

the NIH Record

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

June 2, 1965
Vol. XVII, No. 11

NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE

Scientists Discover Gaucher's Disease Biochemical Defect

Scientists at the National Institute of Neurological Diseases and Blindness have discovered a specific biochemical defect in a disorder which may be associated with mental retardation.

The defect occurs in persons with Gaucher's disease, a disorder of the body's use of its own fats (lipids). The cause of the disrupted fat metabolism has remained a mystery since its discovery by Phillip Gaucher in 1882.

Symptoms Noted

Babies with Gaucher's disease rapidly develop a bulging abdomen from their enlarged liver and spleen. They often become mentally retarded, spastic, and convulsive. Most infants with Gaucher's die before the age of two.

In the adult with Gaucher's, the bone marrow, liver, and spleen also become involved, destroying health over longer periods. Early signs of the disease include patchy coloring of the face, pain in the thigh bone (the femur), and a tendency to bleed from the gums and skin.

Scientists investigating this affliction in the past found abnormally large quantities of a complex known as "glucocerebroside" in the liver and spleen of Gaucher's patients. (See GAUCHER'S, Page 8)

500 Distinguished Guests Expected at NLM Centennial Honoring 1st Director

The National Library of Medicine will observe the 100th anniversary of its beginning as a national resource with ceremonies and addresses by three of the Nation's leading health legislators on June 17.

Sen. Lister Hill of Alabama, Rep. John E. Fogarty of Rhode Island, and Rep. Oren Harris of Arkansas will be the principal speakers at the John Shaw Billings Centennial in a public program to be presented at 2 p.m. on the front steps of the Library.

The Billings Centennial will commemorate Dr. John Shaw Billings,

DRS Plays Host to Public at Its New Maryland Animal Center



These sheep, comfortably and cleanly maintained in one of the Farm Animal Building pens, are used in immune serum studies.—Photo by Jerry Hecht.

By Bill Kleven

Following completion of three new buildings at the NIH Animal Center near Poolesville, Md., the Division of Research Services held a series of orientation sessions there last week for NIH personnel, newspapermen and other interested groups.

Located on a 500-acre tract, the center was established in 1960 to provide a central animal holding and production facility to supply the needs of the NIH research programs.

It is operated by the Laboratory Aids Branch of the DRS. This branch produces most of the rodents and rabbits used in the NIH Institutes' laboratories.

It also quarantines and condi-

tions the dogs, cats, and primates used in current studies, provides animal surgical services, and monitors animal communicable diseases.

Until recently the Animal Center was largely composed of a few temporary structures for dog quarantine and farm animal holding.

First Phase Completed

The new facilities—consisting of a Farm Animal Building, a Kennel Building, and a Central Utilities Building—represent the first of a three-phase construction program.

With these added facilities, the center will provide a new opportunity to use farm animals in medical research that was not previously possible. All cat and dog quarantine will also be carried out

(Continued on Page 6)

Dr. Albrieux Visits Labs

Dr. Americo S. Albrieux of Montevideo, Uruguay, visited the laboratories of the Gerontology Branch of the National Heart Institute in Baltimore on May 11. Dr. Albrieux is Chief of Medicine at the Hospital Pasteur, Montevideo, and President of the Geriatric Society of Uruguay.

Mental Illness May Result From Child, Parent Relations

New evidence supporting the theory that "unhealthy" parent-child relationships may cause mental illness was reported recently by scientists of the National Institute of Mental Health.

During the past several decades, a major innovation in the study of schizophrenia has been the broadening of focus from the patient as an isolated entity to the family as an integral unit.

NIMH investigators recently described research in which three matched groups of five families each were studied for five years.

Families Described

The families consisted of two parents and a child who was either schizophrenic, delinquent, or well-adjusted. Each family included a second child who served as the study's normal control.

Findings—based on results of two projective tests plus a third test in which families were observed as they tried to resolve differences of opinion—revealed significant differences in ways family members acted toward one another.

Families with normal offspring were well organized, the father was recognized as leader, and family

(See MENTAL, Page 4)

Dr. Huebner Lectures in Soviet Union, France

Dr. Robert J. Huebner, Chief of the Laboratory of Infectious Diseases, NIAID, recently attended an international symposium on tumor antigens in Sukhumi, U.S.S.R., where he delivered a lecture on "Non-virion Neoantigens in Virus-induced Tumor Cells and in Infected Cells."

While in Europe, Dr. Huebner also gave a Pasteur Lecture at the University of Paris entitled "Neoantigens in Virus-induced Tumors."

Before returning to NIH, Dr. Huebner consulted with colleagues at research institutes in Czechoslovakia and Sweden as well as France and the U.S.S.R.

the NIH Record

Published bi-weekly at Bethesda, Md., by the Public Information Section, Office of Research Information, for the information of employees of the National Institutes of Health, principal research center of the Public Health Service, U. S. Department of Health, Education, and Welfare, and circulated by request to interested members of the public. The NIH Record content is reprintable without permission. Pictures are available.

NIH Record Office.....Bldg. 31, Rm. 4B13. Phone: 49-62125

Editor E. Kenneth Stabler
Associate Editor George J. Mannina

Staff Correspondents

Georgiana Brimijoin, NCI; Tony Anastasi, NHI; Jan Etheridge, NIAID; Mary Anne Gates, NIAMD; Bob Callahan, NIDR; Gail Dearing, NIMH; Frances Dearman, NINDB; Elsie Fahrendhold, CC; Faye Peterson, DBS; Linda Jacobson, NIGMS; Beverly Warran, DRFR; Dick Turlington, DRG; Bill Kleven, DRS; Frances Mills, OAM; Dan Rogers, NICHD.

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

LENGTH-OF-SERVICE AWARDS

This year for the first time the NIH Institutes and Divisions will have the opportunity to present all length-of-service awards to their staff members who have attained 10, 20, and 30 years of service.

The decision to present these awards at the I/D level rather than at an NIH ceremony was made because of the large numbers of employees who are eligible for such awards.

FORMAL RECOGNITION

On May 19 Dr. Shannon granted formal recognition to the Washington Area Metal Trades Council representing its affiliated locals, for a unit comprised of all non-supervisory wage board employees at the National Institutes of Health, with the exception of those employees in the Ground Maintenance and Landscaping Section, DRS, and the Nutrition Department, CC.

As a result of this form of recognition this employee organization has the right to consult and be consulted on formulation and implementation of personnel policies and practices, working conditions, and grievances.

REPORT OF OUTSIDE WORK

The semi-annual report required from staff members who have received approval to engage in outside work has previously been required on June 30 and December 31.

In the interest of reducing paper work, the Department has consented to make this report annual, with a reporting date of August 31. Additional instructions concerning this report will be issued later through the Institutes and Divisions.

