Scientists Reverse Course of Metabolic Disorder Through Enzyme Replacement

For the second time in less than a year researchers at the National Institute of Neurological Diseases and Stroke have been able to reverse the course of a hereditary metabolic disorder through enzyme replacement therapy—this time in two patients with Gaucher’s disease.

In an earlier study Dr. Roscoe Brady, chief of the Developmental and Metabolic Neurology Branch, and his associates were able to reverse the effects of the metabolic defect in two patients with Fabry’s disease by injecting the enzyme that is missing in that disorder.

Like Fabry’s and the nine other lipid storage diseases that have been clinically identified, Gaucher’s disease is caused by a deficiency of one of the enzymes needed to help the body in the normal disposal of lipids or fat particles.

It is characterized by an accumulation of fatty materials in the liver, spleen, kidneys, and bone marrow.

One injection of the enzyme, which had been purified from human placental tissue, brought about the removal of 26 percent of the excess fatty material which had accumulated in the patient’s liver. This is the first demonstration of the removal of stored material by the administration of purified enzyme.

NIAMDD, Diabetes Ass’n Call Success of Pancreas Transplant for Curing Disease ‘Exceedingly Limited’

The National Institute of Arthritis, Metabolism, and Digestive Diseases and the American Diabetes Association warned of a possible “serious misunderstanding” regarding the status of transplantation of the pancreas and pancreatic tissues as a cure for diabetes.

In a position paper released by NIAMDD, and endorsed by the ADA’s Scientific Affairs Committee, it was cautioned that success in total or sub-total transplantation of the pancreas in humans has been “exceedingly limited” and not to be considered a form of treatment for diabetes.

Such transplantation is a highly experimental procedure, the statement added, to be carried out only by research teams after review by a review board on human research.

Dr. G. T. Brooks Chosen
NIAMDD Asso. Director

Dr. George T. Brooks has been appointed associate director for Extramural Program Activities of the National Institute of Arthritis, Metabolism, and Digestive Diseases.

Dr. Brooks will hold a similar position with the National Eye Institute and was formerly deputy director of the Division of Research Grants.

He will direct the scientific and administrative management of NIAMDD’s research and training grants program, and also serve as principal advisor to the Institute.

Dr. Koprowski Presents
Jules Freund Lecture
On Tuesday, Nov. 26

Dr. Hilary Koprowski, director of the Wistar Institute of Anatomy and Biology, will present the Thirteenth Annual Jules Freund Memorial Seminar at noon on Tuesday, Nov. 26, in the Masur Auditorium.

His subject is The Task of Seeing the Virus and Host as Non-Separate Realities. Dr. Koprowski will explain the difficulty in viewing a virus and its host as separate entities.

He will discuss recent research reporting the presence of virus in embryos at the earliest stages of development and the possible involvement of cancer-inducing, cell-transforming viruses in the chromosomes of human cells since these findings have shed light on the virus-host cell relationship.

Will Explore Relationship

Dr. Koprowski will also explore the virus-host relationship at the level of the whole organism. He will talk on mechanisms by which a virus or one of its parts could possibly trigger a chain of events in which host responses, rather than the virus itself, determine the disease state.

Although he began his career in medicine, Dr. Koprowski’s scientific interests now center on virology and cellular biology. Born in Warsaw, Poland, he attended the University of Warsaw and went on to work in Belgium, France, Africa, and the Middle East.

Dr. Koprowski was honored by the governments of France and Belgium, and he was presented with the Alvaro Rengel Award by the College of Physicians and Surgeons.
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**New TV Health Series**

**To Entertain and Inform; Starts Tomorrow, Nov. 20**

"Feeling Good," a new prime-time series of 26 hour-long adult shows on health, will premiere on the 250 stations of the Public Broadcasting Service Wednesday, Nov. 20. The program will be shown locally on WETA, Channel 26, at 8 p.m. and will be repeated several times during the week.

"Feeling Good" will employ a variety-magazine format using animation, song, dance, comedy, and documentaries to treat 11 priority health topics: alcohol abuse, cancer, child care, exercise, dental care, heart disease, hypertension, mental health, nutrition, and prenatal care.

Each topic will be treated in different ways several times during the series' first year. The first program focuses on mental health, prenatal care, and nutrition.

