

# the NIH Record

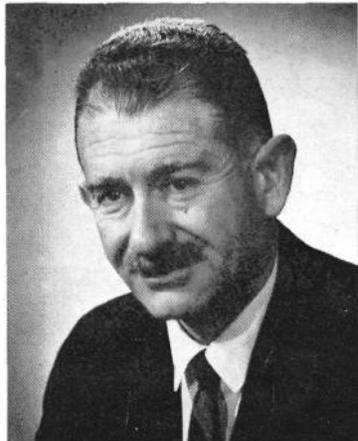
U. S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE

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NATIONAL INSTITUTES OF HEALTH  
PUBLIC HEALTH SERVICE

## Dr. Elkind Honored By AEC for Work In Radiobiology

Dr. Mortimer M. Elkind, of the Laboratory of Physiology, National Cancer Institute, has been awarded an Atomic Energy Commission Ernest Orlando Lawrence Memorial



Dr. Mortimer M. Elkind has been concerned with radiation biology since 1953.—Photo by Ed Hubbard.

Award for 1967.

One of five scientists to receive this award, Dr. Elkind was selected "for his outstanding contributions to radiobiology and the understanding of cellular recovery from radiation injury." Each winner received a \$5,000 hon-

(See DR. ELKIND, Page 6)

## Intramural Research Activities Reorganized Within the NIAID

Reorganization of intramural research activities within the National Institute of Allergy and Infectious Diseases—including creation of a new laboratory, renaming of a second, and abolition of a third—has been announced by Dr. Dörland J. Davis, Institute Director.

## Blood Bank at CC Sets Record for Utilization

For every 100 pints of blood received by the Clinical Center Blood Bank, more than 140 transfusions can be made. This is a new record in CC utilization of blood. It was made possible by separating blood into its components and aiming the components at specific ailments, according to Dr. Paul J. Schmidt, Blood Bank chief.

### Record Praised

The Blood Bank's new record was praised by Dr. James M. Stengle, chief of the National Heart Institute's National Blood Resources Program. One of Dr. Stengle's aims is to help blood banks and physicians throughout the country stretch the national supply of blood.

"If we can promote the use of components and make it more feasible for blood banks to exchange surplus components, much blood that is now lost through outdated can be saved," Dr. Stengle said.

The CC Blood Bank is one of the leaders in more efficient use of blood and its components. From a pint of blood, the staff may extract

(See BLOOD BANK, Page 8)

## Heart Assist Device Produced at the NIH Shows Promise in First Implants in Calves

By Tony Anastasi

A cooperative effort between medical investigators from the National Heart Institute and engineers from the Division of Research Services has produced a new implantable left ventricular heart assist device to sustain a failing circulatory system for extended periods of time.

The principal medical investigator is Dr. William S. Pierce, who was assisted by Dr. Stanton P. Nolan, both from the Surgery Branch, NHI, headed by Dr. Andrew G. Morrow.

Dr. Pierce provided the impetus to reactivate the adaption of the roller pump principle, used for

years in heart-lung bypass machines, for utilization in an implantable heart assister. Several earlier attempts in this direction by other investigators have not met with success.

Dr. Lester Goodman, Chief of the Biomedical Engineering and

(See HEART DEVICE, Page 8)

## 1967 Bond Drive Opens Here Friday; LaVeck Chairman

This Friday (May 5) marks the official opening of the 1967 U. S. Savings Bond Campaign. "Share in Freedom" is the keynote of this year's drive which introduces a new savings bond—the Freedom Share.

Freedom Shares are special bonds available only with the purchase of regular Series E bonds on the payroll savings or bond-a-month plan. They are being offered with new subscriptions only. These notes mature in 4½ years, paying 4.74% interest yearly when held to maturity. They are redeemable one year from purchase date. (Series E bonds take seven years to mature at a 4.15% interest rate, and may be cashed two months from purchase date.)

Freedom Shares come in \$25, \$50,

(See BOND DRIVE, Page 7)

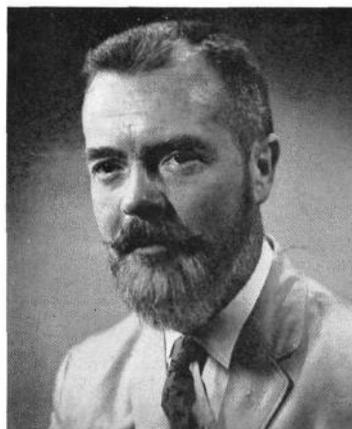
## Under Sec. Cohen to Speak At the Mitchell Foundation Awards Luncheon on May 5

Wilbur J. Cohen, Under Secretary for Health, Education, and Welfare, will be principal speaker at an awards luncheon to be given by the James F. Mitchell Foundation for Medical Research and Education.

The luncheon will be held May 5 at the Statler Hilton Hotel to honor recipients of the Foundation's 1967 International Award for Heart and Vascular Research, Dr. Paul A. Owren of Oslo, Norway, and Dr. Armand J. Quick of Milwaukee, Wis.

Many from NIH, including Dr. Donald S. Fredrickson, Director of the National Heart Institute, have been invited to attend the luncheon and the symposium on "Blood Coagulation, Thrombosis and Female Hormones," which will follow.

Introductory remarks at the symposium will be made by Dr. Philip Corfman, Assistant to the Director for Population Research, NICHD.



Dr. Roger M. Cole, Chief of NIAID's new Laboratory of Microbiology.

held Harvard, Sheldon, and Austin Fellowships, and joined the PHS after internship, followed by a year as NIH Fellow at Haynes Memorial Hospital, Boston, Mass.

The Laboratory of Microbiology has two sections. In addition to be-

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# the NIH Record

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The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policy of the paper and the Department of Health, Education, and Welfare.

