

The NIH Record

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National
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Former Convent Dedicated as Mary Lasker Ctr. For Future Health Research and Education

The Mary Woodard Lasker Center for Health Research and Education was officially dedicated Sept. 19 by NIH Director Dr. James B. Wyngaarden during a ceremony held in the Clinical Center.

"If there is any person anywhere whose name should be prominently displayed on this campus, it is Mary Woodard Lasker. She has advanced the cause of health immeasurably and as a part of her deliberate strategy for doing so, she has been an indomitable champion of the National Institutes of Health. Throughout the history of the modern NIH, Mary Lasker's presence has been felt—often her ideas and vigor have made the critical difference," Dr. Wyngaarden said.

Drs. Vincent T. DeVita Jr., Director, National Cancer Institute, and Claude Lenfant, Director, National Heart, Lung, and Blood Institute, offered their reflections on Mary Lasker's great contributions to health research and to NIH, which was attended by Speaker of the House Thomas P. (Tip) O'Neill, members of Congress, Charles Baker, HHS Under Secretary (representing HHS Secretary Margaret M. Heckler), Dr. Edward N. Brandt, Jr., Assistant Secretary for Health, and NIH staff.

The 11-acre tract previously owned by the cloistered Sisters of the Visitation was purchased Dec. 18, 1983, by NIH and signed



Mrs. Albert D. Lasker has contributed greatly to the advancement of science and medicine during her lifetime.

(See DEDICATION, Page 12)

Emphysema, Asthma, Lung Cancer: New Insights Point Toward Improved Future Treatments

By Bobbi Bennett

New understanding of the mechanisms involved in emphysema, asthma, and lung cancer and how this knowledge might be used to treat or prevent these diseases were discussed by intramural scientists at the recent NIH Science Writers' Seminar on Lung Diseases.

Dr. Ronald Crystal, chief, Emphysema Branch, NHLBI, described new insights into the process by which individuals with a hereditary defect develop a chronic, usually fatal form of emphysema. These patients have a deficiency of alpha-1 antitrypsin (AAT), a protein that protects the lung's air sacs (alveoli) from being permanently destroyed by an enzyme, elastase, released by white blood cells known as neutrophils.

In normal lungs, these cells are present in small numbers; however, in inflammatory conditions such as emphysema and other chronic obstructive lung diseases, large

numbers of these cells are present in the lungs.

Genetic Defect and Emphysema

The cause of AAT deficiency is now known to be a defect in the AAT gene and its protein product. Individuals who inherit an abnormal variant of this gene from both parents will have a markedly decreased level of the AAT protein in their lungs.

A few years ago Dr. Crystal and his coworkers showed that weekly intravenous administrations of AAT, which they had isolated and purified from the blood of normal donors, raised patient levels of AAT to that theoretically needed to protect their air sacs. This month, he will be starting another clinical trial using commercially purified normal human AAT.

Dr. Michael Kaliner, chief, Allergic Diseases Section, LCI, NIAID, discussed recent

(See NEW INSIGHT, Page 10)

Hospital Satellite Network To Air NIH Lecture Series

NIH's "Medicine for the Layman" lecture series will be televised to communities across the nation by Hospital Satellite Network (HSN) beginning Sept. 20.

The series of nine weekly lectures will be videotaped at Masur Auditorium, at NIH by HSN. After being edited and supplemented with demonstration film footage and other audio/visual inserts, the lectures will be fed as 1-hour telecasts to hospitals throughout the nation which receive the HSN signals.

Funding for the project has been provided by Primark Corp., parent company of HSN. The programs also will be made available by Primark to any public television stations wishing to broadcast them.

"We will encourage hospitals receiving the programs to videotape them and find suitable methods of bringing the material before the public in their communities," said Dr. Ronald J. Pion, vice-chairman, Hospital Satellite Network.

"By helping to disseminate information on health issues, we feel that HSN is serving the general public as well as the interests of its clients, the institutions that are at the core of health care in the U.S."

The first lecture, "You and Your Aged Parents," was delivered Sept. 11 by Dr. T. Franklin Williams, Director, National Institute on Aging. Actual satellite transmission of the telecast version will take place Sept. 20. Hospitals may invite the public to view the programs and may tape them for later presentation to interested groups.

Topics to be covered in subsequent lectures are:

Sept. 25, Child Psychiatry: Modern Approaches, Dr. Judith Rapaport, NIMH; Oct. 2, New Treatments in Ophthalmology, Dr. Carl Kupfer, NEI; Oct. 9, Arthritis Today, Dr. Paul Plotz, NIADDK; Oct. 16, Hearing Impairment: The Invisible Handicap, Dr. Ralph Naunton, NINCDS; Oct. 23, Aspects of Alcoholism, Dr. Markku Linnoila, NIAAA; Oct. 30, AIDS: Acquired Immune Deficiency Syndrome, Dr. Anthony Fauci, NIAID; Nov. 13, Parkinson's Disease: Natural and Drug-induced Causes, Dr. Irwin Kopin, NINCDS; Nov. 20, Sleep and Its Disorders, Dr. Wallace Mendelson, NIMH.

Hospital Satellite Network is a Los Angeles-based company which produces and transmits round-the-clock educational and information programming to subscriber hospitals. □

The NIH Record

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TRAINING TIPS

The following courses sponsored by the Division of Personnel Management.

<i>Executive, Management, and Supervisory</i>	<i>Course Starts</i>	<i>Deadline</i>
Planning for Results	10/17	10/3
Manage Your Meetings	10/19	10/4
Successful Middle Management at NIH	10/9	9/29
Dynamic Listening	11/15	11/2
Strategies for Managing the Work Environment	11/14	11/2
<i>Technical</i>		
Effective English Workshop	10/15	10/1
Letterwriting for Secretaries	12/5	11/21
Effective Office Management	10/29	10/18
Self Assessment and Career Options	10/30	10/29
Self Assessment and Career Options for Professionals	11/1	10/18
<i>Administrative</i>		
Travel Orders & Vouchers	11/5	10/22
	12/3	11/19
Time and Attendance	10/9	9/24
	11/1	10/18
	12/10	11/26
DELPRO (for new users only)	*10/22 11/5	10/10 10/22

*Date changed from Oct. 1 to new date.

To learn more about these and other courses, contact the Development and Training Operations Branch, DPM, 496-6371.

Peace of mind is that mental condition in which you have accepted the worst.—Lin Yutang

'Hire the Handicapped Week' Will Be Celebrated At NIH With Special Programs and Displays

"We Can Do It" is the theme of NIH's celebration of "Hire the Handicapped Week," to be held Oct. 10-12, at various spots around the NIH campus.

The activities should interest both the nearly 500 disabled as well as non-handicapped employees at NIH.

Each day from 11:30 a.m.-1:30 p.m., special programs will be featured in the Clinical Center's Masur Auditorium leading off with a well-known keynote speaker, followed by informative and entertaining events—wheelchair aerobics; skits by Maryland School for the Deaf students; magic acts; musicians; Deaf Dimension Dancers; and demonstrations of skilled "seeing eye" and "hearing ear" dogs.

At other NIH locations at the same time, there will be displays of arts and crafts by the disabled (ACRF Lobby, Bldg. 10, entrance); aids and devices for the disabled (ACRF Visitors Center Balcony); and "Beep Ball," a fascinating softball game played by blind

players on the ACRF's west side open lawn.

Videotapes on how to better understand disabilities and those who overcome them will be shown daily from 11:30 a.m.-1:30 p.m. in the ACRF Lobby and the Bldg. 31A Lobby.

For those interested in how the handicapped get around, there will also be daily demonstrations, of the "TeenaMobil" in the Bldg. 31A patio area from 12-1 p.m. At the same time, in the handicapped parking area in front of Bldg. 31A, a "Changing Images Van" specially adapted for the handicapped travel will be open for tours.

The NIH Handicapped Employees Committee and the Division of Equal Opportunity invite all to participate in the week-long activities. Find out more about the abilities and resourcefulness of handicapped employees and how 'We Can Do It.' The next issue of the *NIH Record* will carry a schedule of events. Also, watch for posters and announcements on building bulletin boards. □

NIH Will Celebrate Fire Prevention Week

The Fire Prevention and Control Branch, Division of Safety—better known as the NIH Fire Department—will celebrate Fire Prevention Week, Oct. 9-11. Several events are scheduled on each of the 3 days to introduce all NIH employees, visitors and patients to the staff and special skills of the fire department.

An Open House will be held at the Fire Station, located at Bldg. 12 between Center Dr. and Service Rd.S, between 11 a.m. and 2 p.m. each of the 3 days. Visitors are encouraged to come see the fire apparatus and to discuss fire prevention and control strategies for the laboratory, office and home with the NIH fire specialists.

Daily Raffle

A raffle will be held each day of the celebration. Visitors to the Fire Station will be eligible to win a smoke detector and a fire extinguisher.

To demonstrate their fire fighting skills, the NIH fire fighters will conduct a fire drill, demonstrate fire extinguishing techniques and display a sprinkler system. The demonstrations and displays will be held at three different locations on campus. Fire prevention literature will also be available.

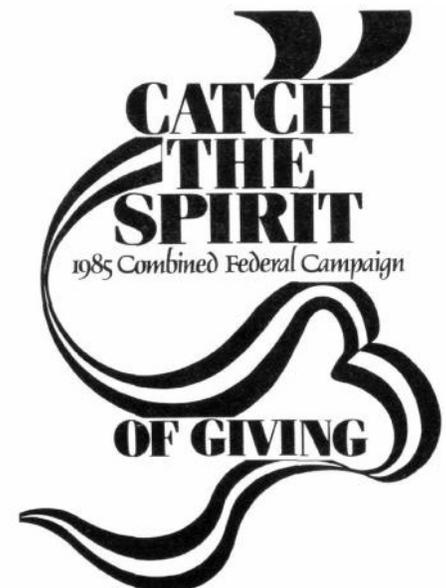
Answer Questions

Members of the Fire Department staff will be on hand to answer questions about the demonstrations and fire prevention activities of NIH.

