600 Participate
In Dedication of
NIDR Building

The newest building at NIH and the first which the National Institute of Dental Research could call its own, was dedicated Friday, May 26.

A distinguished assembly of speakers and approximately 600 guests participated in the outdoor ceremonies, sandwiched in between showers.

Dr. Francis A. Arnold, NIDR Director, and Dr. John Knutson, Chief Public Health Service Dental Officer, collaborated as presiding officers.

Research Parallels Growth

The principal speaker, Dr. Emory Morris, President of the W. K. Kellogg Foundation, pointed to the significant parallel in the evolution of dental research and the growth of the NIDR in scope and influence.

"Only three decades have elapsed since Dr. H. Trendley Dean (first Institute Director) and his dental hygiene unit formed the nucleus of what grew into this now internationally famous Institute," Dr. Morris recalled.

"We in the Kellogg Foundation,"

(Continued on Page 1)

House Allows $641 Million for NIH,
Votes Construction Grant Funds

Under the Labor-HEW appropriations bill as passed by the House, NIH would receive an operating appropriation of $641 million for fiscal year 1962.

This compares with the President's budget request of $585 million and last year's final appropriation of $560 million.

The NIH appropriations are contained in the Public Health Service appropriation of the bill (H.R. 7085) which allows $1.12 billion for PHS.

The forecasters, consulted by the Weather Bureau's accurate tracking, predicted with uncanny accuracy the departure of one storm and the arrival of another at 2:05, and the rain began to fall again, as predicted.

In this crisis, the Secretary cast aside formality and his prepared talk, and announced:

"We are here for the purpose of national health and I think we ought to start by being concerned with the health of our listening audience.

"So it is with a great feeling of pride and hope," he concluded, "that I join in the dedication of this building today. We dedicate it to a noble and sacred purpose—better health through research—this building today. We dedicate it to a noble and sacred purpose—better health through research."

Serious Mycoses
Yield to Therapy
With New Drug

A new antibiotic derived from an unnamed species of Streptomyces is reported to possess therapeutic value against several of the serious systemic mycoses. Its co-discoverers, Drs. Emanuel Grunberg and Julius Berger, of Hoffman-LaRoche's Chemotherapy Laboratory, assigned the experimental drug a code designation, X-5079C.

Trials in experimental mycoses by Dr. Chester W. Emmons, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, immediately confirmed the low toxicity and therapeutic activity observed by Drs. Grunberg and Berger.

Tested Clinically

The drug has been under clinical test since 1958 by Drs. John P. Utz and Vincent T. Andrieu, NIAID Laboratory of Clinical Investigation. Results of their study of patients hospitalized at the Clinical Center with a variety of culturally confirmed fungal infections were presented at the recent meeting of the American Thoracic Society.

Four of five patients treated with X-5079C showed dramatic clinical recovery from severe disseminated histoplasmosis. The one failure was questionable since treatment duration was considered too brief for valid evaluation.

Three other cases of chronic cavitary histoplasmosis were effectively treated; cultures became negative in these patients.

Recoveries Are Complete

The drug produced some interference with liver function, but no irreversible damage, so far as present data indicates.

Of six patients who had blastomycosis, including two with osteomyelitis, four apparently made complete recoveries. Two of three patients with sporotrichosis infections severe enough to involve bones and joints were judged cured by treatment with X-5079C. They had shown no response to previous lo...
DESIGN CONTRACT AWARDED FOR FIRST ANIMAL FARM BUILDINGS

The Washington firm of Hayes, Seay, Mattern and Mattern was awarded a $150,000 contract on May 16 by the General Services Administration for the design and construction of the NIH Animal Farm. A farm animal building, a dog and cat kennel with an attached animal hospital facility, and a central power plant and other utilities are to be designed.

Construction Planned

Under the present planning schedule, construction of these first buildings will start early in the fiscal year 1963. The cost will be estimated at $3,203,544.

An estimated $1 million will be spent on the animal farm project by the time all buildings are completed.

The 500-acre animal farm was purchased a year ago to expand animal production facilities and to replace a small farm that NIH had occupied near Gaithersburg since 1949 and had outgrown by 1959.

During the year that NIH has owned the property, the existing farm buildings have been repaired, temporary kennels have been constructed, and the construction of an animal quarantine building has been started.