List of Latest Arrivals Of Visiting Scientists

5/3—Dr. Matti Saleh Al-Aish, Iraq, research in the Mental Retardation Diagnostic Unit. Sponsor: Dr. Gerald LaVeck, NICHD, Bldg. 31, Rm. 4A35.

5/3—Dr. Kalman Perk, Israel, research in the Special Virus-Cancer-Leukemia Program. Sponsor: Dr. W. Ray Bryan, NCI, Bldg. 6, Rm. 318.

5/3—Dr. Dankwart Reinwein, Germany, research in the Clinical Endocrinology Branch. Sponsor: Dr. Jacob Robbins, NIAMD, Bldg. 10, Rm. 8N315.

Senators-Tigers Game To Benefit Retarded; R&W to Sell Tickets

On July 4 the Washington Senators baseball team will play the Detroit Tigers, with a percentage of the advance ticket sales going to Help for Retarded Children, Inc., the D.C. Chapter of the National Association for Retarded Children and member of the Health and Welfare Council, National Capital Area.

Help for Retarded Children provides school and training for youngsters 3-16 years of age, personal and social adjustment training, job training and orientation, and a sheltered workshop for those 16 and over who are not able to work in the community.

The Recreation and Welfare Association of NIH will cooperate in taking advance reservations for the game at \$1.50 for general admission, \$2.50 for reserved grandstand, and \$3 for box seats. No discount will be offered for this game.

During the season, R&W will be able to offer discounts on selected games, such as the June 29 Senators-Yankee game.

Credit Union Announces 2 New Loan Programs

The Board of Directors of the NIH Federal Credit Union has announced that two new loan programs—for home improvements and vacation or travel—have been approved and put into effect for its members.

The first permits FHA Title I home improvement loans, under which members may borrow from \$1,000 to \$3,500. Under law, the repayment period may be extended up to 60 months. The CU interest rate for such loans is 7/10 of one percent per month on the unpaid balance or an annual cost of \$4.55 per \$100 borrowed.

These loans also carry the life and total and permanent disability insurance that insures each borrower's total indebtedness to the credit union, up to \$10,000, according to O. J. Wood, CU manager.

Loan Features Cited

He also pointed out that the loans have what is termed a "no penalty for prepayment" feature. If the loan is paid off prior to maturity, he said, a "savings in interest charges is realized."

The second program allows loans to be made to members who require extra funds for vacations or travel, or who would like to have "emergency money" available with them if needed.

Interest on these loans is one percent per month on the unpaid balance, Mr. Wood said, with the first payment due no more than 60 days from the date of disbursement.

Checks are disbursed in \$100 increments and unused checks may be returned to the CU prior to the date of the first payment without any interest charge on them.

Mr. Wood also announced that the Board of Directors has rescinded the \$100 per month limitation on account deposits.

NIH Orchestra Presents Season's Finale Friday

The NIH Orchestra, under the direction of Mark Ellsworth, will present its final concert of the current season next Friday, June 4, at 8:30 p.m. in the CC auditorium.

A special feature of the program will be the premiere of "Suite for Young Orchestra," written by Winifred Hyson, a local composer. For the rest of the program, Conductor Ellsworth has selected Schubert's Symphony No. 5 in B flat and Tchaikovsky's Symphony No. 5 in E minor.

Admission is free and all NIH employees, their families and guests are invited to attend.

The NIH Orchestra, now in its sixth year, is sponsored by the Recreation and Welfare Association of NIH and is composed almost entirely of NIH personnel.

Dr. Seymour Kreshover Of NIDR Is Awarded PHS Meritorious Medal

Dr. Seymour J. Kreshover, Associate Director for Research, National Institute of Dental Research, was awarded the Meritorious Service Medal May 20 by Dr. James A. Shannon, Director of NIH. He was cited for his "outstanding leadership in research, his marked dedication to public service, and his valuable contributions to dental research and dental education."



Dr. Kreshover is responsible for the direction and conduct of the intramural research program performed in the Institute's laboratories here. He has held the position since 1956.

Prior to that he was Professor of Oral Pathology and Diagnosis and Director of Dental Research at the Medical College of Virginia, Richmond.

He is also Secretary of the Section on Dentistry, American Association for the Advancement of Science; Chairman, Commission on Dental Research, Federation Dentaire Internationale; and Past President of the International Association for Dental Research.

Education Noted

Dr. Kreshover received the D.D.S. degree from the University of Pennsylvania School of Dentistry in 1938, the Ph.D. degree in clinical medicine and pathology from Yale University in 1942, and the M.D. degree from New York University School of Medicine in 1949.

He is a Diplomate of the American Board of Oral Medicine, a member of the Committee on Dentistry and a former member of the Committee on Pathology, National Research Council. He is also a consultant to the American Dental Association's Council on Dental Research and has served on several Public Health Service councils and committees.

NIH Stamp Club Hears James Conlon Tomorrow

James A. Conlon, Director of the Bureau of Engraving's Office of Currency and Stamp Manufacturing, will address the NIH Stamp Club at 7:30 p.m. tomorrow (Thursday) in Conference Room 6, Building 31.

Mr. Conlon will discuss the printing of stamps, including use of the Giori press, and present a series of color slides.

Due to rescheduling, Mr. Conlon is addressing the club in June instead of in May.

NIH Employees Establish 5-Acre Camp for Needy Children and Mothers

By Frances Dearman

Would you like to participate in the poverty program? Right here at NIH, Mrs. Octavie Jacobs of NINDB's Intramural Research staff is looking for volunteers to help staff and finance a summer camp for Washington Area school children and their mothers.

A 2-week stay at camp could provide some of these youngsters with their first look at a cow or a vegetable garden. For their mothers it offers needed training in marketing, meal preparation, and balanced diets. For both it provides hope for a brighter future.

The first campers will be selected



Mrs. Octavie Jacobs and Miss May Ferrari review plans for a summer camp for underprivileged children on a 5-acre tract owned by Mrs. Jacobs in nearby Prince Georges County.—Photo by Ed Hubbard.

from the Cardozo area—the most densely populated, lowest per capita income area in the City of Washington. The project, officially known as the Greater Washington and Maryland Youth Center, is being aided by the Northwest Settlement House, a UGF agency which has served the families of the Cardozo area for more than 30 years.

Camp Integrated

The camp is integrated, and it is hoped eventually to include both white and colored children from all parts of the Washington Area.

The project was initiated by Mrs. Jacobs who owns a 5-acre tract adjacent to her parents' farm in Prince Georges County. Nearby is the Cedarville State Forest, ideal for hiking and for learning about growing things.

Mrs. Jacobs and her co-worker in this endeavor, Miss May Ferrari, budget clerk in the Neurology Institute's Intramural Administrative Office, early this year submitted proposals to the United Planning Organization for money to operate a permanent camp housing 50 or more children and five mothers.

