

the



Record

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

November 21, 1972
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NATIONAL INSTITUTES OF HEALTH

Dr. Thomas King Shares French Academy Award



Dr. King's studies with Dr. Briggs on cell nucleus transplantation started in 1952, when they were both with a research institute in Philadelphia.

Dr. Thomas J. King, National Cancer Institute, shared the prestigious French Academy of Sciences award with Dr. Robert W. Briggs, a grantee of the National Institute of General Medical Sciences.

They were given the prize—\$24,000—for their work in cell nucleus transplantation.

Dr. King is program director of the Division of Cancer Grants; Dr. Briggs is a biologist in the Department of Zoology, Indiana Univ.

The joint work on their award-winning study started as far back as 1952, when they were both with the Institute of Cancer Research in Philadelphia.

Dr. King, who served in the Pacific during World War II, graduated from Fordham University. In 1953, he received his doctorate in cell physiology from New York University.

From 1950 to 1967, he was with the Institute of Cancer Research. He left there to teach at Georgetown University. Dr. King joined NCI last September.

However, he still continues to lecture at Georgetown's Department of Obstetrics and Gynecology. He also serves as a developmental biologist at the university's Joseph and Rose Kennedy Institute for the Study of Human Reproduction and Bioethics.

NIAID Sponsors Meeting On Interferon, Promising Clue in Viral Illnesses

Interferon—what it is, how it works, and where research on it should be directed—was the subject of discussion among a group of international researchers meeting in Williamsburg, Va., last month.

More than 60 scientists from the United States and nine other countries attended the 1972 International Interferon Workshop sponsored by the National Institute of Allergy and Infectious Diseases. The other nations included Belgium, Austria, England, France, Italy, Germany, Japan, Canada, and Sweden.

Interferon is perhaps the most promising clue in the search for a substance to control illnesses caused by viruses. It is a protein produced by body cells in response to not only virus attack, but also certain protozoal parasitic infections, such as malaria, and some chemical inducers.

Special Areas Noted

Two areas were of special interest to the group, one dealing with the mechanism of action of interferon including induction, translation and transcription. New techniques utilizing cell-free systems have yielded much useful information.

(See INTERFERON, Page 4)

Methods to Strengthen the Protection of Individuals Involved in Clinical Trials Called for by Dr. Marston

In an address at the University of Virginia Medical School, Dr. Robert Q. Marston, NIH Director, called for measures to strengthen the protection of individuals involved in clinical trials.

At the same time, he pointed out there can be no progress against disease without experimentation involving human subjects. "There is immorality," he said, "in not carrying out necessary research involving human subjects."

Dr. Marston stated that research with human subjects is necessary because there may not be a suitable animal model for a particular disease; because even where animal experimentation is possible, there is a point where tests must be carried out in man, and because the experimental method is the only way to test procedures and therapies which are already in use.

He delivered the speech at the dedication ceremonies for the McLeod Nursing Building and the Jordan Medical Education Building at the University Nov. 10.

Reviewing present NIH guidelines for protection of the rights and welfare of human subjects, he emphasized the effectiveness of these guidelines while pointing out plans for stronger safeguards for research involving human subjects especially under conditions where informed consent is difficult to obtain.

In calling for better protection of human subjects, Dr. Marston

said, "Good science and high standards of ethics are closely linked. Indeed, the presence of risk places a special demand on us that only the highest quality of research be tolerated."

He proposed new regulations covering research in prisons and hos-

(See INDIVIDUALS, Page 7)

Seven Scientists Visit Soviet Union; Discuss Cancer Virus Research

Seven American cancer scientists flew to Moscow Nov. 11 to begin a 2-week exchange of information on cancer viruses with leading Soviet scientists.

The exchange is part of a U.S.-U.S.S.R. health agreement to share research results from cancer, heart disease, and environmental studies which was signed in Moscow in May 1972.

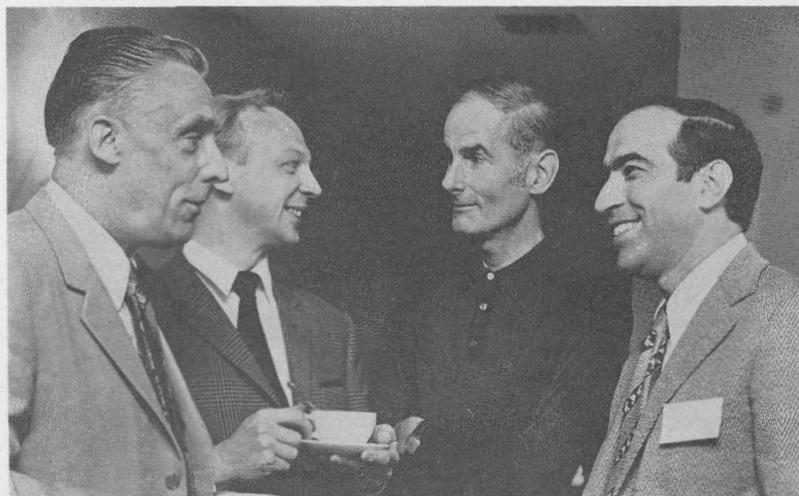
Present Virus Strains

As part of the exchange agreement, the U.S. scientific delegation will present to Soviet scientists 31 strains of cancer of viruses affecting chickens, cats, rodents, and non-human primates, as well as a possible human tumor virus from a muscle cancer.

The team of scientists, led by Dr. John B. Moloney of the National Cancer Institute, will visit cancer research institutes in Moscow, Leningrad, and Sukhumi.

They are expected to develop with the Soviet scientists a joint U.S.-U.S.S.R. plan for continued exchange of research results on cancer viruses.

Other members of the delegation are Drs. J. Thomas August, Albert Einstein College of Medicine; Friedrich Deinhardt, Rush-Presbyterian-St. Luke's Hospital, Chicago; Robert M. McAllister, Children's Hospital of Los Angeles; Timothy E. O'Connor, NCI; Fred Rapp, Pennsylvania State University, and Louis B. Sibal, NCI.



Drs. Pierre De Somer and Alfons Billiau, both of Louvain, Belgium; Norman Finter of London, England, and George Galasso, NIAID (l to r), chat informally during one of the workshop's breaks.—Newport News Daily Press

the  **Record**

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Dr. Brady Gives Early Morning Talk About Tay-Sachs on TV

Dr. Roscoe O. Brady, Jr., chief, Development and Metabolic Neurology Branch, National Institute of Neurological Diseases and Stroke, will be a guest on the Frank Field NBC (channel 4) Research Reports television program tomorrow (Wednesday, Nov. 22) at 6:30 a.m.