Animals Moved

A small number of dogs and cats have been moved to the farm, and a few cattle, horses, and goats have been pastured there since last fall.

Planning for development of the farm has been handled by the Division of Research Services in cooperation with the Institutes and other Divisions at NIH which will use the buildings.

The new NIH Animal Farm is slated to become one of the largest in the country devoted to the production, holding, and treatment of laboratory animals for medical research. This map shows its location in relation to NIH and roads leading from Bethesda. Poolesville is the nearest town, and Darnestown and Rockville are not far distant.

Malcolm Rogers Award

Won by Dr. Sarnoff For Cardiac Research

Dr. Stanley J. Sarnoff, Chief of the Laboratory of Cardiovascular Physiology of the National Heart Institute, has been named the winner of the 1961 Malcolm Rogers Memorial Award. The award of $500, presented annually "for excellence in the field of cardiovascular disease," is endowed by a grateful patient of the late Dr. Malcolm Rogers, a Milwaukee cardiologist.

The award will be presented to Dr. Sarnoff in Milwaukee on June 10. On that date he will deliver the "Annual Memorial Lecture" at the scientific meeting of the Wisconsin Heart Association. Dr. Sarnoff will speak on "Circulatory Regulation" with special reference to cardiac output.

This is the fourth such honor to come to Dr. Sarnoff this year. Earlier he had been named Halliburton Memorial Lecturer by King's College, London; St. Cyres Lecturer by the National Heart Hospital of the Royal Society of Medicine, London; and vice-president of the American College of Cardiology.

A graduate of Princeton and Johns Hopkins Medical School, Dr. Sarnoff has headed the Laboratory of Cardiovascular Physiology since 1954. He came to NIH from the Harvard School of Public Health, where he was Associate Professor of Physiology.

New Brochure Outlines PSC Grants Programs

The Psychopharmacology Service Center of the National Institute of Mental Health recently announced publication of a folder describing its work.

The folder outlines the Center's research grants program and other types of financial support available for training, teaching, surveys, laboratory construction, and related activities in the field of psychopharmacology.

Established in 1956, the Center has special responsibility for developing a balanced program to support research and facilitate exchange of information in psychopharmacology.

Single copies of the folder, PHS Publication No. 809, may be obtained from the PSC Scientific Information Unit, Bldg. T-6, Rm. 2111, Ext. 5195, or from the NIH Publications and Reports Section, National Bank Building, Bethesda.

Two Universities Get Grants for Primate Centers

The Public Health Service has announced two grants totaling $3,295,644 to the University of Wisconsin and the University of Washington for the construction and operation of two Primate Research Centers.

Construction on both Centers is scheduled to begin in early 1962.

"Primate colonies for research purposes play a key role in the conquest of disease," Surgeon General Terry said. "They provide scientists with unique opportunities for the study of species similar to man both structurally and physiologically."

Benefits Foreseen

"The Wisconsin and Washington Primate Research Centers," he pointed out, "will make possible long-term studies of great potential. All sciences concerned with mental and physical disorders in man may some day benefit from the existence of facilities such as these."

When in full operation, the two Centers will provide special environments for research to advance all areas of knowledge on the biological characteristics of non-human primates.

The grant to the Wisconsin Center totals $1,664,640 for initial operation and construction of a four-story building on the University of Wisconsin campus in Madison.

Brain Studies Emphasized

Special emphasis will be given to studies concerning the functions of the brain and psychological disorders.

The grant to the Washington Center totals $1,630,004 for initial operation and construction of new facilities on the campus of the University of Washington in Seattle.

The main areas of investigation at this Center will concern studies in neurophysiology and cardiovascular disease.

The grants in support of these two projects were made by the National Heart Institute from funds especially appropriated by the Congress to the National Institutes of Health for the establishment of primate research centers.

Both Centers will be used by visiting scientists and residents. Each will seek to meet regional as well as national needs.
NIH Lab Work Included
In AU Summer Course For Science Teachers

Secondary school physical science teachers from all parts of the United States will participate this summer in laboratory assignments at NIH in conjunction with an American University Chemistry-Physics Teacher Institute to be held June 26-August 11.

The study-work institute, established in 1956 through a grant of the National Science Foundation, is designed to give the teacher an opportunity to gain new information, techniques, and experience that will enable him to teach in a more stimulating and effective manner.

