Dr. Eldon Eagles Named
To Newly Created Post,
NINDS Deputy Director
will share responsibility for the
Institute's programs and activities
with Dr. Edward F. MacNichol,
NINDS Director.
Prior to joining NINDS, Dr. Eagles
was assistant director of
the National Institute of Neurological
Diseases and Stroke.
During this period he conducted
a study of medical services and fac-
ilities needed by handicapped chil-
dren in Maryland which resulted
in the early sixties led to improved
health program there from 1954
and 1956.

By Carolyn Holstein

You stumble on a step and "instinctively" grab hold of the rail—
you've stopped yourself from falling without much effort. But imagine
hand to understand and therefore to mimic.

Being able to mimic the system would not only enable scientists to
develop better—more responsive—artificial limbs for amputees, but
also help them to perfect sensory prostheses for blind and deaf per-
sions, according to Dr. Karl Frank,
first of the NINDS Laboratory of
Neural Control.

Such devices, already under de-
velopment, may eventually help
blind persons to navigate in their
surroundings or decipher letters
and even words.

These devices could work by pro-
jecting tactile images onto the skin
of blind persons, producing a sensa-
tion similar to that felt when some-
one writes with his finger on your
back, or they might work by deliv-
ering patterns of electrical stimu-
lization directly to the brain.

Mimicking the system could also enable scientists to extend the capa-
ibilities of normally working limbs, by having information recorded
from the brain bypass muscles and
instead directly activate and control

A year later Dr. Eagles was a research fellow at the Johns Hop-
kins University School of Hygiene
and Public Health and at the same
time was Director of Studies for the
Maryland State Planning Commissi-
onal Committee on Medical Care.

During this period he conducted
an early study of medical services and fac-
ilities needed by handicapped chil-
dren in Maryland which resulted
in the early sixties led to improved
health program there from 1954
and 1956.

for 3 years in a rural area of Can-
ada and served as a medical health
officer in Nova Scotia for 15 years.

He directed a child and maternal
health program there from 1954
to 1956.
The NIH Ski Club will start its winter season early this year with a 4-day Skifest in the Laurentian Mountain Resort of Sun Valley, Province of Quebec, from Nov. 25 to Nov. 29.

Members are also participating in a 2-week ski holiday to Kitzbuhel in Innsbruck, Austria over the Christmas holidays.

Other trips are being planned for New England and the deep powder area of the Rocky Mountains. Several weekend trips will be scheduled for Blue Knob and Seven Springs areas in Pennsylvania, too. A meeting will be held at noon, Nov. 19, in Wilson Hall (Bldg. 1) to discuss these events. Also featured will be a ski fashion show and equipment demonstration.

Anyone interested in the club activities may contact the E&W Association Office, Ext. 66061.

Employees May Consult Counselors on Enrollment in Federal City College

Two counselors from Washington's Federal City College will be at NIH Nov. 17 and 18 to advise employees about educational opportunities at the college.

The counselors, Carol Spencer and Yvonne Coursey, will be available for half-hour appointments in Bldg. 31, Ext. 62146.

Students may enroll in the Federal City College for bachelor or graduate degrees or for non-degree program. Both day and evening courses are given.

The basic requirement for enrollment is a high school diploma or the equivalent.

The college is the first Urban Land Grant institution in the country. Because it receives Federal funds, its tuition charges are low. Tuition costs are $35 per full-time quarter for D.C. residents and $340 for non-residents. Part-time tuition cost is determined by the number of credit hours.

NIH Television, Radio Program Schedule

**Television**

NIH REPORTS

WRC, Channel 4

1-5 p.m. Wednesday

November 11

Dr. Frank W. Hastings, chief, Artificial Heart Program, NHLI

Subject: Artificial Heart Program, Part 2 (R)

November 18

Part 3 of the above program (R)

**DISCUSSION: NIH**

WGMS, AM-570-FM Stereo

103.5 - Friday, about 9:15 a.m.

November 13

Dr. Henry M. Fales, NHLI and Alan Demmerle, DCRT

Subject: Automation in the NIH Laboratory

November 20

Dr. Carl Kupfer, DCRT, NEI

Subject: The Role of NEI in Combating Vision Disorders

Interview takes place during intermission of the Library of Congress concert.

**Film Encourages Employees To Plan Secure Retirement**

A film on retirement entitled, "The Rest of Your Life," is being presented next week by the Employee Health Service.