He will explain the nature of Tay-Sachs disease, a fatal, hereditary inborn error of metabolism which may occur in Jewish people of Eastern European descent.

The NINDS researcher will also describe methods to determine if the parents are carriers and if a fetus has the disease.

Dr. Brady was one of the first scientists to determine the missing enzyme which causes Tay-Sachs.

Nov. 30—Last Day to Enroll Or Change Health Benefits

Eligible employees have until Thursday, Nov. 30, to enroll or change their present plan during the "open season" under the Federal Employees Health Benefits Program.

Before that date, employees may contact their area registration assistant. Names and locations are posted on official bulletin boards, and are available in Personnel Offices.

New premium rates of the various plans become effective on Jan. 7. The bi-weekly deductions will be reflected in the Jan. 30 salary check.

NIH Television, Radio Program Schedule

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo 103.5—Friday about 2:30 p.m.

November 24

Dr. Stephen R. Heller, DCRT
 Subject: Computers in Chemistry

December 1

Dr. William R. Sanslone, NIDR
 Subject: National Caries Program

Interview takes place during the program *Listener's Choice*.

Television

RESEARCH REPORTS

WRC-TV (Channel 4) 6:30 a.m.

November 22

Dr. Roscoe O. Brady, Jr., NINDS
 Subject: Tay-Sachs Disease

Dr. Robinson, Child Psychologist, To Speak on Impact of Illness

Dr. Mary Robinson, child psychologist at St. Maurice's School, Potomac, Md., will speak on the Psychological Impact of Illness and Hospitalization Upon the Child, on Wednesday, Dec. 6, at 2 p.m. in the Jack Masur Auditorium. There will be a question and answer period following her lecture.

Dr. Robinson was formerly director of training, Child Development Section, Children's Hospital, Washington, D.C.

Make a Clinical Center Patient Happy—Contribute to PEF Through Davis Plan



... 25-cent presents for all



A braille watch to tell time . . .

NIH employees, through the Patient Emergency Fund, help provide a weekly allowance for Clinical Center patients who could not otherwise afford to buy stamps or make telephone calls home.

Last year, a small leukemia patient secretly saved pennies from the allowance his social worker gave him.

When Christmas time came, he proudly presented to his mother, father, and each of his 10 brothers and sisters a 25-cent gaily wrapped gift.

Other PEF expenditures have been larger.

One young lady at the CC had an eye disease that eventually led to blindness. Employee contributions to the emergency fund enabled her to purchase a \$19 braille watch so she could retain a measure of independence despite her devastating handicap.

Your Davis Plan contributions during this holiday season will help such CC patients in the year ahead to lead happier, more normal lives while they are here participating in NIH research programs.

Information about PEF may be obtained by calling the Social Work Department, Ext. 62381.

Henry T. Cram Dies; BHME Prog. Analyst

Henry T. Cram, 52, program analyst in the Bureau of Health Manpower Education and a veteran of 29 years of Federal service, died Oct. 26.

He was associated with the Bureau almost since its formation in 1967, and was formerly chief of its Educational Facilities Branch which administered the health professions teaching facilities construction program.

He also served with the former Bureau of State Services and the National Institute of General Medical Sciences.

During World War II he was a Naval aviator. Mr. Cram attained the rank of lieutenant commander in the Naval Reserve before retiring.

He leaves his wife Margaret of Reston, Va.; two daughters, Barbara Cram of Reston and Susan Davali of Reno, Nev.; one son, David L. Cram of Reno; his mother, Mrs. Mabel G. Cram of Portland, Oreg.; a brother, and two sisters.

Services were held at Reston and Portland.

Dr. McClure to Exhibit Prints

Dr. Frank McClure, who retired in 1966 as chief of the Laboratory of Biochemistry, National Institute of Dental Research, is having a one-man art show which will open on Dec. 10 at the June 1 Gallery of Fine Art in Washington, D.C.

He will exhibit lino-block prints. Dr. McClure's prints are in many private collections, and also in art galleries, including the National Collection of Fine Arts, the Butler Institute of American Art, the Indianapolis Museum of Art, and the Lafayette Art Center.

Society for History of Medicine To Hold Meeting November 28

The Washington Society for the History of Medicine will hold a meeting Tuesday, Nov. 28, at 8 p.m., in the auditorium of the Medical Museum of the Armed Forces Institute of Pathology, Walter Reed Army Medical Center.

Capt. William A. Schrader, deputy director, AFIP Medical Museum, will discuss the History of the Medical Museum of the Armed Forces Institute of Pathology.

The Early Years of the Army Medical School is the subject of Col. Robert J. T. Joy, deputy director, Walter Reed Army Institute of Research.

The meeting will be open at 7:30 p.m.; members may tour the museum after the discussions.

Dr. E. G. Frame Retires After 19 Years at NIH

Dr. Elizabeth G. Frame, assistant chief of the Research Fellowships Branch, National Institute of General Medical Sciences, retired recently after a 19-year career in the Public Health Service.

Dr. Frame became a member of PHS in 1953 when she came to NIH as head of the Biochemistry Service, Clinical Pathology Department, Clinical Center.

Previously, she had been assistant professor of physiological chemistry at the University of Minnesota and a research fellow at Harvard University Medical School.

Dr. Frame joined NIGMS in 1959 as executive secretary of the Developmental Biology Training Committee, Research Training Branch. She was also a scientist



Dr. Frame's retirement plans include planting rose bushes and traveling when and where she pleases.

administrator in that branch.

Before accepting the appointment she held at her retirement, she was with NICHD.

Dr. Frame received her B.A. and M.A. degrees from Dalhousie University, and her Ph.D. from Yale University.

Colleagues gave her a party and gifts.

Bus Service on Reservation Extended for CC Employees

Bus service has been extended by D.C. Transit officials for employees who work in the Clinical Center in the evening hours and leave after midnight.

The bus serving the National Naval Medical Center from Rockville to Washington, D.C., at 12:30 a.m., has been rerouted through the campus and now picks up passengers at the CC circle at 12:40 a.m. 7 days a week.

Revised schedules are available at reception desks.

Blood Bank Meets Needs Of Employees, Families



Beverly Rogers, Protection and Parking Branch, OAS, recently needed the services of the Blood Bank when her mother-in-law, suffering from anemia due to a digestive difficulty, required two transfusions. Robert Herz, donor section supervisor, contacted Suburban Hospital and arranged for replacement of blood units used.

NIH employees will soon be receiving their 1973 Blood Assurance Identification cards. For the past 2 years, the Clinical Center Blood Bank has been acting as direct agent in meeting the blood needs of employees and their dependents through its blood assurance program.