Panel Available

The teacher-students will attend morning lectures and work on supervised laboratory studies at American University. From approximately 10 a.m. to 5 p.m. every Wednesday, Thursday, and Friday from June 28 through August 10, they will work at NIH.

A panel of teachers selected for placement at NIH is available for review in the office of Joseph A. Staton, Deputy Chief of the Clinical Center’s Clinical and Professional Education Branch, Bldg. 10, Rm. 3-B-50, Ext. 3381 or 3382.

Examination Requested

In order that teachers may be notified of their assignments as soon as possible, Mr. Staton urges that scientists who wish to take part in the program examine the applicants’ credentials at their earliest convenience.

Other research organizations participating in the program are the National Bureau of Standards, the Harris Research Laboratory, and the U. S. Weather Bureau.
Metabolic Disease Treatment Progresses in Past 10 Years

The following address was delivered by Dr. George W. Thorn, Physician-in-Chief, Peter Bent Brigham Hospital, and Hersey Professor of the Theory and Practice of Physic, Harvard Medical School, at the Tenth Anniversary celebration of the National Institute of Arthritis and Metabolic Diseases. The RECORD is publishing it in this and the succeeding issue.

The past ten years have witnessed a tremendous advance in our knowledge of diabetes mellitus and of endocrine disorders in general—and in the application of this knowledge toward improving the health and well-being of the individual and our national population. Thousands of patients now alive and working owe their present state of good health to medical advances of the past decade. Diabetic patients alone number more than one and a half million, and it is estimated that an additional one million of our population will ultimately develop this disorder. In approximately half of these individuals, the disease will become manifest prior to the age of fifty, and of those who are afflicted the rate of degenerative disease is the fact that all diabetic patients will require, on the average, at last 20 years of medical and dietary supervision.

Economically Important

Any improvement which can be effected in the overall health of this group of patients, any reduction which can be made in the incidence of complications leading to unemployment or requiring hospitalization will be of great economic significance as well as humanitarian importance. One can quickly calculate that a reduction of ten cents per day in the average cost of therapy for this group of patients ($30 per year) or the elimination of one day of hospitalization per year ($360) or improvement which would result in an additional day of employment per year ($150) would amount to an appreciable proportion of our national population.

600 Participate in NIDR Building Dedication

(Continued from Page 11)

he said, "have had an opportunity to note that no other profession of medicine has been more consistently a world leadership role as dentistry. Here is one field in which the U. S. is acclaimed by all as pre-eminent. This fact, coupled with today's increasing concept for improved relationships with other countries," he said, "implies noble oblige on our part to give more and more attention to the support of international dental education, dental research, and dental public health, with our lines of communication and service reaching to nations in all parts of the world."

Brief addresses of welcome were delivered by PHS Surgeon General Luther L. Terry and NIH Director James A. Shannon.

ADA Role Cited


Charles Murray, the Senator's son, occupied a chair on the speaker's platform.

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From these considerations it comes as no surprise that a study of the basic facts concerning insulin metabolism and diabetes will have been re-published in the new NIDR building. The significance not noted that "The significance of this new NIDR facility lies less in its ultimate meaning for dentistry than in its immediate meaning for the American public."

He called attention to surveys revealing that 50 percent of all 2- to 17-year-olds have one or more decayed teeth, the average 16-year-old has seven decayed, filled, or missing teeth, and 20 million adults have lost all their natural teeth.

"This shameful situation can be alleviated through studies this research institute will make possible," he said.

A reception was held in the main conference room of the new building following the ceremonies. Most of the 600 visitors toured the fourth, fifth, and basement floors, guided by hostesses from the Institute staff.

Institute. Directors' secretaries acted as ushers for the dedication ceremonies.

Music for the occasion was by the U. S. Marine Band.

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Pictured from an upper window of the NIDR Building is a small part of the crowd of 600 attending the dedication ceremonies, held between showers. Marquee-topped speakers' platform at right, U.S. Marine band at left.—Photos by Jerry Hecht.
Heart Output Studies of Six Patients Prove Controversial Starling's Law

The validity of Starling's Law as an important determinant of heart output in man has been demonstrated in studies reported at the recent meeting of the Federation of American Societies for Experimental Biology by Drs. Eugene Braunwald, C. F. Frahm, and John Ross, Jr., of the National Heart Institute Cardiology Branch.