These demonstrations will be held: Tuesday, Oct. 9, Front, Bldg. 1, noon to 1:30 p.m.; Wednesday, Oct. 10, Front Circle, ACRF, noon to 1:30 p.m.; and Thursday, Oct. 11, Front Circle, Bldg. 35, noon to 1:30 p.m.

Signs will be posted around the NIH campus to direct people to the Fire Station.

For further information call 496-2372. □



Improving Your Health Through Behavior Modification

The Occupational Medical Service will present a 25-minute film, *For A Change: Breaking Old Habits and Making New Ones*, during October. The film explores a systematic method for modifying behavior to improve health.

The program will be offered at the following dates and locations:

Oct. 9, 11:30 a.m., Bldg. 13, Rm. G313; Oct. 10, 11:30 a.m. and 12:15 p.m., Bldg. 10, ACRF Amphitheater; Oct. 11, 11:30 a.m. and 12:15 p.m. Shannon Bldg., Wilson Hall; Oct. 12, 11:30 a.m., Federal Bldg., Rm. B119.

Oct. 15, 11:30 a.m., Bldg. 38A, Rm. B1N30B; Oct. 16, 2:30 p.m., Poolesville Animal Center; Oct. 17, 11:30 a.m., Westwood Bldg., Conf. Rm. D; Oct. 18, 11:30 a.m., Blair Bldg., Rm. 110.

Following the film, a short discussion will be led by a counselor from the OMS Employee Counseling Service. □

Lecture on Animal Model for Down Syndrome To Highlight Child Health Day, Oct. 1

In an animal model that mimics the human genetic abnormalities associated with Down syndrome, scientists are using the tools of the new biology to help unravel the mechanisms that interfere with normal development and function.

This will be the focus of Dr. Charles J. Epstein's lecture, "New Biological Approaches to Down Syndrome: Mechanisms and Models" to commemorate Child Health Day, Monday, Oct. 1. The National Institute of Child Health and Human Development is sponsoring the lecture in observance of National Child Health Day proclaimed by President Reagan. The lecture will be held in the CC Masur Auditorium at 2 p.m. All NIH employees are invited.

As part of the Child Health Day ceremonies, PHS Surgeon General C. Everett Koop will present the First Annual Healthy Mothers, Healthy Babies Achievement Awards. These awards will be presented to those members of the National Healthy Mothers, Healthy Babies Coalition whose outstanding programs or projects have promoted the health of mothers and babies through public education and awareness.

Preventive Health Habits

The Healthy Mothers, Healthy Babies Coalition was initiated by the Department of Health and Human Services to improve the health of pregnant women and their families by increasing public interest and education in preventive health habits. A short film will be shown illustrating some of the coalition members' activities.

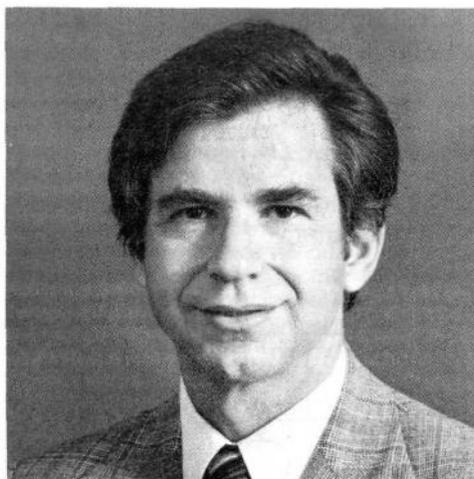
The Chevy Chase Elementary School choir will provide entertainment. For more information about the NICHD Child Health Day activities, contact the Office of Research Reporting, 496-5133.

Dr. Epstein is a professor of pediatrics and biochemistry at the University of California, San Francisco. As director of the NICHD-supported Mental Retardation Research Center at the University of California, San Francisco, he conducts medical genetics programs aimed at increasing our understanding of chromosomal disorders like Down syndrome in both the clinic and the laboratory. He is also the director of the Birth Defect Center/Genetic Clinic and a member of the graduate group in genetics at the University of California at Berkeley.

The author of numerous scientific publications, he is considered a noted investigator in the area of developmental genetics and chromosomal abnormalities. More recently, his work on Down syndrome has concentrated on developing an animal model of the genetic abnormalities present in Down syndrome using gene mapping techniques.

"The most direct approach to elucidating the genetic problems of human development will involve not only the study of man himself but also of the appropriate experimental models in other species," said Dr. Epstein.

Dr. Epstein's mouse model could provide important leads to the mechanisms that cause the deleterious effects of the genetic error. Although the physical characteristics of



Dr. Epstein

Down syndrome are not manifested in the mice, the genetic abnormalities allow analysis of cells in a variety of tissues such as the heart and brain which can't be studied in humans.

"Down syndrome is the most common genetic birth defect associated with mental retardation," according to Dr. Mortimer B. Lipsett, NICHD Director. "By studying the genetic changes that occur in the cells of an animal, we can make a start towards understanding the mechanisms that cause both the physical and mental abnormalities that characterize Down syndrome."

In addition to the center directed by Dr. Epstein, the NICHD supports 11 other Mental Retardation Research Centers and numerous multidisciplinary university-affiliated programs committed to promoting research into the cause and prevention of mental retardation. These centers conduct research and research training ranging from training health research professionals to exploring the causes of mental retardation, especially Down syndrome.

Because of the increased risk of bearing a child with Down syndrome with increasing maternal age, the Institute is particularly interested in providing strategies for identifying genetic defects through advances in prenatal diagnosis. The incidence of Down syndrome is less than 1 in 1,000 live births to women under 30, but increases to 1 in 35 to mothers age 44 or older. □

DCRT Plans Lead Users Personal Computer Program

The Personal Workstation Office, DCRT, has requested BID Executive Officers to nominate candidates for Personal Computer (PC) lead users. Nominations were to be submitted by Sept. 21.

Lead users will be the BID focal point for questions concerning PCs. A staff of fulltime specialists at DCRT will provide training and technical consultations for lead users.

Persons interested should contact Dona Lenkin, Division of Management Policy, Bldg. 31, Rm. 3B07, or call 496-2832. □

Technology Coordinators Promote Office Automation

The NIH Office Technology Task Group (OTTG) was chartered in July 1982 by the Associate Director for Administration (ADA). The purpose of this group is to provide a means for coordinating office automation and planning policy at the agency level.

In January 1984, the task group submitted their report to the ADA and the Director, Division of Computer Research and Technology. One of 11 OTTG recommendations was that each Bureau, Institute or Division designate an office technology coordinator to be responsible for disseminating office automation information within the BID.

These office technology coordinators (OTC) recently held their first meeting to introduce the BID coordinators and outline their four specific responsibilities—coordinating and circulating information on office automation; being a BID resource on office automation; being responsible for the BID word processing inventory; and providing a network on office automation for NIH.

The coordinators will work with the Division of Management Policy to channel information from higher levels to the BIDs.

Plans for the OTCs include forming subgroups such as acquisition, NIH inventory, and information exchange to research different topics involving office automation and report findings at monthly OTC meetings. The OTCs will invite guest speakers, both inside and outside experts, to provide up-to-date information concerning office automation.

Meetings are held at 1:30 p.m. on the second Wednesday of each month and are open to any NIH employees. The location may be obtained from your BID coordinator or the Division of Management Policy.

The following is a list of the office technology coordinators:

CC, Barbara Young, 10/2C146, 496-3227; DAS, Judi Bergmann, 31/1C02, 496-2315; DCG, Patricia Greenfield, 31/1B06, 496-6431; DCRT, Rick Hargett, 12A/3029, 496-2282; DEO, Barbara Peters, 31/2B40, 496-1551.

DFM, Pat Carmichael, 1/23, 496-9370; DPM, Harry Marshall, 31/1C35, 496-4543; DRG, Nancy Curling, WW/225, 496-1061; DRR, Norman Mills, 31/5B31, 496-5451.

DRS, Mary DeCelle, 12/4051, 496-4501. DS; Steve Drill, 13/2E43, 496-1985; FIC, Teddi Schulman, 38A/604C, 496-4625; NCI, Betty Ann Sullivan; 31/10A48, 496-1038; NEI, Julian Morris, 31/6A25, 496-4308; NHLBI, Len Mihalko, 31/5A17, 496-8992.

NIA, Anne Connors, 31/2C11, 496-9121; NIAAA, Ronni Nelson, 10/3C103, 496-6747; NIADDK, Bill Mowczko, 31/9A47, 496-6693; NIAID, Vincent A. Thomas, Jr., 31/7A16, 496-4846; NICHD, Lynda Bennett, 31/2A18, 496-1636.

NIDR, Dolores Karamian, WW/537, 496-7843; NIEHS, Debra Parrish, RTP, NC 27709 8-629-4941, NIH, Dona Lenkin, 31/3B07, 496-2832; NIGMS, Martha Pine, WW/922, 496-7714; NIMH, Marion Webster, 10/4N224, 496-4183.

NINCDS, David Kerr, 31/8A47, 496-2575; NLM, Stan Phillips, 38/2N05, 496-6491; ORS, Shirley Claggett, 31/4B32, 496-1004.