The 38-minute color movie tells the story of how retirement plans were introduced to industrial workers and their amazing reactions. The film is being shown to encourage employees to begin planning now for the time when they can terminate their careers and enjoy life with a feeling of security.

The EHS movie will be shown at the Jack Masur Auditorium, CC, on Wednesday, Nov. 18, at 11:30 a.m. and 12:15 p.m.; at Conference Room A, Westwood Building, Thursday, Nov. 19, at 1:15 and 2 p.m.

When a fellow needs a blood transfusion, your donation may be the one that can pull him through the crisis.

Blood Bank at CC Initiates New System; No Changes in Benefits to Employees

The Clinical Center Blood Bank is now operating the NIH blood donor program—on an independent basis.

The new program became effective on Oct. 15.

Under the old system, the Blood Bank had a contract with the American Red Cross, and blood donated at the Clinical Center was credited to the Washington Regional Red Cross Blood Program. Now it is credited to NIH employees.

Nothing changes as far as benefits to employees are concerned. Donors can still give blood at the CC Blood Bank and earn blood coverage for all employees and their families.

**Alternate Plan Continues**

The alternate free pint which is donated is needed to earn this coverage. Donors continue to be paid for every pint given.

Employees may have four hours administrative leave at the discretion of the supervisor—at the time of donating. All donations are recorded on an NIH card and are not recorded as an equivalent.

**Schmidt's Donors**

One of the last NIH employees to give under the old Red Cross system was Dr. Paul Schmidt, Blood Bank chief; one of the first donors under the new NIH system was his wife.

Both are Rh negative, but Mrs. Schmidt says, "I have given more blood than he has, and mine is better."

Both of them started donating at the age of 18. Dr. Schmidt admits, "This was a few years ago."

He remembers the date of his first visit to a Red Cross Blood Center because it was the day he was accepted by the U.S. Army.

He also admits that he is proud of Mrs. Schmidt, who has supplied many Rh negative pints of blood for NIH patients in emergencies.

The CC Blood Bank has developed many techniques and established itself as a leader in modern blood banking.

**Components Serve Needs**

For example, by using blood components (splitting fresh blood into many parts) one pint provides therapy for several patients. Each component serves a specific need for each patient, and no portion is wasted.

**Installation of a Pioneer Computer System Proved to be a Step Forward Also**

This Donor File and Recall system has enabled the Blood Bank staff to record and quickly retrieve valuable information about individual donors.

**Commercial Sources Eliminated**

Elimination of the commercial blood bank source for NIH supplies is another important recent improvement. The result of this action, which was based on research conducted by the Blood Bank staff, has been a greatly decreased incidence of transfusion-related hepatitis in the Clinical Center.

**Call to the CC Blood Bank, Ext. 64509, will give**

- More information about the new blood credit system,
- The Red Cross Blood Center schedule for those who wish to keep a personal affiliation with the organization's program,
- An appointment to deposit blood in the CC Blood Bank.
Three Training Programs Offer Eligible Candidates Chance to Aid Careers

NIH is seeking candidates for long-term training opportunities under the Career Education Awards, the Systematic Analysis, and the Mid-Career Programs sponsored by NIH.

The first two programs are sponsored by the National Institute of Public Affairs; the Mid-Career Program, sponsored by Princeton University.

Plans Assist Executives

All three plans assist federal and state executives in developing those employees identified as competent to assume high-level positions and provide specific education that agencies are usually not able to offer.


Six major universities take part in the Systematic Analysis Program: Universities of California, Maryland, and Michigan, Massachusetts Institute of Technology, Harvard, and Stanford.

Assignment of selected nominees to universities is the responsibility of the U.S. Civil Service Commission; however, when possible, preferences will be followed.

Select Own Program

Each participant is allowed to select a study program tailored to his specific needs. He will be able to attend special seminars and participate in other educational activities.

The eligibility requirements for the three programs vary. Generally, applicants should have been NIH employees for at least 2 years, and have an undergraduate achievement of at least a "B" average.

The eligibility grade varies. For the Career Education Awards, GS 11 through GS 15 or equivalent; for the Educational Program in Systems Analysis, GS 9 through GS 13 or equivalent. Applicants for the Mid-Career Program at Princeton should be in grade GS 14 or above.

