved inadequate and burdensome for several reasons. Building 7 had been constructed with the idea of reducing to a minimum the means of physical communication between the various parts of the building. The six laboratory areas were served by only one telephone outlet each. Consequently much time was lost locating personnel on incoming calls.

The new system was installed by the NIH Electrical Shop and integrated with the trunk line service supplied by the telephone company. Operations are not limited to telephone calls. Visitors to the building are served in the same manner, with the operator paging the requested staff member over the monitor circuit.

TAKE A DEEP BREATH AND HOLD IT!

So You Want To Plant A Garden At NIH, Huh?

If you plan to swing a garden hoe down by T-6 this year, don't spare the calluses. That is, if you want to stay in the good graces of the committee appointed to see that NIH's garden plots are kept in apple pie order this season.

Just to make sure you get the general idea, a $3 fee has been introduced this year for the privilege of securing a plot and keeping it tidy. You get it back next fall--provided your garden has been planted within the assigned time limit and kept free of weeds throughout the season.

The new regulation is intended to discourage neophytes whose interest in gardening lacks sustained ardor. Emphasis this year will be on raising less weeds and more edibles--a commendable aim in view of the leukemic condition of most family exchequers in these days of soaring food costs.

Enforcement of the new edict will be the job of a task force headed by Dr. W. T. S. Thorp and including Dr. George A. Hottle and Mr. Kenneth H. Brown. They will inspect the area periodically.

Distribution of plots was scheduled to begin the end of March. Approximately 100 are available for cultivation this year.

FORTY FIRMS TO SHOW LATEST LAB EQUIPMENT

An exhibit and demonstration at NIH of the latest laboratory equipment of leading manufacturers has been scheduled for May 14-18, according to the Purchase and Supply Branch.

Approximately 40 firms in various parts of the country have accepted an invitation to display their equipment. A list of items to be exhibited may be obtained from the Purchase and Supply Branch.

Mr. James B. Davis, Chief of the Purchase Section, said that scientists who are interested in special items by manufacturers not on the invitation list should get in touch with his office, Ext. 561 or 563. He emphasized that the Branch is interested in receiving comments and suggestions regarding the project from laboratory personnel at NIH.

On the basis of replies received to date, manufacturers are cooperating wholeheartedly with the project, Mr. Davis said, and have agreed to prepare exhibits or demonstrations that cover a wide range of new and improved technical equipment.
NIH EMPLOYEE HELPS NAB HIT-RUN DRIVER

An alert NIH foreman of night cleaners who witnessed an auto accident involving two NIH employees on March 19, shortly after 5 p.m., was credited with blocking the escape of the motorist whose car struck two autos near the intersection of the south entrance to NIH and the Rockville Pike.

The foreman, James E. Selmon of the Buildings Management Branch, took off in pursuit of the driver, who failed to remain at the scene after sideswiping a car driven by Mrs. Herbert Tabor, wife of Dr. Tabor of NIAMD, then colliding head-on with another car driven by Miss Agnes V. Cosgrove, NIH employee.

As he headed north, Mr. Selmon signaled a Takoma Park police car near the Bethesda Naval Hospital, and both cars gave chase. The fleeing motorist was stopped on the highway just past the entrance to Building T-6. He was held there until Bethesda police arrived to take him into custody. Police said charges brought against the man included driving while drunk, reckless driving, and leaving the scene of an accident.

Miss Cosgrove received knee injuries in the accident, and her passenger, Miss Julia Rowady, also of NIH, struck her head against the windshield. Both were shaken up and bruised, but escaped serious injury. They were taken to Suburban Hospital in Bethesda and released later. The front of Miss Cosgrove's car was badly smashed.

Mr. Selmon, whose initiative led to the arrest of the hit-and-run driver, has been employed at NIH since 1938. He was praised by NIH officials for his alertness and responsibility.

DEATH RATE DECLINES

The year 1950 saw the lowest total death rate and infant mortality rate in the history of the United States, according to PHS's National Office of Vital Statistics. An estimated 1,456,000 deaths occurred last year, or 9.6 per 1,000 population. Previous low was 9.7 in 1949. Estimated number of deaths of infants under a year was 103,700 in 1950, or 6 percent below the 1949 figure.

NIH Spotlight

William Foster, Jr.

There were several things about the new worker that caught the attention of Dr. Julius White, Head of the Metabolism and Growth Unit in NCI's Biochemistry Section. For one thing, he was industrious, worked fast, handled glassware with dexterity, did more than was expected of him. For another, he was notably curious—a habit of mind scientists are quick to appreciate.

For such a worker there is a place in all laboratories. And so Dr. White had William Foster, Jr., transferred permanently to his unit. Now a physical science aide, Foster can take pride in the part he plays in Dr. White's studies of the metabolism of normal and tumor tissue.

Foster operates the high vacuum apparatus used to convert ammonia into nitrogen. This task requires considerable skill, since it involves working with substances rarely over a milligram in size. Foster is able to carry out about 30 operations a day with the apparatus. According to Dr. White, 15 or 16 operations would be considered a good day's work.

The young science aide came to NIH three years ago as an animal caretaker. Several months later he was assigned to Dr. White's laboratory as a glass washer. His subsequent service there marked him as a promising assistant.

Born in Washington, D.C., in 1923, Foster worked as a War Department messenger following graduation from Lincoln High School in Rockville, Md. In 1943 he entered the Army, where he served four years. He is married and has two children.

NIH Spotlight

COURSE IN STATISTICS PLANNED FOR EMPLOYEES

A course in statistics, emphasizing application to laboratory research, will be offered to qualified NIH employees if sufficient interest exists.

Staff members who would like to take the course should communicate with Dr. Harold F. Dorn, Chief of the Biometrics Branch, Room 2203, Bldg. T-6, indicating their time preference for a class period.

The lectures are intended mainly for staff members engaged in planning and carrying out research projects. Applicants should have a bachelor's degree and some experience in laboratory research, although academic training in statistics will not be required.

Preliminary plans are to offer the course during working hours for two hours a week through June. The course would be resumed in the fall if enough interest is indicated.

PIANO FOR WILSON HALL

The Recreation and Welfare Association has made available to NIH a concert grand piano for use in Wilson Hall. The piano, of German make, was purchased for $895 and is being paid for on the installment plan from receipts derived from membership dues. A drive for new members will begin soon to boost this fund.

The Association hopes to start a lending library for NIH employees in the near future. As soon as quarters are made available, it plans to buy about $150 worth of books. Additional books will be donated by employees.

LABORATORY HAZARDS

Five common habits of neophyte chemists have been listed by the National Safety Council as likely to lead to laboratory accidents. They are: over-enthusiasm in working with chemicals without full information; lack of eye-protection consciousness; poor housekeeping tendencies; sucking liquids into pipette with mouth; and lack of appreciation of toxic effects of hazardous compounds.