A resident company of six performers congregate at "Mac's Place"—a variety store in a shopping center. Willy Baggs, Johnny Cash, B. B. King, Helen Reddy, and Bob and Ray are among the season's guest stars. In the first program, Bill Cosby will appear. The series is the result of 2 years of planning by Children's Television Workshop (creators of Sesame Street) and more than 300 doctors and health experts. Pilot programs have been tested with thousands of people.

**Deadline to Enroll, Change Health Benefits Is Nov. 30**

Employees must contact their registration assistants by Nov. 30 if they want to enroll or change their present enrollment under the Federal Employees Health Benefits Program.

Official bulletin boards list names and locations of registration assistants.

New premium rates for health plans become effective on Jan. 5, and these biweekly deductions will be reflected in the next check.

The Employee Relations and Recognition Branch, DPM, suggests employees note information about continuing health benefits into retirement in the Open Season instruction booklet.

Testing of the blood of a tick that has been taken off a person can help in diagnosing Rocky Mountain spotted fever.

Dr. Willy Burgdorfer, who heads NIAID's Rocky Mountain Laboratory in Hamilton, Mont., explained the procedure.

He said this hemolymph test established the fact that *Rickettsia rickettsii*, the microorganism causing the disease, infects all tissues including the blood cells.

An examination of blood obtained from a suspect tick by removing the lower portion of one of its legs will determine whether the tick is infected with *rickettsiae*.

This procedure, under evaluation at RML since 1962, has also been used in combination with direct fluorescent antibody staining for identifying rickettsial organisms.

The test eliminates the need for using expensive laboratory animals such as guinea pigs in these studies. Earlier tests, using guinea pigs, took from 2 to 4 weeks before results became available.

**Takes Less Than an Hour**

With the hemolymph test an individual tick can be examined in less than one hour. People bringing ticks for examination may wait less than one hour. People bringing ticks for examination may wait less than one hour. People bringing ticks for examination may wait less than one hour. People bringing ticks for examination may wait less than one hour. People bringing ticks for examination may wait less than one hour.

Dr. Burgdorfer thought that all state health departments should be equipped to run the hemolymph test. State health departments interested in the procedure may contact Dr. Burgdorfer at RML.

**Curtin Named to NIAMDD Post**

Donald B. Curtin has been named administrative officer for intramural research, National Institute of Arthritis, Metabolism, and Digestive Diseases.

He has also worked for the National Cancer Institute and the National Heart and Lung Institute.

After receiving his B.S. degree in Military Science from the University of Maryland in 1956, Mr. Curtin joined the U.S. Army. He came to NIH in 1961.
After 2 Decades at NIH
Dr. P. Schmidt Retires; Accepts Posts in Florida

Dr. Paul J. Schmidt, chief of the Clinical Center Blood Bank, will retire on Dec. 1—he has been at NIH for 20 years.

Dr. Schmidt came here in 1954 as a staff associate in the Blood Bank. In 1955 he became chief of the Blood Bank and has continued in that capacity except for the period from 1961-64 when he was resident in clinical pathology and then assistant chief of the CC Clinical Pathology Department.

Dr. Schmidt also teaches at George Washington University where he is clinical professor of pathology.

Dr. Schmidt’s research programs at NIH led to the identification of...
History came unexpectedly to life the other day when Harry Kurth visited the National Library of Medicine and found himself part of the Library's current exhibit, Medicine of World War I. Mr. Kurth, 75, points to himself as photographed 56 years ago in Savenay, France, where he served as an X-ray technician at Base Hospital 69. Mr. Kurth, a long-time area resident and retired Government executive, was Director of Budget and Finance for the State Department and Assistant Commissioner for the Federal Supply Service. The Library's exhibit continues in the main lobby until Jan. 17, 1975.
**New Syrian Hamster Species Is Offered To Researchers by Behavioral Scientist**

A descendant of the recently captured hamsters explores a model of the human brain in Dr. Murphy’s laboratory at the NIH Animal Farm.

A new strain of hamster, originally captured in its native Syrian habitat and brought to this country by Dr. Michael R. Murphy of the NIMH Laboratory of Brain Evolution and Behavior, is being made available for study at NIH.

At present, a small colony of hamsters from Syria, Romania, and Turkey is being maintained by Dr. Murphy at the NIH Animal Farm in Poolesville.

Since the domesticated hamster has been greatly inbred, this strain can provide to NIH scientists a new potential for medical research.