Age Requirements Given

General age requirements are: between 25 and 35 years for the Career Education Awards Program; between 25 and 30 years for the Systematic Analysis Program, and in the thirties or forties for the Mid-Career Program.

Applications must be received by the Office of the Assistant Director for Training and Employee Development, Office of Personnel Management, no later than Nov. 16.

Further details may be obtained from the Training Office.

Progress Report of CFC Shows NIH Has Reached 87.6 Percent of Goal

Three more groups have exceeded their Combined Federal Campaign quotas bringing NIH to 87.6 percent of its goal.

Their percentages are: BHME, 119.5; NLM, 107.6, and the Fogarty International Center, 128.7.

The Oct. 28 progress report shows total NIH contributions of $191,445.21 with 77.1 percent participation.

Two organizations, BHME and NIGMS, have reached their goals with 100 percent or more participation.

"We are deeply grateful to all who have responded so generously thus far in the campaign," said Dr. Carl G. Baker, Director of NCI and CFC Chairman.

After the official close of the campaign, contributors may send donations directly to the Combined Federal Campaign Headquarters, Nassif Building, Room 3411, 400 7th Street, S.W., Washington, D.C. 20545.

Dr. Hartley, Huebner Share 1970 Kimble Award

Two cancer research scientists from NIH—Dr. Janet W. Hartley and Dr. Robert J. Huebner—shared the 1970 Kimble Methodology Award.

The co-winners were cited for their work in significantly advancing methodology and knowledge in virology and oncoLOGY.

Dr. Hartley is in the Laboratory of Vocal Diseases, National Institute of Allergy and Infectious Diseases; Dr. Huebner is chief of the Viral Carcinogenesis Branch, National Cancer Institute.

The Kimble Award, a $1,000 cash prize and engraved plaque, is made annually by the Conference of Public Health Laboratory Directors of the American Public Health Association.

The award, sponsored by Owens-Illinois, Inc., was presented at the annual APHA meeting Oct. 26 in Houston, Tex.

Methods developed by Dr. Hartley have improved studies of human and animal viruses and provided tools for the detection and charac-

Winners in the CC Patients' Annual Hobby and Occupational Therapy Show received Achievement Trophies for the items judged best. Some 65 patients displayed their arts and crafts, made during their stay here in the CC lobby: category with a dry flower arrangement; Frances J. Habibik (top right), Sayerville, N.J., received an award for her knitted poncho in the "Most Likely to Be Purchased" category. Leonard E. Spirex, Riverside, Calif., won "Best in Show" for his framed applique of golden eagles.

Dr. Davies Directs Lab Under Rotating System

Dr. David R. Davies has been appointed acting chief of the Laboratory of Molecular Biology, National Institute of Arthritis and Metabolic Diseases.

He will serve for one year, replacing Dr. Gary Felsenfeld, who headed the laboratory from November 1969.

A system of rotating the position of chief of the laboratory is now in its second year. It is believed to be the first such system to be used at NIH.
Researcher Finds That Sudden Deafness May Be Indicator of Systemic Disease

Sudden deafness can be an indicator of various systemic diseases, a researcher at the University of Michigan has found. While other scientists have suspected this, many researchers considered sudden deafness to be a problem of the inner ear or of the temporal bone, the bone at the base and sides of the skull that contains the organs of hearing.

In a study of 40 patients with sudden deafness, the investigator found that 22 had a systemic disorder that could affect hearing.

Dr. Burton F. Jaffe conducted the study over a 5-year period at the University of Michigan Medical Center in Ann Arbor. It was supported in part by the National Institute of Neurological Diseases and Stroke.

The patients included one man with fat emboli, clots which travel through the bloodstream. When these clots reach a very small blood vessel they get stuck and block the vessel.

Eleven of the sudden deafness patients had hypercoagulation, an accelerated rate of blood clotting which can produce a thrombosis or clot somewhere in the blood vessels. And another 10 patients had upper respiratory infections that could have affected their hearing.

Specialist Alerts Internist

Dr. Jaffe pointed out that his findings are evidence that physicians should begin to think of the ear much as they do the eye—as a sensitive indicator of blood vessel pathology or other systemic diseases.

He added that the ototoxicologically, the physician who specializes in ear, nose, and throat problems, can be the key specialist to alert the internist to serious systemic disorders.

When Dr. Jaffe began his study, he kept in mind the previously stated theory that sudden deafness could result from the sudden closing off (occlusion) of a blood vessel.

