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NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE

Congress Votes \$1.07 Billion for NIH in FY '65

The President was scheduled to sign into law by September 19 the conference report on the \$6.5 billion DHEW appropriation for Fiscal Year 1965, including funds for NIH.

Senate-House conferees approved a \$1,073,959,000 appropriation for NIH, a \$500,000 reduction from that previously voted by the Senate and \$13.5 million above the original House amount. The total as finally approved for NIH is \$9.5 million above revised budget requests.

The legislation provides a total of \$6,476,629,000 for the Department of Health, Education, and Welfare, of which \$1,869,832,000 is for the Public Health Service. NIH funds are included in the PHS portion of the appropriation.

Operating funds for NIH were designated as follows (in millions): NIGMS, \$114.4; NICHD, \$42.7; NCI, \$140; NIMH, \$187.9; NHI, \$125.8; NIDR, \$20; NIAMD, \$113;

(See CONGRESS, Page 8)

NCI Scientists and PHS Grantees Find New Clues to Virus Role in Leukemia

New clues to the possible role of viruses in human leukemia were described in four scientific reports in the September issue of the Journal of the National Cancer Institute.

Two of the articles report findings by NCI scientists. The others are by Public Health Service grantees of Baylor University, Houston, Tex.

In electron microscopy studies by a team of NCI scientists including Dr. Albert J. Dalton, now Chief of NCI's Laboratory of Viral Carcinogenesis, virus-like particles were observed in thin-section preparations of concentrated blood and bone marrow from eight of the 56 leukemia patients studied.

These particles were somewhat similar in shape and size to mouse leukemia viruses. No particles were seen in samples of blood from six patients in clinical remissions (temporary absence of symptoms following treatment) nor in the blood of 51 randomly selected normal volunteers.

(See LEUKEMIA, Page 6)

NIH Sponsors Science Writers' Seminar On New Fields of Biomedical Research

Twenty-four science writers representing newspapers, magazines and other media were provided with background information in newer fields of biomedical research by NIH scientists at the first NIH-sponsored science writers' seminar held September 9-11 in the library of Building 30.



Pictured at the opening session of the Science Writers' Seminar, held in Building 30 September 9-11, are (left to right): Dr. Luther L. Terry, PHS Surgeon General, who opened the seminar; Clifford F. Johnson, Chief of the Office of Research Information; and Dr. G. Burroughs Mider, NIH Director for Laboratories and Clinics, who welcomed the panelists.—Photo by Bob Pumphrey.

Dr. G. Burroughs Mider, NIH Director of Laboratories and Clinics, welcomed the panelists and Surgeon General Luther L. Terry made the opening remarks. The scientific program was arranged by a committee of NIH scientists headed by Dr. Henry W. Scherp of the National Institute of Dental Research.

The five sessions of the seminar presented panelists from five Institutes and one university on subjects including: (1) Developments in Fundamental Immunology, (2) Principles of Auto-Immune Disease and Hemolytic Anemias, (3) Progress Towards Common Cold and Other Respiratory Virus Disease Vaccines, (4) Cancer Viruses, and (5) Viruses as Probes in Cellular Biology.

Writers Choose Topics

These topics, all in the broad field of immunology, were chosen as a result of advice from representative science writers.

At a luncheon following the closing session, the seminar participants met with Dr. James A. Shan-

(See SEMINAR, Page 7)

DRFR Role Discussed By Dr. Stone on TV

Dr. Frederick L. Stone, Director of the National Institute of General Medical Sciences and Acting Chief of the Division of Research Facilities and Resources, was the featured guest on the "Johns Hopkins Review" television show recently on WJZ-TV Baltimore (Channel 13.)

Dr. Stone discussed the role of DRFR in administering the large institutional research grants for which it is responsible.

In response to the program's title "Health Costs Little," he illustrated both the goals and achievements of the Division's program, providing viewers an understanding of how NIH institutional grants directly benefit everyone.

Consolidated Fund Drive Opens; NIH Goal Is \$154,000

Designation this year of the Washington area as one of seven test cities in consolidated fund-raising campaigns will enable Federal employees for the first time to pledge contributions on a voluntary payroll deduction plan.

The combined drive, already underway at NIH will continue through October 30. It brings together the former separate drives of the United Givers Fund, the National Health Agencies, and International Service Agencies under the Combined Federal Campaign, cited by President Johnson as a



Dr. Aldrich



Dr. Confrey

means of reducing campaign costs through consolidation.

Beneficiaries within the agencies include some 150 or more service organizations such as the American Cancer Society, Project Hope, and CARE.

Dr. Eugene A. Confrey, Chief of the Division of Research Grants, is this year's NIH Campaign Chairman. Dr. Robert A. Aldrich, Director of the National Institute of Child Health and Human Development, is Vice Chairman.

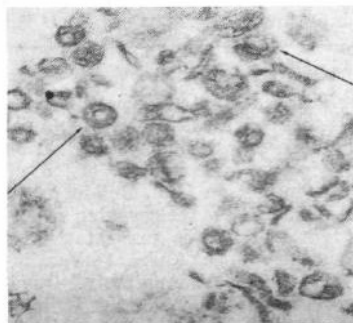
Slogan Is Significant

Significance of the one drive instead of several is conveyed in the NIH campaign slogan, "Give once—and for ALL."

The goal for the NIH drive, apportioned to the various Institutes and Divisions, is \$154,000-plus.

Keymen representing Institutes and Divisions began their work sessions earlier this month to top the \$154,000 goal if possible by reaching all NIH personnel in rec-

(See DRIVE, Page 4)



This electron micrograph of a dense concentration of virus-like particles (arrows) are from a 15-year-old female with acute lymphocytic leukemia. The particles are magnified 90,000 times.

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

TWO UNIONS RECOGNIZED

Formal recognition has been accorded to Lodge 2419, AFGE, for a unit composed of the Guard Force and Fire Department of the Plant Safety Branch, and another unit composed of all Wage Board employees at NIH.

Formal recognition also has been given to the Washington Metal Trades Council, AFL-CIO, for a unit composed of all Wage Board employees here.

Formal recognition, under EO 10988, requires that management officials consult with the organization's representatives and seek their views on the formulation, revision, and implementation of personnel policies, procedures, and matters affecting working conditions of members in the unit.

Group May Give Views

An employee organization with formal recognition is also entitled to raise such matters for discussion from time to time, and at any time to present its views in writing.

John M. Sangster, Chief, Personnel Management Branch, has been designated as representative for Dr. Shannon in working with the representatives of these organizations.

POLITICAL PARTICIPATION

The Civil Service Commission has added Montgomery County to the list of localities in which employee residents may engage in certain political activities this year.