Alcoholism Study in Urban Area Reveals Striking Social Patterns of Distribution

The incidence of alcoholism in an urban residential area shows striking patterns of distribution by education, marital status, race, and other sociological parameters, according to a recent study sponsored by the National Institute of Mental Health.

Interviews in the Washington Heights Health District of New York of 4,387 families with 8,082 persons twenty years of age and older revealed an overall rate of 19 alcoholics per 1,000 population.

Males Outnumber Females

There were 3.6 times as many male as female alcoholics, a ratio considerably lower than those reported in earlier surveys.

The highest alcoholism rates were found among widowers, 105 per 1,000 population while widows had an extremely low rate of only 5 per 1,000 population. Divorced or separated persons of both sexes showed high alcoholism prevalence (men: 68, and women: 19 per 1,000 population).

NICHD Sponsors 4-Day Conference on Language Development in Children

The National Institute of Child Health and Human Development recently sponsored a 4-day Conference on Language Development in Children for the purpose of revealing existing and potential directions of study, and to identify the roles that the various disciplines can and do play in expanding knowledge in the area of human communication.

The conference, one of several being sponsored by the Institute's Human Communication Program, was held at Old Point Comfort, Fort Monroe, Va.

Topics Give Broad View

At this conference, authorities in many fields discussed a wide range of topics to give a broad view of how children learn language skills.

Approximately 20 outstanding investigators from different parts of the country and from England attended the conference.

Conference co-chairmen were Dr. Franklen S. Cooper, Haskins Laboratory, N.Y.C., and Dr. George Miller, Center for Cognitive Studies, Harvard University.

Last year 64 children were brought to the campsite for weekends. They lived in tents, cooked meals on open fires, and helped a Boy Scout troop clear some of the land.

Even if the United Planning Organization does not come through with operating funds, a limited program is planned for this summer. NIH employees and others interested in learning more about this project may call Miss May Ferrari, Ext. 62296.

Married men, on the other hand, had a rate of 25 per 1,000 and married women 8 per 1,000.

Washington Heights is a densely populated urban residential section with a small number of deteriorated slum blocks, but for the most part the population ranges from upper-lower to upper-middle class.

The study sample was chosen to match closely the most recent U.S. Census data for the area in terms of age, race, sex, and economic status.

Ratios by Race

More alcoholics were found among Negroes (men: 37, and women: 20 per 1,000) than whites (men: 31, and women: 5 per 1,000). Negro women seemed to be particularly susceptible to alcoholism, possibly because 20 percent were divorced or separated (as opposed to 10 percent of all women in the survey).

The distribution of alcoholism by religious affiliation seemed to be less clear than by race: Roman Catholic, 24 per 1,000; Jewish, 2; Negro Baptist, 40; other Protestant, 20.

Alcoholism generally decreased as education increased. Among persons with no education to some grade-school education, the rate was 33 alcoholics per 1,000 population. The rate for high-school graduates was 24 per 1,000 population, and for college graduates 13 per 1,000.

Analysis of the data revealed a greater degree of economic stress in families with alcoholics than in those without.

Although income levels were fairly stable in the community as a whole, the alcoholic contributed less to the total family income, with presumably a greater proportion of the budget being spent for liquor and less for rent.

Families Move Often

Families with alcoholics also reported more frequent changes of address than the other families in the survey.

The researchers feel that one of the most important findings of their survey is that although most of the alcoholics identified in Washington Heights were still functioning in the community, they showed marked evidence of psychological strain and impairment, especially guilt and depression.

Furthermore, more than half of the persons who acknowledged drinking difficulties reported that they had sought no help. These are the "hidden" cases, not known as alcoholics to community agencies

Dr. Michalski Appointed To Newly Established Position in NIAMD

Dr. Joseph V. Michalski has been appointed Research Grants Officer, a newly established position in the Office of the Associate Director for Extramural Programs at the Na-



Dr. Michalski has been associated with NIH since 1958.

Under NIAMD's Associate Director for Extramural Programs, Dr. Ronald W. Lamont-Havers, Dr. Michalski will be responsible for the administration of research grants programs at the Institute. His responsibilities will cover three broad areas.

He will advise program directors on problems of policy and general administration of research grants; will assist them in the analysis of research grants in their respective areas, and will advise the Associate Director and Institute Director on all matters relating to the research grants program.

Background Listed

A native of Washington, D. C., Dr. Michalski received his M.A. from Johns Hopkins in 1940 and his Ph.D. from Princeton in 1942. From 1942-46 he saw duty with the Air Force. Subsequently he taught at the University of Tennessee and Emory University.

From 1952-53 he served with the Wound Ballistics Unit in Japan, and in 1957 was associated with the AEC's biomedical project, Operation Plumbob, at the Nevada Test Site.

He is a member of numerous professional societies including the New York Academy of Science, Sigma Xi and the American Society of Zoologists. Since 1961 he has been a member of the Scientific Advisory Group of the Civil Air Surgeon, Federal Aviation Agency, and since 1963 has been Professorial Lecturer in the Biology Department of American University.

and professional persons.

This study, by Dr. Margaret B. Bailey and Paul W. Haberman of the National Council on Alcoholism, and Harold Alksne of Long Island University, was part of a cooperative research effort of Columbia-Presbyterian Medical Center and the New York City Department of Health. It was published in the Quarterly Journal of Studies on Alcohol.

Study Reports on Drugs That Help Curb Cardiac Response to Vigorous Exercise

National Heart Institute scientists have reported that drugs which selectively block beta receptors of the sympathetic nervous system help to curb the increases in heart rate and heart work normally elicited by vigorous exercise.

A major means whereby heart rate, heart output, and systemic blood pressure are increased during exertion or stress is through increases in sympathetic activity.

The effects of sympathetic activity are mediated through the stimulation of two specific types of receptors. Stimulation of alpha receptors causes blood vessel constriction but has no direct effect upon the heart.

Beta Stimulation Reported

Beta stimulation increases heart rate and the vigor of cardiac contraction, constricts veins, but dilates arterioles. All of these effects tend to boost heart output and systemic bloodflow.

Recently, a number of compounds have been developed that interact specifically with one or the other of these two types of receptors.

The Heart Institute scientists used propranolol, an agent that blocks beta adrenergic receptors, to study the role of beta receptors in mediating the cardiac responses to vigorous exercise in normal human subjects.

In these studies, a number of indices of heart performance were determined in normal subjects at rest and during vigorous exercise on a treadmill.

The indices included heart rate, heart output, left ventricular work performed per minute, mean arterial pressure, and cardiac index and stroke index. (The last two values express overall heart output and stroke volume in terms of the subject's size.) All determinations were

then repeated in resting and exercising subjects after beta blockade with propranolol.