## NEWS from PERSONNEL

### SPECIAL HEALTH PLAN

Group Hospitalization, Inc., offers a special comprehensive health program for Visiting Scientists, Associates and Fellows, and Guest Workers who are ineligible for any of the other Federal employe health plans.

The program is administered by the Foundation for Advanced Education in the Sciences, Inc., as a service to the scientific community at NIH. The monthly premium is \$9.68 for an individual and \$26.62 for a family, regardless of size.

### Requirements Given

In order to take advantage of the plan, employes must join the Association of Visiting Fellows either before the first day of the second month of employment at NIH or on the Association's anniversary date.

The Association's next anniversary date is June 1 and, at that time, employes who did not join when they first became eligible may do so. For further specifics, contact Mrs. Elaine Lessenco in Bldg. 31, Rm. 3-B-05, or call Ext. 66371 before May 15.

### USE OF GOVERNMENT PROPERTY

The Executive Officer, PHS, recently addressed to all employes a memorandum highlighting the limitations on use of government property, as prescribed in HEW General Administration Manual, Chapter 12-60 and HEW Standards of Conduct, paragraph 73.735-604. For those who have not read the memo, attention is called to the

### Pearl Ratner of DCRT Wins Suggestion Award

Pearl Ratner, a production clerk in the Computation and Data Processing Branch of the Division of Computer Research and Technology, is the first employe of the Division to receive a monetary award through the new NIH Employe Suggestion Awards program.

Mrs. Ratner suggested an improved method to salvage keypunch cards in the Branch.

### Patricia Dodd, DRFR Employe, Receives Performance Award

Patricia Dodd, of the Division of Research Facilities and Resources, General Research Support Branch, was recently presented a 'Sustained High Quality Performance' award by Dr. Thomas J. Kennedy. The award is in the form of an in-grade step increase.

Mrs. Dodd, supervisory grants technical assistant, has been with the General Research Support Branch since its inception in 1961, and with NIH since 1960.

following items:

1. Employes may drive or use government automobiles only on official business.
2. Only official documents and materials may be processed on Government reproduction facilities.
3. Envelopes, address labels, etc., marked "Postage and Fees Paid" may not be used for unofficial or personal mail. Their use is also prohibited when employes place their own stamps on the envelope.

## Thirty-Five ARC Hospital Volunteers Complete 6 Months' Training at CC



Recent graduates of ARC Hospital Volunteer Training Course at the CC. (Identifications carried in story.)—Photo by Ralph Fernandez.

Thirty-five American Red Cross Hospital Volunteers completed 6 months' training at the Clinical Center and were graduated at a luncheon ceremony recently.

Mrs. Joseph J. Wineburgh, CC Hospital Volunteer Chairman, introduced the class. Mrs. Robert Gutterman, Vice Chairman of Volunteers, Montgomery County Red Cross chapter, awarded certificates and presented the class to the CC.

Mrs. Luthera Gallagher, Coordinator for Community Service Volunteers, Montgomery County chapter, awarded Red Cross pins. Dr. Robert M. Farrier, CC Associate Director, awarded hospital bars and accepted the class on behalf of the Clinical Center.

### Began Last Fall

The 35 volunteers began their training with orientation last October. In the following 6 months, they took part in patient care activities, under the direction of senior volunteers. Now they are ready to serve on their own.

The group attending the luncheon, together with Red Cross officials, are shown in the picture. Seated (l to r) are: Mrs. Bernard Rosenberg, Mrs. Warfield Garson, Mrs. Robert Reagle, Mrs. Quinn Tamm (Vice-Chairman), Mrs. Joseph J. Wineburgh (Chairman), Mrs. Wolfe Van Eyken, Mrs. Benjamin Brown, and Mrs. Edwin Brown.

Standing (l to r) are: Mrs. Richard Knaub, Mrs. Byron Barnes, Miss Dorothy Studart, Mrs. George McGinnis, Mrs. Leslie Short, Mrs. Lawrence Fricker, and Mrs. Bernard Clarke.

### Other Members Listed

New members not shown are: Mrs. William Bell, Miss Bettina Boynton, Mrs. Grace Byrd, Miss Elizabeth Collins, Miss Mary Cullinane, Mrs. Ruth DePrenda, Mrs. Paul Drew, Mrs. Leroy Duncan, Miss Margaret Dwyer, Mrs. James Fox, Miss Antoinette Gallelli.

Also Mrs. Judith Green, Mrs. William Harley, Miss Nancy LaFortune, Mrs. Janice Nuta, Mrs. Paul Plumly, Mrs. Harry Schneider, Mrs. Mary Sheldon, Mrs. Roy Smith, Miss Christine Soderberg,

Miss Diane White, and Mrs. Howard Swemer.

Mrs. Betsy Popof, NIH Red Cross Hospital Volunteer advisory chairman, said the next training session will start this fall. Prospective trainees may communicate with the Montgomery County chapter, American Red Cross.

## '67 Golfers Compete as NIHGA's Season Opens

Despite threatening weather, 67 enthusiastic golfers competed in the NIH Golf Association's first outing of the season on April 5 at the Reston Golf Course, Reston, Va.

The R&W, which sponsors the



Bill Quinlan Jr., DRS (left), and Ted Otani, NCI, Co-chairmen of the NIHGA Special Events Committee.

NIHGA, provided prizes for the day's play.

New members established handicaps for season competition, which began April 25.

Winners were: Low gross, Louis Poteat, CC, 80; low net, Art McIntyre, NIMH, and Harry Osborne, DRS, tied with 73; second low gross, Nat White, CC, and Joe Barber, NIMH, tied with 82; drive closest to hole, Hugh Connolly, DRS, 7 feet 2 inches on No. 15 hole, and longest drive, Walter Hunter, DBS, 265 yards.