Other local areas such as Prince Georges County, Arlington, and Alexandria were already included in the privileged localities.

The main restrictions accompanying this privilege bar Federal employees from:

- Engaging in non-local parti-

Gray Service Volunteers Sought by Red Cross

To meet the need for more men and women in the Gray Service at the Clinical Center, the Montgomery County Chapter of the American Red Cross is now interviewing and registering volunteers for fall training classes to be conducted at NIH.

The prospective "Gray Ladies" and "Gray Men" will be instructed in a program of service to CC patients which lends valuable support to the work of the hospital's medical staff.

Duties Specified

Participation in the program usually involves the contribution of about one day a week during which a volunteer fulfills a specific assignment such as assisting patients in physical therapy, teaching arts and crafts, working in the patients' library, or merely visiting patients who have no friends or relatives nearby.

The fall classes, for which there is no charge, will begin Monday,

san political activities.

- Running for local office as a candidate representing a political party (they may run for local office as independent candidates).

- Accepting full-time local office unless they resign their Federal position. If the employee holds a part-time office, job resignation is not necessary providing their agency determines in advance that the holding of such office will not conflict or interfere with their duties as Federal employees.

Any questions about authorized and restricted activities, as well as requests for determination of whether there is conflict of interest in holding local offices, should be referred to I/D Personnel Officers, who will obtain the necessary clearances in questionable cases.

Young Chess Enthusiast Fulfills Prediction, Wins Prize at Championship

A prediction, made not quite four years ago, was fulfilled by the success of Peter Graves in the recent U.S. Open Chess Championship.

Peter, the son of Corinne T. Graves, Head of the Policy and Procedure Office, Division of Research Grants, won first prize of \$65 in Class A at the championship held in Boston's Sheraton Plaza Hotel, August 16-29.

Young Graves, a 16-year-old senior at Landon School, scored 7½ points out of the 12 round championship, increasing his U.S. Chess Federation rating to put him in the "Expert" class. The championship was host to 234 contestants, 35 of whom were juniors under age 21.

Prediction Made in '60

The prediction was made in December 1960 by Dr. Eliot S. Hearst, an NIMH Research Psychologist, when Peter, then a 12-year-old, was among 35 challengers Dr. Hearst played against in a simultaneous chess exhibition here.

At that time, Dr. Hearst said Peter had displayed unusual ability and that with the proper coaching he "could look to a future in chess."

Dr. Hearst, a staff member of the Clinical Neuropharmacology Research Center at St. Elizabeths Hospital, is himself a senior Master and has participated in numerous national and international tournaments.

In the summer of 1960, Dr. Hearst was a member of the 7-man U.S. chess team that won the World Student Team Championship by handing the Russian team its first loss over a 25-year period.

October 26. Deadline for registration is Wednesday, October 7.

Interview appointments and additional information can be obtained by phoning the Office of Volunteers, Montgomery County Red Cross, at JU 8-2515, between 10:00 a. m. and 3:00 p. m., Monday through Friday.

Medicine-History Group to Meet September 30

The Washington Society for the History of Medicine will hold its first meeting of the current year on Wednesday, September 30, at 8 p.m. in Wilson Hall, Building 1.

Included in the evening's program will be the presentation of two papers: "Andreas Vesalius (1514-1564): An Anatomical Quadracentennial" by Morris Leikind, National Institute of Mental Health; and "The Antivivisection Movement" by Dr. Mark Ozer, Walter Reed Army Institute of Research.

An affiliate of the American Association for the History of Medi-

Dr. Justin Andrews Wins PHS Meritorious Medal

In ceremonies held September 8, Dr. Justin M. Andrews, Director of the National Institute of Allergy and Infectious Diseases, received one of the highest awards of the Public Health Service, the Meritorious Service Medal.

On behalf of Surgeon General Luther L. Terry, Dr. James A. Shannon, Director of NIH, presented the medal to Dr. Andrews "in recognition of his outstanding competence in the planning and execution of programs concerning communicable and allergic diseases and specifically for his concepts and achievements in the eradica-



Dr. James A. Shannon, Director of NIH (left), opens the case holding the PHS Meritorious Service Medal presented September 8 to Dr. Justin M. Andrews, Director of the National Institute of Allergy and Infectious Diseases, for his "outstanding competence" in planning and executing programs concerning communicable and allergic diseases.—Photo by Sam Silverman.

tion of malaria here and abroad."

Dr. Andrews has been Director of NIAID since 1957 and has guided an international program of research on infectious diseases and allergy.

He is the author of more than 100 articles dealing primarily with the epidemiologic phases and control of protozoan diseases.

cine, the Washington Society was formed in 1961 and holds meetings bi-monthly.

Annual dues for membership are \$2. The society invites anyone in the Washington area interested in the history of medicine to join.

Further information may be obtained from any of the current officers of the society: Dr. William L. Fox, Montgomery Junior College, President; Dr. James H. Cassidy, DRG, Vice President; Thelma P. Robinson, National Naval Medical Center, Treasurer; and Dr. Peter D. Olch, NLM, Secretary.

Research Symposium and Equipment Exhibit Opens Oct. 5 in Clinical Center

"Thin Layer, Separation Chromatography" will be the theme of the opening session of the Symposium on Recent Developments in Research Methods and Instrumentation to be held Monday, October 5 at 2 p.m., in the Clinical Center auditorium.

The 4-day scientific meeting is being presented in conjunction with the 14th Annual Research Equipment Exhibit.

The exhibit is the Nation's largest display of newly developed equipment for use in medical research. Seventy-six manufacturers will participate, displaying equipment valued at nearly \$1 million.

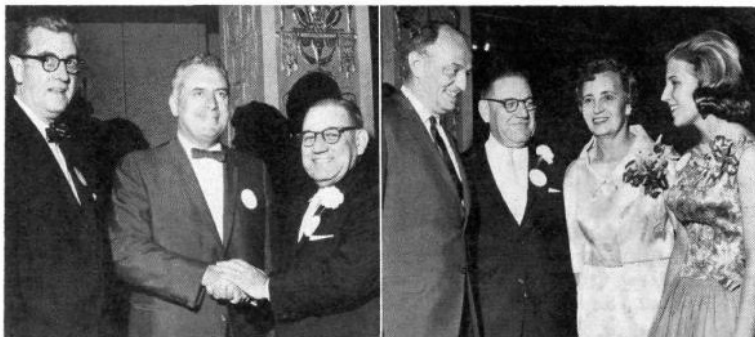
Dr. Alan J. Sheppard of the Food and Drug Administration's Division of Nutrition will preside over the first afternoon's program.