Calls for help have come in on the average of twice a week—"My daughter received a transfusion after an accident in California," "I'm going to have an operation next month," "My mother will need blood next week in New York."

During those 2 years, nearly 1,400 units of blood were supplied either directly by the Blood Bank, or through a credit transaction with the National Clearinghouse.

Each transfusion required an average of 7 units of blood—some required considerably more. Without the assurance program, the employee would have been called upon to locate enough donors to fill the need, or else pay approximately \$25 for each unit transfused.

Fortunately, however, all an employee must do is call the Blood Bank. The staff will handle the request from there by establishing a credit with the hospital and arranging to replace the blood used.

Recently the Blood Bank added a new service for employees. If a friend or relative needs blood in an out-of-town hospital, the employee may donate here and a credit will be sent to that hospital.

The Blood Bank can provide these services as long as NIH employees give enough.

For more information about coverage under the blood assurance program, or to register as a donor, call Ext. 61048.

CC Honors Employees In 1st Annual Awards Ceremony on Nov. 7

Nearly 200 Clinical Center employees were honored at the Clinical Center's First Annual Honor Awards Ceremony held Nov. 7.

CC Director Dr. Thomas C. Chalmers presented the awards. He praised the group, emphasizing the special services essential to attain scientific objectives and for the welfare of patients participating in the research.

Receiving PHS Commendation Medals were Margaret Benson, Elizabeth Edwards, Ruth Metka, and Doris Tansley, Nursing Department, and Jean Pope, Nutrition Department.

Alexander Davis and Fernando Leon were recognized for receiving the first two EEO awards.

Sixty-one Superior Performance Awards were presented.

These included a group award to the Blood Bank staff for their collective effort in planning and implementing a hepatitis-reduction program which later became a model for blood banks and hospitals all over the country.

CC employees receiving 30-year length of service awards were: Howard Branscom, Alexander Davis, Patrick Dennihan, and Paul Plumly.

Mary Dilworth Barnes Named To Advisory Council of NICHD

Mary Dilworth Barnes, an attorney and member of the Pennsylvania State Civil Service Commission, has accepted membership on the National Advisory Child Health and Human Development Council, NICHD, for a 4-year term.

Mrs. Barnes' memberships include the Board of Advisers, Federal Reformatory for Women; the Board of Pennsylvania Citizens Association Home for Aged Protestant Women, and the Women's Board, Western Pennsylvania Hospital.



Carmen H. Walker recently joined NIAID as an EEO specialist. Mrs. Walker, who received her B.A. and M.A. degrees from Howard University, has worked in tutorial and counseling projects, and community self-help programs.

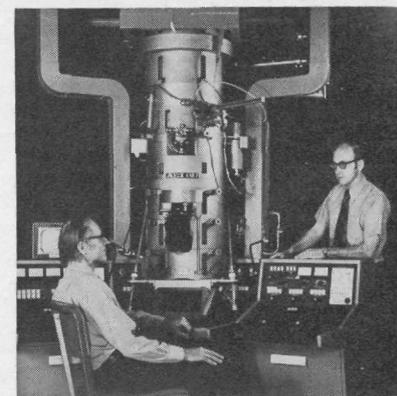
2 Electron Microscopes For Biomedical Research Housed in Universities

The world's first electron microscope for biomedical research capable of magnifying specimens 1,000,000 times is in operation at the University of Wisconsin. A second electron microscope with the same capabilities will soon be operating at the University of Colorado.

Both of these facilities were supported by grants from the Biotechnology Resources Branch, Division of Research Resources.

At Wisconsin, the electron microscope is in the Animal Sciences Building on the university campus in Madison. The Molecular Cellular and Developmental Biology Building at Boulder houses its electron microscope which will also be devoted solely to biomedical research.

The new microscopes will offer three features considered critical for in-depth biomedical cell research: (a) greater specimen penetration, (b) reduced specimen dam-



With the electron microscope, which will produce three-dimensional cell specimen photos never before obtained in the U.S., Dr. Ris (seated), hopes to unravel the inner workings of chromosomes and solve the chemistry of genetics. Dr. Dale Johnson, physicist in charge, will concentrate on radiation damage to specimens subjected to massive electron flow in the vacuum of the column.

age, and (c) greater sharpness of image.

According to Dr. Hans Ris, program director of the University of Wisconsin facility, one of the major advantages of the new microscope is the possibility of obtaining good images of much thicker specimens than is currently feasible.

"For instance, intact cells or sections of plastic-embedded cells one or two micrometers thick show detail to about 20 angstroms with excellent contrast on the million volt microscope," he said.

Dr. Ris is a cytologist who has been studying chromosomes for some 33 years. He feels that with

(See MICROSCOPES, Page 6)

Dr. D.C. Sharma Joins DRG Grants Associates

Dr. Dinesh C. Sharma has joined the Grants Associates Program for a year of training in grants administration.

Dr. Sharma comes to the Division of Research Grants from the University of Michigan where he recently completed the installation of a time-sharing on-line student enrollment and course information system.



Dr. Sharma He designed the command language, syntactic analyzer, and semantic interpreter for the operating system.

During this period (since July 1969), Dr. Sharma also continued research in endocrinology and cybernetics in collaboration with Dr. J. Lester Gabrilove, Mt. Sinai School of Medicine, New York.

From 1968 to 1969, he served as regents' professor at the University of California where he was involved in teaching, research, and consultation.

Dr. Sharma was associated with Syntex Research Institute as head, Department of Steroid Biochemistry from 1964 to 1968. At the same time, he did collaborative work with Mt. Sinai and the Kaiser Foundation Hospital, Oakland, Calif.

From 1961-64, he served as senior scientist with the Worcester Foundation for Experimental Biology, and as principal investigator and co-investigator on two NIH grants.

Dr. Sharma has earned the following degrees: B.Sc. in 1948, M.Sc. (chemistry) in 1950, and LL.B. in 1952 from Agra University, India, and Ph.D. in 1960 (chemistry) from the University of Bombay, India.

Also, Ph.D. (biochemistry and physiology) in 1961 from Kansas State University; D.Sc. (biochemistry) in 1971 from the University of Bombay (research was done in the U.S.), and M.S.E. (computer, information, and control engineering) in 1971 from the University of Michigan.

Dr. Sharma has authored or co-authored over 60 publications.

A native of India, he became a United States citizen in 1968.

NCI Offers Lab Safety Course In Wilson Hall, December 12-14

A course to teach Principles of Biohazard and Injury Control in the Biomedical Laboratory will be offered by the National Cancer Institute, Office of Biohazard and Environmental Control, in Wilson Hall, Bldg. 1, on Dec. 12-14.