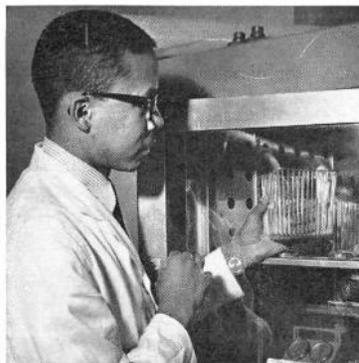
Other winners were: for low gross over 18 handicap, Walter Schneider, NCI, with 98; second low gross with over 18 handicap, Roy Bradley, NINDB, with 99, and highest score, Dave Anderson, DRS, with 137.

# The Young At Heart

Seventh of a Series

By George Bragaw

A toy need not be just a useless bauble to keep Junior occupied. In fact, an appropriate toy may lead to a career in science or medicine. Educational toys, says National Heart Institute chemist Wallace W. Holland, are what fostered his



Holland checks effect of temperature on sleeping times of different strains of mice previously injected with hexobarbital.—Photo by Ralph Fernandez.

interest in science and eventually led to his job in the Laboratory of Chemical Pharmacology.

Most parents remember educational toys as sets containing up to 200 pieces, most of them small enough to be swallowed. They may also remember that one of the earliest things these toys taught their child—usually the hard way—was that what goes down has got to come up. Or they may recall the excitement of stumbling upon bits of knowledge scattered throughout the house. If such things happened to Mr. Holland's parents, it apparently never caused them to lose their cool.

## Toys Spark Interest

"My interest in science was inspired by chemistry sets and the like," Mr. Holland says. "That way I came into contact with science at an early age." The toys were the idea of his father, a draftsman who at one time taught in the D. C. school system.

Now at 26, Mr. Holland, a '66 chemistry graduate from Howard University, is engaged in more serious games. In his job as an assistant to Dr. Elliot Vesell, he does assays on liver and brain tissue of mice to determine the effects of certain drugs on the genes of living organisms.

Drug metabolism studies cur-  
(See YOUNG, Page 7)

## Potential of Bioengineering in Dentistry Outlined at Recent NIDR Seminar Here

By Hilah B. Thomas

Dr. Sidney Lees of the Forsyth Dental Center in Boston discussed the potential of bioengineering in dentistry at a recent seminar sponsored by the NIDR. Although dentistry has admittedly attracted few engineers thus far, he believes there is a great future in this field.

Observing that only a small segment of the population of the United States receives dental care—for which it spends approximately three billion dollars annually—he reported that the probable cost to meet all needs is estimated to be about that of the space effort—about twenty to twenty-five billions of dollars for the first year.

### Engineering Help Needed

In view of the fact that the total number of dentists, some 100,000, cannot begin to accommodate this potential need, he believes that help from engineers is economically practical and badly needed to explore and define the physical basis of oral problems.

In addition to the fields of dental materials and measurement of muscle forces, which are already being studied to some extent, there are several dental areas in which engineering research could be expected to make valuable contributions.

Dr. Lees identified one area as the adaptation of ultrasound as a diagnostic aid to show differences in dentistry and elasticity in hard or soft tissues. Eventually, through ultrasound, a dentist will be able to determine where diseased tissue ends and sound tissue begins, before he begins to drill, and without exposing patients to X-rays.

Another need awaiting the skill of the engineer is the development of a contour plotter to measure

growth relationships in the mouth so as to diagnose malocclusion problems and predict the best means for their correction.

Engineering could also contribute to dentistry objective physical devices for measuring, visualizing, and recording electrical, thermal, and spectroscopic properties. Tristimulus photography might be used to evaluate the distribution of dental plaque, eliminating variations in individual interpretation. Sensors could be developed to measure the changing heat of inflamed gums and other soft tissues.

Other special instruments are needed to record the pressure in the root canal of a tooth, or to meter the acidity and flow of saliva as it is secreted from a particular gland.

### More Possibilities Given

A special chair developed for space research for remote sensing could be adapted by engineers to purposes of dental research. It could detect and automatically record a patient's changes in physiology, for example variations in breathing rates, without the need for wires and electrodes strapped to his body. This type of information would help to evaluate drugs, anesthetics, and behavioral problems such as fear.

The mechanics of cleaning teeth depends upon shearing forces. With their knowledge of such forces,

(See DENTISTRY, Page 6)

## Dr. Hayward Joins OIR; Serves on Secretariat Of U.S.-Japan Program

Dr. John G. Hayward has recently been appointed to the Special International Programs Section of the NIH's Office of International Research.

In his new position Dr. Hayward will serve on the U. S. Secretariat of the U.S.-Japan Coopera-



Dr. John G. Hayward, newcomer to the Office of International Research.

tive Medical Science Program.

OIR was designated as the U. S. Secretariat preceding the conference of U. S. and Japanese scientists held in Hawaii in October 1965 to pool medical research knowledge and resources of the two countries.

Dr. Hayward will be working with several of the six U. S. panels responsible for programming this cooperative activity.

### Was Grants Associate

He recently completed a year of intensive training and experience in science administration as a Grants Associate in the Division of Research Grants.

Prior to coming to NIH, Dr. Hayward was employed in the Department of State's Agency for International Development from 1960 to 1965. While working for AID, he served as veterinary advisor in Haiti, the Dominican Republic, the U. S. Naval Base in Cuba, Mali and Tunisia.

From 1945 to 1959 Dr. Hayward was in private practice as a veterinarian in Russellville, Ark. During this period he conducted animal research and developed surgical techniques. He also assumed a role of leadership in city and county public health activities.