For further information about the office technology coordinators, contact Dona Lenkin, NIH office technology coordinator or Sue O'Boyle, executive secretary, 496-2832. □

Scientists Use Math to Study Heredity

Diseases that run in families are not always genetic. A family's lifestyle, as well as its genes, can influence the susceptibility of its members to certain diseases. But how can environmental effects be differentiated from genetic characteristics?

In principle (and in experimental animal populations), one family member—such as a father—could be removed from the family and replaced with another father. After a series of exchanges of this sort, the differences between the various "family" groups could tell researchers much about the genetic and environmentally induced traits of each group member.

For humans, of course, such experiments cannot be done. Except for some "experiments of nature" (families with half-sisters or half-brothers, or studies of adopted children), it is next to impossible to obtain such data.

How might genetic and environmental components interact? Although sickle cell disease is a genetic disorder, for example, we recognize that weight loss, body chemistry imbalance, infection, or pregnancy can all aggravate its severity. Conversely, some disorders—such as colds and other viral infections—are caused by agents in the environment. Yet some people seem to be more resistant to infection than others, and part of this resistance is probably genetic.

Why would information about separating the genetic from the environmental components of disease be important? Understanding how much of an individual's characteristics are determined by genes and how much by environmental factors is crucial for preventing and treating genetic disorders. Any new methodology to sort out the causes of complex diseases is therefore welcome.

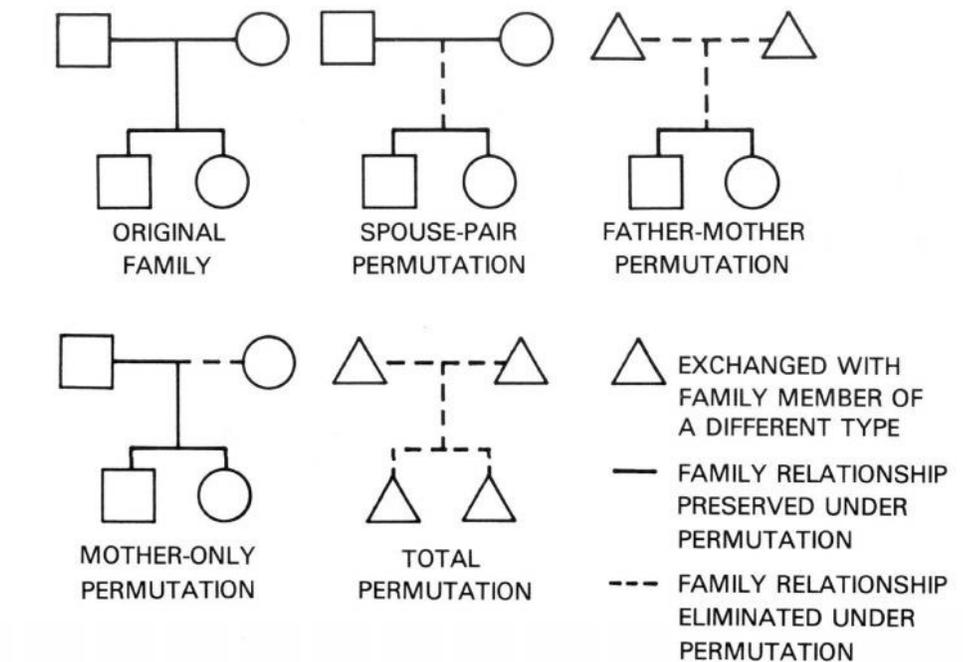
Dr. Samuel Karlin, a National Institute of General Medical Sciences grantee at Stanford University, has worked out methods for sorting familial disease into genetic and environmental components by computer. He is studying the relationship between many human characteristics—both genetic (such as gender) and non-genetic (such as food preferences).

Dr. Karlin is interested in how specific lifestyle, cultural, and other environmental variables affect the expression of genetically inherited traits. For example, cultural factors such as food choices and genetic factors related to metabolism may interact to influence how susceptible a person is to heart disease.

Dr. Karlin has developed a variety of complex mathematical and statistical techniques to examine how traits are transmitted. He is trying to determine if each trait that appears to run in families has a strong genetic component, and, if it does, to determine the nature of that genetic component. Is the trait caused by one gene or many genes?

Working with data collected from more than 4,700 families to date, Dr. Karlin records many physical and cultural characteristics for each person in every family. He adjusts the data to account for age and sex differences, then runs it through a computer which assigns particular numerical values to each trait.

To evaluate these data, Dr. Karlin has developed a technique called Structured Ex-



ploratory Data Analysis (SEDA). SEDA is a powerful statistical tool that helps him see the differences between family members in more detail. It offers various statistical ways of measuring large deviations of particular individuals from the range of all others measured.

SEDA can also measure small variations between people examined. It also provides better ways to reduce measurement errors than do some older techniques. SEDA compares the numerical values obtained for each family member to the distribution of such values measured for comparable members in many other families. This indicates where each individual lies on the continuum of all such individuals measured for that particular characteristic.

Mean Differences

The next step is to try to understand what differences in these values mean. Dr. Karlin looks at the distribution of values to see if any is unusual and determines the significance of these variations.

Next, he "rearranges" families to see how each rearrangement affects the "family" value distribution. With a computer and SEDA statistics, Dr. Karlin simulates alterations in certain family relationships while keeping other relationships intact. He systematically removes each family member one at a time, replaces him or her (up to 100 times) with a comparable person, and calculates the new "family" values.

Dr. Karlin then mathematically examines differences between the original family statistics and those from the rearranged "family." Changes from the original data give him information about how genetic and environmental influences affect the expression of a trait.

One of Dr. Karlin's many applications of the SEDA technique has been the analysis of risk factors for cardiovascular disease. Such risk factors include blood cholesterol level, age,

sex, smoking, obesity, hypertension, physical inactivity, diet, stress, personality, and family history. Low blood levels of high density lipoprotein (HDL) may also be related to heart attacks.

Dr. Karlin found that individuals with high levels of HDL are very similar to each other with regard to a variety of other risk factors such as exercise and diet. People with low HDL levels are much more variable. The reasons are unclear, but Dr. Karlin's findings and those of others show that people who attempt to reduce their risk of heart attack by diet, exercise, or other programs can control their HDL levels. That is, through conscious lifestyle changes people can actually modify the expression of genes which might otherwise lead to heart problems.

Taken together, these analyses suggest new ways to identify persons at risk for cardiovascular and other diseases, and may point to new approaches for prevention. For example, risk factors that are influenced by common family environments may be managed best at the family level. Different approaches could be taken for risk factors that differ between generations or for factors that occur among specific population groups.

Dr. Karlin believes that the classical statistical methods for studying genetic and environmental influences make too many assumptions, are too rigid, and cannot account for variation. His is a non-classical approach. He goes beyond direct observation, using SEDA to help find the unusual distributions of values that give him information.

Dr. Karlin's work helps identify approaches to control risk factors for disease and is, therefore, of great interest to clinicians. The impact of his sophisticated computer programs underscores the importance of collaboration between disciplines such as mathematics and genetics, as well as the contributions of basic research in furthering our understanding of the role of inheritance in health and disease.—Sandy Hecker □

Betsy Humphreys Appointed Deputy, Library Operations

Betsy L. Humphreys has been appointed deputy associate director of Library Operations, the NLM component which includes Reference Services, Bibliographic Services, Technical Services, and History of Medicine



Ms. Humphreys

Divisions and has responsibility for managing the Regional Medical Library Program.

A graduate of Smith College, Ms. Humphreys received an M.L.S. from the University of Maryland in 1972. Since 1973 she has held a number of increasingly responsible positions in NLM's Technical Services Division (TSD), becoming chief of that division in 1980.

As chief, TSD, Ms. Humphreys directed efforts to expand the availability of NLM's authoritative cataloging data through reduction of cataloging backlogs, retrospective conversion of pre-1965 cataloging records, introduction of new microfiche publications, and expansion of NLM's MARC distribution service.

She also worked with technical services units at the Library of Congress and the National Agricultural Library to develop cooperative programs to improve service to the users of all three institutions and reduce duplicative effort.

Ms. Humphreys was a member of the NLM Task Force to develop the functional specifications for MEDLARS III and of the Technical Review Group for the MEDLARS III contract proposals, which received a special award for its performance.

During her tenure as TSD chief, the division implemented online cataloging and serial checkin systems. Ms. Humphreys received an NIH Merit Award for her work on NLM's internal automated serials system in 1978.

Ms. Humphreys is NLM's liaison to the Research Libraries Group Medical and Health Sciences Program Committee and is a member of committee discussion groups in the Medical Library Association.

She has given a number of speeches at national professional meetings and is the author of several articles, including a chapter in the recently published second volume of the *Handbook of Medical Library Practice*, 4th edition. □

Smoking Study Needs Volunteers

Volunteers are being sought by the National Cancer Institute to test the effects of smoking on chromosome breakage in bone marrow.

Persons should be between 20 and 40 years old who have never smoked or who currently smoke cigarettes and have done so for the past 2 to 3 years.

Participants will receive \$75 for donations of bone marrow and peripheral blood.

Interested persons should call Dr. Robert Fine, 496-4522. □

Dr. M. Goldberg, Associate Director, PPE, Leaves NIH; Joins Microbiology Society

Dr. Michael I. Goldberg, NIH's Associate Director for Program Planning and Evaluation, has resigned. He joined the American Society for Microbiology as executive director on Sept. 17.

As the ASM chief executive officer, he will have overall responsibility for the society's professional, education and public affairs activities. With an active membership of over 31,000, the ASM is the oldest and largest single biological life science organization in the world, serving an international community that includes microbiologists from academe and industry who are engaged in research, teaching, public health, clinical and other laboratory services and administration.

During his tenure as Associate Director for Program Planning and Evaluation, Dr. Goldberg feels he helped to promote several major accomplishments.