Enrollment is open to those interested in laboratory safety and

Sociologists Discuss Dental Manpower Systems



Dr. Lois Cohen, chief, DDH Office of Social and Behavioral Analysis (front row, center), and research sociologists from the six countries discussed final data collection procedures for the study on dental manpower systems.

Research sociologists involved in an international collaborative study of dental manpower systems met recently at the Fogarty International Center's Stone House.

The project, which began in June 1972, under a Division of Dental Health, BHME, contract with the World Health Organization, will collect and compare information about representative national manpower systems in six countries—Australia, Bulgaria, Federal Republic of Germany, Japan, New Zealand, and Norway.

The systems will be analyzed in terms of the oral health of the countries' citizens.

The study will be conducted over a 2-year period during 1973-75.

Findings will be used to establish guidelines for using manpower and financial resources in a way which will help produce effective health services.

INTERFERON

(Continued from Page 1)

The other major area of discussion was the clinical application of interferon. This included the intensive research efforts on improving the methods of interferon production. Sufficient quantities of human interferon now can be produced both in leucocyte and diploid cell cultures to make limited field trials feasible.

The scientists are agreed that we have now reached the point where clinical trials, using both interferon inducers, such as polyinosinic-polycytidylic acid, and exogenous interferon should be increased in order to show their clinical usefulness and possible side effects.

The meeting was organized by Dr. George Galasso, acting chief of NIAID's Infectious Disease Branch.

accuracy. Arrangements may be made by calling Emmett Barkley at 496-6981.

Ludwig von Sallman Cited for Eye Research

The International Committee for Eye Research recently gave its first award in vision research to Dr. Ludwig von Sallman and two other scientists.

Dr. von Sallman, who organized the National Institute of Neurological Diseases and Stroke Ophthalmology Branch in 1956, retired in 1970. However, he is continuing his studies in the Laboratory of Neurophysiology, NINDS.

Co-winners Named

His former branch, where he served as chief for 14 years, was transferred to the Eye Institute the year he retired.

The scientists sharing the award with Dr. von Sallman were Drs. Zacharas Dische, College of Physicians and Surgeons, Columbia University, and Jean Nordmann, Strassbourg, France.

They were honored at a meeting of the Committee's Joint Symposia on the Lens and Aging held recently in Charleston, S.C.

5 HEW Agencies Sponsor Study on Labeling Young

The National Institute of Child Health and Human Development and four other HEW agencies are jointly sponsoring a project to study systems of what may be the mistaken labeling and classifying of children as delinquent, retarded, and emotionally disturbed.

The study will be headed by Dr. Nicholas Hobbs, Provost of Vanderbilt University.

HEW Secretary Elliot L. Richardson pointed out that "... some labeling practices represent a serious national problem.

"Early in life, a child could be mistakenly classified as mentally retarded when in fact, he is suffering from a hearing disability."

Infant Problems Noted In New DRR Booklet, 'How Children Grow'

By focusing on the unique problems of low birth weight babies, medical scientists may be able to cut the U.S. infant death rate in half, and perhaps eliminate the major cause of brain damage in children, according to a new Division of Research Resources' booklet, *How Children Grow*.

Infant survival is closely correlated to birth weight; the lower the weight of the newborn, the greater danger the child faces, say medical experts.

The booklet notes that scientists use a new technique to determine whether an unborn baby is growing normally by measuring the expectant mother's estriol hormone level.

Over 40 pediatric consultants associated with DRR's General Clinical Research Centers furnished background information for *How Children Grow*.

Growth Explained

The booklet tells the remarkable story of how a human being evolves from two germ cells into an adult made up of 100,000 billion cells.

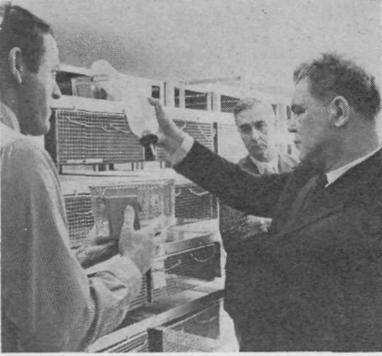
Its contents include sections on intrauterine growth; the effects on childhood growth of nutrition, hormones, illness, and emotion, and the role of obesity and early and late puberty on adolescent growth.

For a free copy of the new 56-page publication, write: Information Office, DRR, NIH, Bethesda, Md. 20014.



A doctor measures the growth progress of a petite 4-year-old who has been treated for pituitary gland deficiency with human growth hormone at a DRR-supported clinical research center at Washington U., St. Louis.

A group of experts from various fields, including mental retardation and minimal brain dysfunction, will work on the project. Later, the group expects to publish its findings.



Dr. Aleksandu V. Pavlov (r), a Russian scientist, recently visited NIEHS in Research Triangle Park, N.C., to discuss mutual environmental health problems. Dr. Pavlov, Deputy Minister of Health for Sanitation, visited labs and inspected equipment. Dr. John A. Moore, chief, Animal Science and Technology Branch (I), and Dr. William Payne, NIEHS Deputy Director, conducted Dr. Pavlov on the lab tour.

NIH Information Office Reorganized to Reflect Updating of Functions

A recently announced reorganization of the Office of Information, OD, encompasses a realignment of functions in its three branches—including updating electronic coverage of NIH activities—and three appointments.

Harold F. Osborne, who has assumed the post of Assistant Director in the Office of Information, rejoined NIH in 1968 as chief of the Publications and Reports Branch.

Prior to serving at the AEC for 5 years, he was NICHD's first information officer.

George J. Mannina has been named chief, Publications and Reports Branch, ODI. Mr. Mannina, formerly assistant branch chief, joined NIH in 1962.

The branch he now heads will continue to coordinate regular and special reports on NIH activities and review proposed publications.

Bowen I. Hosford is serving as chief of the recently renamed Audiovisual Branch, ODI. The change in name, formerly designated the Features Branch, reflects the change in its functions.

The Audiovisual Branch will provide electronic coverage of news events here, place material on radio and TV stations, and review film and exhibit proposals by various NIH components.

Mr. Hosford joined the CC Information Office in 1965, and became assistant chief of the News Branch in 1968. A member of the Virginia Bar, his avocation is writing about the law.

Guy W. Moore remains as chief of the News Branch, which will continue to coordinate overall NIH news activities, serve as central contact for public inquiries and news media and prepare NIH-wide features.