Dr. Hayward received the D.V.M. degree from Texas A. and M. University. He also completed basic and advance courses in the U. S. Army Officers Medical School, Fort Sam Houston, Tex., and the Army's Command and General Staff College, Fort Leavenworth, Kans.

## Wives of Presidential Aides Visit NIH

Mrs. Richard L. Masland, wife of the Director, NINDB, and Mrs. Willard Wirtz, wife of the Secretary of Labor, were hostesses to 14 wives of Presidential Aides on their visit to NIH, Apr. 6.

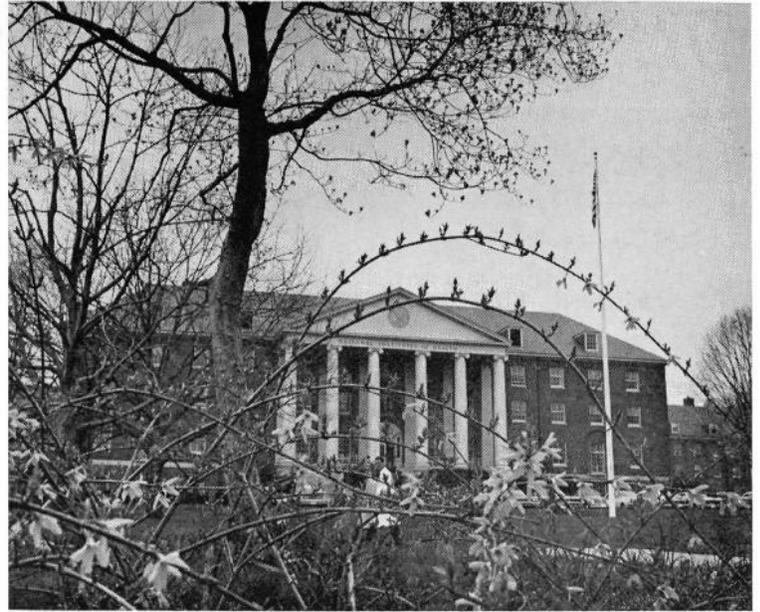
The women, many of whom are interested in the Gray Lady volunteer program at the Clinical Center visited the National Institute of Neurological Diseases and Blindness, and toured the Clinical Center with Dr. Robert Farrier, CC Associate Director.

Presidential Aides are a specially selected group of young men and women who come to Washington for one or two year assignments in the Office of the President, Office of the Vice-President, or with a Cabinet Officer.

Mrs. Willard Wirtz, left, and Mrs. Richard Masland at the Clinical Center.—Photo by Ralph Fernandez.

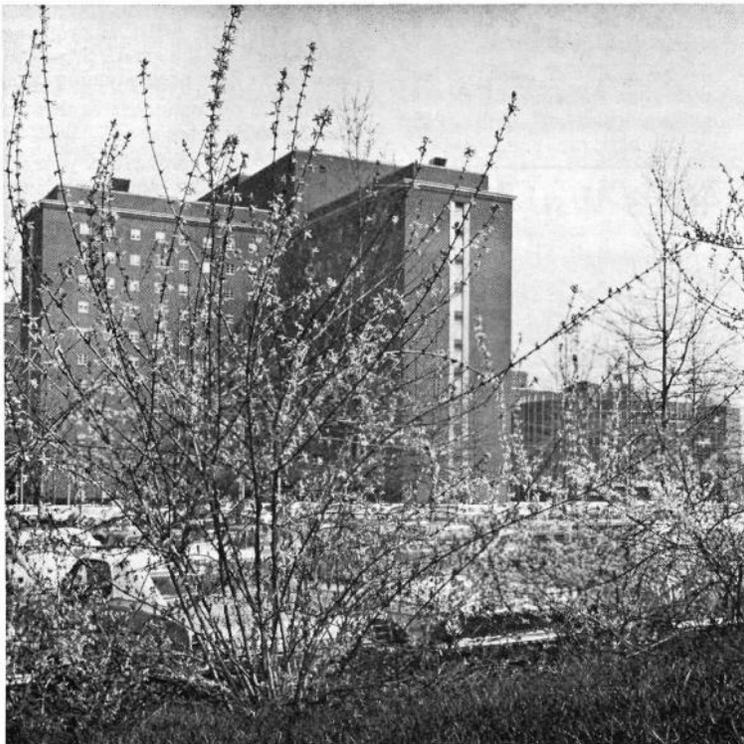


familiar faces and places appear in an altogether different light as



SCREENED BY FORSYTHIA and drenched in spring sunshine, Building 1 at the NIH seems to take on a golden splendor.

## Photographer Roy Perry Captures the Many Moods



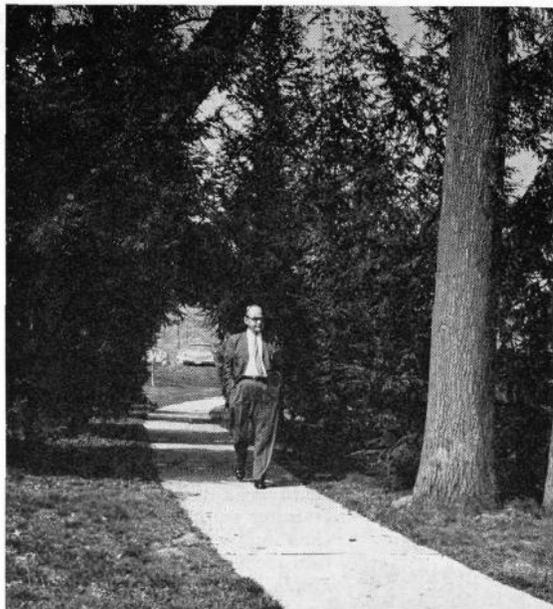
DISCOVERED THIS APRIL . . . a new view of the CC that seems to embody all the hopes and expectations for its clinical studies.