When he took office Dr. Edward D. Brandt, Jr., Assistant Secretary for Health, and Dr. James B. Wyngaarden, NIH Director, had him prepare a proposal for a study of the organization and structure of NIH, paying particular attention to the development of criteria for establishing new Institutes. This was accomplished. NIH contracted this study out to the Institute of Medicine, National Academy of Sciences, and the report is due to be presented to NIH at the beginning of November this year.

Dr. Goldberg encouraged a closer working relationship within OPPE so that all various components were involved in policy analysis. "There are certainly many different aspects to be considered when trying to solve an is-



Dr. Goldberg

sue," he said.

In 1975 he began his career at NIH as a scientist administrator in the genetics program of the NIGMS. While at NIGMS, he served on detail to the NIH Office of the Associate Director for Program Planning and Evaluation and served as NIH's legislative liaison on recombinant DNA issues. He also was the first editor of the *Recombinant DNA Technical Bulletin*.

Prior to becoming Associate Director for Program Planning and Evaluation, Dr. Goldberg was director, Division of Legislative Analysis. In 1983, he received the NIH Director's Award. □

NINCDS Honors Outstanding Summer Students

"You're the cream of the crop," Dr. Katherine L. Bick, NINCDS deputy director, told awardees at the Institute's annual Summer Student Awards ceremony Aug. 20.

"You have shown yourselves to be truly exceptional individuals. In fact, you are doubly exceptional—many hundreds of students apply for summer positions at NIH but only a few, the very best, are chosen. I only hope your work with the NINCDS has been as valuable to you as it has been to your coworkers!"

Valuable Experience

For medical student Jeffrey W. Scales, (see picture) a participant in the NIH Summer Research Fellowship Program who spent the summer working in the NINCDS Neuroimmunology Branch, the experience has been most valuable. One of several students presenting an overview of their experiences with the Institute, Mr. Scales explained, "My time here has definitely influenced my medical career. I know I will be more aware of new medical developments than I would have been had I not spent the summer working for the NINCDS. In fact, because of my experiences with the Institute, I am now considering going into research."

At a reception after the ceremony, NINCDS staff members and proud family and friends



Jeffrey Scales describes his summer research carried out in the NINCDS Neuroimmunology Branch.

of the award winners gathered to extend their congratulations.

Other students honored during the ceremonies were: Douglas Arthur, Celia J. Bassich, Thomas Caporale, Kimberly Frazier, Lisa M. Green, Trudy A. Kohout, Belinda A. Law, Peter Lawrence, Martin T. Liss, Lisa Y. Peters, Edward D. Smith, Michelle M. Tana, Brian S. Thompson, Christian C. Titlow, Wendy A. Weiger, and Lynn D. Wilson. □



The NIH-based Bethesda/Medical Chapter of the National Contract Management Association (NCMA) was recently presented a charter and its first elected officers installed by Daniel M. Jacobs, vice-president of the organization's Mid-Atlantic Region. Officers are (l to r): Douglas W. Frye (NHLBI), vice-president; Claire S. Marwick (DCG), president; Curtis D. Tate (DCG), director; installing officer Daniel M. Jacobs, vice-president of NMCA's Mid-Atlantic Region; Betty Nordan (NHLBI), treasurer; and Sharon A. Miller (NCI), secretary. The Bethesda/Medical Chapter, starting with 40 members, meets at lunchtime on each third Wednesday of the month at the NLM's Lister Hill Center. Programs include speakers, workshops, and member discussions. For further information, interested contracts and grants persons are invited to call vice-president Douglas W. Frye (NHLBI), 496-7334 or membership chairman Lewis S. Pollack (NIAID), 496-7116.

Israeli Scientist Begins Term as Fogarty Scholar

Dr. Alexander Levitski, professor of biochemistry and head of the department in the Institute of Life Sciences, Hebrew University, Jerusalem, Israel, arrived recently to begin his first term as a Fogarty International Center scholar-in residence.

He was educated in Jerusalem where he attended Hebrew University, graduating summa cum laude in 1963. Following his military service he returned to the university for his Ph.D. in biochemistry and biophysics, which he obtained in 1968, again summa cum laude.

After a postdoctoral fellowship with Prof. Daniel Koshland at the University of California, Berkeley, he returned to Israel to begin his career at the Weizmann Institute of Science. He moved to Hebrew University in 1973 and was appointed full professor in 1976 at the age of 36.

Prof. Levitski's early work was on protein-protein interactions. In recent years he has extended his work to studies of the biochemistry of receptors for hormones and neurotransmitters.

Dr. Levitski will be associated with the Laboratory of Molecular Biology, NCI, where he will collaborate with Dr. Ira Pastan. The FIC scholar will have an office in Bldg. 16, (496-1213). □

Camera Club to Meet

The R&W Camera Club will hold its next meeting on Tuesday, Oct. 9, in Bldg. 31, Conf. Rm. 4, at 7:30 p.m.

Jeff Baker, *Montgomery Journal* photographer, will judge the competition on "Photojournalism, Action, and Sports."

All NIH employees and members of their families are welcome.

For further information call Leroy Kerney, 496-3407, or Catherine Quigley, 496-3261. □

NINCDS Creates Two New Laboratories

The National Institute of Neurological and Communicative Disorders and Stroke has added two new laboratories to its intramural research program: the Laboratory of Neurobiology and the Laboratory of Experimental Neuropathology. Directing these new units are Drs. Thomas S. Reese and Henry deF. Webster, who had been section chiefs in NINCDS's Laboratory of Neuropathology and Neuroanatomical Sciences.

Dr. Reese oversees the Laboratory of Neurobiology, which contains two sections:

The Section on Structural Cell Biology has developed cryogenic techniques for stopping and examining cellular processes in an instant of time. These techniques make it possible to understand a variety of nervous system functions such as synaptic transmission, synaptic spine function, and axoplasmic transport.

The Section on Structural Plasticity studies the responses of the mammalian central nervous system to injury and regeneration by using the techniques developed in the structural cell biology section.

Dr. Webster directs the Laboratory of Experimental Neuropathology, which is divided into sections on cellular neuropathology and neurotoxicology.

Research in the Cellular Neuropathology Section centers on cellular mechanisms of myelin (nerve covering) formation, maintenance, and breakdown. Investigations directly related to human demyelinating (breakdown of nerve covering) diseases and virus-induced demyelination are special interests. The Neurotoxicology Section conducts basic research on how toxins (poisons) induce disease in the central and peripheral nervous systems.

The creation of the two new laboratories brings the total number of NINCDS Intramural Research Program units to 8 branches and 11 laboratories. □

Women Volunteers Needed For Menstrual Study

The National Institute of Child Health and Human Development is seeking women to participate in a study designed to test the effect of a new drug on hormonal control of the menstrual cycle. This drug, RU486, blocks the action of progesterone, a hormone that is important in regulating the menstrual cycle.

The object of the study is to determine what changes occur in the menstrual cycle when progesterone action is blocked. The drug may cause temporary irregularity in the menstrual cycle, but no other side effects are anticipated.

Candidates should be between the ages of 18 and 40, have regular menstrual cycles and use barrier contraception.

The study will extend over three menstrual cycles. During the first and third cycles, a blood sample will be drawn every 1 to 3 days. Volunteers will be admitted to the Clinical Center for two 24-hour periods for blood sampling. Some women will have daily ovarian ultrasound examinations for 5 days.

Pay will be at the standard NIH rate. Additional information can be obtained by submitting a request in writing to Dr. Lynnette Nieman, Bldg. 10, Rm. 10N262. □

Wm. Mills, Biological Technician, Retires After 37 Years at NIADDK

William H. Mills, biological laboratory technician with the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, retired from Federal service Aug. 3. He had spent the last 37 years working for the Institute.

He was primarily responsible for diet preparation and technical procedures with research animals, including germfree animal techniques. He worked in several different laboratories, wherever his talents were needed. His base of operations, however, was in Bldg. 4.

Dr. Jesse Roth, NIADDK scientific director, presented Mr. Mills with a gold watch from his many friends at a retirement party held in his honor in August.

After retirement he plans to work part-time for the Montgomery County School Board, and to catch up on work around the house.



Over the years, Mr. Mills had worked with Dr. William H. Sebrell, first NIADDK Director, and Dr. Floyd S. Doft, also an early Institute Director.

Fourth MARC Scholars Conference To Be Held by NIGMS, Oct. 1-3

The Minority Access to Research Careers (MARC) Program of the National Institute of General Medical Sciences is sponsoring the Fourth MARC Scholars Conference and program directors meeting to be held Oct. 1-3.

The sessions of the conference will be held in the National 4-H Center, Chevy Chase, Md. A science seminar, open to NIH staff, will be held Oct. 2 from 8:30 to 10:20 a.m. in the auditorium of the Lister Hill Center. The seminar will be followed by oral presentations by several MARC students and poster sessions from 48 MARC institutions.

The MARC program is administered by NIGMS in collaboration with other NIH Institutes. One program goal is to strengthen science curricula and research opportunities at institutions with substantial minority enrollments in order to prepare students for careers in biomedical research. Toward this end, the Institute offers MARC honors undergraduate research training grants for students in their third and fourth years of college. This is to prepare them to compete successfully for entry into graduate programs leading to Ph.D. degrees in the biomedical sciences.

The conference provides MARC honors undergraduate students in their senior year with a forum for discussing graduate education. It also gives them an opportunity to share their research experiences and hear presentations on biomedical research by NIH scientists.

The meeting will also give the directors of MARC programs at minority institutions an occasion to improve program planning and coordination of MARC honors undergraduate research training grants.

Among the speakers on the first day of the conference will be Dr. Michael Potter of the Laboratory of Genetics, National Cancer Institute.