Topics Listed

Among the topics to be discussed are "Thin Layer Chromatography of Oligosaccharides," "Resolution of Lipids (C^{14} , H^{13} , I^{125} , P^{32}) as Determined from 1- and 2-mm Zonal Scans of Thin-Layer Strips," and "The Resolution and Tentative Characterization of Polypeptide Antibiotics and Their Derivatives by Thin Layer Chromatography."

Artificial organs, electroanalytical techniques and polarography, microanalytical techniques, inorganic trace analysis and mass spectrometry, luminescence, marine macro- and micro-biology, exobiology, fast reaction monitoring, and energy, the physical concept, its biochemical aspects and instrumentation for calorimetry will be discussed in following sessions.

Other session chairmen include E. Converse Peirce II, Emory Uni-



At the farewell reception tendered him at the Mayflower Hotel, Dr. Robert H. Felix, retiring Director of the National Institute of Mental Health (at right in left picture), receives congratulations from Rep. John E. Fogarty of Rhode Island (center) and Dr. James A. Shannon, Director of NIH. At right Dr. Felix is pictured with Dr. Luther L. Terry, PHS Surgeon General; his wife, Esther, and daughter, Katherine.—Photos by Jerry Hecht.

NHI Branch Sponsors Epidemiology Seminars

The Biometrics Research Branch of the National Heart Institute is sponsoring a series of monthly seminars in the field of epidemiology.

Designed to improve professional interactions in epidemiology, the series opened on September 15 when Dr. Robert W. Miller, Chief of the Epidemiology Branch, National Cancer Institute, spoke on "Cancer Etiology—The Use of Existing Data Resources for Field Studies."

Tentative future plans include seminars by Dr. Leonard Kurland of the National Institute of Neurological Diseases and Blindness, and Dr. Albert Kapikian of the National Institute of Allergy and Infectious Diseases, on the Epidemiology of Acute Respiration Infections.

University; Joseph B. Morris, Howard University; John Mitchell, Jr., E. I. DuPont de Nemours & Co.; W. W. Meinke, National Bureau of Standards; and Robert L. Bowman, NIH.

Also Robert F. Acker, Office of Naval Research; Freeman Quimby, National Aeronautics and Space Administration; Robert L. Berger, NIH; and T. H. Benzinger, Naval Medical Research Institute.

NIH Is Co-Sponsor

The Annual Symposium and Exhibit is co-sponsored by the National Institutes of Health and the local chapters of six national scientific societies.

Symposium sessions will be held at 2 p.m. and 8 p.m. on Monday October 5; at 9 a.m., 2 p.m. and 8 p.m. on Tuesday and Wednesday, October 6 and 7; and at 9 a.m. and 2 p.m. on Thursday, October 8 in the Clinical Center auditorium.

The research equipment exhibit will again be located in Building 22 and will be open daily from 10 a.m. to 5:30 p.m., October 5-8.

Ten special instrumentation sessions, conducted by manufacturer's representatives, will be held in Con-

Dr. Robert Felix, NIMH, Honored by Colleagues At Farewell Reception

Friends and colleagues of Dr. Robert H. Felix, Director of the National Institute of Mental Health, honored him at a farewell reception at the Mayflower Hotel on September 10.

Dr. Felix is retiring from the Public Health Service following 31 years of active duty. He has served as Director of the NIMH since its establishment in 1949, and has been a leader in developing a new national mental health program.

Following his retirement on October 1, Dr. Felix will become Dean of the School of Medicine at St. Louis University, St. Louis, Mo.

Over 300 Attend

More than 300 guests attended the reception, including the Surgeon General of the Public Health Service, Dr. Luther L. Terry; Director of the National Institutes of Health, Dr. James A. Shannon; and Representative John E. Fogarty of Rhode Island.

Also attending were the Directors of NIH's Institutes and Divisions, other NIH personnel, and representatives of state mental health agencies and various mental health voluntary and professional groups.

Dr. Felix was presented with two bound volumes of letters of congratulation, and one volume of clippings and other mementos of honors he has received during his career. These include the 1961 Rockefeller Public Service Award and numerous honorary degrees.

Another farewell reception honoring Dr. Felix was held in Building 31 on Monday, September 14.

ference Room C of Building 16, at 1 p.m. on Monday, October 5, and daily thereafter for the duration of the symposium at 9:30 a.m., 11 a.m. and 1 p.m.

Joseph E. Rall, NIAMD, Receives Award From University of Minnesota

Dr. Joseph E. Rall, authority in the field of thyroid biochemistry, physiology and disease, was one of 35 eminent medical and dental scientists who received Outstanding Achievement Awards from the University of Minnesota, September 17.

Dr. Rall is Director of Intramural Research of the National Institute of Arthritis and Metabolic Diseases.

Recipients of the award are alumni of the University of Minnesota Mayo Foundation for Medical Education and Research at Rochester, Minn. Dr. Rall was a Mayo Foundation Fellow during 1948-50, and received his Ph.D. from the University of Minnesota in 1952.

Centennial Celebrated

Presentation of the awards was part of the Mayo Centennial Year Celebration marking the approximate centennial of the birth of Dr. William James Mayo and Dr. Charles Horace Mayo, founders of the Mayo Clinic. The year 1964 also marks the semi-centennial of the Mayo Foundation.

The Outstanding Achievement Award recipients were honored at the Mayo Centennial Convocation, which was held in conjunction with a 2-day symposium entitled "Mirror to Man—Man's Adaptation to His Expanding Environment."

Dr. Victor Johnson, Mayo Foundation Director, and Dr. R. Drew Miller, Associate Director, presented the awards, each consisting of a gold medal and a citation, during ceremonies at the Mayo Civic Auditorium Arena in Rochester.

Known for Thyroid Research

Dr. Rall has distinguished himself as a researcher, consultant, lecturer and expert in endocrinology. He has made significant contributions to methods for treating carcinoma of the thyroid with radioactive iodine, and has pioneered in studies of the thyroxine-binding proteins of blood, a subject which has taken on importance in the understanding of aspects of thyroid physiology and disease.

From this work, the concept of "free" circulating thyroxine arose. His work on iodinated proteins in thyroid tissue and blood has intensified interest in a field which had been neglected by modern thyroidologists.

Dr. Rall has won such honors as the Van Meter Prize Award of the American Goiter Society in 1950.



Dr. Rall



Typical of the instrumentation to be displayed at the 14th Annual Instrument Symposium and Research Equipment Exhibit here October 5-8, is this ophthalmometer, a device used in measuring the eye. Adjusting the instrument is Barbara Robinson of the Division of Research Services.—Photo by Bob Pumphrey.

DRIVE

(Continued from Page 1)

ord time this year.