Dr. Murphy is offering a small number of these animals for preliminary investigations. If it is determined that larger numbers would be useful in laboratory studies, he will help set up colonies here. For further information, call 428-8308.

Dr. Murphy is now studying the neuromechanisms of social behavior. Hamsters are used for this research because hamster social behavior is especially dependent on one sense—the sense of smell.

Since olfaction is anatomically and physiologically closely linked to brain areas known to be important to social behavior, the hamster makes an ideal subject for this research.

In most other mammals, social behavior is controlled by a much broader complex of sensory information.

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**Great Strides Cited In Annual Cancer Report To President, Congress**

Great strides against cancer are cited in the annual report on the National Cancer Program recently transmitted by the President to Congress.

The report said that one out of every three persons with cancer will be alive 5 years after treatment, and there are one and a half million Americans who have had cancer in the years.

Dr. Frank J. Rauscher, Jr., Director of the National Cancer Institute which operates the program, said that despite these advances, cancer is still a complex problem whose solution requires a continuing biomedical research effort to provide new knowledge and an “intensified effort to apply the results of this research for the benefit of patients.”

Research advances made during 1973, the report said, include the first evidence of some forms of advanced non-Hodgkin’s lymphoma can be controlled for long periods, and preliminary evidence that immunotherapy may be of value in systemic treatment of patients with melanoma.

The report also pointed to new evidence of virus information in human leukemia cells, which may lead to new treatments in diagnosing and treating the disease.

Created in 1973

In addition, the first artificial gene with potential for life was created in 1973. This accomplishment, the report said, has broad implications for all biomedical research because it may be a major step to understanding human genes and their roles in transforming normal cells into cancer cells.

Dr. Rauscher’s report also details accomplishments in research projects that include cancer prevention, detection, and diagnosis, treatment and rehabilitation, and education.

For example, in 1973 the Institute established a series of projects to demonstrate effective new treatment methods for once incurable cancers: Hodgkin’s disease, non-Hodgkin’s lymphomas, and acute lymphocytic leukemia.

Other new projects to control cancer include a program to demonstrate the latest techniques for early detection of breast cancer, efforts to reduce the number of cancers caused by smoking, and the development of model rehabilitation services for cancer patients.

In addition, NCI established nine new comprehensive cancer centers as forerunners of a national network. These centers conduct research and demonstrate the latest methods for early diagnosis and treatment to health practitioners across the United States.
Dr. William J. Campbell Retires From NIGMS; In Fed'I Service 21 Years

Dr. William J. Campbell, National Institute of General Medical Sciences, recently retired after 21 years of Federal service.

He was a program administrator in the Automated Clinical Laboratories Section, Biomedical Engineering Program.

Dr. Campbell came to NIH in 1964 as a Grants Associate in the Division of Research Grants, and the following year he joined NIGMS as program administrator of Clinical Chemistry, Medicinal Chemistry and Nutritional Sciences Training Program, Research Training Branch.

When NIGMS was reorganized last year, he assumed the position he held on retirement.

Dr. Campbell received his B.A. degree from North Texas State College, and his B.S. in pharmacy and M.S. in pharmaceutical chemistry from the University of Texas. He received a Ph.D. in physiological chemistry from Ohio University.

Twice, Dr. Campbell headed teams of scientists who visited Southeast Asia—for a study of chloroquin-resistant malaria and again for a survey on nutrition in connection with Thai hemorrhagic fever.

He served in the U.S. Army from 1963, and from 1960 to 1964 was chief of the Department of

Chinese Pharmacologists To Visit Labs Nov. 25-27

Seven members of a Pharmacology Study Group from the People's Republic of China will visit NIH for 3 days Nov. 25-27.

The group, headed by Wen Tien, Deputy Head, Institute of Materia Medica, Chinese Academy of Medical Sciences, Peking, will visit NINDS, NIMH, NCI, NIAID, and NHLI laboratories.

The scientists have expressed interest in neuropharmacology, methods of searching for anti-cancer agents, and interactions between nervous system and liver function.

The group will also visit Hoffmann-LaRoche, Inc., Duke University, Yale University, Cornell Medical School, Sloan Kettering Cancer Center, Rockefeller University, Mount Sinai School of Medicine, Johns Hopkins University, and Roswell Park Memorial Institute.

Later, they will visit the National Institute of Environmental Health Sciences.