ECG Transmitter, Designed, Modified By DCRT, Is Made Available to Many

A little "gadget"—a small portable ECG transmitter—designed several years ago by William Holsinger and Kenneth Kempner, Division of Computer Research and Technology engineers, has been modified to the extent that what was once prohibitively expensive for heart patients has now been made available to many.

The transmitter was devised so that cardiac patients experiencing transient arrhythmias (irregular heart beats) could send their electrocardiograms across telephone lines from their own homes instead of traveling to a physician's office or medical center.

The device is especially useful for patients with implanted pacemakers. The pacemaker contains batteries which supply the voltage for keeping the heart beating rhythmically. If the battery begins to fail, the "paced" heart rate changes.

By periodically recording the ECG for analysis, the physician is alerted to worn out batteries and can plan for a replacement of the pacemaker.

Because of its possibilities, Dr. Herman Klingenstein, director of the MEDLAB Computer Project, and Dr. George Rios, chief of the Pacemaker Clinic, both of George Washington University, evaluated DCRT's transmitter in the clinic.

They found it so useful and so economically feasible that they submitted the design to a commercial manufacturing firm. Now, 50 of the transmitters are being manufactured for their patients who will follow this procedure:

The patient phones a technician at GW's Pacemaker Clinic. The

technician acts as intermediary between the patient and the MED-LAB computer.

She enters information such as his name and other facts, using a keyboard and television-tube terminal. She then has the patient send his ECG directly into the computer.

A small sound-producing transducer is placed on the mouthpiece of the receiver. The patient then puts his palms on two circular electrodes which pick up his ECG and send it to an amplifier and frequency modulating oscillator.

The result is an ECG converted into an FM signal by a process similar to that in an FM radio station. The FM signal is within the frequency range of human speech and passes through the sound producing transducer into the mouthpiece of a standard telephone.

The computer does a preliminary analysis on the ECG and presents it to the technician, who can immediately inform the patient and doctor about the condition of the pacemaker.

One version of the ECG transmitter, also designed by DCRT engineers, includes a cluster of 12 pushbuttons, similar to those found on the newer Touch-Tone telephones. With this model a patient can communicate directly with a suitably designed computer without the need of an intermediary technician.



In the ECG transmitter on the left, the patient can send his personal information directly to the computer by using the pushbuttons to spell out his name and the number assigned to him by attaching the sound-producing transducer to the receiver mouthpiece and placing his hands on the two disc electrodes on the device. The device on the right requires a technician to be present at the other end of the telephone line in order to type the identification of the patient.

Barbara Murphy Heads CC Social Work Dept.

Barbara A. Murphy has been appointed chief of the Clinical Center's Social Work Department.

Miss Murphy directs the CC program concerned with the psychosocial aspects of patient care in a research environment.

The department's goal is to alleviate personal and environmental



Miss Murphy's duties include administering the Patient Emergency Fund as well as directing an in-service training program for students in schools of social work.

difficulties that could interfere with the patient obtaining maximum benefit from CC services and NIH research programs.

In addition to collaborating with Institute clinicians in planning and conducting research involving patients with particular diseases, the department conducts independent social studies.

Miss Murphy came to the CC in 1953, serving as program supervisor of the Cancer Social Work Section, then as program supervisor of the Heart Social Work Section. In 1966 she was appointed assistant chief of the department.

Before joining NIH, Miss Murphy was a casework supervisor at the New York Hospital and a caseworker at the Strong Memorial Hospital in Rochester, N.Y.

She holds a B.A. degree from St. Lawrence University, an M.S. from the School of Applied Social Sciences in Cleveland, and a certificate for the advanced third-year program from the Columbia University School of Social Work.

9 Medical Research Centers To Investigate Crohn's Disease

More than \$660,000 has been awarded to nine medical research centers for a cooperative study of Crohn's disease, or regional enteritis, an inflammatory condition of the small intestine.

The contract was awarded by the National Institute of Arthritis, Metabolism, and Digestive Diseases.

New Clinical Cancer Fellowship Offered

The National Cancer Institute has announced a new Clinical Cancer Fellowship Program which offers support to qualified physicians and dentists for advanced training with emphasis on cancer.

Open to post-residents, practicing physicians, and dentists, the program provides opportunities for additional training in specialty fields which emphasize management of patients with cancer.

Young physicians practicing family medicine, for example, may want to apply for training in the diagnosis of cancer, or dentists might desire concentrated work on oral cancer or maxillofacial problems.

These fellowships must be held in institutions with a demonstrated interest and capability throughout all departments to provide for the study and care of cancer patients.

Training can be requested for a short-term or for a period up to 3 years, and applicants may apply for training in this country or overseas. Only American citizens, persons lawfully admitted for permanent residency at the time of application, or non-citizen nationals may be grantees under this program.

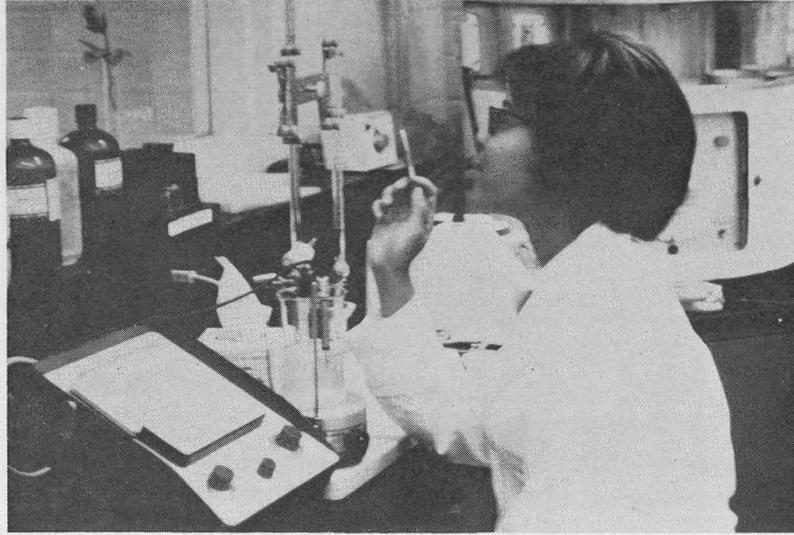
Cuban refugees are exempt from U.S. citizenship requirements. Students and persons here on temporary visas are not eligible.

Application deadline is Jan. 2, 1973. Applicants will be notified in June. Stipends will be determined on an individual basis.

To apply, write or telephone: Helen W. Denson, Division of Cancer Grants, NCI, Westwood Bldg., Room 849, 5333 Westbard Avenue, Bethesda, Md. 20016, (301) 496-7895.