LOOKS LIKE A RINGER. The first warm spring days bring out the lunch hour athletes, with horseshoes one of the best active—and spectator—sports.



SPRING IS NOT ALL PLAY. In fact, for employees of the Grounds Maintenance and Landscaping Section, DRS, it is the busiest time of the entire year.



THE SCENIC ROUTE between buildings is taken by Philip P. Simon, Executive Officer of the CC. On March 7 the *NIH Record* carried a different view of the same path.



BLOSSOMS UNFOLD for lovely Pamela Beall, a secretary in the Office of the Director, DRS, along crab apple tree walk at the Clinical Center. Pam was a finalist in the recent Miss Washington contest.

## s of Spring at the National Institutes of Health

Doctor, workman, secretary, chief—all seem to have succumbed to the wiles of Lady Spring. Picnicking is “in.” Between-building trips are enjoyed as never before. Horse-shoes and baseball take precedence over food during the lunch period. And in every corner of the campus—“if eyes were made for seeing—beauty is its own excuse for being.”



AZALEA-FILLED COURTYARD of Bldg. 31 is one of many idyllic spots on the NIH campus. Enjoying the tranquil scene is pretty Olivia Schick of the DRS.



BUDDING WHITE BIRCH TREES and lots of blue sky. This is the photographer's favorite shot, and too lovely not to print.

### St. Elizabeths to Observe Natl. Mental Health Week, May 1-7, at Special Events

Saint Elizabeths Hospital will observe National Mental Health Week, May 1 through 7, with two special events.

The former Broadway hit play "Stalag 17" will be presented in the John Howard Pavilion Theater by a cast of patients on May 4 and 5 at 8 p.m., and on May 6 at 2 p.m.

Tickets may be obtained free of charge by writing Volunteer Services Branch, Saint Elizabeths Hospital, Washington, D.C., 20032.

An Open House on Sunday, May 7 from 1 to 5 p.m. will feature entertainment and an art exhibit. Visitors are asked to come to the information desk at Hitchcock Hall.

### DR. ELKIND

(Continued from Page 1)

arium, a gold medal, and a citation.

The award, made annually by the Commission upon recommendation of its General Advisory Committee and with the approval of the President, was presented Apr. 27 at the Carnegie Institution Auditorium, in Washington.

Authorized by the 1954 Atomic Energy Act, the award was established by the AEC in 1959 to honor the late Dr. Ernest O. Lawrence, inventor of the cyclotron and Director of the Radiation Laboratory at Berkeley and Livermore, Calif. It is presented each spring to "not more than five" young scientists who have made recent meritorious contributions to the field of atomic energy.

#### Began Study in '53

Dr. Elkind has been concerned with radiation biology since 1953 when he began a 6-year study of the different responses of yeast cells exposed to various types of radiation. During this period he made extensive observations concerned with the sites within a cell that are damaged by exposure to radiation.

In a series of more recent studies he has demonstrated the capability of mammalian cells to recover in large measure from the effects of radiation. Dr. Elkind's research has not only contributed greatly to the understanding of cellular responses to radiation, but has established the basis for further improvements in the radiation therapy of cancer.

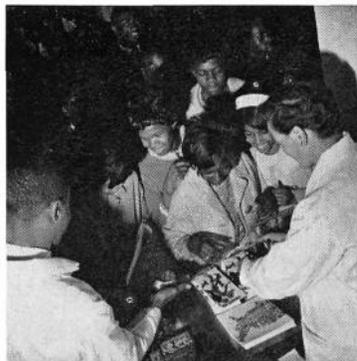
Dr. Elkind has been with NCI since 1949 when he was assigned to do research and further study as an NIH Fellow at the Massachusetts Institute of Technology.

While there he earned an M.S. degree in Electrical Engineering, and a Ph.D. degree in Physics. He

## DRS Responds to S.O.S. With 'Liveliest' Exhibit of Widening Horizons Job Fair

A last minute call for help in a hurry came recently to NIH.

A Job Fair, sponsored by Widening Horizons at Anacostia Naval Station, was within hours of opening—without one of its main exhibits. Widening Horizons is a part of the Urban Service Corps of the D.C.



Damara Bolte (right) and Douglas F. Cureton show Job Fair visitors the correct way to handle the little research animals.—Photo by Tom Joy.

Public School System.

At NIH, the S.O.S. was turned over to the Division of Research Services information office, and things started happening fast.

Kathleen Du Bois, information staff member, and Dr. William B. DeWitt, Associate Director, Laboratory Resources, held a brief brainstorming session at 10 a.m.

#### Action Starts

In what seemed like minutes, Mrs. Du Bois and Dr. DeWitt planned the exhibit and put in a call for assistance to Dr. Raymond D. Zinn, Chief of the DRS Laboratory Aids Branch. Dr. Zinn, together with Richard L. Pierson, Acting Chief of the Rodent and Rabbit Production Section, LAB, and Damara Bolte, Mr. Pierson's assistant, arranged for props, personnel, and transportation.

Soon Miss Bolte and Douglas F. Cureton, a DRS animal caretaker, were Anacostia-bound. With them went a white Sprague-Dawley rat and her 10-day old family of 13. Also a colorful assortment of ham-

sters, inbred laboratory mice, and a pair of handsome guinea pigs.

His career before joining NCI includes 2 years as a naval officer, a year as a project engineer with the Safe Flight Instrument Company, and 2 years as Head of Biophysical Instrumentation for the Sloan-Kettering Institute for Cancer Research. He served as Head of the Radiation Biology Section of the NCI Laboratory of Physiology, from 1964 to 1965.