Speakers at the Oct. 2 seminar will be Dr. Paul St. John of the Laboratory of Neurophysiology, National Institute of Neurological and Communicative Disorders and Stroke, and Dr. John Dement, health and safety manager of the National Institute of Environmental Health Sciences. Dr. St. John will discuss "Sorting Out the Nervous System," and Dr. Dement will speak on "Lung Cancer and Asbestos."

For additional information or to register, call Dolores Lowery, (301) 496-7941. □

NIH's Impact on Montgomery County Included in Biomedical Location Study

A biomedical industry corporate site selection study has recently been completed in Montgomery County by the Boyd Company of Princeton, N.J. The 6-month study which examined seven alternative U.S. metro areas, assesses the location potential of Montgomery County for selected segments of the growing biomedical industry.

These segments include: biotechnology research and development; pharmaceutical preparations; genetic engineering; biological products; surgical and medical instruments and apparatus; measuring and controlling instruments and devices; laboratory animal science; and undersea biomedical research.

Cost Analyses

The study included a series of interviews and field research sessions at NIH, and an overview of NIH operations and their impact on Montgomery County.

The 84-page document features comparative operating cost analyses of Montgomery County and the seven other metro areas now housing significant levels of biomedical industry operations. These include: Boston, Mass.; San Jose, Calif.; Minneapolis, Minn.; Houston, Tex.; Cleveland, Ohio; Tampa/St. Petersburg, Fla.; and the New Brunswick/Perth Amboy, N.J.

The analysis projects a least cost position for a Montgomery County location, with significant projected annual savings over the Boston and New Jersey areas which were ranked the next lowest for operating a hypothetical 150,000 sq. ft. biomedical research and product development facility.

Montgomery County's current biomedical



Montgomery County Executive Charles W. Glichrist (r) presents a copy of the Boyd report on biomedical industry locations to Calvin B. Baldwin, Jr., NIH Associate Director for Administration.

industry base includes such firms as: Microbiological Associates; Biotech Research; Litton Bionetics; Genex; Bethesda Research Laboratories; and the recently announced Otsuka Pharmaceuticals of Japan.

The Boyd biomedical industry study is available on a complimentary basis to NIH scientists and to interested biomedical firms. For more information, contact Duc H. Duong, assistant director, Montgomery County Office of Economic Development, 101 Montrose St., Suite 1500, Rockville, MD 20850; (301) 251-2345. □

Visiting Scientist Program Participants

Sponsored by Fogarty International Center

8/8 **Dr. Sven A. Rokaeus**, Sweden. Sponsor: Dr. Michael J. Brownstein, Laboratory of Cell Biology, NIMH, Bg. 36, Rm. 3A17.

8/16 **Dr. Cao Shi Xian**, China. Sponsor: Dr. Alan Schechter, Laboratory of Chemical Biology, NIADDK, Bg. 10, Rm. 9N307.

8/18 **Dr. Ioanis Parashos**, Greece. Sponsor: Dr. Markku Linnoila, Laboratory of Clinical Studies, NIAAA, Bg. 10, Rm. 3B23B.

8/20 **Dr. Hiroaki Hayashi**, Japan. Sponsor: Dr. Gilbert Jay, Laboratory of Molecular Virology, NCI, Bg. 41, Rm. 200.

8/20 **Dr. Camille Locht**, Belgium. Sponsor: Dr. Jerry Keith, Laboratory of Molecular Pathology, NIAID, Rocky Mountain Laboratory, Hamilton, MT.

8/20 **Dr. George Thomas**, India. Sponsor: Dr. Joram Piatigorsky, Laboratory of Molecular and Developmental Biology, NEI, Bg. 6, Rm. 201.

8/27 **Dr. Ella M. Perez**, Mexico. Sponsor: Dr. Harvey Pollard, Laboratory of Cell Biology and Genetics, NIADDK, Bg. 4, Rm. 312.

8/27 **Dr. Seetharam Saraswathy**, India. Sponsor: Dr. Lucy Anderson, Laboratory of Comparative Carcinogenesis, FCRF, Bg. 538, Rm. 205E.

8/27 **Dr. Anita Sidhu**, India. Sponsor: Dr. John Kebabian, Experimental Therapeutics Branch, NINCDS, Bg. 10, Rm. 5C103.

8/27 **Dr. Byung Ho Ryu**, Korea. Sponsor: Dr. Akio Sugino, Laboratory of Genetics, NIEHS, Research Triangle Park, N.C.

8/28 **Dr. Adolfo Amici**, Italy. Sponsor: Dr. Earl R. Stadtman, Laboratory of Biochemistry, NHLBI, Bg. 3, Rm. 222.

8/28 **Dr. Yang Yi-Ming**, China. Sponsor: Dr. Henry M. Fales, Laboratory of Chemistry, NHLBI, Bg. 10, Rm. 7N322.

8/29 **Dr. Andres Stutzin**, Chile. Sponsor: Dr. Harvey Pollard, Laboratory of Cell Biology and Genetics, NIADDK, Bg. 4, Rm. 312.

9/1 **Dr. Shoji Ando**, Japan. Sponsor: Dr. Irwin Chaiken, Laboratory of Chemical Biology, NIADDK, Bg. 10, Rm. 9N313.

9/1 **Dr. Josiane Bardakdjian**, France. Sponsor: Dr. Elliot Gershon, Biological Psychiatry Branch, NIMH, Bg. 10, Rm. 3N218.

9/1 **Dr. Paolo Barone**, Italy. Sponsor: Dr. Thomas N. Chase, Experimental Therapeutics Branch, NINCDS, Bg. 10, Rm. 5N222.

9/1 **Dr. Anders Bredberg**, Sweden. Sponsor: Dr. Kenneth Kraemer, Laboratory of Molecular Carcinogenesis, NCI, Bg. 37, Rm. 3E06.

9/1 **Dr. James Carmichael**, Scotland. Sponsor: Dr. Daniel C. Ihde, NCI, Naval Hospital, Bg. 1, Rm. 416.

9/1 **Dr. Takaaki Chou**, Japan. Sponsor: Dr. S. A. Rosenberg, Clinical Oncology Program, NCI, Bg. 10, Rm. 2B44.

9/1 **Dr. Mario Gorziglia**, Chile. Sponsor: Dr. Albert Z. Kapikian, Laboratory of Infectious Diseases, NIAID, Bg. 7, Rm. 103.

9/1 **Dr. Hiroyuki Hanai**, Japan. Sponsor: Dr. Bertram Sacktor, Laboratory of Molecular Aging, NIA, GRC, Baltimore, Md.

9/1 **Dr. Therese Jay-Nowaczyk**, France. Sponsor: Dr. Louis Sokoloff, Laboratory of Cerebral Metabolism, NIMH, Bg. 36, Rm. 1A27.

9/1 **Dr. Victor Jimenez**, Peru. Sponsor: Dr. Loretta Leive, Laboratory of Cell Biology and Genetics, NIADDK, Bg. 4, Rm. 111.

9/1 **Dr. Gil-Jong Kang**, Korea. Sponsor: Dr. David Cooney, Laboratory of Medicinal Chemistry and Biology, NCI, Bg. 37, Rm. 5B22.

9/1 **Dr. Kalja Linnalmaa**, Finland. Sponsor: Dr. Curtis Harris, Laboratory of Human Carcinogenesis, NCI, Bg. 37, Rm. 2C07.

9/1 **Dr. Hartmut Luddens**, W. Germany. Sponsor: Dr. Philip Skolnick, Laboratory of Bioorganic Chemistry, NIADDK, Bg. 4, Rm. 412.

Stella F. Schehl, NLM Principal Cataloger, Dies

The staff of the National Library of Medicine was deeply saddened by the death on Aug. 21 of Stella F. Schehl, 64, principal cataloger of NLM's Cataloging Section, after a short illness.

Mrs. Schehl was born in Providence, R.I., and earned her bachelor's degree in English from Goucher College in 1943 and her library science degree from Columbia University in 1946. Her 39-year career with NLM began when she joined the staff of the special shelving unit of the Army medical Library in 1945.

She held positions as cataloger, cataloging unit head, and catalog revisor in the Catalog Division. Since 1967 she had served as the principal cataloger in the Cataloging Section



Stella F. Schehl

of NLM's Technical Services Division, with editorial responsibility for the cataloging records published in the NLM Current Catalog and distributed in machine readable form to a variety of national data bases.

Mrs. Schehl received a number of awards and commendations for performance. In April 1984 she was awarded the NIH Merit Award for her contributions in sustaining the excellence of NLM's cataloging records which are used by health sciences professionals throughout the world.

SOB-DAS Will Sponsor Scientific Products Exhibit

The Supply Operations Branch, OD-DAS, is sponsoring a seminar/scientific products exhibit to be held at the Visitors Center mid-level and the Masur Auditorium in the Clinical Center on Oct. 17 and 18 from 9 a.m. to 4 p.m.

The program will be conducted by the Sybron Corporation, Rochester, N.Y., and their Laboratory Products Sales Group consisting of the Barnstead Company, Brinkmann Instruments, Nalge Company and Thermolyne Corporation. Latest products will be displayed and demonstrated as well as the technical seminars will be offered for investigative personnel.

Scientific personnel are invited to attend. □

High Doses of Recombinant Human Interferon Show Promise in Shrinking Skin Cancers

High doses of pure human interferon (made in the laboratory by recombinant techniques) have been found to be effective in patients with cutaneous T-cell lymphomas, scientists from the National Cancer Institute have reported.