For many years Starling's Law the heart has been widely used as a major physiological premise in explaining how heart output is modified in accordance with the varying circulatory demands of the body. The validity of this law in certain experimental animals has been well established; however, its applicability in humans has been a much more controversial matter.

Concept Confirmed

NHI studies have now provided evidence which confirms the validity of Starling's Law in man. The scientists used the toad bladder for these studies, since others had shown that ADH increased bladder water permeability in that organ.

Bladder Divided

The scientists divided the bladder into two separate sacs, one serving as control for the other. Each was filled with Ringer's solution, and suspended in a bath of normal Ringer's solution. This created an osmotic gradient favoring the movement of water from sac to bath. The net movement of water was measured by observing the weight loss in successive 30-minute periods.

Transfusions Used

The studies were carried out in six subjects apparently free from cardiovascular disease. The normal increase in venous return was a transfusion of 1500 ml of the subject's own blood, previously obtained by venipuncture. The subjects were given transfusions at intervals of 10-15 minutes during the 30-60 minute transfusion period. This data, and the measures of ventricular performance calculated therefrom, showed that the transfusions produced a striking elevation in venous return and heart filling pressure.

Output Measured

The NHI scientists measured heart output and pressures in the brachial artery, left ventricle, and esophagus before transfusion; the areas of ventricular performance were calculated therefrom, as well as left ventricular work, power, and rate of ejection of blood.

The transfusions were accompanied by significant increases in heart rate in only two of the six subjects. The effects of ADH were confirmed by significant increases in heart output in only two of the six subjects.

These findings indicate that ventricular filling pressure importantly affects ventricular contractions, and that Starling's Law, while subject to amendments, is not likely to be repealed in man.

NEW DRUG

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Dr. Daft Participates In Swedish Symposium Is Graduation Speaker

Dr. Floyd S. Daft, Director of NIAMD, is the only American among a group of internationally known nutritionists who has been invited to participate in a symposium on "Intestinal Flora and Nutrition," to be held at Bjuv, Sweden, June 12-15.

In a paper entitled "Intestinal Flora and Synthesis of Pantothenic Acid and Panthotenic Acid," Dr. Daft will delineate NIAMD's use of germfree animals in research in the field of nutrition. He will particularly emphasize the role played by intestinal bacteria in the nutrition of the host.

The symposium, which is the second of its kind, is sponsored by the Board of the Swedish journal "Naringsforskning" (Nutrition Reviews).

Speaks in Iowa

Prior to his departure for Sweden, Dr. Daft was invited to deliver the commencement address at Simpson College during its centennial celebration and graduation exercises at Indianola, Iowa, on June 4.

His presentation, "Simpson's Frontiers-Past and Present," stressed the role of the small college in the educational process, including the preliminary training of research scientists.

Dr. Daft was graduated from Simpson 40 years ago and received his doctorate at Yale in 1926. He was awarded the honorary Doctor of Science by Simpson College in 1982.

NCI Study Yields Clue To Cell Differentiation

Dr. Eugene J. Van Scott and Richard P. Reinertson of the National Cancer Institute have reported results of a study indicating that the structure and behavior of human skin epithelial cells are governed by their connective tissue environment.

Skin epithelial cells were obtained from 11 patients at the Clinical Center. Nine were skin cancer patients, one had mild psoriasis, and the other had no skin disorder.

Cells Transplanted

In the experiments, the epithelial cells with and without their connective tissue were transplanted to new places in their own hosts. Thus, mucous membrane from the inner surface of the lower lip, scalp hair roots, and basal cell tumors were implanted in the back and skin cells of the back and arm were transplanted to the lower lip.

Only when the connective tissue was included did the transplanted cells survive and retain their original characteristics. Otherwise, they either degenerated or developed structural features that often resembled those of epithelium normally resident at the new site.

Research has already established the fact that cells change their structural and functional characteristics when they become cancerous. These experiments were part of a continuing investigation aimed at explaining why this occurs.

A report of the study was published in the Journal of Investigative Dermatology.