Dr. Confrey announced the following Institute and Division chairmen and vice chairmen who will be responsible for naming keymen and supervising the Combined Federal Campaign within their areas:

DRS—Chris A. Hansen and Dr. Walter Newton; DRFR—Dr. Frederick L. Stone and Daniel M. McMonigle; DRG—Dr. Confrey and H. W. Curran; NIGMS—Dr. Stone and Henry T. Cram; NIMH—Dr. Eli A. Rubinstein and Frank Byrnes.

Chairmen Listed

NIDR—Dr. Francis A. Arnold, Jr., and H. C. Christoferson; OD—OAM—Richard L. Seggel and Howard E. Kettl; NINDB—Dr. Richard L. Masland and Robert L. Schreiber; NICHD—Dr. Donald Harting and Calvin Baldwin; NHI—Dr. William J. Zukel and Elizabeth Wiehle.

NIAID—Dr. Dorland Davis and Thomas Porter; NIAMD—Dr. Benjamin Burton and Frank Mills; NCI—Dr. Phillip Waalkes and Dr. Alfred R. Stanley; DBS—Dr. Casper Hiatt and Betty Henningan; and CC—Howard W. Spence and Inga Sander.

In addition to the Washington area, the test drive is being conducted in Chicago; Minneapolis-St. Paul; San Antonio; Macon, Ga.; Dover, N.J.; and Bremerton, Wash.

The \$154,573 quota for NIH breaks down as follows: DRS—\$15,921; CC—\$19,322; OD—\$17,050; DRG—\$8,656; NICHD—\$2,164; DBS—\$3,555; NIGMS—\$2,319; DRFR—\$2,164; NCI—\$22,568; NIMH—\$15,148; NHI—\$10,356; NIDR—\$5,317; NIAMD—\$11,902; NIAID—\$7,265; and NINDB—\$10,975.

NICHD Lets Contract to Study Use of Embryonic-Fetal Opossum for Research

Tiny opossums, so small that over one dozen fit into a teaspoon when newborn, are the biological "tools" being used to screen and test drugs on developing mammalian embryos under terms of the first research contract let by the National Institute of Child Health and Human Development.

The contract, let to The Marquardt Corporation of Van Nuys,



Newborn opossums, who someday will resemble the young trio shown here, are being used by The Marquardt Corporation of Van Nuys, Calif., as the biological "tools" in studies of drug effects on the developing mammalian embryo. The studies are underway under terms of the first research contract let by NICHD.

Calif., provides \$48,500 to Marquardt over a one-year period, to demonstrate the usefulness of the embryonic-fetal opossum as a research tool.

The testing program called for by the contract should lead to the development of new embryological techniques. These would be applicable to evaluating the effects of a variety of influences that may alter mammalian development.

The opossum is a unique animal for research because its young are born approximately 12 days after conception at a stage of development which can be compared to an 8-to-10-week-old human embryo.

Attaches Self to Pouch

Immediately after birth the tiny opossum struggles over the mother's abdomen and into a pouch similar to that of the kangaroo. There it attaches itself firmly and continuously to one of the mother's thirteen nipples which are no bigger than the head of a pin.

During the 60 to 70 days following birth the baby opossums develop in the maternal pouch through many fetal stages. Finally they reach a stage of development similar to that of a human nursing infant.

The opossums' unique fetal development is observable, therefore, without the barrier of the placenta which most mammalian species utilize during their development in the uterus.

In the work being undertaken by Marquardt, drugs will be administered to the fetus independently of the mother, after the fetus is delivered and in the pouch. The development of defects or abnormalities as a result of the administration of drugs will then be observed during the animal's fetal life.

Marquardt was selected for the study because of prior studies it had conducted with opossums under company-sponsored research programs. Its life science personnel have developed a proprietary technique by means of which the embryonic fetus may be detached from the nipple and fed artificially.

Prior Use Limited

Prior to the development of this technique, only very limited use of the opossum as a laboratory animal for evaluating potential hazards to mammalian development was possible.

The work under this research contract will be done at Marquardt's Bioastronautics facilities in Van Nuys. The principal investigator is Dale L. Carpenter, senior research aerospace zoologist and head of Marquardt's Biology Projects.

New Pamphlet Published By NCI on Lung Cancer

"Cancer of the Lung," a pamphlet on the most common cause of cancer deaths among American men, has been issued by the Public Health Service.

Prepared by the National Cancer Institute to give the public a clearer understanding of this highly malignant disease, the pamphlet is the fifth in a new series of 10 publications dealing with cancer of different body sites.

Fifty years ago, lung cancer was rare. But last year in the United States, about 43,000 persons died from it. More than 37,000 of the victims were men. The total death rate is more than 10 times what it was in 1930, and the trend shows no sign of reversing itself.

Search Intensified

As cases of lung cancer have increased, the search for its causes has been intensified. In a section on smoking, the pamphlet describes some of the laboratory evidence and statistical studies that led the Surgeon General's Advisory Committee on Smoking and Health to conclude that the effect of cigarette smoking far outweighs all other factors related to lung cancer in men and that the data for women, though less extensive, point in the same direction.

The 8-page pamphlet also discusses other factors related to

CC Nursing Department Ass't Chief Appointed

The appointment of Geraldine Logan Ellis as Assistant Chief of the Clinical Center's Nursing Department was announced last week by Dr. Jack Masur, CC Director.



Mrs. Ellis

Mrs. Ellis has had wide experience in both administration and education. She will assist Louise C. Anderson, Chief of the Nursing Department, in directing the large research-oriented department, which has over 600 employees, more than half of whom are professional nurses.

Mrs. Ellis served as an Instructor in Graduate Nurse Education at New York University in New York City from 1960 until her appointment to the Clinical Center.

She also served on the teaching staffs of Allegheny General Hospital in Pittsburgh, Pa.; Chestnut Hill Hospital in Philadelphia, where she was later employed as Assistant Director of the Hospital's Nursing Service; and the University of Pennsylvania in Philadelphia.

Secretary to ANA Group

In addition, Mrs. Ellis has been employed on a part-time basis by the American Nurses Association as secretary to its Committee on Clinical Sessions.

She also did a tour of duty as Second Lieutenant Staff Nurse in the U.S. Army Nurse Corps.

Born in Butler, Pa., Mrs. Ellis graduated from Allegheny General Hospital School of Nursing in Pittsburgh in 1943. She received her B.S. degree from Duquesne University in 1948 and her Master's degree from the University of Pennsylvania in 1957.

Mrs. Ellis has completed the major portion of work toward a Doctorate in Education at New York University and has made notable literary contributions in the field of medical-surgical nursing.

lung cancer, its symptoms, diagnosis, treatment, and prevention, and the nature of cancer in general.

The other four pamphlets in the series already available are on cancer of the breast, uterus, skin, and bone.