For 5 seats before the accident and followed other symptoms of fat emboli including confusion, respiratory problems, a rash, and vision problems. Medical therapy cleared up the fat emboli and his hearing problems slowly disappeared.

Infections Prominent

In 10 of the other patients with sudden deafness, Dr. Jaffe found a fourfold or greater rise in blood antibodies indicating a recent infection—in six cases to pneumonia, in three cases to adenovirus, and in one to parainfluenza.

In looking back over the medical literature, he found that one out of every three patients with sudden deafness had a recent upper respiratory infection.

In most of these infections, the virus might reach the inner ear. However, no one knows why the inner ear is more susceptible than the outer ear and middle ear.

Further study showed that one-third of the 40 patients had some damage to both ears during the episode of sudden deafness. Dr. Jaffe noted that damage to both ears is further evidence that a systemic disease is involved.

Yerkes Center Research Described in New Atlas

A recently published book, The Atlas of Comparative Primate Hematology, by Dr. Hans-Jurg Huser, is based on work he did as a visiting scientist during 1966-72 at the Yerkes Regional Primate Research Center in Atlanta, Ga.

The center is supported by the Division of Research Resources and has been a major source of data from studies on the blood and bone marrow of non-human primates. It includes material rarely found in conventional references on hematology, such as electron microscopy and histology of leukocytes.

The book is the first on hematology to use computer methods for evaluation of normal values, a method described by Dr. Geoffrey Bourne, Director of the Yerkes Center, as vastly superior to the constant model used thus far.

Dr. Walker is appointed Deputy Chief, Baltimore Cancer Research Center

Dr. Michael D. Walker was recently appointed Deputy Chief, the National Cancer Institute's Baltimore Cancer Research Center.

He will also retain his position as head of the Section of Neurological Surgery at the Baltimore facility.

Dr. Jerome B. Block, chief of the BCRO and associate director of the Clinical Center, commended Dr. Walker's outstanding achievements in the clinical investigation of brain cancer and other malignancies of the central nervous system.

In his new position, Dr. Walker will play a prominent role in the overall management of program efforts.

Serves at Lahey Clinic

A graduate of Yale University and Boston University School of Medicine, he served as a Fellow in Neuroradiology at the Lahey Clinic in Boston.

Before joining NIH in 1965, he was clinical instructor in Neurosurgery at Harvard University Medical School.

Dr. Walker began his Federal career as a medical officer in NCI's Laboratory of Chemical Pharmacology.

His primary research interests involve the development of laboratory animal models of brain tumors and the pharmacology of anticancer drugs with respect to normal brain and cerebrospinal fluid and brain tumors.

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3 Executives Appointed To Top-Level NCI Posts

The National Cancer Institute has appointed three executives to fill top-level posts: Dr. Frank J. Rauser, associate director for Program Planning and Analysis; Calvin B. Baldwin, Jr., executive officer; and Louis M. Carrrese, Jr., who becomes scientific director for Etiology.

Mr. Carrrese joined NCI in 1962. As program planning officer and later deputy associate director for Program, he developed methods for research planning, analysis, and coordination.

Mr. Rauser is noted for his quantitative studies on host factors in oncogenesis associated with tumor viruses, including a murine leukemia virus which he discovered.

Mr. Baldwin's most recent posts were as executive officer of the National Institute of Child Health and Human Development.

2 Studies Seek To Pinpoint Mechanism By Which Bacteria Destroy Gum Tissue

Two studies seek to pinpoint the mechanism by which bacteria living in the mouth destroy tooth-supporting tissues in periodontal disease (pyorrhea) and are under way at the Forsyth Dental Center in Boston. Periodontal disease is the chief cause of tooth loss in adults.

The National Institute of Dental Research has awarded grants to Drs. James T. Irving and Philip R. Garant for the first year of their studies. The researchers hope to discover the cause of this widespread disease so that it can be prevented.

Periodontal disease begins insidiously. The gums become red and inflamed and pull away from the teeth. Pockets form near the gum line. Then the gums ulcerate and chronic changes spread, and inflammation spreads. At the same time, the bone underlying the gums is eaten away or resorbed by bone-destroying cells. Because the teeth are normally held in place by this alveolar bone, its destruction leaves the teeth so wobbly that in time they fall out.