Thomas H. Sherwin recently retired as personnel officer for NIAID's Rocky Mountain Laboratory in Hamilton, Mont., after 27 years. Initially a high school instructor, he began his Federal career with the Civil Service Commission in 1944. Although Mr. Sherwin and his wife plan to travel, they will continue to make their home in Hamilton.



Dr. Peggy J. B. Scurry has been awarded a minority group special fellowship from NIGMS. Dr. Scurry, an associate professor of chemistry at Bowie State College where she organized a sickle cell anemia clinic, will conduct research in that disease at the Center for Sickle Cell Anemia, Howard University Medical Center. One of the first to qualify for a fellowship under NIGMS's Minority Access to Research Careers Program, Dr. Scurry describes her goal as "... to direct a meaningful . . . program . . . at the college level . . . help develop a clinical method which will relieve the suffering of . . . victims."

MICROSCOPES

(Continued from Page 3)

the use of the new electron microscope he will be moving closer to unraveling the mystery of the inner workings of chromosomes. He is following the DNA fibre "which probably continues through the whole chromosome."

The increased sharpness of the image projected by the electron microscope will allow, for the first time, detailed study of intact cells or cell organelles.

"The great depth of field of the electron microscope allows stereoscopic imaging through specimen tilting," Dr. Ris explained. "This provides three-dimensional pictures never before achieved."

The gigantic instrument at the University of Wisconsin weighs 28 tons and is mounted on a 60-ton cement block. To eliminate vibration, the 88-ton installation floats on three compound plastic bags inflated by compressed air.

Made in England

Manufactured by AEI (Allied Electrical Industries) of Essex, England, the instrument is installed in a two-story space measuring 40 feet by 20 feet, and 30 feet high. A 4-ton crane is provided to remove the covers of the generator and accelerator when service is required.

The electron microscope nearing completion at the University of Colorado has been constructed with the same general specifications by Jeolco, Inc. of Japan.

Dr. Keith Porter, chairman of the Department of Molecular Cellular and Developmental Biology, is the program director.

Dr. Porter intends to concentrate his studies on the organization of

Symposium Scheduled On Research Methods, Instrumentation at CC

An all-day meeting entitled Symposium on Recent Developments in Research Methods and Instrumentation will be held on Nov. 30 in the Jack Masur Auditorium. There will be morning, afternoon, and evening sessions.

The meeting is sponsored by NIH in cooperation with the Washington sections of a number of scientific organizations. Representatives from the Federal Government, private industry, universities, and national scientific societies are expected to attend.

Dr. Robert Q. Marston, NIH Director, will open the meeting at 9 a.m. Addresses relevant to the symposium title will be presented by NIH scientists and other researchers, including biologists and chemists.

Dr. A. J. Sheppard, Food and Drug Administration, is symposium chairman. The scientific public is invited to attend the sessions. There is no registration fee.

For further information call Judy Summers, Office of Administrative Services, OAS, Ext. 62315.

the nucleolus—the cell center.

"The organization of the nucleolus is an area which we know nothing about, yet it's responsible for the organization, shape and function of the cell center. It is an apparatus which we can describe now only in the grossest terms," he explained.

Both facilities will be available to American scientists who want to delve further in specialized cell studies.

Part I of 'Grants' Series Includes Allotment Funds

A 261-page publication, *Public Health Service Grants and Awards Fiscal Year 1972 Funds*, Part I, NIH Research Grants, is the first in a six-volume series which will index all current PHS support to medical research and training, health manpower education and training, construction of research facilities, and research resources.

This volume offers the descriptions, locations, and monetary allotments for 11,524 research grants funded by NIH in FY 1972. The remaining volumes will soon be released.

PHS grants support research studies aimed at major diseases and other public health problems as well as the discovery of fundamental knowledge in the biomedical sciences.

Copies of Part I are available at \$1.50 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Editors may request single free copies from the Information Office, Division of Research Grants, Bethesda, Md. 20014.

Dr. William Hubbard Named Regent of NLM

Dr. William N. Hubbard, Jr., of Kalamazoo, Mich., has been appointed to the Board of Regents of the National Library of Medicine.

Dr. Hubbard, former Dean of the University of Michigan Medical School, is executive vice president of the Upjohn Company.

The Board of Regents advises the HEW Secretary and NLM staff on policy matters. Ten Regents are nominated by the President for 4-year terms, with confirmation by the Senate, and there are seven ex-officio members who are high-ranking Government officials in related fields.

This is Dr. Hubbard's second term as a Regent. He was first appointed to the Board in 1963, and was elected chairman twice, in 1965 and 1966. During that time, he was also named by the President to the National Advisory Commission on Libraries.

Dr. Alice M. Brues Named To NIDR Advisory Group

Dr. Alice M. Brues, educator and anthropologist, has been appointed for a 4-year term to the National Advisory Dental Research Council.

Dr. Brues received her A.B. degree from Bryn Mawr, and her Ph.D. degree from Radcliffe College.

She is an authority in physical anthropology, and, since 1966, has served as professor of Anthropology at the University of Colorado.



Eileen Pennington (l) and Kathleen Ryan, News Branch, ODI, admire their Special Achievement Awards presented to them by Guy Moore, branch chief. They assumed responsibilities and performed duties greatly exceeding those normally expected.

INDIVIDUALS

(Continued from Page 1)

pitals for the mentally ill and mentally retarded which would assure adequate safeguards against risks and require informed consent by the subject or his personal legal representative.

The regulations would also prohibit undue inducement such as altering the conditions of confinement or offering unusually high financial compensation.

Workshops Planned

In addition, research at hospitals for the mentally ill and mentally retarded would be limited to conditions directly related to mental illness or retardation.

Dr. Marston announced that the new guidelines will be discussed at a series of workshops planned to begin in February at Bethesda.

The workshops will bring together research scientists, research administrators, lawyers, clergymen, and other specialists.

He said, however, that he would initiate some of his proposed changes at NIH even before discussions are completed.



Surgeons Report New Combined Operation Improves Speech Of Cleft Palate Patients

An operation to improve the speech of patients with cleft palate—combined palatal-pushback and superiorly-based pharyngeal flap—has been reported to have advantages over an earlier flap operation.

The report was made by Stanford University surgeons, whose study was supported by the National Institute of Dental Research.

The standard pharyngeal flap operation, quite successful in selected cleft palate patients, has been used a number of years. In it, a strip of the side wall of the wall of the throat is used to fasten the soft palate further back in the throat so that during speech air cannot escape into the nose when it should be shunted out the mouth.

Normally, air is blocked from the nose when muscles in the throat walls contract in unison with muscles of the soft palate and together close the velopharyngeal gap at the back of the mouth.