Single copies of "Cancer of the Lung" (PHS Publication No. 1173) are available without charge from the Public Health Service, Washington, D. C. 20201. It may also be purchased in quantity from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402, at 10 cents a copy or at \$5.00 per 100 copies.



Mark Matthews, flanked by his wife and George P. Morse, Chief of the Plant Safety Branch, smilingly accepts congratulations of well-wishers at surprise farewell party honoring him on his retirement after 14 years of service with the NIH Guard Force. Coworkers presented Mr. Matthews, an avid fisherman, with a rod and reel.—Photo by Ed Hubbard.

John Newbrough Named To New NIMH Position

Dr. John R. Newbrough has been appointed Acting Chief of the Community Projects Section at the Mental Health Study Center, National Institute of Mental Health.

He succeeds Dr. James G. Kelly, who has accepted an appointment as Associate Professor of Psychology at Ohio State University where he will participate in developing the community mental health curriculum for the doctoral program in clinical psychology.

In his new position, Dr. Newbrough will be responsible for developing and executing a comprehensive and longitudinal research program on the relationship between social factors and the expression of mental illness in a county population.

Joins Center in 1960

Prior to joining the staff of the Mental Health Study Center in 1960, Dr. Newbrough was a post-doctoral research fellow in community mental health at Massachusetts General Hospital and Harvard University Medical School.

During that year he and Dr. Kelly worked to prepare the book *Community Mental Health and Social Psychiatry: A Reference Guide*, published by Harvard University Press in 1962.

Born in Twin Falls, Idaho, he received a B.A. degree magna cum laude from the College of Idaho in 1955. He later attended the University of Utah where he received his M.A. and Ph.D. degrees in clinical psychology in 1956 and 1959.

Dr. Newbrough is a member of the Maryland Psychological Association, the Eastern Psychological Association, the American Psychological Association, and the Inter-American Society of Psychology.



Dr. Koloman Laki, Chief of the Laboratory of Biophysical Chemistry, NIAMD (left), and Dr. Stephen Hajdu of NHI's Laboratory of Kidney and Electrolyte Metabolism (center), pictured just prior to a broadcast with Voice of America interviewer Laszlo Dosa that will be beamed into Hungary. The interviews are designed to inform Hungarians of medical research in America and projects in which former Hungarian nationals play a part.—Photo by Lou Cook.

NIH SPOTLIGHT

Pakistan Lab Officer Studies Management Methods at NIH

By Martha Kovacic

"People here know they must introduce something new to speed up work. They are ready to try new methods."

In those words Mujibur Rahman Bashir summed up his approval of the American way of attacking problems.

Mr. Bashir, Administrative Officer of the Pakistan-SEATO Cholera Research Laboratory at Dacca, arrived at NIH the first of August to take part in the Management Intern Program for nine months. He will study supply, financial, personnel, and records management.

Since most of the financial support and supplies for the Laboratory are provided by NIH, Mr. Bashir anticipates that the study program will help him to determine how best to utilize the resources of NIH to assist in efficient operation of the Cholera Research Laboratory.

Studies at Dacca Univ.

Mr. Bashir, or just Bashir as he is known to his friends in Pakistan, since the chosen first name is used as the last name, studied economics and political science at the Dacca University in East Pakistan.

His earlier education was received in West Pakistan. West Pakistan and East Pakistan are more than 1,000 miles apart.

In 1957 Mr. Bashir enrolled in the College of Commerce in London and received his degree in Business Administration and Accountancy. He worked for a time for an accounting firm in London and returned to Pakistan in 1961 to join the SEATO Cholera Research Lab as an accountant.

In January 1962 he was appointed Administrative Officer. In this position he is responsible for general administration, accounts, supplies, and liaison with the Government of Pakistan. He also serves as Personnel Officer.

Heads Employee Association

In addition, Mr. Bashir is president of the laboratory's staff welfare association which is patterned after the Recreation and Welfare Association of NIH.

Since 1961, when Mr. Bashir joined the Cholera Research Lab, the staff has increased from 20 to almost 300. Laboratory activities have increased proportionately, and Mr. Bashir stated that he worked every day, including Saturdays and Sundays, for two years.

The present staff includes five Americans, of whom four are scientists; two Australian anthropologists, and a British hospital supervisor. All of the remaining staff



M. J. Bashir, Administrative Officer of the Pakistan-SEATO Cholera Research Laboratory at Dacca (left), discusses the progress of the cholera research program with Dr. Clifford A. Pease, Chairman of the NIH Cholera Advisory Committee.—Photo by Bob Pumphrey.

are Pakistanis.

The Pakistan-SEATO Cholera Research Laboratory is an autonomous international laboratory created by agreement between the United States Government and the Government of Pakistan in October 1960, for "the development, evaluation, and demonstration of measures of prevention and eventual eradication of cholera."

The laboratory includes a Clinical Research Section, including a cholera ward; a Bacteriology Section, a Water Study Section, an Epidemiology Section, an Administrative Section, and a General Services Section.

Lab Has 20-Bed Ward

It occupies one entire wing of the Institute of Public Health Building and consists of three floors. The first floor is a 20-bed cholera ward with the usual ancillary facilities.

The second and third floors are devoted to office space, a library, and laboratories for clinical, physiological and bacteriological studies.

A separate suite accommodates the Epidemiology Section. Animal facilities are also provided.

Mr. Bashir said that the laboratory is conducting vaccine trials and to date over 25,000 people in the area have been vaccinated as part of this study.

A field laboratory was established in Matlab, 40 miles from Dacca, with a police barge equipped as a treatment center for cholera cases arising in the area. A launch is used to carry supplies to the

Seminar at RML Hears Scientist From Sweden

Dr. Claes Weibull, a Visiting Scientist from Sweden, recently described some aspects of bacterial L forms and pleuropneumonia-like organisms (PPLO) at one of the weekly seminars at NIAID's Rocky Mountain Laboratory.

His studies, utilizing young liquid cultures of L forms and PPLO, have revealed striking structural differences between these organisms.

PPLO, significant pathogenic agents, lack compounds characteristic of bacteria that are equipped with a rigid wall, e.g., muramic and diaminopimelic acids.

Further Research Needed

In contrast, some L forms contain these cell-wall constituents although others do not.

These findings indicate, Dr. Weibull said, that it would be desirable to further investigate the morphology, fine structure, and chemical anatomy of these two kinds of organisms. Such research would lead to a better understanding of their pathogenic and immunologic properties.

Dr. Weibull's sponsor at RML is Dr. Edgar Ribi.

field laboratory from Dacca, since the only means of travel between localities is by river.