These symptoms—including the severe bone loss—can be induced in rats that are reared free of germs through out their lives with their litter mates infected later with known germs only, the researchers hope to pick out the diseases-causing organisms and pinpoint the mechanisms by which they destroy the tooth-supporting tissues.

Although formation of a bacterial film (dental plaque) on teeth around and underneath the gum line is believed a cause of the condition, exactly how this film triggers bone destruction remains a mystery.

By using germ-free rats exposed to known organisms only, the Forsyth scientists can study many aspects of periodontal disease that cannot be studied in humans.

Should their discoveries lead to new ways to prevent periodontal disease, they will benefit the three-quarters of every adult in this country who have some form of either gingivitis (gum inflammation) or periodontal disease.

Mr. Carrrese Mr. Baldwin

Dr. Rauser

Dr. Garant will also study lymph nodes of the head as well as the spleen to see how the microbes affect the body's immune system.

New Studies Made Possible

To distinguish tissue damage caused by the bacteria themselves from that caused by the body's immune response to them, the scientists will give some of the rats drugs that dampen the immune response before infecting them with the microbes from human periodontal pockets.

By using germ-free rats exposed to known organisms only, the Forsyth scientists can study many aspects of periodontal disease that cannot be studied in humans.

Wartime Service Noted

Dr. Huber completed his premedical training at Columbia University, and received his M.D. from Long Island College of Medicine in 1938.

During World War II he served as chief of Neurology and Psychiatry in U.S. Army hospitals in France, England, and France. Dr. Huber later served as chief of Neurology at Brooke Army Hospital, San Antonio, Tex., from 1950 to 1953.

From 1953 to 1956 he was chief of Neurology in VA hospitals in Richmond and Denver. In 1968 Dr. Huber served as Director of Research for the Lynchburg Training School and Hospital Colony, Virginia, and then returned to the VA hospital in Denver until he came to the VA National Office in Washington in 1960.

Dr. Huber has published more than 100 papers.

Serves on Many Journals

Dr. Berliner has served on the editorial board of the Heart Association's monthly journal, Circulation Research, for more than a decade.

He has also been on the editorial boards of AHA's Circulation, and the American Journal of Physiology, and Journal of Clinical Investigation.

A member of the National Academy of Sciences since 1968, Dr. Berliner received the Modern Medicine's Distinguished Achievement Award in 1969; the Bicentennial Medal of Columbia University's College of Physicians and Surgeons in 1967, and the Distinguished Service Award in 1962.

Dr. Huber will supervise NINDS contracts and grants allocated to field and collaborative research.
Death or Damage From Lead Poisoning Reduced by Early Testing and Treatment

Increased testing for lead poisoning in children has caused a drastic reduction in deaths and brain damage from this environmental hazard over the past 5 years, according to an NIH-supported investigator at the Johns Hopkins University School of Medicine.

Dr. Julian Chisolm, a research scientist as well as associate chief of pediatrics at Baltimore, Md., Children's Hospital, believes greater awareness of danger and early treatment along with the increased testing bring about the reduced death rate.

Lead poisoning is far from being wiped out though, said Dr. Chisolm, who has just completed a one-year study in the Johns Hopkins clinical research center for children, supported by the Division of Research Resources.

Seeks Early Detection

The study was aimed at finding an easy method of detecting the disease in its early stages. The longer a child goes undiagnosed, he noted, the more likely he is to have brain damage.

Almost half the children who recover from acute lead poisoning have brain damage, which causes convulsions, irritability, and subtle learning defects.

For children who have a recurrence of severe lead poisoning, the rate of brain damage is virtually 100 percent.

Lead poisoning strikes mainly among children who live in dilapidated urban housing and contract the disease by eating lead paint flaking from walls and interior surfaces.

Although the true incidence of this disease is not known, surveys have shown that as many as 5 percent of the children in these so-called "lead belts" may have lead poisoning.

In his study, Dr. Chisolm found that the only completely reliable method of detecting lead poisoning is a blood test. However, this requires a sample from a vein, a difficult procedure in small children.

Refining Procedure

Dr. Chisolm is now trying to refine this procedure, and hopes to reduce the amount necessary to a few drops obtained from pricking a finger.

He believes this "micro test" will furnish an effective method of screening for lead poisoning among high risk populations to detect the disease before any symptoms are present.

At the clinical research center, Dr. Chisolm treats victims with two chelating agents in combination. Thiamin, known as RAL and EDTA, bind the lead in the blood and pass it out of the body.