In resting subjects, beta adrenergic blockade produced slight reductions in all indices except stroke index. When the subjects subsequently performed vigorous exercise, these reductions were more pronounced.

For example, beta blockade reduced average heart rate by 17 percent, left ventricular work/minute by 28 percent, and cardiac index by 18 percent. Total body oxygen consumption also fell significantly.

All of these determinations clearly indicated that beta blockade substantially reduced the intensity of the heart's response to vigorous exercise, indicating the importance of beta stimulation in adapting heart performance to the shifting circulatory demands of the body.

The findings further suggest that beta adrenergic blocking agents may prove valuable for the clinical management of patients with angina pectoris.

Exercise Tolerance Increased

The time-honored therapeutic agent, nitroglycerine, owes its remarkable effectiveness against anginal pain at least in part to its ability to hold heart work down to a level more commensurate with its limited available blood supply.

Used alone or in combination with nitroglycerine, beta blocking agents may prove even more effective for increasing the exercise tolerance of angina victims, enabling them to resume activities that formerly would have brought on disabling chest pain.

These findings were reported at the recent Federation meetings in Atlantic City by Drs. Brian F. Robinson, Richard L. Kahler, Stephen E. Epstein, and Eugene Braunwald, of the Cardiology Branch, NHI.

MENTAL

(Continued from Page 1)

relationships were flexible and consistent.

There was genuine expression of emotion without restraint and anxiety, warmth toward offspring, and mutual understanding.

Parents did not compete with one another and encouraged offspring to act independently, recognizing children's need for self-expression. Discipline was firm and reasonable, and family members were able to communicate with one another.

Families with delinquent offspring showed loose, unstable organization. It was unclear who had responsibility for carrying out various family functions, and fathers seemed to abdicate their position of leadership.

Emotion was artificial and uncon-

trolled. There was open conflict among family members who teasingly manipulated and competed with one another. Parents did not trust in their children's ability, and discipline was harsh and inflexible.

In contrast, families of schizophrenics were rigidly stable, with frequent distortion of socially expected roles. Children were bewildered and often forced into apathy or inactivity.

There was little warmth, emotion was overcontrolled, and anxiety and hostility were frequently expressed. Discipline was harsh and parent-child interaction was geared toward meeting parents', not children's, needs.

Parents treated their children as "extensions" of themselves and did not permit self-expression or autonomy in their offspring.

Families with schizophrenic or

Dr. Nelsen Is Appointed Chief of NIDR Office

The appointment of Dr. Robert J. Nelsen as Chief of the Collaborative Research Office, National Institute of Dental Research, was announced recently by Dr. Francis A.



Dr. Nelsen

Arnold Jr., Institute Director. In his new position Dr. Nelsen will administer NIDR's wide-ranging cooperative research projects in laboratories and institutions throughout the country.

Dr. Nelsen brings to this post an extensive clinical research, and academic background. For the past nine years he has combined a private practice with teaching duties at Georgetown University Dental School.

Prior to that, from 1950 to 1956, he was a Research Associate with the American Dental Association, assigned to the Bureau of Standards in charge of clinical research. There, his work in the field of dental restorative materials produced several original inventions—the turbine dental drill, front surface dental mirror, and an intricate clinical camera—all now widely in use by the dental profession.

He has also written and produced an award-winning film presenting the problems of radiation hygiene in dentistry.

Organizes Curriculum

From 1947 to 1950, while on the executive faculty of the University of Washington's new School of Dentistry in Seattle, Dr. Nelsen organized that institution's first curriculum in dental materials and roentgenography.

A native of Minnesota and a graduate of the University of Minnesota School of Dentistry, he served during World War II in the U.S. Naval Reserve.

Dr. Nelsen is also a consultant to the American Dental Association and holds membership in several other professional organizations, including the American Association for the Advancement of Science, the American College of Dentists, American Academy of Crown and Bridge Prosthodontics, International Association of Dental Research, and Sigma Xi.

delinquent offspring had characteristics in common: they showed disturbances in thought processes, and had difficulty communicating within the family. Normal families scored higher in conceptual ability than the other two family groups.

The study by Dr. James R. Stabenau, Dr. Joe Tupin, Martha Werner, and Dr. William Pollin of the Adult Psychiatry Branch, NIMH, was reported in *Psychiatry*.

Assembly of Scientists, NCI, Sponsors Meeting On Burkitt's Lymphoma

A one-day conference on "Possible Role of Viruses in Human Leukemia and Lymphoma: An Evaluation of the Burkitt African Lymphoma," was held recently in the Clinical Center auditorium, under sponsorship of the National Cancer Institute Assembly of Scientists.

Burkitt's lymphoma is of interest because of the climatic and geographical factors which determine its distribution. These factors suggest that a transmissible vector-borne agent may be involved in causation.

Dr. W. Ray Bryan, Associate Scientific Director for Viral Oncology, NCI, moderated the symposium. Other NCI participants were Drs. Albert J. Dalton, Chief, and Sarah Stewart of the Laboratory of Viral Carcinogenesis; Dr. Mary Fink of the Laboratory of Viral Oncology; and Drs. Gregory T. O'Connor and Alan S. Rabson of the Pathologic Anatomy Branch.

Other Participants Named

Participants in the symposium included Dr. Denia Burkitt, a surgeon at Makerere Medical College, Uganda, Africa, who was the first to recognize the malignant nature of a childhood tumor peculiar to Central Africa; and Dr. M. A. Epstein of Middlesex Hospital, London, England, who has reported the growth in tissue culture of three cell lines isolated from several cases of Burkitt's lymphoma.

Also Dr. Dennis Wright, a pathologist from Makerere Medical College, who has done extensive studies on the histology of the lymphoma cell; and Dr. Werner Henle, University of Pennsylvania, Philadelphia. Dr. R. J. V. Pulvertaft, of University College Hospital, Ibadan, Nigeria, was a discussant.



Lillian S. Kayson, a Grants Clerk in the Processing Section of the Grants and Research Contracts Operations Branch, Office of the Director, National Cancer Institute, receives a superior performance award from George A. Brandner, Branch Chief. Mrs. Kayson was cited for outstanding work performance during the previous year.—Photo by Ralph Fernandez.

Research on Red Cell Blood Group I Links PPLO to Leukemia

Investigators of the Division of Biologics Standards and the Clinical Center have reported evidence of *in vitro* interference by mycoplasma (PPLO) of anti-I blood group agglutination as a possible explanation of the failure of anti-I to agglutinate red cells of patients with leukemia.

The cold agglutinins of patients with primary atypical pneumonia and leukemia often have red blood cell group I specificity. *Mycoplasma Pneumoniae*, previously shown to be the cause of primary atypical pneumonia, is presumed to be responsible for development of cold agglutinins, since mycoplasma can alter red blood cells by hemadsorption, hemagglutination, and hemolysis.