The closing mechanism may not function properly when the soft palate is too short, when side-wall muscles are immobile, or when there is much scar tissue from previous operations.

In some patients with submucous clefts and others who appear normal, the cause of malfunction may be neurological.

Speech operations are most likely to succeed in younger patients who have had few previous operations.

The investigators believe the newer combined operation is better because palatal pushback puts extra tissue in position to help close the gap.

Then the flap covers the raw surface of the palate, and when inserted high in the throat, it contracts and fixes the palate in a better position.

Study Discussed

The flap itself also partially closes the gap, yet the soft palate is not tethered.

The surgeons studied 53 patients whose ages ranged from 4 to 49 years, before and up to 4 years after the combined operation, and another group of 18 not fully evaluated prior to the operation.

In none was speech worsened, and only six percent of the first group did not benefit. Over half had speech that sounded normal to the untrained ear, and some improvement was shown in the rest, not only in intelligibility, but in tests of air flow and X-ray motion pictures of throat closure.

A report on the study was presented to the Fifth International Congress of Plastic and Reconstructive Surgery held in Melbourne, Australia, and was published in its transactions.

Drs. Douglas K. Ousterhour, Richard P. Jobe, and Robert A. Chase, all of the Stanford's School of Medicine, Department of Surgery, conducted the study.



Dr. Osamu Hayaishi, chairman, Department of Biochemistry, Kyoto University, Japan, and Fogarty Scholar-in-Residence, received the medal of the Order of Culture—one of the highest honors given by the Japanese government—at the Imperial Palace on Nov. 3. One of the youngest scientists to receive the medal, he is credited with achievements in the study of amino acids and for his work in respiratory physiology.

NIH Visiting Scientists Program Participants

10/24—Dr. Menahem Segal, Israel, Laboratory of Neuropharmacology. Sponsor: Dr. Floyd E. Bloom, NIMH, St. Elizabeths Hospital, William A. White Bldg., Rm. 148, Washington, D.C.

10/26—Dr. Hector A. de Leon, Guatemala, Environmental Mechanisms Section. Sponsor: Dr. Micah Krichevsky, NIDR, Bldg. 30, Rm. B1.

10/27—Dr. Christopher E. Fisher, United Kingdom, Laboratory of Cell Biology. Sponsor: Dr. Peter T. Mora, NCI, Bldg. 8, Rm. 121.

10/27—Dr. David Givol, Israel, Laboratory of Molecular Biology. Sponsor: Dr. David R. Davies, NIAMDD, Bldg. 2, Rm. 316.

11/1—Dr. Moshe Glaser, Israel, Laboratory of Cell Biology. Sponsor: Dr. Ronald Herberman, NCI, Bldg. 10, Rm. 5B49.

11/1—Dr. Francis Chung Law, Hong Kong, Pharmacology and Toxicology Branch. Sponsor: Dr. James R. Fouts, NIEHS, Research Triangle Park, N.C.

11/1—Dr. Andrew G. Parfitt, United Kingdom, Laboratory of Biomedical Sciences. Sponsor: Dr. David C. Klein, NICHD, Bldg. 6, Rm. 138.

11/5—Dr. Kojiro Kurisu, Japan, Human Genetics Branch. Sponsor: Dr. Jerry D. Niswander, NIDR, Bldg. 30, Rm. 106.

Workshop on Children With Hearing Defects Held at Johns Hopkins

Sensory processing in children with impaired hearing was discussed recently in a workshop at the Information Center for Hearing, Speech and Disorders of Human Communication, Johns Hopkins University.

The workshop was sponsored by the National Institute of Neurological Diseases and Stroke; the Institute also supports the center.

Scientists and clinicians discussed topics centering around the following reports: The Sensory Capabilities of Normal and Hearing Impaired Children; Perceptual and Cognitive Strategies, and Language Processing.

Teachers in education of the deaf and related fields met with psychologists from industry and universities who are concerned with language learning, but have had little experience with deaf children.

The two groups concurred in the difficulty of devising testing methods to accurately translate the grunts and groans of speech into meaningful language.

Relative to this problem, an NINDS grantee—Dr. Rita Eisenberg—reported on a test she has developed to measure infant response to sound. Dr. Eisenberg is director of the Bioacoustic Laboratory, St. Joseph's Hospital, Lancaster, Pa.

Sensory aid devices that are being developed in several laboratories were also described. The proceedings of the workshop are expected to be published by the Information Center within the next 6 months.

Federal Assistance Given To Pennsylvania Dentists

The Division of Dental Health, BHME, and the Division of Emergency Health Services in the Health Services and Mental Health Administration, have assisted more than 40 Pennsylvania dentists whose offices were extensively damaged by hurricane Agnes to resume their practice.

The extensive floods that occurred during the June storm were particularly severe in the Wilkes-Barre-Kingston area.

Of the 128 dental offices in the Greater Wyoming Valley, 75 were destroyed, leaving only 53 dental offices to serve over 342,000 people.

In the Wilkes-Barre area, 16 dental offices and 34 office-home combinations were severely damaged, and others became unusable because they were located on upper floors of badly damaged buildings.

It is anticipated that all dentists who receive Federal assistance will be able to resume full dental practice by December 1972.

Henry Mudge-Lisk Named Chief of DMI Branch

Henry Mudge-Lisk has been appointed chief of the Program Analysis and Reports Branch, Division of Manpower Intelligence, BHME.

Before joining DMI, he was the executive director of the Puget Sound Comprehensive Health Planning Board which covers four counties in the Seattle, Wash. area.

Mr. Mudge-Lisk has bachelors degrees from both the London School of Economics and Seattle



Mr. Mudge-Lisk, a graduate of the London School of Economics, will direct surveys on students and education and training programs.

University, and a master's degree from the University of Washington.

He has worked in health manpower planning at the local, state, and regional levels.

Mr. Mudge-Lisk's responsibilities will include guiding and coordinating grant and contract data processing operations and BHME program impact studies.

In a concurrent appointment, Marion E. Altenderfer became deputy chief of PARB. Miss Altenderfer transferred to DMI from the Manpower Resources Staff, BHME, when the Division was organized in 1970.

Formerly, she had been in Public Health Methods in the Office of the Surgeon General.

Dr. Thomas Morgan Appointed To NHLI Nat'l Advisory Council

Dr. Thomas E. Morgan, Jr., associate professor of medicine and associate dean, University of Washington School of Medicine, has been appointed to NHLI's National Advisory Heart and Lung Council.

His main research interests include internal medicine and biochemistry, with particular emphasis in the area of pulmonary surface-active lipids and lipid biosynthesis.