At 1:30 p.m. the truck crossed the South Capitol Street Bridge, turned into the Naval Station, cut across the air strip, and unloaded in front of the air hangar where the Widening Horizons Job Fair was about to open.

Quicker than it can be told, Miss Bolte and Mr. Cureton set up the exhibit, erected homes for their little charges, and were in place ready to answer questions of the first young visitors who just then streamed through the door.

The purpose of the Job Fair was to acquaint students with the nature and variety of jobs and careers predictably available in both government and industry to those who meet the educational requirements.

#### Aim Given

A major aim of the exhibit was to demonstrate the relevance of job opportunities within the DRS to the science and laboratory courses offered in the D.C. Public Schools.

To this end students were furnished information and literature about animal health services, quarantine and conditioning of dogs, cats and primates, maintenance of farm animals, and the production

## DENTISTRY

(Continued from Page 3)

engineers could contribute improved cleansing methods.

Perhaps, Dr. Lees speculates, engineers will some day develop a computer program whereby a dentist can dial in certain information and a machine will excavate a cavity to the exact dimension needed, or produce an orthodontic appliance so exactly tailored that it will not be necessary to make further adjustments by trial and error. He emphasized that any way to save time and manpower must be explored if the problem of universal dental disease is to be solved.

Similarly, engineering principles could be applied to the design of training equipment to free teacher time and speed the learning of certain mechanical techniques. For example, dental students could learn hand skills on synthetic teeth in model mouths. Working in situations programmed in advance by the teacher to simulate real conditions, the student would learn from watching three-dimensional oscilloscopes when he had put too much pressure on a drill or filling.

of rodents and rabbits.

Undoubtedly the high point of the exhibit came when Miss Bolte and Mr. Cureton demonstrated to the students the correct way to handle the little laboratory animals—then permitted the more adventuresome in the group to get the feel of it for themselves.

## Primate or Rodent?



As a bit of both, the tree shrew (above) is an ideal animal for cancer drug research, and is now at home at the NCI.—Photo by Tom Joy.

This fierce little animal is a tree shrew, a relative newcomer to the National Cancer Institute's Laboratory of Pharmacology family of experimental animals.

Considered a primate on the basis of chemical and physical characteristics, the tree shrew is still closely related to the rodents.

This dual relationship to the two species in which extensive cancer investigation has been carried out makes the tree shrew an ideal ani-

mal for studying the differences in drug response which seem to exist between the two groups.

Using the shrew, investigators hope to determine whether a basic difference exists between rodents and primates, or whether differences exist only between the higher primates, such as man, and rodents.

Natives of Southeast Asia, tree shrews are small and extremely fast, and, in spite of their names, usually live on the ground.



Dr. Robert J. Huebner, Chief of NIAID's Laboratory of Viral Diseases.

## REORGANIZATION

(Continued from Page 1)

ing chief of the laboratory, Dr. Cole is in charge of its bacterial structure and function section, which is concentrating on structural, metabolic and genetic studies of bacteria, natural antibiotic substances, and synthesis of chemotherapeutic compounds.

Working with Dr. Cole is Dr. Herbert F. Hasenclever, Acting Head of the Medical Mycology Section. Dr. Hasenclever holds M.S. and Ph.D. degrees from Iowa State University, where he taught from 1951 until he joined the Laboratory of Infectious Diseases in 1957.

### Pathogenic Fungi Studied

The Medical Mycology Section studies pathogenic fungi, the efficacy of antimycotic drugs and antibiotics in animals, and will do collaborative clinical studies of drugs in human mycoses, as well as fungus identification studies.

Dr. Huebner, an eminent virologist and leader in the field of oncogenic (tumor-causing) virus research, has been Chief of the LID since 1956.

Under the reorganization, he is Chief of the Laboratory of Viral Diseases and head of its Section on Field Studies on Oncogenic Viruses, which concentrates on developing and applying viral techniques to the study of cancer viruses and supervises the program of a number of research and development contractors.

In the renamed Laboratory of Viral Diseases also:

Dr. Robert M. Chanock is head of the Respiratory Viruses Section, a post he has held in the LID since 1959. The section defines and characterizes agents of acute respiratory diseases, seeks new agents, and evaluates vaccines and drugs for prevention and control of acute respiratory diseases.

Dr. Albert Z. Kapikian heads the Epidemiology Section. He has been acting head of that section in the LID since 1964. The studies there follow the occurrence of res-

## BOND DRIVE

(Continued from Page 1)

\$75, \$100 denominations, selling at 81% of the face value. Subscribers may buy Freedom Shares on an approximately one-to-one basis with Series E bonds, limited to \$40.50 each two-week pay period.

At an interdepartmental kickoff rally last month, Postmaster General Lawrence F. O'Brien, Chairman of the 1967 Bond Drive, emphasized that U. S. Savings Bonds are a safe, easy and practical investment.

Many people do not miss a bi-weekly paycheck deduction—as little as \$1.25 for a \$25 Series E Bond, or \$3.75 for a bond plus Freedom Share—but this provides a secure resource for future needs.

Dr. Gerald D. LaVeck, Director of the National Institute of Child Health and Human Development has been appointed NIH Bond Drive Chairman. He has announced that keymen will contact each NIH employe personally during the next few weeks.

## Dr. Bernard B. Brodie Honored by the Univ. of Barcelona for Drug Research

Dr. Bernard B. Brodie, Chief of the National Heart Institute's Laboratory of Chemical Pharmacology, received the degree of Doctor *Honoris Causa* from the University of Barcelona on March 29.

It was conferred in recognition of Dr. Brodie's outstanding record of scientific achievement in a field that he himself helped to develop from a fledgling science into one of the most important and rapidly growing areas of biomedical research.