Dr. Geller Is Appointed NHLI Branch Chief

Dr. Ronald G. Geller has been named chief of the Hypertension and Kidney Diseases Branch in the National Heart and Lung Institute's Division of Heart and Vascular Diseases.

In this post, Dr. Geller will administer research programs concerned with essential hypertension and of kidney disorders often associated with secondary forms of the disease.

These programs include regular research grants and contracts, program project awards, and specialization centers of research on hypertension.

Dr. Geller attended the University of Wisconsin where he received his B.S. degree in zoology in 1964 and his Ph.D. in physiology in 1969.

While there, he was a Public Health Service Predoctoral Trainee and also studied under predoctoral and postdoctoral fellowships from the Wisonar Heart Association.

From 1969 to 1972, he conducted research in the NHLI Experimental Therapeutics Branch under a Special Research Fellowship awarded through the NIGMS Pharmacology Research Associate Training Program and then as a senior staff fellow.

Subsequently he served for a year as a Grants Associate in the Division of Research Grants before joining the Hypertension and Kidney Diseases Branch in 1973 as assistant chief.

NOBEL LAUREATE AT TERMINAL—Dr. Joshua Lederberg opens the new Stanford University Medical Experimental Computer (SUMEX), supported by the Division of Research Resources. Stanford's artificial intelligence research is directed toward computerizing information processing tasks generally considered to require human intelligence. For example, scientists are mechanizing cognitive activities associated with recognition of paranoid behavior, glaucoma control, and other research projects.

Dr. Valega and Parakkal Named to NIDR Posts

Dr. Thomas M. Valega has been named to head a program at the National Institute of Dental Research. He was appointed chief of the Restorative Materials Program in the Extramural Programs.

Dr. Valega will coordinate a program which sponsors, through grants and contracts, research and training activities toward developing new materials and methods for restoring or replacing oral-facial tissues.

He has been with NIDR since 1972 as a scientist administrator in the Periodontal and Soft Tissue Diseases Program. He came to NIH in 1967 for a year of training in the Grants Associate Program.

Subsequently, he worked in the National Institute of Environmental Health Sciences, and in the National Institute of Arthritis, Metabolism, and Digestive Diseases where he coordinated research and development contracts in the Artificial Kidney-Chronic Uremia Program.

From 1963-1967, Dr. Valega was with the Agricultural Research Service, U.S. Department of Agriculture. He earned both his B.S. and Ph.D. degrees from Rutgers University where he held several fellowships and scholarships and a teaching assistantship.

Dr. Valega, who is a member of the American Chemical Society and the American Association for the Advancement of Science, has published articles in his field of organic chemistry.

Dr. Paul F. Parakkal, who has just completed a year of training in the Grants Associate Program, has joined NIDR's Restorative Materials Program, as a scientist administrator.

Work Described

Before coming here, Dr. Parakkal was with the Oregon Regional Primate Research Center in Beaverton in the departments of electron microscopy and reproductive physiology.

From 1962 to 1969, he held research and teaching positions in the departments of dermatology at Boston University and University of Oregon medical schools.

He has written more than 30 publications and two books about his research on keratinization and on the resorption of collagen, which included extensive work in electron microscopy.

Dr. Parakkal earned his B.S. degree from Kerala University, Trinidad, India, an M.S. degree from McGill University, and his Ph.D. degree from Brown University.

According to NIH, overnutrition is as much a concern to the American people as undernutrition, for about one-sixth of the country's population is overweight.

Dr. Campbell, who was a scientist director in the PHS Commissioned Corps, will be executive director of the American Association of Clinical Chemists.

Biological Chemistry at Walter Reed Army Institute of Research.

At his recent retirement luncheon, friends and associates presented him with a large clock and pen and pencil set.
**TRANSPORT**

(Continued from Page 1)

The position paper was released following a recent research symposium, sponsored by the ADA, on Transplantation of Pancreatic Islets and the Histocompatibility of Endocrine Tissues. The meeting was held in Minneapolis.

Excerpts from the NIAMDD-ADA statements follow:

Diabetes Mellitus is the seventh leading cause of death by disease in the nation and a major contributor to heart attacks, stroke, kidney failure, peripheral vascular disease and blindness... at present there is no known cure...

In a limited number of humans beings, transplantation of the total or sub-total pancreas has been attempted. In most instances, this has been in patients who have received kidney transplants and their immune systems were already suppressed.