"During monsoon time, from June through September, travel by boat becomes difficult," Mr. Bashir pointed out, "but the supplies must get through and laboratory personnel must take chances."

Mr. Bashir also noted that other field research work is being conducted by an Australian husband and wife team of anthropologists at the town of Shaitnal about 20 miles from Dacca.

Living in a home built by the laboratory, they are acquiring first hand knowledge about the people of Pakistan and their way of life.

Observes Others' Customs

While taking part in the Management Intern Program at NIH, Mr. Bashir, too, has the opportunity to study our American way of life.

He is keenly interested in the customs and traditions of people of all countries. This interest has become a special study or "hobby," he said, in his visits to about 20 European and Asian countries.

After a month's stay here, Mr. Bashir said that he has found American people to be "friendly, broad-minded, well-mannered and easy to work with." His associates at NIH stated that this may be due in large part to the fact that Mr. Bashir himself has those qualities.

LEUKEMIA

(Continued from Page 1)

A single particle was found in the blood of one of 36 normal volunteers matched by age (average, eight years) and sex with a majority of the patients in the study.

In related studies, Dr. Mary A. Fink of the Cancer Institute's Laboratory of Viral Oncology and Dr. Richard A. Malmgren of the Laboratory of Pathology and their associates prepared in rabbits an antiserum from leukemic blood plasma in which Dr. Dalton's team had observed virus-like particles.

The resultant antibodies were combined with a fluorescent chemical substance. This specific antiserum preparation, used as a fluorescent stain, reacted positively with blood and bone marrow cells from the majority of leukemia patients tested.

Positive Reaction Observed

This positive reaction, possibly indicating the presence of a specific viral antigen, was observed in specimens from 49 out of 72 leukemia patients tested. No fluorescent reaction was observed when the antiserum was tested on material from non-leukemic individuals.

Drs. Fink and Malmgren and their co-workers also found that antiserum prepared against a known mouse leukemia virus reacted positively when tested on blood and bone marrow specimens from a significant number of leukemia patients.

This reaction suggested to the investigators that there may be antigenic, as well as structural, similarities among strains of leukemia virus infecting various species.

Attempts to demonstrate the biological activity of the particles observed with the electron microscope by Dr. Dalton and confirmed through immunofluorescence by Drs. Fink and Malmgren are now being tried.

Baylor Studies Cited

In two virus studies at Baylor University College of Medicine, investigators applied to human plasma or serum samples electron microscopy methods for negative staining and counting virus particles.

These scientists reported that 16 of 24 leukemic children, and nine of 12 children with infectious mononucleosis studied, had high concentrations of virus-like particles in their blood. Only two of 60 healthy children exhibited the particles in their blood.

In appearance, these particles were similar to the avian myeloblastosis virus which causes leukemia in chickens.

However, the Baylor University investigators urged caution in assuming that the particles they found were actually causally re-

CC Blood Bank Uses New 'List Finder' To Quickly Locate Donor Types Needed

Under the generally accepted premise that blood donors are very important people, the Clinical Center Blood Bank recently acquired a very special sort of "list finder" to get in touch with them when necessary.

The "list-finder" is a desk-top "donor retrieval unit" which can pinpoint donors with specific blood characteristics in a matter of minutes. The hours this pinpointing might otherwise require could make the difference between life and death.

The retrieval unit reduces the matching of blood to the matching

of eyelets in plastic search cards. Each of 101 cards represents a different blood characteristic, and each blood donor is assigned a specific geometric point on all of the cards.

An assigned point is punctured to form an eyelet on those cards—and only those cards—representing a characteristic present in the donor's blood. There is room enough on the cards to assign each of 10,000 donors a specific geometric point.

Suppose, for instance, a CC patient urgently required blood classified as (1) group AB, (2) Rh negative, and (3) M negative.

All that a CC Blood Bank technologist would have to do would be to pull the search cards on each of these three characteristics and place them on top of one another.

The geometric points which showed eyelets in all three cards would indicate the number of donors who could assist. In virtually no time at all their blood—the only kind the patient would tolerate—could be available.

Prompt Action Essential

This necessity to act quickly and effectively in securing the right kind of blood is by no means purely academic. There are many occasions when a fast answer is the only one that will help a patient.

Moreover, as a further means of preventing donors from giving blood more often than would be healthy for them, the retrieval unit also alerts technicians automatically as to the correct time lapse between contributions.

The really significant point, however, is that the answers do not come from the eyelets in plastic file cards, but from the NIH employees whom they represent.

And, in this respect, a recent comprehensive study by the Irwin Memorial Blood Bank of the San Francisco Medical Society made the reassuring discovery that "groups from which volunteers must be drafted seem most amenable to appeals for serving their fellow men."

The Blood Bank has room left on the retrieval unit's cards for any NIH employee who would like to be entered in this unique "blue book." Appointments to give blood may be made by calling Ext. 64509.

Dr. Roger Cole Appointed NIAID Section Head

Dr. Roger M. Cole has been appointed Head of the Medical and Physiological Bacteriology Section, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases.

The section conducts basic research on the physiology and morphology of bacteria as well as

Dr. Jane Wilcox Named To New DRG Position

Dr. Jane Wilcox, Special Assistant for Nursing Research in the CC Nursing Department since 1958, has been appointed Executive Secretary of the newly created Disease



Dr. Wilcox

Control Study Section of the Research Grants Review Branch, Division of Research Grants.

She will also serve as Executive Secretary of the Applied Physiology Study Section (formerly an advisory

committee).

The new Disease Control Study Section will review applications for research in the detection, prevention, treatment, and control of disability and of specific chronic and communicable diseases in the community.

A member of the Public Health Service since 1948, Dr. Wilcox served with the Federal Employee Health Program during her first year in the service.

She was associated with the Heart Disease Control Program, Bureau of State Services, from 1949 until 1953 when she was named Chief of the Heart Nursing Service at the Clinical Center.

Serves CC Since 1953

Except for two years of study at Johns Hopkins, Dr. Wilcox served with the Clinical Center from 1953 until her appointment to the Division of Research Grants.

An Alumna of Barnard College and Yale University, Dr. Wilcox also received the M.P.H. and Sc.D. degrees from Johns Hopkins.

She is a Fellow of the American Public Health Association and Chairman of the Committee of the Nursing Research Section. She also is a member of the board of directors of the Council on Medical Television and a member of the editorial board of Nursing Research.

Dr. Wilcox's articles on television have appeared in Nursing Research and Nursing Outlook. Her research on measurement of blood pressure has been reported in Nursing Research, the Journal of the American Medical Association, and other scientific publications.