Stimulation of Glucose Oxidation Found New Role of TSH in Thyroid Function

Studies by scientists at the National Institute of Arthritis and Metabolic Diseases on the pituitary gland's thyroid stimulating hormone (TSH) suggest that its primary function in the regulation of the thyroid is the stimulation of glucose oxidation in the gland.

Drs. Ira Pastan and James B. Field of NIAMD's Clinical Endocrinology Branch have shown that small amounts of TSH rapidly stimulate the thyroid's ability to utilize glucose. This effect was seen within five minutes after the addition of TSH to a medium containing thyroid slices.

The fact that TSH, a product of the pituitary's anterior lobe, was effective in such small amounts and so rapidly stimulated glucose oxidation, suggests that this is its primary action on the thyroid and that previously reported thyroidal effects of TSH, such as in iodine and phospholipid metabolism, are secondary.

TSH stimulation of glucose oxidation was specific or peculiar to the thyroid since TSH had no effect on oxidation of glucose by other organ tissue slices, and none of the other anterior pituitary hormones affected the thyroid. It was also shown that the level of TSH present in human blood (a microscopic amount) was effective in stimulating oxidation.

Financial Aid for Study Rises in Recent Years

Although college tuition costs have risen sharply during the past few years, there has also been an increase in organizations providing financial aid to students.

In a recent study, the Statistics and Analysis Branch, DRG, found that 86% of NIH's FY 1960 principal investigators aged 30 or younger had obtained some formal support (U.S. Government assistance, university scholarship, etc.) during their predoctoral work. Only 10% of those 60 or older had had formal support.

For other age groups, the proportions obtaining formal educational support were: aged 30-34, 81%; aged 35-39, 69%; aged 40-44, 67%; aged 45-49, 62%; aged 50-54, 54%; aged 55-59, 53%.

Johns Hopkins Awards D.Sc. to Jane Wilcox

Jane Wilcox, Special Assistant for Nursing Research in the Nursing Department of the Clinical Center and a Nurse Division of the Commissioned Corps of the PHS, has been awarded the degree of Doctor of Science by the School of Hygiene and Public Health, Johns Hopkins University.

Two years of Miss Wilcox's study, 1956-58, were sponsored by the PHS.
Test Evaluation Shows Lack of Nystagmus an Index to Consciousness

A preliminary evaluation of a neurological test for newborn infants indicates that all normal newborns should respond to rotational nystagmus. A total absence of this response appears to be a sign of grave abnormality of the nervous system. Since response to vestibular stimulation by rotation may vary considerably in infants, criteria for interpreting the results of this test have been suggested by investigators participating in the National Institute of Neurological Diseases and Blindness' Collaborative Project.

Murray E. Pendleton and Richard S. Paine, Harvard Medical School and Children's Hospital Medical Center, Boston, tested the eye movements of normal and abnormal full-term newborn and premature infants. An electrically driven table was used to provide constant rates of rotation and deceleration. Photographic and electrooculographic recordings were employed, as was direct observation.

Some Deviation Noted

The investigators concluded that rotational nystagmus should be present in all newborns. Absence of nystagmus, provided the infant is thoroughly awake. A number of infants were found to exhibit only simple deviation of the eyes with no active nystagmus. This response could be correlated with the following conditions: sleepiness, prematurity, heavy maternal anesthesia, anoxia or traumatic birth.

Since an alteration of the state of consciousness is common to all these conditions, the absence of nystagmus appears to be an early and sensitive index to consciousness. In a few infants who exhibited other symptoms of abnormal central nervous system function, neither response could be obtained.

These results confirm that the test for rotational nystagmus is a valuable part of the clinical neurological examination of newborn infants. If abnormal, it is an important clue to depressed nervous system function and an addition to the limited number of criteria available at this age.

Mary Bouser Leaves NCI

Mary M. Bouser, a Cytology Program Consultant in Nursing in NCI's Diagnostic Research Branch, left NIH May 31 to take a position with the Division of Indian Health, Bureau of Medical Services, in Phoenix, Arizona.

DRS-Designed Steroid Analyzer Cuts NIAMMD Biochemical Research Time

By George Bragaw

An automatic steroid analyzer, capable of 50-hour unattended runs and containing many unique engineering features, is now in operation in the Laboratory of Chemistry, NIMAMD. The prototype machine automates analysis that formerly took two chemists a week to complete.

