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 GAUCHERS, Page 2.)

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, first Director of the Library. More than 500 special guests, including members of the Congress, senior officials of the Federal Government, and leaders in the fields of medicine, medical librarianship, and medical communications have been invited to the Centennial. Following the afternoon program, the public may tour the Library and view an exhibit depicting Dr. Billings’ many achievements during his long and varied career.

A symposium on Dr. Billings’ life will be held at 8 p.m. in the Library. Attendance will be by special invitation.
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The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in the policy of the writing 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 1/2 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, DBS, 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. A letter in this issue contains full instructions concerning this report will be issued later through the Institutes and Divisions.

Credit Union Announces 2 New Loan Programs

The Board of Directors of the NIH Federal Credit Union has announced 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 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 J. 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 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 Winfield 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 major.

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.

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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 NINDS'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. But for both it provides hope for a brighter future.

The first campers will be selected 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 Area Summer Camp, is being aided by the Northwest Advisory Committee, the Greater Washington Health Council, and the Washington Area Council of Churches.

The project was inspired by Mrs. Jacobs who owns a 5-acre tract owned by Mr. 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 UGP agency which serves 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 4,000 families with 1,987 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 males 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 a significantly lower 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 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. Francis 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 campus for weekends. They lived in tents, cooked meals on open fires, and helped a Boy Scout troop clean 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. 62266.

**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 National Institute of Arthritis and Metabolic Diseases.

Previously Dr. Michalski was Assistant Chairman for Research Grants Review, Research Grants Review Branch in the Division of Research Grants, and has been associated with NIH since 1958.

Under NIAMD's Associate Director for Extramural Programs, Dr. Ronald W. Lamont-Hawkes, Dr. Michalski will be responsible for the administration of research grants programs at the Institute. His responsibilities will cover three boards and one advisory committee.

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 geographic 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, Organization Plumbob, at the Nevada Test Site.

He is a member of numerous professional societies including the New York Academy of Sciences, 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's Federal Aviation Agency, and since 1968 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 Alsine of Long Island University, was part of the 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 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 contractions, but it 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 receptor, 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, blockade reduced average heart rate by 17 percent, left ventricular work/min-ute 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 stimulation in maintaining 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 angina pectoris 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-blocker 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 pain.

These findings were reported at the recent Federation meetings in Atlanta 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 neither offspring set to independently, recognizing children's need for self-expression. Discipline was firm and reasonable, and family members were able to communicate effectively.

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-
Research on Red Cell Blood Group I Links PPLO to Leukemia

Investigators of the Division of Biologic Standards of the National Institutes of Health have reported evidence of in vitro interference by mycoplasma (PPLO) of anti-I blood group agglutination as a possible explanation of the failure of therapeutic 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 infection 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 leukemia, particularly acute 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.

In the present study, investigators initiated an effort to determine whether mycoplasma could alter the I agglutinability of normal I-positive red blood cells.

Fifty-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 those 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.

Nineteen 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. Schmitt, 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 NIH'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, Associate Director of the National Institute of General Medical Sciences, by Northern Michigan University in Marquette.

The award, presented each year during the June commencement, is given to alumni who have distinguished themselves through significant professional achievement, outstanding citizenship, and selfless 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 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 Biologic Standards of the National Institutes of Health, 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.

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 Sofel, NIH, piano; Andrew DeBoca, NIH, tenor sax and clarinet; Dr. Robert Besnik, NIAMD, drums; Dr. Edward Harris, NIH, bass; David Buck, NIH normal volunteer, trumpet; and Betty Foster, NCRI, vocalist.

The concert will present traditional 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.
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:

- $823,531 to the University of Miami Medical School, Fla., to establish a new 10-bed general clinical research center.
- $220,836 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.

The award to 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 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, and operating supplies for research study, hospitalization costs, and core personnel.
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 indicates 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, 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.

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. It is 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 (diphenylpyrrole, 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.

Nemoconiosis 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. Von 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. Margaret H. Rowen, R.N., of the Blood Bank staff, keeps a close watch on the donor.—Ralph Fernandez Photo.
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.

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 1965, 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 at 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 nontuberculous bacilli 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 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 1948, and in 1952 Bradley University, Peoria, III., 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.

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.

GAUCHER'S

(Continued from Page 1)

of patients. 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.

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 helps, 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 1948 she transferred to the Federal Security Agency, and in 1953 to DHREW.