Dr. Paul A. Bunn, Jr., and coworkers, speaking before members of the American Society of Clinical Oncology in Toronto, Ontario, presented their findings on 20 patients—all with advanced lymphomas of the skin. Nine of the patients improved dramatically when given high-dose intramuscular injections of recombinant leukocyte A interferon.

Advanced Stages

The patients in this study were men and women between the ages of 41 and 72, all of whom were diagnosed as having advanced stages of the disease.

"These patients had failed known standard therapies," the doctor said.

But when human interferon was prescribed three times a week, the skin sores and tumors began to shrink, usually within 1 month of the first treatment.

Although none of the patients' cancers completely disappeared, the doctor noted that about half experience a 50 percent response to the treatment. And, despite aggressive tendencies of the disease to spread to other parts of the body, these "partial responders" were found to have tumor regression lasting an average of more than 5 months, and in some cases, more than 22 months, he said.

Dr. Bunn noted that an additional 5 patients (18 percent) showed some improvement by the end of treatment, but did not meet the criteria for partial response. Six patients did not respond to the biological agent, Dr. Bunn said.

The dosages the doctors prescribed were 50 million units per square meter of body surface—the highest amount that the scientists found could be given safely.

"We found that the activity of human leukocyte A interferon was higher than that reported for any standard or experimentally tested agent in patients with advanced cutaneous (skin) T-cell lymphoma, including drug combinations, monoclonal antibodies, deoxycoformycin or retinoic acid," he said.

Dr. Bunn now believes pure human interferon should be tested on patients with earlier forms of the disease. For example, it might be useful either alone or in combination with other existing therapies.

In a related study, Dr. Kenneth A. Foon, head of NCI's Clinical Investigations Section

in Frederick, MD., reported that high concentrations of the recombinant leukocyte A interferon were also shown to be highly effective in patients with the so-called nodular non-Hodgkin's lymphomas, that affect the B cell rather than the T cell.

Dr. Foon's findings were made known at an educational session of the ASCO meeting.

He said the B-cell non-Hodgkin's patients appeared to be equally or even more responsive than patients with cutaneous T-cell lymphoma when identical amounts of interferon were given. Four of 24 patients (17 percent) responded completely, showing no evidence of their tumors 6-12 months after treatment.

"While these four patients are likely not cured, the outward manifestations of their disease have disappeared and that is certainly promising," Dr. Foon said.

Among the 24 patients, 9 (38 percent) showed partial responses, similar to the T-cell study. These "partial responders" were found to have tumor regression lasting up to 20 months. In addition, seven patients showed no response, or a minimum response, to interferon. In three patients, their cancers progressed. All these patients had been previously heavily treated with chemotherapy.

The findings do not necessarily mean that a cure or a means to prevent the disease will be forthcoming, the two scientists cautioned. The two studies are only in phase II clinical trials, an early stage of clinical research.

Side Effects

In both studies, the researchers said all patients experienced side effects from the interferon, including flu-like symptoms with fevers, severe weight loss, depression and general fatigue.

The two NCI physicians indicated that interferon's side effects are very different from other standard drug treatments for cancer. Chemotherapy can cause such side effects as bone marrow suppression, kidney and liver toxicity, hair loss and even later leukemias in some patients. The most profound side effects of interferon treatment appeared to be weakness, fatigue and fevers, but the patients seemed to adapt, the two physicians said.

Interferon, a protein with the capacity to interfere with viral infections, has generated tremendous interest over the past several years, since its discovery in 1957. Researchers believe its capacity to resist viruses in test studies with animals and humans may prove that it also can bolster human immune defenses against cancer. □

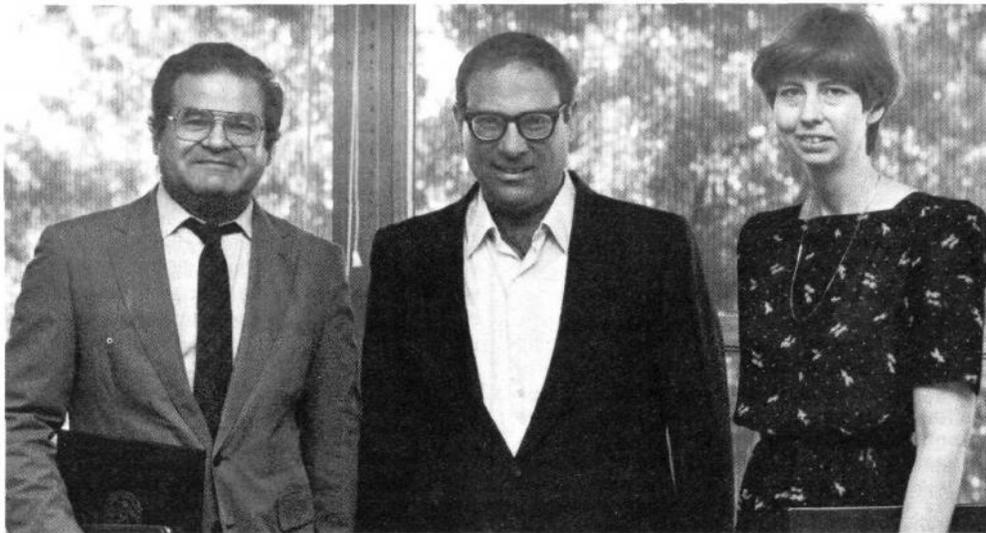
Register To Vote

Join with the R&W Association and the League of Women Voters and register to vote! Registration for residents of Montgomery and Prince George's County will take place from 11 a.m. to 2 p.m. on Thursday, Oct. 4, in the ACRF Bldg. (lobby area). Remember, you can't vote if you're not registered. □

Be Trim 'n Terrific

Trim 'n Terrific aerobic dance-exercise classes are being held on Mondays, Wednesdays, and Fridays, from noon to 12:45 in the gym, 14th floor auditorium, Clinical Center. Cost per session is \$2.25 on a "drop in" basis.

For more information call Judy Quintiere, 469-8738 or Christy Rourke, 983-8131. □



Dr. Warren Strober (l), head, Section on Mucosal Immunity, NIAID, and Dr. Dorothy Sogn, chief, Allergy and Clinical Immunology Branch, NIAID, received Commissioned Officer Outstanding Service Medals recently from Dr. Bernard Talbot, NIAID Acting Director. Dr. Strober was honored for research advances on the cellular immunity of the mucosal wall, particularly the gastrointestinal tract. Dr. Sogn was honored for her leadership in publicizing advances in allergy and immunology.

High School Science Teacher Gets Lab Experience Under NIEHS Fellowship; Students Will Benefit

As a high school science teacher, Susan B. Schmidt never knew how she would like taking part in actual research in the laboratory. She now has had an opportunity to try working in the lab, and has found an enthusiasm for it that she can share with her students, thanks to a fellowship funded by the American Society of Biological Chemists (ASBC).

A science teacher at Athens Drive Senior High School in Raleigh, N.C., Ms. Schmidt was 1 of 200 applicants for four fellowships offered by ASBC. Her sponsor for several weeks this summer was Dr. Carol M. Schiller, a research chemist in the Laboratory of Pharmacology at the National Institute of Environmental Health Sciences in Research Triangle Park.

Dr. Schiller, an ASBC member, is an expert on the toxicology of the intestinal tract and editor of a recently published reference work on the subject. Besides holding a doctorate in biochemistry and having years of research experience, Dr. Schiller is herself a former high school science teacher. She also recently completed a doctorate of jurisprudence at University of North Carolina, Chapel Hill.

Mentor Program

Now that Ms. Schmidt has worked firsthand with research scientists, she wants to make similar experiences available to students at her school who show a budding interest in science. Using background acquired in obtaining a graduate degree in guidance and counseling at North Carolina State University in Raleigh, she plans to set up a mentor program at her school. Students will spend part of their after-school hours in a professional research laboratory under the supervision of a scientist who will act as their mentor.

Ms. Schmidt says some of the students might be on the academic "fast track," head-



Ms. Schmidt (r), a high school science teacher in Raleigh, N.C., spent this past summer working in the NIEHS Laboratory of Pharmacology under the sponsorship of Dr. Schiller.

ing toward college, graduate school, and beyond. But she also feels that it would benefit other students who could qualify through postsecondary training for supporting professional roles in the lab such as laboratory assistants or technicians.

"It's a shame to have people prepare for years for a career, only to discover once they get job experience that they don't like that career at all," Ms. Schmidt said. "The mentor program will allow them to see firsthand what it is like in the laboratory, and if they like it, will strengthen their interest in acquiring the further education that they will need."

Each of the academic organizations sponsoring an ASBC fellow received a stipend to cover the expenses of hosting a fellow.

Dr. Schiller has encouraged the ASBC to contribute funding to help initiate the mentor program at Athens Drive High School. □

Dr. Emilie A. Black Retires After 16 Years at NIGMS

Dr. Emilie A. Black, assistant director for clinical research, National Institute of General Medical Sciences, is retiring this month after 16 years with the Institute.

Dr. Ruth L. Kirschstein, NIGMS Director, said: "She has been an effective liaison with the trauma and burn research community and an excellent spokesperson and grants administrator in that area."

Dr. Black joined the Institute in 1968 as a program administrator with responsibility for clinical sciences in what was then the Research Grants Branch. In 1973, she became assistant chief for clinical programs of that branch.

In 1975, she assumed the position of deputy director of the Clinical and Physiological Sciences Program, and in 1976 she became program director. In 1978, she was appointed to the position she has held until her retirement.

Artificial Skin

Some of the major NIGMS-supported achievements made in the field of trauma and burn research during Dr. Black's tenure have been the development of an artificial skin and improved understanding of metabolic disturbances caused by traumatic injury. She has also been instrumental in encouraging multidisciplinary approaches to trauma and burn research and care. As a result of these advances, survival among the victims of burns and other forms of trauma has increased significantly.