A new method for the determination of the individual hormones of the adrenal cortex was developed by Dr. Erich Heftmann and David F. Johnson at NIMAMD in 1954, based on partition chromatography and gradient elution.

By their method, an extract from urine or tissues, containing a mixture of hormones, is placed on a column of silicic acid, wetted with water. A mixture of petroleum ether and dichloromethane in continuously varying proportions flows through the column and washes down individual steroids in a succession of bands or zones, their movement depending on their relative solubility in the solvent mixture and in water.

The solution leaving the bottom of the column is then collected in fractions of equal volume and can be analyzed separately by physical or chemical methods.

The automatic steroid analyzer completes this laborious process in two days. The machine, pictured above, permutes two solvents—in this case petroleum ether and dichloromethane—to be mixed in any desired proportions by simply plotting the mixing ratio against time on a metal template (A).

Automatic Processing

For a predetermined number of drops is collected, the column shuts off and the test tubes, moving on a chain-driven rack, are carried on. At intervals from one station to the next, the solvents are first evaporated at (F), then alcohol is added at (G) and the residue is dissolved by vibrating the tubes.

A third row of test tubes, containing only alcohol, serves as a check on the chemical analysis. Reagents are added to one of the pairs of steroid-containing test tubes and also to the control tube at (H). UV Absorption Measured

After a 20-minute mixing period, the color in these two tubes is compared in a colorimeter (I). At the same time the ultraviolet absorption in the second steroid fraction is determined in an adjacent spectrophotometer.

The readings of both analyses are recorded on a moving graph (J), and the solutions are stored at (K) for further experiments.

The steroid analyzer was near completion last year after three years in design and construction, and even before it was placed in use it created considerable interest among biochemists in this country and abroad.

It was designed for maximum

Dr. R. C. Arnold Appointed Chief, PHS Personnel

Dr. R. C. Arnold, Assistant Surgeon General for Personnel and Training and one-time Chief of the Technical Services Branch of the National Heart Institute, has been appointed Chief of the newly created Office of Personnel in the Public Health Service.

During the reorganization, the Office of Personnel will have a Division of Commissioned Officer Personnel, headed by Dr. Elton S. Osborne, Jr., and a Division of Civil Service Personnel, directed by William H. Carr.

Cites Advantages

Establishment of the new Office, Dr. Arnold pointed out, will enable PHS to give increased emphasis to recruitment, career-development, and other personnel activities formerly carried out at the Divisional level.

A member of the PHS Commissioned Corps since 1931, Dr. Arnold held the post of Director of Syphilis Research at the Venereal Disease Research Laboratory at Staten Island before coming to NIH in 1951. He left in 1956 when he was designated Chief of the Heart Disease Control Program in the Bureau of State Services.

NCI Associate Director Title Change Announced

The title of the Associate Director of Chemotherapy, National Cancer Institute, has been changed to Associate Director for Collaborative Research, according to a recent announcement by Dr. Kenneth M. Endicot, NCI Director.

The change has been made necessary because of the added responsibilities of the Virus and Cancer Program.

In addition to occupying this position, Dr. Stuart M. Sessoms will continue as Chief of the Cancer Chemotherapy National Service Center.

flexibility and safety of operation. These components can be used for the automatic analysis of other types of chemical compounds.

A technical paper and a film showing its operation and engineering features were presented last November at the 13th Annual Conference on Electrical Techniques in Medicine and Biology, in Washington, D. C.
Hamsters Present Play
June 16-17 and 22-24

"The Skin of Our Teeth," a Pulitzer Prize-winning three-act play by Thornton Wilder, comes to NIH next week in a split-weekend, five-performance presentation by the R&W Hamsters.

The play will be given on June 16, 17, and 22, 23, and 24. All will be evening performances at $1.25 in the CC auditoirum.

Special Showing Planned
The opening night's performance (June 16) is for CC patients, their families and friends, without charge. The remaining performances are open to NIH staff and the public. Tickets are $1.25 each.

Alice and Frank Barnhardt have the leading roles as Mr. and Mrs. George Antrobus of Excelsior, New Jersey, a pair of average Americans at grips with destiny, fire, flood, pestilence, the seven-year locusts, the age ice, the black box, the double feature, and the late late show.