Earlier Study Cited

In an earlier Clinical Center-National Cancer Institute study, it was shown that an association exists between the red blood cell group I and neoplastic disease, particularly leukemia.

Whereas blood donors are rarely negative for red blood cell antigen I (less than one per thousand), 33 percent of patients with leukemia (15/45) were found to be I-negative.

The presence of antigen I fluctuated with relapse and remission of the disease, suggesting that the I antigen was blocked or destroyed during the course of the disease, possibly by a microorganism.

The present study was initiated in an effort to determine whether mycoplasma could alter the I agglutinability of normal I-positive red blood cells.

Forty-five microbial agents—including mycoplasma, viruses, and bacteria—were added *in vitro* to I-positive red blood cells from normal donors.

Findings Noted

Eighteen of the 25 mycoplasma strains tested, including three derived from human tumor tissue, were shown to block or destroy the I-receptors of normal red cells, thus mimicking the findings on patients with leukemia.

Neither of the two species of bacteria and only one of 11 of the viral agents tested showed trace inhibition of the anti-I agglutination.

The investigators, Drs. Michael F. Barile, of the Laboratory of Bacterial Products, DBS, and Paul J. Schmidt, Chief of the Blood Bank Service, CC, consider this *in vitro* interference by mycoplasma of anti-I agglutination a working hypothesis to explain the failure of anti-I to agglutinate red cells of patients with leukemia.

Dr. Barile presented a paper on

PHS to Open Pesticides Research Lab in Florida

The Department of Health, Education, and Welfare recently announced that a Public Health Service pesticides research laboratory will be established on the south campus of the University of Miami at Richmond, Fla.

The laboratory will have a scientific staff of about 35 persons who will be engaged by PHS's Office of Pesticides in research aimed primarily at learning whether pesticides can cause long-term effects on human health.

Award to Be Presented Dr. Gordon H. Seger

A Distinguished Alumni Award will be presented to Dr. Gordon H. Seger, Associate Director of the National Institute of General Medical Sciences, by Northern Michigan University in Marquette.



Dr. Seger

The award, presented each year during the June commencement, is given to alumni who have distinguished themselves through significant professional achievement, outstanding citizenship, and unselfish support of worthy endeavors. Dr. Seger is one of four alumni to receive the award this year.

His career in the Public Health Service dates back to 1940. He was at one time Chief of State Personnel Administration for the Bureau of State Services, where he initiated the development of personnel merit systems in state and local health departments.

During his association with NIH, he has served as Executive Officer of the National Cancer Institute; Chief of Extramural Programs, National Institute of Neurological Diseases and Blindness; and Chief of the Special Programs Review Branch, Division of Research Grants, before joining the then Division of General Medical Sciences in 1962.

Dr. McElroy Appointed

Dr. William D. McElroy, Chairman of the Department of Biology and Director of the McCollum-Pratt Institute at Johns Hopkins University, has been appointed to serve on the National Advisory Arthritis and Metabolic Diseases Council. The appointment, announced by Dr. Luther L. Terry, Surgeon General of the Public Health Service, is effective through September 30, 1968.

this work at the 65th annual meeting of the American Society for Microbiology in Atlantic City.

Editor Offers Suggestions for Bridging Gap Between Scientists and Writers

By Helen Neal

Some of the misunderstanding and suspicion between scientists and journalists is justified, according to John Wilds, science writer and editor of the New Orleans States-Item.

He discusses the relationship between researchers and writers in an article, "The Art of the Interview," published recently in a Report of the Public Relations Symposium on Regional Primate Research Centers.

Scientists, he says, often suspect journalists not only of juggling facts to get a bizarre or sensational story, but also of lacking the background, even the mental capacity, to grasp the meaning of the research. Journalists on the other hand have often found scientists uncommunicative, even uncooperative.

Mr. Wilds suggests some ways of bringing about an accommodation between scientists and journalists. Both should do homework to prepare for the interview.

Suggestions Listed

The scientist, he says, should clarify in his own mind the relation of his work to subjects for which there is some general public understanding. He should round up data, reprints, and other material for his own reference during the interview and to give the reporter.

The reporter, for his part, should consult some published accounts of the subject or at least the general area of the research, and check the Who's Who account of the scientist.

He suggests that the ground rules should be clearly understood at the outset of the interview.

The scientist should know whether he will have a chance to look over the story before publica-



Mr. Wilds

tion. If policy does not allow a pre-publication check, the reporter, with the scientist's help, must be doubly sure he gets the facts. The scientist, in turn, should understand the meaning of "exclusive story" and abide by the restriction.

To give the reporter a better background, the scientist may want to make some statements "off the record." But there should be no doubt about which statements are in this category.

The scientist should not expect the reporter to grasp each idea as rapidly as he expounds it and should realize that the vocabulary so familiar to him may ring strangely in the reporter's ears. If the scientist has published a paper on his subject, he should give a copy to the reporter.

Scientists Are Cautious

Naturally cautious, scientists become even more so when they know their names are to appear in print. They tend to downgrade the significance of their work, to shy away from any claims that might bring about an accusation of being publicity seekers.

But there are certain statements they can make with authority about the research they are conducting, and this information the reporter needs to put the story into perspective for readers.

Mr. Wilds gave his talk at a symposium last November, attended by representatives from Tulane University, the University of California at Davis, Harvard University, the University of Oregon, the University of Washington, the University of Wisconsin, and Emory University.

Each of these universities is "host" to one of the seven primate research centers administered by the Division of Research Facilities and Resources. The symposium was arranged and conducted by the Division's Information Office and Animal Resources Branch.

Jazz Concert Scheduled at NIH Friday, June 11

The Recreation and Welfare Association of NIH has arranged a special program for jazz buffs—"Jazz at NIH"—to be presented at 8:30 p.m. Friday, June 11, in the Clinical Center auditorium. The concert will feature seven talented musicians and a singer, all from NIH.

They are Dr. Gordon Tomkins, NIAMD, alto sax; Dr. Burton Sobel, NHI, piano; Andrew DeRocca, NIAMD, tenor sax and clarinet; Dr. Robert Resnik, NIAMD, drums; Dr. Edward Harris, NHI, bass; David Buck, NHI normal volunteer, trumpet; and Betty Foster, NCI, vocalist.

The concert will present tradi-

tional songs, new songs, ballads and blues, up-tempo pieces, and a specially arranged NIH medley.

Admission to the concert is free. All NIH personnel and their guests are welcome to attend.

DHEW Surplus Report

Surplus property for which the Federal Government paid \$101.8 million was made available to the States for education, public health, and civil defense purposes during the first quarter of 1965 by the Department of Health, Education, and Welfare. Real property accounted for \$5.5 million and personal property for \$96.3 million.

DRS Host to Public at Animal Center

(Continued from Page 1)

at the center.