She was also responsible for planning and coordinating many international meetings on trauma and burn research, the latest being a conference on "Frontiers in Understanding Burn Injury" held in September 1983.

Dr. Black remarks: that, "I have been fortunate enough to have had two different and wonderful careers." For 17 years before she began working at NIGMS, she had a private practice in pediatrics; it might have been a lifetime venture, but she became ill and had to give up this career.

During that time, she also served as a medical officer in the Montgomery County Health Department, a physician for Beauvoir Elementary School, and an associate staff member of Children's Hospital National Medical Center. For the past 34 years, she has been a clinical instructor in pediatrics at George Washington University School of Medicine.

Among the many awards Dr. Black has received are the Harvey Stuart Allen Distinguished Service Award of the American Burn Association, given in May 1982. In June, she received the NIH Director's Award "for exceptional efforts as an invaluable facilitator for the transfer of research knowledge to clinical settings, particularly in the areas of trauma, burn, and anesthesiology."

She has received special recognition from a number of medical societies. She is the first nonsurgeon fellow of the American Association for the Surgery of Trauma, as well as being an honorary member of the American Burn Association and a founding member of the American Trauma Society. She also belongs to the International Society for Burn Injuries. □

NEW INSIGHT

(Continued from Page 1)

progress that has been made in identifying some of the mechanisms that contribute to the clinical symptoms of asthma.

Asthma and Allergies

In asthmatics who have allergies, an attack is triggered by an allergic reaction. In the classic allergic reaction, a person first becomes sensitized to a certain substance; when that substance is again encountered, it binds to specific antibodies made against it by the body's immune system. These antibodies sit on the surface of mast cells, tissue cells primarily found in the linings of the respiratory and gastrointestinal tracts and in the skin. When the allergen binds to the antibody, it signals the mast cells to degranulate, that is, to release their packets of irritating chemicals that cause the familiar allergic reactions.

Sensitive tests developed by Dr. Kaliner's laboratory have enabled them to study the relationship between mast cell degranulation and the symptoms of asthma: tightening of smooth muscles around the airways, swelling and inflammation of the airway membranes, and excessive mucus production.

In addition to the allergic reaction, Dr. Kaliner has identified a number of other airway mucus-producing agents including the neurohormone norepinephrine, the neurotransmitter acetylcholine, prostaglandins (substances derived from the fatty acids present in all cell membranes), and anti-inflammatory agents such as aspirin.

He has also shown that several drugs known to act specifically against these agents will reduce airway mucus secretion *in vitro* (in lab tests). However, the two that seem to be most useful in patients are atropine—which blocks the receptors for acetylcholine—and steroids. Knowledge that these agents play a role in this symptom of asthma has thus provided physicians with a rational approach to the treatment of this disease.

Oncogenes and Cancer

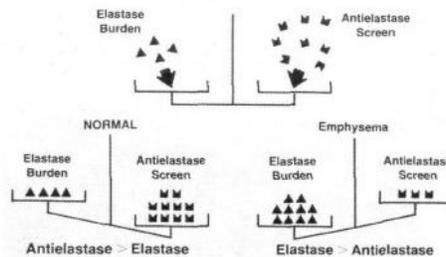
Dr. Curtis Harris, chief, Laboratory of Human Carcinogenesis, NCI, reported on the role of oncogenes in the development of cancer. Oncogenes are cellular genes that have a normal function in some cells at some times. However, the proteins produced under the regulation of these genes can transform tissue culture cells so that they will grow indefinitely and produce tumors when injected into animals.

Cell lines of fibroblasts—connective tissue cells—have been used in much of the work aimed at identifying the major differences between normal and cancerous cells. However, the majority of human cancers are carcinomas, derived from epithelial cells that cover the internal and external surfaces of the body.

Since epithelial cells develop specialized functions and cease to divide whereas fibroblasts generally do not, Dr. Harris felt it more appropriate to use epithelial cells to evaluate the role of differentiation in growth control and carcinogenesis.

Therefore, Dr. Harris and his coworkers decided to use normal human bronchial epithelial

ELASTASE-ANTI-ELASTASE THEORY OF DESTRUCTIVE LUNG DISEASE



The current theory of emphysema holds that the lungs' air sacs are destroyed when there is an unfavorable imbalance between the burden of elastase (an enzyme that degrades proteins in the air sacs' walls) and an antielastase protective screen supplied by the protein alpha-1 antitrypsin (AAT). People with an inherited deficiency of AAT in their lungs develop a chronic, usually fatal form of emphysema. This contrasts with normal individuals who have an abundance of AAT to protect their air sacs.

lial (NHBE) cells in their oncogene studies. To do this, they first developed techniques to grow NHBE cells in tissue culture. Their next task was to be able to put the oncogene into these cells since the traditional method employed with mouse cells could not be used.

Dr. George Yoakum and others in the group developed a new method called protoplast fusion. Through recombinant DNA technology, they inserted oncogenes into *E. coli* bacteria. They then stripped off the bacteria's cell walls, leaving protoplasts—cells with their plasma membranes still intact. These were then mixed with NHBE cells and centrifuged. Under proper conditions, the membranes of the cells and the protoplasts fuse together and the protoplasts' contents—in this case, the oncogenes—become integrated into the NHBE cells' DNA.

Using this technique, they have been able to isolate HBE cells into which one member of the *ras* oncogene family—Harvey *ras*—was integrated. These cells have become immortal, (continuing to divide indefinitely) and have an abnormal number of chromosomes. These cells form malignant tumors when transplanted into an athymic nude mouse that has an inherited immune deficiency.

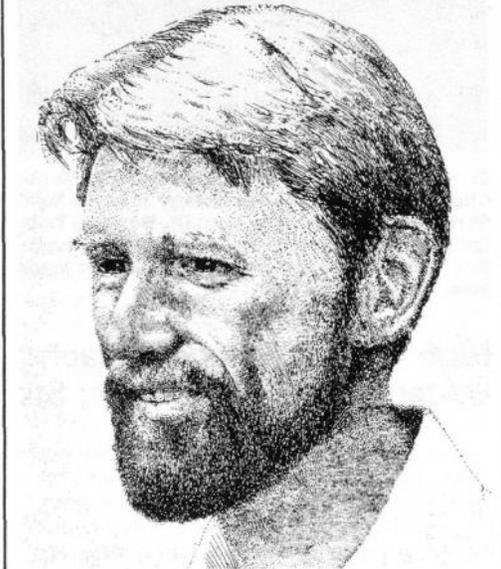
These and other results suggest that the H-ras oncogene can malignantly transform cells found in the human lung. Dr. Harris feels that these studies bridge the gap between animal experiments and the clinical situation. In time, such studies may enable us to understand the mechanisms of cancer causation and provide new strategies for preventing cancer. □

Stop Smoking Program

The Employee Counseling Services of the Occupational Medical Service will offer its Stop Smoking Program beginning Wednesday, Oct. 10. The program, designed to help people quit smoking gradually, lasts for 6 weeks and will meet on Wednesdays from noon to 1 p.m., in Bldg. 31, Rm. B2B57. For further information, call Morris Schapiro, 496-3164. □

DRS Veterinary Section Chief Dr. David K. Johnson Retires

Dr. David K. Johnson, chief of the veterinary medicine and surgery section of the Veterinary Resources Branch (VRB), Division of Research Services, since 1971, has retired from active duty in the PHS Commissioned Corps. He has accepted a position with Wyeth Laboratories, Philadelphia, where he will be in charge of their laboratory animal operations in support of pharmaceutical research and toxicology studies.



Dr. Johnson's colleagues in the Veterinary Resources Branch included a drawing of him by Al Laoang (MAPB artist) among the mementos he received at his retirement party.

Dr. Johnson came to NIH from the U.S. Air Force, where he served as a veterinary medical officer in biological and biophysical evaluations of new technologies for the space program. From 1968 to 1971 he was chief of the clinical laboratory branch of the veterinary sciences division at Brooks Air Force Base, San Antonio, where he had also served his residency in laboratory animal medicine.

At NIH, Dr. Johnson played a key role in expanding and developing the VRB veterinary medicine and surgery section. Its three units—primate research, comparative medicine, and surgery—not only provide NIH researchers with veterinary support but are often involved in collaborative research with them.

He was also deeply involved in activities of the Interagency Research Animal Committee regarding chimpanzees, an irreplaceable but threatened biomedical research resource. He coordinated the development of a national chimpanzee management program and was project officer for the chimpanzee resocialization and breeding program at the University of Texas, Bastrop.

Dr. Johnson received his D.V.M. in 1963 from Michigan State University, and his M.S. in laboratory animal medicine in 1968 from Texas A&M University. During his Federal service he received both the USAF Commendation Medal and the USPHS Commendation Medal. □

Use of Cytotoxic Drugs Prevents Kidney Failure In Patients with Lupus-Related Nephritis

New evidence that cytotoxic (cell-killing) drug therapy effectively prevents progressive failure of the kidneys in patients with lupus nephritis was presented in the Aug. 23, 1984, issue of the *New England Journal of Medicine*.

Results of a long-term, prospective therapeutic trial of conventional and experimental drug regimens were reported by Dr. James E. Balow and his colleagues at the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases and associates at the National Cancer Institute and the Armed Forces Institute of Pathology.

Lupus nephritis, a serious, slowly progressive kidney disease, is a potentially fatal complication of lupus (systemic lupus erythematosus), a chronic inflammatory disease of the connective tissue that affects 500,000 Americans, primarily young women.

Scientists have thought that an improved survival rate for these patients was due in part to improved treatments with steroids and with cytotoxic drugs which suppress the autoimmune (abnormal immune response) component of the disease.