Dr. Herbert Stoenner Appointed Director of Rocky Mountain Lab

Dr. Justin M. Andrews, Director of the National Institute of Allergy and Infectious Diseases, has announced that Dr. Herbert G. Stoenner will become Director of the Rocky Mountain Laboratory, Hamilton, Mont., effective October 1.



Dr. Philip



Dr. Stoenner

Dr. Stoenner, former Assistant Director of the NIAID field station, succeeds Dr. Cornelius B. Philip, who will remain with RML to continue his research in medical entomology and acarology.

Dr. Philip, an authority on rickettsial diseases and other arthropod-borne infections, has been associated with RML since 1930 and has been its Director since 1962.

Dr. Stoenner, a Commissioned Officer in the Public Health Service, was educated at William Jewell College, the University of Missouri, and Iowa State College, where he received his D.V.M. degree in 1943.

Dr. Philip received his B.S. degree from the University of Nebraska and his M.S. and Ph.D. degrees from the University of Minnesota.

SEMINAR

(Continued from Page 1)

non, Director of NIH. Dr. Shannon described to the group, in broad terms, the evolution of medical research in this country and in the world, and pointed out the increasing role of NIH in the changing pattern of support for research and research training.

He stated his views of the consequent importance of the scientists as well as the science writers in keeping the public informed both on the substance of science and on its importance to society.

In response to a request by Dr. Shannon, the science writers commented on the seminar, indicating a desire for more such conferences, with emphasis on greater news orientation.

Original plans for the seminar excluded news coverage of the program, but upon the request of the science writers, a press room was set up and several news stories on the NIH-research discussions have appeared in the press.

The five Institutes involved were: National Cancer Institute,

Cancer Trends, Effects of Treatment Presented by NCI in Two New Reports

Two new National Cancer Institute reports on the impact of cancer in the United States and elsewhere were given initial distribution at the Fifth National Cancer Conference held in Philadelphia September 17-19.

The Philadelphia meeting, one of a series of quadrennial conferences sponsored by the National Cancer Institute and the American Cancer Society, was attended by about 2,000 scientists and physicians.

Both reports are addressed primarily to professional audiences. One, "End Results in Cancer: Report No. 2," provides data on the effects of treating different forms of cancer.

Summarizes Treatment

It summarizes the experience of more than 100 hospitals in the U. S. in treating thousands of cancer cases during four 5-year periods from 1940 through 1959.

Data are presented for 44 specific forms of cancer which account for 94 per cent of all patients seen in participating hospitals.

One-year, 5-year, and 10-year survival rates are shown for each form of cancer. The report discloses a marked increase in survival rates for patients with cancers of the colon and rectum, associated with increased surgery.

The benefits of early case-finding through use of the cell examination test, or "Pap smear," is reflected in a substantial increase in survival among women with cancers of the uterine cervix. The introduction and increased use of drug treatment has been accompanied by increased survival for patients with leukemia and Hodgkin's disease.

"End Results in Cancer" is the second report of the End Results

National Institute of Allergy and Infectious Diseases, National Institute of Arthritis and Metabolic Diseases, National Institute of Dental Research, and the National Institute of Neurological Diseases and Blindness.

New York University contributed a panelist who recently had been associated with NIAMD.



At the conclusion of the seminar a buffet luncheon was held in the Executive Dining Room of Building 31 for the participants. Shown dining with a group of the panelists is Dr. James A. Shannon, NIH Director (fourth from left).—Photo by Bob Pumphrey.

Group which is coordinating a national cooperative program for evaluating cancer therapy.

The first report was distributed at the Fourth National Cancer Conference in Minneapolis in 1960. The End Results Group, whose program is sponsored and supported in part by NCI, is made up of representatives from three central cancer registries and 10 individual hospital registries.

Its Executive Committee Chairman is Dr. Henry Eisenberg of the Connecticut State Department of Health. Dr. Sidney J. Cutler, NCI, is Executive Secretary.

Second Report Described

The other report, "Cancer Rates and Risks," was prepared by the Demography Section of NCI's Biometry Branch.

The 93-page publication is in question-and-answer form and is addressed primarily to physicians, medical students, public health workers, cancer educators, and others interested in the course of cancer in individual patients or its effect on various populations.

It describes cancer trends in the United States and abroad, including survival rates, diagnosis and treatment, and factors associated with high or low risks of developing cancer, such as ethnic origin, marital status, and environment.

"Cancer Rates and Risks" defines four main deviations from the overall pattern of rise in cancer deaths between 1930 and 1959. Lung cancer deaths among men have increased more than eightfold, with a smaller but substantial increase for women.

Leukemia Deaths Increase

Leukemia deaths have increased almost threefold, with the greatest increase among middle-aged and older people.

Deaths from uterine cancer have been cut almost in half, because of earlier diagnosis and improved treatment. Stomach cancer deaths have decreased by more than 60 per cent.

The information was drawn extensively from reports of mortality statistics from the PHS's Division of Vital Statistics, from cancer morbidity surveys conducted by NCI, and from the cancer registries maintained by the States of Connecticut and New York.

It is organized in four sections: "Illness from Cancer in the United States," "The Distribution of Various Forms of Cancer," "Factors Associated with High or Low Risks of Cancer," and "Treatment and Survival of Cancer Patients."

Dr. Joseph Bell, NIAID, Closes 35-Year Career

Dr. Joseph A. Bell, Head of the Epidemiology Section of the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, recently retired after a 35-year career marked by numerous distinguished achievements.

During his career he established the cause of several virus diseases, including epidemic pleurodynia, herpangina, and several acute respiratory diseases.

In field trials with Navy recruits, Dr. Bell and his colleagues found that a mixed adenovirus vaccine could prevent from 50 to 70 per cent of the febrile respiratory illnesses ordinarily expected among recruits.

With associates at NIH, Dr. Bell showed that whooping cough vaccine became more effective when it contained alum. Later he showed that by mixing whooping cough vaccine with alum-containing diphtheria toxoid the immunizing properties increased and the mixture could be administered effectively to children as young as two or three months.

Memberships Noted

Dr. Bell is a Diplomate of the National Board and the American Board of Preventive Medicine. His professional associations include the American Epidemiological Society, which he served as President in 1952, the American Public Health Association, the American Medical Association, the Association of Military Surgeons, and the American College of Preventive Medicine.

A native of Trinidad, Colo., Dr. Bell graduated from the University of Colorado School of Medicine in 1929. He holds both Master and Doctor of Public Health degrees from Johns Hopkins University.

The authors of "Cancer Rates and Risks" are Dr. John C. Bailar III, Head of the Demography Section; Dr. Haitung King, and Dr. Marie Joy Mason.

Both publications are available for general distribution. Single copies may be requested from the Public Health Service, Washington, D. C. 20201.