**Procedures' Success Limited**

The success of such procedures has been exceedingly limited and subject to all of the immunological difficulties associated with the transplantation of other organs.

Total or sub-total pancreatic transplantation is not to be considered a form of treatment for the disease but rather a highly experimental procedure to be carried out only by research teams consisting of experienced immunologists, dietitians, and surgeons skilled in such efforts after review by the institution's review board...

With regard to transplantation of pancreatic islets or beta cells, it is appropriate that a limited number of qualified investigators explore the feasibility and potential value of this procedure. Research... has been limited to diabetic animals of the same genetic strain...

Transplanted tissue has been shown to be capable of maintaining body weight and normal blood sugar levels in these animals. This... procedure is subject to all of the immunological problems of tissue incompatibility, and in some animals, transplantation via injection of beta cells into the portal vein has resulted in immediate death.

**Treatment Under Study**

It is clear that at this time transplantation of pancreatic tissues to man must be considered only a highly experimental method for the treatment of diabetes melitus and further extensive animal experimentation must be conducted.

Human investigation in this endeavor must be approached with extreme care and expert scientific thought...

All research must be carried out according to a carefully written and approved protocol which must include a systematic lifetime follow-up of the recipients...

This would assure continuous monitoring of each transplant recipient and provide compatible retrospective and cumulative information to other investigators. NIA-MDD is exploring means of establishing such a central protocol registry and an information network.

Clinical research plans must be reviewed by the institution's review board... which recognizes the risks of the surgical, medical, and immunological procedures used and will weigh these risks against the possible benefits to patients with an incurable disease.

The... board must be assured that the project has been reviewed...
A crib mobile purchased by the PATIENT EMERGENCY FUND helps small patients learn to focus their eyes on moving objects and provides amusement.

A painting set is just what Brent wanted. Whether it's an alarm clock for a patient's room, a pair of tennis shoes, or a chess set, PATIENT EMERGENCY FUND donations from NIH employees help supply such morale boosters.

TO JOIN THE "DAVIS PLAN"—make a Clinical Center patient's life happier during the holiday season and all through the year—please use this form. Gifts are tax deductible.

Enclosed is a gift of $.................. (Make checks payable to the NIH Patient Emergency Fund.)

Send to: B/I/D Administrative Officer; the CC Social Work Department, Bldg. 10, Rm. 1N-254; the R&W Office, Bldg. 31, Rm. 1A-18, or take to any R&W Gift Store.

Donor's name: ..........................................................................................................

Institute/Division: ...................................................................................................

Bldg. & Room No.: ..................................................................................................

CLIP THIS COUPON, fill it in, and contribute to the Patient Emergency Fund.

Before returning home, a young CC patient stops by nursing unit 2 East to see the aquarium purchased through the PATIENT EMERGENCY FUND.

This year $38,500 was spent to help Clinical Center patients in financial difficulties which Government funds do not cover. The Patient Emergency Fund, supplemented by "Davis Plan" contributions, helps to meet these needs.

Through the Davis Plan, employees make a cash contribution to the Patient Emergency Fund rather than exchange greeting cards with their colleagues during the holiday season.

Each participant expresses good wishes to co-workers by signing a Santa Claus poster and displaying a Christmas tree.

James B. Davis, now general manager of R & W, began the plan 15 years ago, and the idea caught on.

The Fund is administered by the CC Social Work Department.

According to Barbara A. Murphy, chief of the department, year-round donations are used to buy such special items for patients as shaving equipment, a braille watch, orthopedic shoes, long distance calls, or for room and board for families of patients who otherwise could not afford to stay nearby.

It also pays for such practical needs as haircuts, suitcases, clothing, and bus fares as well as for morale boosters: recreational trips, parties, and sporting events.

The Fund has helped a patient make a short trip home to see his newborn baby; and it provided lunch for four children who came to NIH to visit their mother.

This year contributions may be sent to the R & W office, taken to an R & W Gift Store, to the CC Social Work Department, or to B/I/D administrative offices.

Additional information on the Davis Plan may be obtained from administrative officers or from the R & W office, Ext. 66061.

Family visits are often essential to a patient's emotional well-being. Family members who cannot afford to stay nearby but are needed to support morale, stay in local motels with the help of the PATIENT EMERGENCY FUND.