However, proof that such drugs prevented progression of lupus nephritis has been lacking. So has conclusive evidence that the cytotoxic drugs azathioprine and cyclophosphamide are more effective than conventional steroid therapy.

"The central issue in the study was whether or not the analyses of kidney biopsies could provide evidence for the value of newer treatments of lupus kidney disease," said Dr. Balow. "We found the weight of evidence compelling."

The extensive trial conducted by Dr. Balow and his associates involved 62 patients with lupus nephritis. Each patient was assigned at random to one of five different groups to receive various treatments consisting of either high doses of the steroid prednisone (cortisone) or one (or both) of the cytotoxic drugs azathioprine or cyclophosphamide.

The patients underwent renal biopsies (removal of tissue from the kidney) at the beginning of the study and again after participating in the study for 2 or more years. When these tissue samples were analyzed, the scientists found that the kidney disease of patients treated with cytotoxic drugs had not progressed, as had the conditions of patients on conventional high-dose prednisone.

Nursing Department Chief Rena M. Murtha Receives Honor

Rena M. Murtha, associate director for nursing and chief of the CC Nursing Department, has been honored by the Nursing Education Alumni Association of the Teachers College, Columbia University.

She was presented the Achievement Award in Nursing Services Administration at the American Nurses Association's convention in New Orleans recently.

Ms. Murtha was praised in the official citation for "the quality of combining her organizational skill and political acumen with a keen sense of humor and the ability to stimulate the best in those with whom she works." □

According to the investigators, both prednisone and cytotoxic agents help reduce the likelihood of kidney failure in patients with lupus nephritis. The researchers conclude, however, that patients treated with cytotoxic drugs face a significantly reduced risk of progressive kidney damage compared to patients treated only with steroids.

"What we have seen is that morphological changes precede the functional deterioration of the kidneys," Dr. Balow said. "Preliminary analyses of the rate of development of renal failure in these patients is beginning to provide strong support for the conclusions reached in the study."

The authors of the study are Dr. Balow and Dr. Howard A. Austin III, Clinical Nephrology Service, NIADDK; Drs. John H. Klippel, Alfred D. Steinberg, and Paul H. Plotz, Arthritis and Rheumatism Branch, NIADDK; Dr. John L. Decker, Clinical Center, NIH; Dr. Larry R. Muenz, National Cancer Institute, NIH; Kathleen M. Joyce, B.S.N., Clinical Center Nursing Department, NIH; and Tatiana T. Antonovych, Armed Forces Institute of Pathology.—**James Fordham** □

NIAID's Dr. J. Ferguson Renamed to Howard Faculty

Dr. James A. Ferguson of the National Institute of Allergy and Infectious Diseases has been reappointed associate professor of epidemiology and biostatistics in the department of community medicine and family practice of the Howard University College of Medicine, Washington, D.C., through NIH's Visiting Professor Program.

Dr. Ferguson teaches the core biostatistics course and an elective course entitled, "Epidemiologic Research Methods" in the College's Master of Science in Public Health (MSPH) Program.

This program is designed to offer new and varied public health courses in which professionals will be educated for leadership roles in teaching, research, and services for minority and disadvantaged populations throughout the world.

Dr. Ferguson devotes 1 day a week to the university. The balance of his time is spent at NIAID where he is executive secretary for special reviews in the Institute's Extramural Activities Program.

In addition to teaching, he is a consultant to the faculty of the Division of Graduate Education, provides guidance to students in developing their required thesis projects, and evaluates the statistical components of these projects.

He is also a visiting lecturer in the university's College of Allied Health Sciences. □

Credit Union in Bldg. 13 Now Open for Business

The NIH Federal Credit Union is now offering services in Bldg. 13, Rm. G908. Hours are 7:30 a.m. until 12:30 p.m., Monday through Friday. □

Dr. Leslye Johnson Named Hepatitis Program Officer



Dr. Johnson will be working towards the prevention and control of viral hepatitis.

Dr. Leslye D. Johnson has recently been appointed hepatitis program officer in the Development and Applications Branch of NIAID's Microbiology and Infectious Diseases Program. She will be responsible for developing, coordinating, and administering the hepatitis program, the goal of which is to develop and evaluate methods for the prevention and control of viral hepatitis and its consequences.

After completing her undergraduate studies at Alma College in Alma, Mich., she came to the University of Maryland at College Park as a graduate student and teaching assistant in chemistry and biochemistry. There she earned M.S. and Ph.D. degrees in chemistry and biochemistry respectively and began her association with the National Institutes of Health.

Dr. Johnson was a chemist with the National Institute of Neurological Disorders and Stroke from 1971 to 1979. She was a staff fellow with the National Cancer Institute in 1979 and again from 1981 to 1984—first with the Laboratory of Tumor Virus Genetics (LTVG) and then with the Dermatology Branch. Between these staff fellow positions, she was also with the LTVG as a fellow of the Leukemia Society of America.

Her research interests include virology, viral persistence, host-virus interactions, developmental biology, gene regulation, genetic diseases, molecular biology, nucleic acids and their enzymology, and biochemistry. □

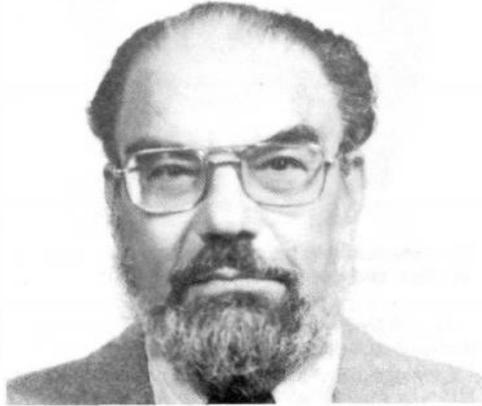
Beginner's Course in Taekwondo Offered by NIH R&W Club

The NIH R&W Taekwondo Club ("karate") is offering a beginner's course on Monday evenings, from 8 to 9 p.m., at the Stone Ridge School (in the old gym) beginning Oct. 1. It will be conducted over a period of 12 weeks, and leads to the gold-belt promotion exam.

The registration fee is \$35. R&W membership is necessary. For further information call Don Murphy, 496-7455 or Becky Pruss, 496-1646. □

Dr. Murray Eden, BEIG Chief, Receives Centennial Medal

Dr. Murray Eden, chief of the Biomedical Engineering and Instrumentation Branch (BEIB), Division of Research Services, was awarded the Centennial Medal of the Institute of Electrical and Electronics Engineers (IEEE) Sept. 16. The award was made at the 1984 annual conference of the Engineering in Medicine and Biology Society (EMBS—a component of IEEE) in Los Angeles.



Dr. Eden

The onetime award, part of the 100th anniversary of IEEE, was presented to selected members.

Dr. Eden was honored for outstanding contributions to the EMBS and to biomedical engineering.

He came to NIH as chief of BEIB in 1976 from Massachusetts Institute of Technology, where he was professor of electrical engineering and had specialized in image processing and pattern recognition. Under his leadership BEIB has greatly developed its collaborative research with intramural investigators in many areas such as nuclear magnetic resonance (NMR) imaging, positron emission tomography (PET), electron beam imaging and microspectroscopy, fiber optic probes for pH and oxygen and laser Doppler velocimetry for noninvasive blood perfusion measurement. □

Baltimore-NIH Van Pool Has Opening for Riders

A van pool that operates between Baltimore and NIH has openings for riders. The van leaves a park-and-ride lot near the Baltimore Beltway and Route 40 West each day at 7 a.m. It makes the return trip around 5:10 p.m.

The van pool can accommodate riders who work at the main campus as well as outlying NIH buildings, the Naval Medical Center, and downtown Bethesda.

Shirley Gregg has more information at 496-4506. □

Volunteers Wanted for Brain Study

Healthy, male volunteers between the ages of 40-75 are needed for a study on brain functioning. All volunteers will be paid for their participation. If interested call Dr. Johnson at 496-5353, between 2 and 4 p.m., Monday through Friday. □

DEDICATION

(Continued from Page 1)



Dr. Brandt, Dr. DeVita, Mr. Baker, and House Speaker O'Neill were among the distinguished guests who attended the dedication of the Mary Woodard Lasker Center for Health Research and Education.

into Public Law by President Ronald Reagan May 24, 1984, officially designating the former Convent property the Mary Woodard Lasker Center for Health Research and Education.

In 1942, Mrs. Lasker and her husband Albert, a pioneer of modern advertising in this country, established the Albert and Mary Lasker Foundation, of which she is president. Since 1944, the Albert Lasker Medical Research Awards have been given annually to honor and recognize individual physicians and scientists for outstanding achievements in the fields of basic and clinical medical research and public health service. Thirty-seven Lasker Award winners later have won Nobel Prizes.

As a private citizen who has received numerous honors and awards including the Medal of Freedom and the French Legion of Honor, Mrs. Lasker for more than 40 years has urged Federal, state, and city governments to appropriate increased funds for medical research directed toward understanding and treating the major crippling and killing diseases of mankind.

The former Convent, now the Mary Lasker Center, will soon be the center for the Howard Hughes Medical Institute (HHMI). NIH and HHMI are launching a multi-million dollar cooperative program (\$10.5 million for the first 5 years) to help increase the vigor of American biomedical research and to continue the flow of new doctors into research careers.

The new program will offer approximately 30 medical students each year 6 months to 1 year of research training on the NIH campus under guidance of leading NIH scientists. Recruitment is beginning this fall with the first group of students entering the program in the fall of 1985.

A new wing of similar design will be added to the former Convent to house the HHMI research scholars. NIH acquired the land and Convent buildings in 1983 for \$4.5 million. □

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