Dr. Brodie joined the research staff of NHI in 1950 to head its newly created Laboratory of Chemical Pharmacology. During the past 17 years, he has directed a vigorous, highly productive program of research that has led to improved techniques for screening and evaluating new drugs, to more effective approaches to drug therapy, and to the development of new or improved therapeutic agents.

The influence of this wide-ranging research program has been felt, not only in the field of pharmacology, but also in such diverse

fields as clinical medicine, physiology, psychiatry and biochemistry.

The Laboratory of Chemical Pharmacology has also been the



Dr. Bernard B. Brodie—a pioneer in the field of Chemical Pharmacology.

training ground for well over 300 scientists, many of them guest workers who came from all over the world to study there.

A considerable number of these are now full professors or the equivalent. Some have gone on to become section or laboratory chiefs at NIH; others have achieved high positions with pharmaceutical firms, and still others are teaching or conducting research at universities in this country or abroad.

## First Issue of R&W 'Pulse' Published May 1

The first issue of the "R&W Pulse," a monthly tabloid providing in-depth coverage of Association activities and general interest photo features, appeared here yesterday.

Marc Stern, Editor of the new publication, works out of the R&W office, Bldg. 31, Rm. 1A-18, and copy and requests for photo coverage should be submitted to him there. Mr. Stern may be reached by phone at Ext. 65680.

As a special service to NIH employes, the "Pulse" will carry classified advertising at a minimum rate.

Free to members, the "Pulse" is on sale to non-members at 10c a copy at honor stands in NIH buildings on and off the reservation.

The "Pulse" will be published the first week of each month, with copy deadline, the 20th of the preceding month.

piratory illness, establish rates and seek etiologic agents, study host-parasite relationships and their alteration by new vaccines and drugs.

### Studies in Hawaii Continue

Dr. Leon Rosen, Head of the Pacific Research Section, LID, since 1962, continues that job in the reorganized laboratory. His section provides the laboratory and field base, at Honolulu, Hawaii, for comprehensive investigations of eosinophilic meningitis, related parasitic diseases, and virus diseases of specific importance to Hawaii and other islands of the Pacific.

Dr. Wallace P. Rowe is Head of the Viral Oncology Section, which studies tumorigenic viruses, using laboratory animal models to develop means of detecting and characterizing such viruses and to learn more of their natural history and mechanisms of tumor development. Dr. Rowe has been Chief of the Oncolytic and Oncogenic Virus Unit, Virus Section, LID, since 1956.

## NCI Endocrine Eval. Br. Activities Transferred

Dr. Kenneth M. Endicott, Director of the National Cancer Institute, has announced the transfer of the activities of the Institute's Endocrine Evaluation Branch from the office of the Scientific Director for Chemotherapy to the office of the Scientific Director for General Laboratories and Clinics.

The move, a part of the general transfer of breast cancer research activities to the General Laboratories and Clinics program, includes all personnel, records, and administration of the eight research contracts supervised by the Branch. Dr. Erwin P. Vollmer will continue as branch chief.

### Bramlet Transfers to DEHS

The NIH Division of Environmental Health Sciences has announced the appointment of Robert H. Bramlet as Budget Officer.

Mr. Bramlet was formerly Budget Officer at the NCI.

## YOUNG

(Continued from Page 3)

rently underway in the laboratory are trying to find out how injections of the drug hexobarbital affect the sleeping times of different strains of mice under various conditions. Information gained from such studies may answer important questions, such as how predictably inbred and outbred strains of experimental animals react to changes in their environment.

### Preference Questioned

The current preference for inbred strains of experimental animals in biomedical research is based on an assumption that the inbred strains respond more narrowly to environmental alterations than do outbred strains. More recent genetic theory, however, challenges this assumption. Thus, resolution of this argument would have widespread genetic implications.

The problem fascinates Mr. Holland and, the local draft board willing, he hopes to be around to see its resolution.

## BLOOD BANK

(Continued from Page 1)

platelets to give to a child with leukemia, use of blood's clotting factors to help a patient who has hemophilia, and then give the red cells to a third patient with anemia. Or the platelets may go to one patient and the rest of the whole blood to another who is undergoing open-heart surgery.

Dr. Schmidt said the high utilization rate is possible partly because so much of the blood is fresh: it is donated on the spot by NIH employees.

### Fresh Blood Needed

This means it is rich in components that can be used at once. Platelets and clotting factors can be removed and transfused while still at the peak of effectiveness. If whole blood is brought in from elsewhere, these components may not be usable.

This is the reason that about 90 percent of blood donations by NIH employees are by appointment. The blood type and time are dictated by the needs of specific patients.

For the past three years, the Blood Bank has had more than 100 percent utilization rate—that is, more than one patient helped for each pint collected.

### Statistics Given

In calendar year 1966 the rate was 117 percent. From 17,312 pints received, 20,342 "units" were transfused. Each unit included all the platelets, all the clotting factors, or all the red cells from a pint. For the first three months of 1967 the rate was 139 percent, and in February it hit 153 percent.