This treatment has helped to cut the death rate for severe lead poisoning from 80 percent to less than 6 percent.

FOLLOWING treatment with RAL and EDTA, which requires hospitalization in the center, the child is treated with another, investigational, drug, d-penicillamine. Penicillamine removes the lead from the tissues where it is stored.

Penicillamine treatment is continued for long periods, sometimes years, to remove all the lead.

"If we had good screening and early detection, we could cut the death rate. Penicillamine treatment is contraindicated for long periods, sometimes years, to remove all the lead.

"If the child continues to ingest lead, the drugs don't do any good, and he has to be hospitalized and we have to start all over again."

Dr. Warren G. Stamp Appointed To Advisory Council of NIGMS

Dr. Warren G. Stamp has been appointed to the National Advisory General Medical Sciences Council. His term will run through September 1974.

Dr. Stamp is chairman of the Department of Orthopedic Surgery at the University of Virginia Hospital in Charlottesville, Va.

Fed'l Professional Ass'n Goals Noted by Speakers At Information Meeting

"Professional employees need a mechanism for bringing their views and desires to bear on the legislation and regulations that affect their work and environment," Dr. Allen V. Astin told NIH employees who attended the Federal Professional Association meeting held at Wilson Hall on Oct. 21.

Dr. Astin, former Director of the National Bureau of Standards, was instrumental in starting the large FPA chapter there.

Several past presidents of other FPA chapters spoke, tracing the organization's past history and discussing its present goals.

Improvements Suggested

These include establishment of a separate classification system for professional and executive employees, improvement of their educational opportunities, and more effective use of available administrative authority to vary the duty hours of such employees.

Dr. Edwin D. Becker, NIAMD, who was chairman of the meeting introduced other FPA notables.

He said that, based on interest shown, the committee would proceed at once toward a meeting for the actual organization of the NIH/NIMH chapter of FPA.

2 Nobel Prize Winners, Drs. Leloir and Borlaug, Have Ties With NIH

Two more Nobel prize winners of 1970 have ties with NIH—Dr. Luis F. Leloir of Argentina, who won the Nobel Prize in Chemistry, and Dr. Norman A. Borlaug, winner of the Nobel Peace Prize.

Dr. Leloir was honored "for his discovery of sugarsucclotides and their role in the biosynthesis of carbohydrates."

His grant from NIH, now in its 18th year, is administered by the National Institute of General Medical Sciences.

Dr. Leloir is one of the world's outstanding biochemists and is recognized for his contributions to the understanding of carbohydrate metabolism, according to Dr. De Witt Stetten, Director of NIGMS.

With Institute support, Dr. Leloir has demonstrated in great detail the basic biochemical steps required for the enzymatic breakdown of sugars in the body and the synthesis of glycogen and starch.

These discoveries may have important medical application.

Dr. Leloir is Director of the Instituto de Investigaciones Bioquimicas in Buenos Aires. Currently he is investigating hormonal regulation of sugar metabolism and the role of enzymes and coenzymes which act on particular sugar particles, the hexosephosphates.

Dr. Borlaug served on the malnutrition panels of the U.S. Japan Cooperative Medical Science Program in 1965 and 1966.

This program is now administered by the National Institute of Arthritis and Metabolic Diseases in collaboration with the National Institute of Allergy and Infectious Diseases.

The American agricultural expert developed a dwarf strain of wheat which is helping to supply grains to hungry nations.
Lab Explores Possibilities

Dr. Frank's lab was created 3 years ago to explore possibilities of applying basic information about the nervous system. Ultimately, the scientists hope that artificial devices can be entirely controlled by the nervous system. To do this, though, they must first learn how the brain controls motor behavior through patterns of nerve impulses.

By recording directly from brain cells of the motor cortex in animals, laboratory members are learning the properties of these firing patterns. In beginning these studies, the investigators are faced with a primary problem—developing electrodes (to measure or stimulate nerve impulses) that could be successfully implanted in the brain.

Difficult Engineering Problem

This is a tremendous engineering problem because the electrode must be flexible enough to move when the brain moves (so that it does not damage surrounding tissues), yet hard enough to withstand implantation without bending. Furthermore, if implanted electrodes are found to produce tissue reactions, they or their breakdown products could possibly cause brain damage. Implanted electrodes are already being used in some cases to dull excruciating chronic pain or to diagnose brain damage. While they may produce some damage themselves, their advantage outweighs the risks.