Eventually the primate quarantine and rabbit and rodent production programs, currently housed on the reservation, will be located there.

The orientation sessions provided an opportunity for interested persons to see the new facilities and discuss laboratory animal programs with the LAB staff. Besides the many NIH personnel who attended, others included professionals outside the NIH, representatives of the animal welfare groups, residents of the Poolesville area, and the press.

Programs Outlined

At the beginning of each session, Dr. Robert J. Byrne, Chief of the Laboratory Aids Branch, outlined the current and projected programs of the center. LAB staff then conducted visitors on a tour of the new facilities.

The Farm Animal Building has a central service area and two barn wings with associated outdoor pens and pastures to house the larger animals such as cattle, horses, sheep, goats and burros. These animals are largely used as a source of blood and serum.

The central area of the building contains 34 box stalls, 10 of which have radiant-heated floors for convalescent animals. In the service wing, which is fully heated and air-conditioned, there is an X-ray and operating room, pharmacy, autopsy room, and facilities for other veterinary services.

About a five-minute walk away is the Kennel Building, which will be used for the quarantine and holding of dogs and cats. Here, two permanent, run-type kennels lead

off one side of a service wing.

A third kennel wing is planned for the third phase of construction, and the design of the building is such that three more kennel wings can be added if needed.

Each kennel wing contains 100 runs—50 on each side of an 8-foot-wide central corridor—for a total of 200 runs, all of which have indoor and outdoor areas. The inside portions and corridors have radiant-heated floors, and each run has a separate air exhaust.

The service wing, fully heated and air-conditioned, has a surgery room and treatment room, as well as six cage rooms for animal isolation. There are also the usual office and locker room areas, a pharmacy, food preparation room, and clinical pathology laboratory.

The heating and cooling of the center's facilities are provided by the new Central Utilities Building,



Goats are used for rhinovirus antiserum studies.—Jerry Hecht Photo.

which was especially designed for expansion of its capacities to handle all future buildings. An electronic control board monitors the entire utilities system and pinpoints any problem that may occur.

The most prominent landmark at the center is the 150,000-gallon water tower. The water is obtained from three wells and is treated prior to storage in the tower. A small dam provides an emergency water supply.

Other Facilities Described

The center also has its own waste treatment and disposal facilities, a transformer substation for electricity, and telephone service. All major roads are paved. There are two residences, one occupied by a resident utilities engineer and one by an animal caretaker.

Future construction will include a primate quarantine and holding facility, a natural habitat area for animal behavior studies, rodent and rabbit production facilities, and support and service buildings.

The Animal Center is expected to be fully operational by 1971, at which time some 150 scientific and technical personnel will be employed there.



Durward Farson, in charge of central utilities, explains the operation of the electronic control board to Bill Kleven, DRS Information Officer. Equipped with an automatic alarm system, this board can pinpoint any problem that may occur.—Photo by Ed Hubbard.

Five Institutions Receive PHS Research Grants

The award of five grants totaling \$904,105 to establish or expand general clinical research centers was announced recently by Surgeon General Luther L. Terry of the Public Health Service.

The grants, to be administered by the Division of Research Facilities and Resources, include:

- \$623,531 to the University of Miami Medical School, Fla., to establish a new 10-bed general clinical research center.
- \$220,936 to the Rockefeller Institute Hospital, N.Y.C., to expand its center from 20 to 44 beds. As a result, the Rockefeller Institute Hospital will have the largest general clinical research center supported to date.
- \$41,500 to the University of Texas, Galveston, to expand its center in John Sealy Hospital from 10 to 12 beds.

Other Grants Listed

- \$10,892 to the Children's Hospital of Los Angeles, to provide support for a biochemist and additional nurses in its center.
- \$7,326 to the University of California, San Francisco, for additional personnel in its center at Moffitt Hospital.

The award to the Rockefeller Institute for expansion of its hospital's general clinical research center will make possible the expansion of existing projects and initiation of new ones and will permit more post-doctoral training in clinical research.

Among the research being carried out at the Rockefeller Institute Center is the use of the synthetic drug, methadone, which has successfully maintained "incurable" drug addicts in an excellent and productive functional state and which requires no progressive increase in dose.

Findings show that such patients are more responsive to rehabilitation than those from whom all drugs are withdrawn. Longer range

NINDB Scientist Finds LDH-5 Levels Low in Neuromuscular Diseases

A National Institute of Neurological Diseases and Blindness investigation of the iso-enzyme lactate dehydrogenase-5 in skeletal muscles has demonstrated that deficiencies occur in some neuromuscular disorders.

Levels of lactate dehydrogenase-5, an iso-enzyme involved in the conversion of glucose to energy in muscle contraction, are significantly low in the skeletal muscles of many patients with certain neuromuscular diseases other than muscular dystrophy.

Previously, the enzyme deficiency had been noted only in association with muscular dystrophy.

The present study, in which the enzyme level was found to be below normal in 13 neuromuscular disorders, demonstrated that deficiency of muscle LDH-5 constitutes a sign of non-specific abnormality in the neuromuscular system.

No continuing observations were made with the same patients to see if the LDH-5 level changed in the individual.

256 Patients Studied

In this study, LDH-5 activity was measured by performing starch gel electrophoresis on biopsied skeletal muscle specimens obtained from 256 patients with a variety of neuromuscular diseases and at autopsy from 20 patients with no apparent neuromuscular disease.

Significantly low levels of the enzyme were observed in 43 of the 256 affected patients, but normal electrophoretic patterns were found in all of the patients with no apparent neuromuscular disease.

All the patients with deficient LDH-5 had some form of neuromuscular disease such as muscular dystrophy, amyotrophic lateral sclerosis, infantile spinal muscular atrophy, and myotonic dystrophy.

The low level of LDH-5 iso-enzyme in muscle occurred both in acquired and in hereditary disorders of muscle or of nerve, and in adults as well as in children.

These findings were reported by Dr. Irwin A. Brody, of the Medical Neurology Branch, NINDB, in Neurology.

clinical studies seek to identify metabolic disturbances which may be responsible for the addictive process itself.

The award to the University of Miami Medical School, like other grants for general clinical research centers, provides support for initial renovation costs, equipment, operating costs including supplies for research study, hospitalization costs, and core personnel.



This burro is one of those immunized with tissue components from patients with cystic fibrosis and from normal people. Antiserum will be used to detect antigenic differences between cystic and normal people.—Photo by Jerry Hecht.

Study Implicates Specific Antihistamine Fraction In Congenital Defects

National Institute of Dental Research investigators have demonstrated in laboratory animals that the antihistaminic property of drugs is not responsible for embryologic defects.

Recent concern over the thalidomide incident (1962) has spurred scientists to investigate the pharmacology of a number of commonly-used drugs.