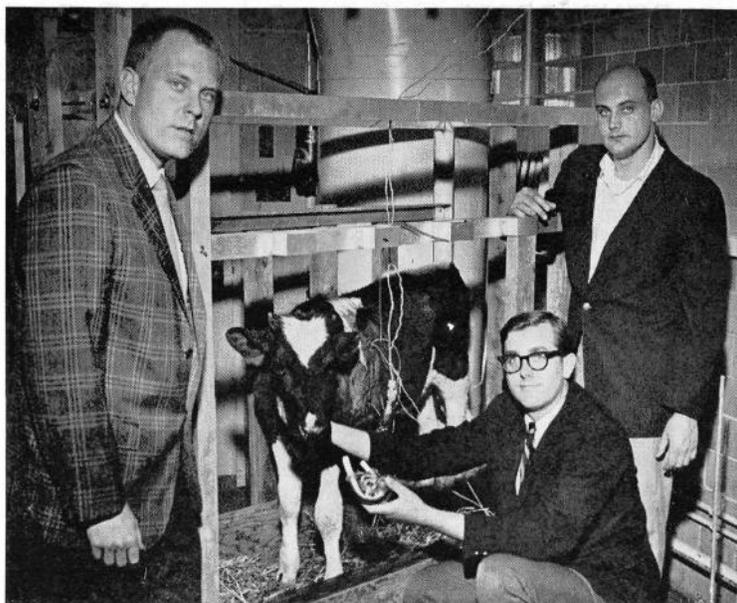
Dr. Schmidt said the figure may rise still higher as more of the CC's needs are met with blood from NIH employees.

### EHS Schedules Movie on Air Pollution This Month

A movie on the national problem of air pollution is being presented by the Employee Health Service for NIH personnel.

The 28-minute film, in color, which is narrated by film star James Garner, shows how air pollution has grown from a simple, annoying smoke problem of local concern to a complex and serious national problem.

The movie is scheduled in the Clinical Center auditorium on Tuesday, May 16, 11:30 a.m. and 1 p.m.; Barlow Bldg., Conference Rm. 13C-05, on Thursday, May 18 at 1:30 and 2:30 p.m., and in the Westwood Bldg., Conference Rm. A on Friday, May 19 at 1:30 and 2:30 p.m.



Checking on the condition of the calf after implant are (l to r): DRS technician Harold Tipton and DRS engineers Marshall Turner (holding the heart assist device) and John Fogle.—Photo by Ralph Fernandez.

## HEART DEVICE

(Continued from Page 1)

Instrumentation Branch, DRS, under whose supervision the technical aspects were performed, singled out Marshall C. Turner, Mechanical Engineering Section, BEIB, as the primary system designer.

Dr. Goodman called attention to the multidisciplinary character of the project by commending Howard Metz and John Fogle for their contributions to mechanical design, Michael Greifner of BEIB's Electrical and Electronic Engineering Section for his work in electronics, and especially, John Boretos of the Chemical Engineering Section, who innovated a key development in materials required to make the system feasible.

### Device Described

The new NIH assist device is a totally implantable, valveless, left ventricular bypass incorporating a semi-occlusive roller pump driven by a small DC electric motor. The entire package occupies 200 cc. within the chest and weighs 400 grams. A relatively simple surgical procedure locates the pump between the left atrial inlet and the outlet at the descending aorta. Flow rate, a function of pump speed, can be automatically manipulated by an electronic system which responds to left atrial pressure.

The system, as presently designed, can produce up to seven liters per minute with a power consumption of fifteen watts. This relatively low power demand removes problems of excessive temperature within the body.

Design innovations and new ma-

terials have alleviated many of the problems associated with heart prostheses such as power consumption, reliability, hemolysis rate, and thrombogenesis. In addition, complexity of ancillary apparatus is minimized; the only things passing through the skin are several electrical wires for measurement and motor power.

The pump tubing and connectors are made from a new pure polyurethane which exhibits excellent endurance and wear resistance. The material is easily fabricated, with uniform dimensions and smooth surfaces in a variety of shapes.

### 20 Implants Made

Twenty implants in calves have been made thus far. Continuous pumping periods up to nine days have been achieved with caged, unrestrained animals.

Usually the calves are able to stand free and exhibit normal body functions within a few hours after surgery. Hemolysis rates are low. Tissue damage due to implantation is not excessive; usually a thin, fibrous layer of viable tissue grows to cover the entire housing. Formation of blood clots has not been observed even after a week's operation. Animals have remained healthy after surgery for pump removal.

The team acknowledges the prototype nature of the developments to date. A comprehensive program for evaluating the long-term physiological effects of implantation is being planned. Extensive investigations of the physical properties of the materials and their interaction with the body are already begun.

Designs of pumps for human implantation are on the drawing

## NIH Is Participating in Campaign to Clean Out All Unneeded Records

All NIH employees are urged to cooperate in a vigorous Records Cleanout Campaign, being conducted through May 26.

Employees are asked to:

- Dispose of obsolete materials.
- Get rid of unneeded publications and papers.
- Put records not in use in holding areas or Federal Record Centers.

In compliance with President Johnson's request that Government agencies dispose of all unneeded records and related equipment, Donald F. Simpson, DHEW Assistant Secretary for Administration, instituted the Department's campaign.

As of June 30, 1966, the records holdings of the DHEW in current file rooms and offices were 702,691 cubic feet. The cost of storing a cubic foot of records in office space is \$3.85 per year. Therefore, it is costing the Department over \$2,700,000 to store these records.

The cost of storing a cubic foot of records in a Federal Records Center is 21 cents per year. Substantial savings would result from the destruction or transfer of unneeded records to the appropriate Records Centers.

For further information concerning the campaign, please contact your Institute/Division Records Liaison Officer or call Ext. 64606, Forms and Records Management Section of the NIH's Management Policy Branch.



"Explore Inner Space—Read," is the theme of this National Library Week exhibit at the NIH Library in the CC. Viewing it are Elosia Englert (left) and Joan LeMense, librarians from the DRS Library Branch. Jess A. Martin, Chief, LB, DRS, served as chairman of the NLW Task Force for Medical Libraries in the D. C. area this year.

boards. A system that can operate with AC power transmitted across the chest wall, together with implanted sensors that telemeter information remotely, is feasible, thus providing for completely unrestrained operation with no percutaneous leads.