Dr. Morgan served as a National Foundation Fellow during 1957-60 and as an NIH Special Research Fellow during 1962-64.

Dr. James A. Shannon Honored by AHA; Gets A Gold Heart Award

Dr. James A. Shannon, NIH Director from 1955-68, is one of four recipients this year of Gold Heart Awards, the American Heart Association's highest honor, for distinguished service in advancing its objectives and programs.

The AHA noted that "His concern about health and his major contributions to medical understanding have helped bring closer the goal of substantially controlling cardiovascular disease."

Awards were presented last week during the annual meeting by Dr. J. Willis Hurst, AHA President.

Dr. Shannon, a renowned biomedical research scientist, is presently professor and special assistant to the president at Rockefeller University. From 1968-70, he served with the National Academy of Sciences as special advisor to the president.

In 1969, the New York Heart Association gave him its Homer W. Smith Award for his contributions to the knowledge of the kidney and its function.

The other winners of 1972 Gold Heart Awards were Dr. W. Proctor Harvey, professor of medicine at Georgetown University; Lowell S. Johnson, vice president of American Home Products Corporation and former Chairman of the AHA Board of Directors, and Frederick Arkus, special consultant to AHA Public Relations.

Biomed. Engineering Research for Cancer Drugs Stressed at NCI

The National Cancer Institute has awarded a contract to Arthur D. Little, Inc., Cambridge, Mass., to increase the Institute's biomedical engineering capabilities.

Scientists from that consultant corporation will work closely with researchers in NCI's Division of Cancer Treatment to identify problems that may be solved through biomedical engineering. Efforts will be directed toward research in developing cancer drugs.

Dr. Lewis Lipkin, head of the newly-formed Image Processing Unit, NCI, anticipates that a computer controlled microscope will be ready for pilot testing within the next year.

Dr. Lipkin, a neuropathologist, is assisted by Dr. Alfred E. Wechsler, a chemical engineer at Arthur D. Little, Inc., and other optical physicists, electronic experts, and computer scientists in modifying the microscope.

The consultants will help Dr. Lipkin modify his image processing instrumentation for the study of living cells in culture and the effects of drugs on such cells, a

NIH Donations to CFC Reach 71.4% of Goal

The Nov. 9 reports indicate that the Combined Federal Campaign at NIH has reached 71.4 percent of its \$251,000 goal—\$179,284 has been collected so far.

Four groups have gone beyond their quota: FIC, 162.1 percent; NIGMS, 118.7; BHME, 114.4, and DRG, 110.4 percent.

Dr. Kenneth M. Endicott, BHME Director and CFC vice-chairman, expressed appreciation for the "tremendous job" performed by NIH keymen in behalf of this important drive.

"The returns to date prove that NIH employees have a big heart and a friendly hand for those in need," he added.

Dr. Endicott reminded those employees who have not yet contributed to CFC that Wednesday, Nov. 29, is the last day for contributors to participate in a drawing for three cash prizes donated by the NIH Recreation and Welfare Association.

The drawing will take place Thursday, Nov. 30, at 1 p.m. in the Bldg. 31 lobby.

CFC Contributions Tallied For Period Ending Nov. 9

Unit	Percent of \$ Quota	Total \$ Collected
FIC	162.14	\$ 2,764.50
NIGMS	118.66	5,690.00
BHME	114.38	22,104.27
DRG	110.40	12,526.00
OD	93.14	28,147.71
DRR	92.43	2,135.25
NIDR	92.19	8,287.50
NLM	88.06	8,995.39
DRS	83.39	7,180.19
NIAMDD	68.32	12,379.70
NEI	66.25	2,411.50
NTAID	61.27	8,106.50
NICHD	60.93	6,745.00
NINDS	57.84	8,811.50
DCRT	57.75	4,421.50
CC	56.14	12,501.65
NCI	49.12	21,950.19
NHLI	23.66	4,176.50
NIH	71.42	\$179,284.85

project that may take several years to complete.

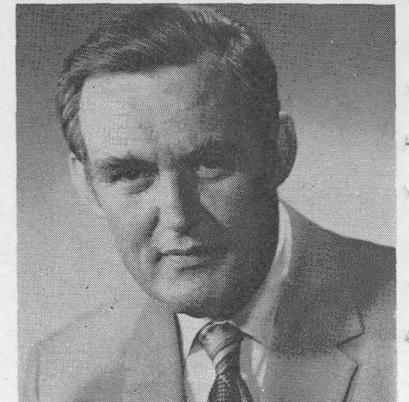
A number of other projects are now in the early planning stage. One is the automatic identification of cell types by image processing.

Another is the study of substances in the blood that may signal the presence of certain cancers and may indicate the effectiveness of treatment with drugs.

Recent biomedical engineering contributions to cancer research are already helping patients. For example, a blood cell separator, developed jointly by scientists at NCI and IBM, is used routinely at NCI and other major cancer treatment centers for blood cell transfusion for leukemia patients.

Dr. Wechsler is principal investigator for the Arthur D. Little, Inc., contract. William Penland, an NCI staff engineer, is project officer for the Institute.

Dr. John Decker Given The Philip Hench Prize For Arthritis Studies



Dr. Decker, who has written many articles about his field of medicine, is president of the Arthritis Foundation's American Rheumatism Association Section.

Dr. John L. Decker, National Institute of Arthritis, Metabolism, and Digestive Diseases, has been selected for the 1972 Philip Hench Award of the Association of Military Surgeons of the U.S.

The award, a bronze plaque and a \$1,000 honorarium, will be presented on Dec. 11 during the Association's 79th annual meeting in San Antonio.

It is given each year to a physician in Federal medical services in recognition of outstanding contributions to rheumatology and arthritis.

Dr. Decker, chief of the Arthritis and Rheumatism Branch, is president of the Arthritis Foundation's American Rheumatism Association Section. He is also serving as a consultant to FDA, the National Naval Medical Center, and Walter Reed Army Medical Center.

He is the author of over 75 papers dealing with arthritis and related subjects, and is associated with numerous publications in that field.

Dr. Philip Hench, the scientist whom the award commemorates, won the 1950 Nobel Prize in medicine for work leading to the discovery of the therapeutic effects of cortisone in arthritis.

\$6 Million Awarded by DN To Train Registered Nurses

More than \$6 million in contracts to train registered nurses as nurse practitioners have been awarded by the Division of Nursing.

Funds were awarded to 15 university and hospital schools of nursing in 12 states and a community-based medical care development program in Maine.

For further information about the Nurse Training Act, write to Division of Nursing, 9000 Rockville Pike, Bethesda, Md. 20014.