Last year Dr. Cecil T. G. King of NIDR's Laboratory of Biochemistry, demonstrated that the antihistamine meclizine hydrochloride (Bonine), a widely-used anti-nausea drug, when given in high dosage, can induce cleft palate along with other malformations in 100 percent of experimental rats.

Structure Studied

Subsequent research by NIDR investigators on the structure-activity relationship of a number of antihistamines indicate that the teratogenic properties of the drug do not necessarily parallel the antihistaminic actions, but, lie in the chemical structure of the drug. The most potent teratogens require a tertiary amine in a heterocyclic ring attached to two benzene rings.

The investigators administered cyclizine hydrochloride and chlorcyclizine hydrochloride, two antihistamines which have the above chemical moiety in their structure.

They were administered in high doses during the gestation period shown to be critical for palate development in the strain of rat used (days 12 through 15).

As with meclizine, which has the required ring structure, the investigators produced a high percentage of cleft palate and other specific malformations.

Breakdown Product Identified

A breakdown product of meclizine and chlorcyclizine was found in the fetuses and identified by paper chromatography and ultraviolet absorption spectrometry as nor-chlorcyclizine.

This metabolite, nor-chlorcyclizine, is able to produce the same malformations as the other teratogenic antihistamines when it is administered to pregnant rats in considerably lower doses.

Although the incidence of malformations is 100 percent when chlorcyclizine is administered from day 10 through 15, when the same dose is administered from day 1 to 15 an incidence of malformations of less than 10 percent is produced.

This clearly emphasizes the fact that prolonged administration of a drug will not necessarily yield the same results as brief administration during a critical period.



Dr. Marshall E. Dimock, prominent authority on Public Administration, conducts the opening session of the Grants Associates Program, 1965 seminar series, on Applied Public and Science Administration. In addition to the GAs, 10 senior staff members drawn from extramural programs of the Public Health Service participated. The first week concentrated on public administration and the Federal structure. The second week, to take place June 7-11, will emphasize science administration.—Photo by Ed Hubbard.

NCI Publishes Pamphlet On Cancer of Larynx

"Cancer of the Larynx," the latest pamphlet in the National Cancer Institute's revised series on cancer of different body sites, has been issued by the PHS.

Cancer of the larynx, or voice box, is mainly a disease of white men in their fifties and sixties, according to the pamphlet. If diagnosed early, when it is commonly limited to one vocal cord, it can be cured. Ninety percent of such patients will have a normal voice.

Hoarseness lasting more than three weeks, change in voice pitch, a lump in the throat, coughing, difficulty or pain in breathing or swallowing, or even earache might be symptoms of the disease, and should be investigated by a doctor.

Single copies of "Cancer of the Larynx"—PHS Publication No. 1284—are available without charge from the Public Health Service, Washington, D.C. 20201. The pamphlet may be bought in quantity from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, at five cents a copy or \$2.75 per 100 copies.

Four antihistamines (diphenylpyraline, chlorphenoxamine, promethazine, methapyrilene), all without a tertiary amine in a heterocyclic ring attached to two benzene rings, were administered under similar experimental conditions.

None produced malformations, even though some had higher antihistamine properties than the teratogenic drugs.

This report by Dr. King and S. A. Weaver and Dr. S. A. Narrod, also of the Laboratory of Biochemistry, NIDR, appeared in the March issue of the Journal of Pharmacology and Experimental Therapeutics.

Pneumoconiosis Afflicts One in 10 Coal Miners

One of every 10 coal miners working in the Appalachian soft coal fields is afflicted with a lung disease known as coal workers' pneumoconiosis, according to results of a two and a half year study conducted in West Virginia, Ohio, Kentucky, Tennessee, Alabama, and Virginia by the Public Health Service.

The incidence of the disease is even higher among inactive miners. Of the retired and unemployed, almost one in five showed positive evidence of the disease.



On a recent visit to the Clinical Center Blood Bank, Dr. Van Der Aue, newly appointed Medical Director of the Washington Regional Red Cross Blood Program (right), chats with donor Charles B. Hammond, M.D., of the Endocrinology Branch, NCI. Dr. Paul J. Schmidt, CC Blood Bank Department Chief, explains that NIH employees play an important role in the blood donor program here. Marguerite H. Rowen, R.N., of the Blood Bank staff, keeps a close watch on the donor.—Ralph Fernandez Photo.

David Tilson Appointed Ass't Chief of Office Of Program Planning

Appointment of David Tilson as Assistant Chief of the Office of Program Planning, Office of the Director, was announced recently by Dr. James A. Shannon, Director of NIH.

At the time of his appointment Mr. Tilson was Director of Research, Office of Research and Analysis, Agency for International Development. He had also served as Director of AID's Science Conference Staff and as AID Adviser with the U.S. Mission to the United Nations.

In his new position at NIH, Mr. Tilson will assist Joseph S. Murtaugh, Chief of the Office of Program Planning, in the planning and development of programs and will have major responsibility for directing office activities. He will also serve within designated areas as staff adviser to Dr. Shannon.

Prior Service Noted

Before AID was established in 1961, Mr. Tilson was Assistant Director of the Office of Participant Training, International Cooperation Administration, and prior to that was Special Assistant for Operations, Office of Mutual Defense Assistance Control.

During World War II, Mr. Tilson served as an officer in the Chemical Warfare Service and Transportation Corps, U.S. Army, with overseas service in Europe and the Far East.

A native of New York City, he received his B.S. degree from the Massachusetts Institute of Technology in 1943 and attended the Columbia University Graduate School from 1946 to 1948.

Dr. Brodie Is Honored By Two Institutions

An honorary degree of Doctor of Science will be conferred on Dr. Bernard Brodie, Chief of the National Heart Institute's Laboratory of Chemical Pharmacology, by the Philadelphia College of Pharmacy and Science at its commencement convocation June 14.

Dr. Brodie was also honored recently by the New York University School of Medicine by being invited to deliver the Otto Loewi Award Lecture for 1965. The lectures are sponsored by the Honors Program of the school to acquaint medical students and junior staff with the most recent progress in various fields of biomedical research. The topic of Dr. Brodie's lecture was "Recent Studies on the Role of Serotonin in Brain Function."

Dr. Coghill, NCI, Retires After Noted Career in Drug Development Field

Dr. Robert D. Coghill, Special Assistant for Industrial Relations, Office of the Director, National Cancer Institute, retired May 21 after eight years at NCI.



Dr. Coghill

In October 1957 Dr. Coghill joined the staff of the Cancer Chemotherapy National Service Center as Special Assistant to the Chief, with responsibility for industrial relations in the program to develop new or more effective drugs for the control of cancer.

Later, as Acting Chief of the Center, he played an important part in coordinating the multifaceted program—from chemical procurement to clinical trial of new drugs and therapeutic regimens.