Quantities may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

"End Results in Cancer: Report No. 2," PHS Publication No. 1149, is priced at 75 cents a copy. "Cancer Rates and Risks," PHS Publication No. 1148, costs 40 cents.

NCI Scientists Publish Data on Interferon As Cancer-Inhibitor

New data on interferon, the naturally-occurring anti-viral substance, was published recently in two papers by National Cancer Institute scientists.

Since Isaacs and Lindenmann's report in 1957 there has been continuing interest among cancer virologists and others in the phenomenon whereby cells exposed to one kind of virus produce a substance called interferon which interferes with infection by other viruses.

The present studies include a confirmation, in animal experiments, of earlier tissue culture studies demonstrating the interferon production and carcinogenicity of two polyoma virus strains, S and M.

S Variant Oncogenic

The S variant of polyoma virus (grown in a serum-containing medium) was shown to be highly oncogenic and gave a low yield of interferon.

In contrast, the M variant (grown in a skim milk-containing medium) was mildly oncogenic and produced a higher level of interferon.

When C3Hf/Bi mice were infected with M variant virus in addition to the S variant, they apparently received anti-tumor protection via interferon, since their yield of tumors was lower than that of mice infected with S variant alone.

Moreover, when another virus, the encephalomyocarditis (EMC) virus was used to challenge mice previously infected with M or S variant viruses, EMC virus infection was inhibited in the mice which had been infected with M variant virus, and these mice had higher interferon levels in their tissues than those infected with the S variant.

Rejection Response Tested

An effort was made to determine whether a rejection response unique to the polyoma virus might be responsible for the lower number of tumors produced by M variant polyoma virus.

Groups of adult C57B1/6JN mice infected with one or the other of the variants were inoculated with fibrosarcoma cells originally derived from polyoma virus but no longer demonstrating the virus.

Fibrosarcoma cells grew with equal difficulty in M and S variant infected mice, suggesting that there was no difference between the M and S variants in their ability to induce transplantation immunity.

This finding supports the hypothesis that a high interferon level is the determining factor in the



Twenty-three Supply Management Branch employees recently received a \$1,000 group cash award and meritorious performance certificates for their work as instructors in supply training courses. Pictured here with the group are Richard Seggel, NIH Executive Officer, who made the presentation (standing, center), and James B. Davis, SMB Chief (next right).—Photo by Bob Pumphrey.

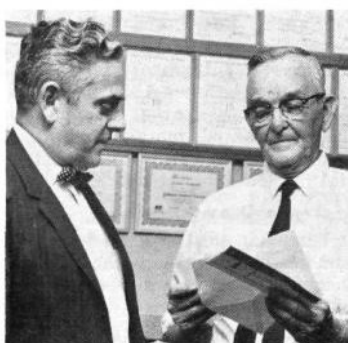
CONGRESS

(Continued from Page 1)

NIAID, \$69.8; NIDB, \$87.8; and DBS, \$4.9.

The amounts voted by the Senate and House for construction remained unchanged, with \$35 million provided for construction of community mental health centers, \$58 million for grants for construction of health research facilities, and \$14.9 million for direct construction.

Senate-House conferees also approved the new \$10 million appropriation for the special cancer virus program to be carried out by the National Cancer Institute, as included by the Senate in the appropriation bill.



Herbert B. Shope (right), shift foreman in the Clinical Center's Maintenance Unit, was honored recently on his retirement after 40 years of Federal Service. Lawrence E. Northcutt, Head of the CC Maintenance Unit, presents Mr. Shope with a Savings Bond from the members of the unit.—Photo by Sam Silverman.

lower tumor yield induced by M variant virus-infected animals.

These findings were reported by Drs. Robert M. Friedman and Alan S. Rabson of the Pathologic Anatomy Branch, National Cancer Institute, in the *Journal of Experimental Medicine* and in *Virology*.

Biological Factors in Mental Retardation Compiled by NINDB

An estimated three percent of Americans are unable to learn enough to adapt to the demands of society. These individuals are classified as mentally retarded. This acute problem is being met by an expanding research program now underway at Government and private medical centers throughout the Nation.

A recent publication of the Public Health Service discusses the biological factors responsible for faulty development of intelligence and the research by which medical science aims to assure prevention and treatment.

Entitled "Mental Retardation, Its Biological Factors; Hope through Research," the pamphlet was prepared by the National Institute of Neurological Diseases and Blindness.

Research Reviewed

Research findings on physical and chemical damage to the brain are reviewed, including the prevention of kernicterus, a disease resulting from an incompatibility of the blood types between a pregnant woman and her unborn child. Transfusions given to the infant at birth wash away blood dangerous to its brain and prevent retardation.

Scientists studying mongolism (Down's Syndrome) hope that present and new information may help lead to its prevention. They have found that mongoloid children have one extra chromosome, either separate or attached to a normal chromosome.

Chromosome analyses of the parents of a mongoloid child may predict the outlook for later pregnancies. Similar studies of potential parents may eventually identify the carriers of the harmful genetic factor.

Grant to Aid Study of Immunological Problems In Transplanting Organs

Surgeon General Luther L. Terry of the Public Health Service recently announced the award of a grant to establish a clinical research center in Boston for the investigation of immunological problems relating to the transplantation of human organs.

The grant of approximately \$190,000, to be administered by the National Institute of Allergy and Infectious Diseases, has been made to investigators at the Massachusetts General Hospital where a comprehensive pilot program in homotransplantation is already in progress.

The purpose of research at the center, which complements other facilities at nearby research institutions, is to determine the most effective means for controlling the "foreign" tissue rejection reaction.

Transplantations will be limited to cases that offer opportunities for obtaining knowledge that could not be acquired by other means. Control of the host rejection reaction is essential before the benefits to be derived from organ transplantation can be realized.

The principal immediate goal of the center's research program is the development of a screening test for recognizing and selecting human donors who "match" the prospective recipients in terms of the major antigens by which individuals differ.

Dr. Paul S. Russell, Homans Professor of Surgery at Harvard Medical School, will direct the intensive multidisciplinary study. Dr. Russell is Chief of General Surgical Services at the hospital. Co-director of the clinical research center is Dr. K. Frank Austen of the hospital's Department of Medicine.

Because retardation results frequently from brain injuries incurred just before and after birth, NINDB has been conducting and supporting a long-term Perinatal Research Study.

Fifteen medical centers, collaborating with NINDB, have been collecting and analyzing information relating to 50,000 expectant mothers and their babies. More than 45,000 mothers have been enrolled in the study and 37,000 babies have been delivered.

Copies of "Mental Retardation, Its Biological Factors; Hope through Research," PHS Publication No. 1152, are for sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, for 15 cents or \$11.25 per 100 copies.