Cost Numbers 32

Walter Clark and Greta Albrecht play the Antrobus' two children, Henry (Cain) and Gladys. Carmen-Cabrera plays the fortune teller and Jeanine Fair plays Salina. There are 32 parts in the show.

The play is directed by Paul Blank, assisted by Jack Robinson. Ozzie Grabin is business manager.

Tickets are available at the CC Film Desk and through representatives in each building. For further information call Betsy Slay, Ext. 4161.

15 Institutions Awarded PHS Fellowship Grants

The Public Health Service has announced the award of seven five-year Senior Fellowship grants and 10 Special Fellowship grants to investigators in 15 universities and schools of medicine and dentistry in 12 States.

Cost of the awards, for the first year will be $154,214 for Senior Fellowship grants and $419,901 for Special Fellowship grants.

These awards, made under the program administered by the Division of General Medical Sciences, were approved by Surgeon General Terry on the basis of recommendations by the National Advisory Health Council at its March 1961 meetings.

The Senior Fellowship grants are awarded to institutions in the United States in behalf of individual investigators, and are intended to encourage and support the development of professional personnel for academic and research careers in medicine, dentistry, public health, and related areas.

Service, Ideas, Performance Win Cash For Three Staff Members of DRS

Three members of the Division of Research Services received awards totaling more than $500 at a ceremony held recently in the office of Chris A. Hansen, DRS Chief. These cash awards represent the three types available to employees who make outstanding contributions in the form of service, ideas, or work performance.

The award winners were Elmer Horman, a supervisor of animal caretakers in the Laboratory Aids Branch, and Donald Heckard and Stanley Paul Allen, both employees of the Plant Engineering Branch.

Mr. Horman's award was for special service in the scheduling of incoming monkeys through the quarantine procedures and tuberculin testing each receives in the Animal Hospital.

Mr. Horman was recognized for his effective handling of a highly complicated work schedule that involves the daily care of nearly 1,000 monkeys and the immediate processing of new shipments without disruption of the care and feeding routines for the entire colony.

Mr. Heckard is an equipment inspector in the Planning and Control Section. His suggestion that push-button switches be purchased to replace key switches formerly installed in the watchman tour system in the Clinical Center has since been adopted as a saving in both maintenance and replacement costs, and as a convenience to the guard force. It will save NIH an estimated $2,210 over a 10-year period.

Mr. Allen, a mechanical engineering technician of the Engineering Design Section, responded to an unprecedented workload owing to a shortage of engineers by performing mechanical engineering work at a much higher level than his normal duties.

He has saved NIH an estimated $15,000 in engineering fees by assuming full responsibility for technical calculations and decisions involved in major mechanical installations and renovations totaling some $200,000.

Three DRS staff members are pictured with DRS Chief Chris A. Hansen, following presentation of performance awards at a ceremony in his office.

From left: Elmer Horman, Laboratory Aids Branch; Mr. Hansen, and Donald Heckard and Stanley Paul Allen, both of the Plant Engineering Branch.

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Conditions within their primary areas of interest but have, in addition, provided ideas, techniques, and personnel for research in the more difficult fields of degenerative diseases, cancer, and mental illness.

How has it been possible to bring about such important advances so rapidly? In part this is related to the solid background of training and experience in the basic sciences achieved by many of the investigators in this field. Secondly, techniques for clinical investigation carried out by this group have included precise chemical and physiological measurements, and this group of scientists in particular have appreciated the need for adequate, experimental control. At a relatively early date, this group of investigators also sought the skills of the mathematical sciences for conceptual schemes as well as for statistical and analytical methodology.

Effort is Unified

Finally, there was achieved in this area, again at a relatively early period, an important unity of effort among scientists within educational institutions, the pharmaceutical industry, and federal agencies such as the National Institutes of Health. The farsightedness of the latter is to be commended in making available research fellowships and training grants which have increased so effectively the use of grants allocated by its several Institutes for research purposes.

It is not possible at this time to detail the wide scale program of research which the National Institute of Arthritis and Metabolic Diseases has fostered in the field of diabetes and endocrine diseases. We can note that the policy of the Institute has been particularly effective in facilitating the early application of medical discoveries made by scientists all over the world as well as of those within its own laboratories. Also its programs of long-range basic science investigation have provided a continuing source of stimulation for its active program of applied clinical investigation.

(TO BE CONTINUED)