In July 1963, at the request of the Institute Director, Dr. Kenneth M. Endicott, Dr. Coghill made a biomedical survey of industry and developed a roster of over 200 potential NCI contractors and their resources.

Develops New Process

Dr. Coghill came to the Institute with long experience in the drug development field. In 1939 he was named Chief of the Fermentation Division of the Northern Regional Research Laboratory, U.S. Department of Agriculture at Peoria, Ill.

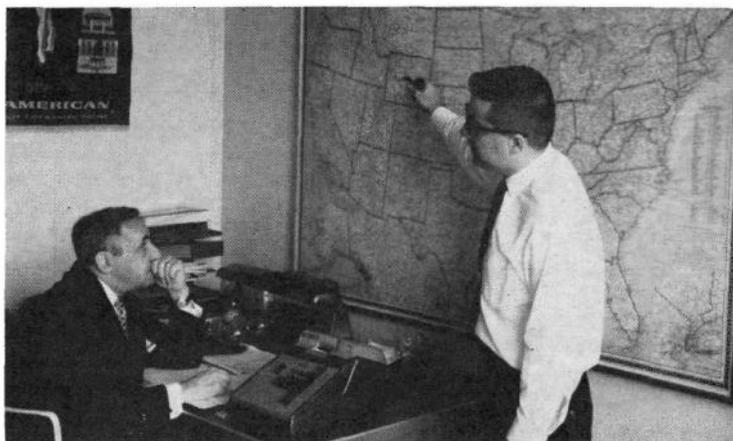
His laboratory explored the development of new fermentation processes and was one of the first in the country to study problems of penicillin production. He was named Associate Director of Research of Abbott Laboratories in 1945, became Director of Research in 1946, and in 1952 was made a member of the firm's Board of Directors.

Born in Providence, R.I., Dr. Coghill received the A.B. and M.S. degrees from the University of Kansas and the Ph.D. in organic chemistry from Yale University in 1924.

Teaches at Yale

He spent the next two years at Yale as a National Tuberculosis Association Research Fellow, studying nucleic acids and proteins of the tubercle bacillus and related organisms. He then taught pre-medical organic chemistry at the university until 1939.

In 1947 Dr. Coghill received the University of Kansas' Distinguished Service Award, and in 1948 President Harry S. Truman awarded him the President's Medal



Lou Cook of the Heart Information Center, National Heart Institute (left), and Tony Anastasi, NHI Press Officer, discuss distribution plans for the second of the "Know Your Heart" radio series. The first series of 10 two-minute spot programs on heart research drew more than 1,100 requests from radio stations in each of the 50 States and territories. The second series will be available to stations this summer. Dr. John D. Turner, formerly of NHI, served as technical adviser and narrator.—Photo by Ed McCoy.

of Merit in recognition of his wartime development of a method for mass-producing penicillin.

The St. Louis Section of the American Chemical Society named him for its Midwest Award in 1949, and in 1952 Bradley University, Peoria, Ill., conferred upon him an honorary Doctor of Science degree. Dr. Coghill also served as Vice President of the Industrial Research Institute, 1955-56, and as President, 1956-57.

Dr. Coghill is the author of more than 50 technical papers. He is a member of the American Chemical Society, American Association for the Advancement of Science, Society of American Bacteriologists, American Society of Biochemists, and New York Academy of Sciences.

Dr. and Mrs. Coghill are moving to Tacoma, Wash., where they will be near two of their four children, and four of their seven grandchildren.



Dr. Herbert A. Sober, Chief of the Laboratory of Biochemistry, National Cancer Institute, presents a superior performance award to Joan K. Shores "in recognition of her sustained superior performance in efficiently and economically keeping the Laboratory . . . provided with the necessary chemicals, supplies and equipment.—Photo by Ralph Fernandez.

NIMH Booklet Describes Research Advances in Mental Health Program

A new publication, "Research Activities of the National Institute of Mental Health," describing some of the most recent advances in the Federal Government's mental health program, has been released.

More than 175 studies are mentioned in the publication, with emphasis on activities and findings in 10 areas of mental health.

These areas cover biological, developmental, psychological and interpersonal factors in mental health and illness; drugs and the treatment of mental illness; psychophysiology and psychosomatic illness; and neural mechanisms and behavior.

Also effects of social change and cultural deprivation; the community and its mental health resources; surveys of mentally ill populations and treatment facilities; and international research.

Yolles States Mission

In the foreword to the booklet, Dr. Stanley F. Yolles, NIMH Director, points out "an important feature of the Institute's mission is its emphasis on mental health, that is, on research designed to enhance human potential—intellectual, emotional, social and cultural—as well as on research intended to resolve specific problems of psychopathology."

Although the publication does not cover all the Institute's research efforts, it cites examples to show how, within the areas specified, the NIMH basic, clinical and field programs of research form a meaningful whole.

The booklet was prepared under the direction of Dr. Julius Segal, Chief, Program Analysis Section, Research Grants Branch, NIMH.

Single copies of "Research Activities," PHS Publication No. 1291, may be obtained without charge from the Public Information Section, NIMH, Bethesda, Md. 20014.

Copies in bulk may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402, for 40 cents each, or at quantity rates.

Jean R. Bernstein Dies, Was Secretary at NHI

Jean R. Bernstein, 49, former secretary to the National Heart Institute's Biometrics Research Branch Chief, died May 14 at Suburban Hospital of heart complications.

Mrs. Bernstein joined the Heart Institute in 1955. Her first Federal service was with the War Shipping Administration in 1946. In 1950 she transferred to the Federal Security Agency, and in 1953 to DHEW.

GAUCHER'S

(Continued from Page 1)

tients. This large molecule contains simple sugar (glucose), sphingosine, and fatty acid.

Now a further advance in solving this enigma may have been made by a team of researchers under Dr. Roscoe O. Brady Jr., Head of the Section on Lipid Chemistry, Laboratory of Neurochemistry, NINDB.

They discovered that the effectiveness of a newly-identified enzyme which normally splits the glucose from glucocerebroside is markedly diminished in patients with Gaucher's disease.

Findings Allow Postulation

These recent findings allow scientists to postulate about the biochemical events leading to Gaucher's disease. The compound appears to be a normal intermediate in the process of disposing of senescent red blood cells. In healthy individuals the material is completely catabolized.

However, in Gaucher's disease, the enzyme which catalyzes the breakdown of glucocerebroside is far less active than normally. The compound therefore accumulates in certain organs and impairs their vital function.

How can this new knowledge of a biochemical abnormality in this disease help the patient with Gaucher's disease? Dr. Brady's group is purifying the enzyme they discovered in the hope that it will have a future application in the diagnosis and treatment of the disease.

These findings were reported in the latest issue of *Biochemical and Biophysical Research Communications*.

The month of June was named from juvenis, Latin for "youth."—Information Please Almanac.