NINDS grantees have successfully used an implanted radio transmitter to signal increased pressure in the brains of persons with hydrocephalus. Such devices could also be used to transmit nerve signals.

Approach doubted

Other grantees are implanting electrodes directly into paralyzed muscles in an attempt to stimulate them and prevent degeneration (such as can result from a stroke). However, Dr. Frank notes that this approach may not be successful because, "I suspect that muscles require connections to healthy nerves if they are to remain functional."

Still another device under development by grantees is a myoelectric arm which would use electrical power to control movement of the hand or arm. Such devices are thought to hold great promise because the wearer would merely attempt to make the same motions as if he had a normal limb.

For more complex control devices, Dr. Frank indicates that the wearer will have to learn a code of specific muscle or nervous activity. "One important key," he explains, "is to find out if man can learn to control the activity of individual nerve cells. Once this can be done on a broad scale, the possibilities for neural control of external devices are unlimited."
Lyman Moore Appointed Executive Officer, NHLI

Appointment of Lyman Moore as executive officer of the National Heart and Lung Institute was recently announced by Dr. Theodore Cooper, Institute Director.

After receiving his B.A. degree from Princeton University in 1936, Mr. Moore served for a year as assistant in Instruction at the University's Woodrow Wilson School of Public and International Affairs.

He served for 2 years as program officer of International House in New York City, then entered the University of Minnesota, where he earned his M.A. in 1940.

That same year Mr. Moore joined the Bureau of the Budget. Subse-

sequently he held numerous administrative posts in HEW.

In addition to his Federal service, Mr. Moore has been a management consultant to a private firm and a professorial lecturer at American University.

His professional affiliations include the Society for the Advancement of Management, of which he was vice president for membership (1968-69), vice-president for Inter- society Relations (1968-69), and past president of the Washington chapter.

He is also a fellow of the American Public Health Association and a member of other public and health administration societies.

Chemotherapists Report On 2 Anticancer Drugs

A conference to advise practicing physicians on research results achieved with the anticancer drugs Ortho para-DDD and mithramycin was sponsored by the Chemotherapy Program, National Cancer Institute, Nov. 5-6 in the Jack Masur Auditory of the Clinical Center.

Both of these anticancer drugs were approved earlier this year as prescription drugs by the Food and Drug Administration.

Ortho para-DDD or mitotane is marketed as "Lysodren" by Chas. Pfizer & Co. for use in advanced cancer of the adrenal gland. Mithramycin, useful in some cases of inoperable cancer of the testes, is produced by Chas. Pfizer & Co. under the trade name "Mithracin."

The opening session, devoted to the antibiotic mithramycin, was chaired by Dr. C. Gordon Zubrod, scientist director for Chemotherapy, NCI. Evaluations of the drug in testicular cancer, in Paget's disease of the bone, and in problems of calcium imbalance were presented.

Dr. Stephen K. Carter, chief of the Cancer Therapy Evaluation Branch, moderated an afternoon symposium on the therapy of testicular tumors, including treatment with surgery, radiotherapy, and drugs.

A series of reports on the development and use of ortho para-DDD, a drug related to the insecticide DDT, was also presented.

This included a description of the effects of the drug in advanced cancer of the adrenal cortex and in Cushing's disease, a rare disease sometimes due to an adrenal tumor.

The session was chaired by Dr. Saul A. Shapira, associate scientific director and chief, Cancer Chemotherapy National Service Center.

Dr. Dorfman Receives Award for His Research Supported by NICHD

Dr. Albert Dorfman, NICHD grantee and director of a center supported by NIH, has received the annual Borden Award.

The award, for outstanding achievement in research relating to nutrition and/or the development of infants and children, consists of $1,000 and a gold medal.

Dr. Dorfman is professor and chairman of the Department of Pediatrics, University of Chicago Pritzker School of Medicine.

He is also director of the Joseph P. Kennedy, Jr. Mental Retardation Research Center in Chicago. The center was constructed with NIH funds, and is supported by the National Institute of Child Health and Human Development.

Dr. Dorfman has provided a greater understanding of the molecular biology of connective tissue and its causative relationship to a variety of genetic disorders.

Instead of shopping for Christmas cards for colleagues, NIH employees are urged to join the "Davis Plan." This form was designed to make donating that money to the CC Patient Welfare Fund easier.