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Dr. John Decker Named Clinical Center Director



Dr. Decker

Dr. John L. Decker has been named Clinical Center Director, effective Aug. 1, Dr. James B. Wyngaarden, NIH Director, has announced.

Dr. Decker, an internationally recognized expert in rheumatic diseases, has been chief of the Arthritis and Rheumatism Branch, NIADDK, since 1965. His research interests have centered on nephritis in systemic lupus erythematosus and on the control of rheumatoid arthritis.

The efforts of his branch have involved assessing cytotoxic drugs and in prevention of progressively declining kidney function in lupus patients. Dr. Decker's studies have also concentrated on gout, particularly uric acid excess and retention.

In 1976, Dr. Decker was appointed clinical director of the NIADDK and served in that capacity until 1980.

As Clinical Center director, he will be responsible for overseeing the medical care of more than 100,000 inpatients and outpatients each year as well as for providing an optimal research environment for institute investigators.

"The magnificent past accomplishments of this institution, both in service and research, constitute an exciting challenge for the immediate future, a future which I greet with enthusiasm," said Dr. Decker.

Dr. Decker was born in Brooklyn, N.Y. but grew up in China as the son of missionary parents. Returning to this country for his education, he received an M.D. degree from

(See DR. DECKER, Page 4)

PET Imaging Gives Scientists Direct Look At Live Human Brain in Biochemical Action

(This is the first of two articles on new findings about human brain functions arrived at through the use of positron emission tomography (PET), a new technology for directly observing the living brain.)

New metabolic brain-imaging technology known as positron emission tomography (PET) is extending knowledge about how the normal brain functions, as well as yielding new ideas about such disorders as epilepsy, stroke, schizophrenia, and Alzheimer's disease, according to research results presented recently at NIH.

The presentations were part of an international scientific conference, "Research Issues in Positron Emission Tomography," sponsored by the National Institute of Neurological and Communicative Disorders and Stroke.

NINCDS, an early champion of PET tech-

nology, is the focal point at NIH for the application of this new method of brain research. The Institute's research program supports 10 PET research centers in the U.S.

"PET has provided us with an entirely new way of looking at the brain," said Dr. Alfred P. Wolf of the Brookhaven National Laboratory, who chaired the first session.

PET is the first method that allows scientists to study the working brain in live humans at various times and under different circumstances. Unlike computed tomography (CT) scanners which show the shape and anatomy of the brain, PET reveals the biochemical changes taking place as the living brain goes about its continuous business of interacting with the world around it.

How PET Works

One principle underlying the new technology's operation is the use of a glucose-like chemical called deoxyglucose to measure brain activity, according to Dr. Louis Sokoloff, imaging pioneer at the National Institute of Mental Health. The object is to measure how fast the brain metabolizes glucose.

Glucose itself is broken down and leaves the brain cells quickly. So Dr. Sokoloff explored the use of deoxyglucose, which is taken up by brain cells as though it were glucose, but does not break down rapidly and so stays in the cells.

When deoxyglucose bearing a radioactive isotope is given to a research subject, the amounts of radioactivity in various regions of the brain at specific times is a measure of how much glucose each region has taken up, and therefore the metabolic activity of that region.

The advantage of this technique, Dr. Sokoloff pointed out, is that an investigator "can survey the brain in a conscious, unanesthetized animal performing a defined task."

In his early animal studies of brain metabolism, Dr. Sokoloff used deoxyglucose labeled with radioactive carbon, and had to remove the brain after each experiment to determine how much deoxyglucose was taken up in various regions.

With PET, on the other hand, the deoxyglucose is labeled with a positron-emitting isotope (18-fluorine) and the uptake of the radioactive compound can be measured with special detectors in the alive, awake subject.

It was this advance that enabled scientists

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Secretary Heckler Salutes NIH



HHS Secretary Margaret M. Heckler addressed a full house of NIH employees assembled in the Clinical Center's Masur Auditorium July 19, citing NIH for the social benefits of its scientific research.

During her day-long visit to NIH, the Secretary toured the National Cancer Institute's Surgery Branch in the ACRF and the National Library of Medicine, and met with BID Directors, NIH Deputy Directors, and Associate Directors.

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The NIH Record

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Training Tips

The following courses, sponsored by the Division of Personnel Management, are given in Bldg. 31.

	Course Starts	Deadline
DELPRO *(Delegated Procurement)	8/8 9/26	7/25 9/12
<i>Executive, Management and Supervisory</i>		
Managing Performance Feedback	8/15	7/29
The Federal Budget Process	9/13	8/26
Effective Communications	9/27	8/16
*For new DELPRO users only		

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

FAES Concerts Announced

The Foundation for Advanced Education in the Sciences will present eight concerts in its 1983-84 Chamber Music Series.

The concerts and dates are: Bach Aria Group, Oct. 9; Antonio Meneses, Cello, Oct. 30; Orlando String Quartet, Nov. 12; Dorian Wind Players, Dec. 4; Yuzuko Horigome, Violin, Jan. 22; Nikita Magaloff, Piano, Feb. 13; Zoltan Kocsis, Piano, Mar. 18; Ewa Podles, Mezzo Soprano, Apr. 15.

All the concerts will be held on Sunday at the Masur Auditorium at 4 p.m. except the Nov. 12 concert which will be held at 3 p.m. on Saturday.

Tickets are sold by subscription only and cost \$64 for the season.

For further information, contact the Foundation for Advanced Education in the Sciences, Bldg. 10, Rm. 2C207A, 496-7976. □



The NIH R&W Toastmasters Club 3421, judged best club in the Washington Metropolitan area in 1982, installed new officers last month. The new officers, who will serve from July 1 to Dec. 31 are (l to r): Julie Guroff, bulletin editor; Helen Kodman, sergeant-at-arms; Betty Pierce, treasurer; Neal Meyerson, secretary; Len Jakubczak, area governor; Henrietta Hyatt, president; Loren Ziller, past president; Gil Wright, educational vice-president; and Diane Rose, administrative vice president. The Toastmasters Club's goal is improving communication skills in a friendly, supportive environment. Meetings are held every Friday at noon, in Bldg. 31, Rm. B2C05.

NINCDS Ceremony Honors Employee Award Winners

Thirteen NINCDS scientists and 39 outstanding support staff received honor or cash awards at the Institute's annual awards ceremony June 21 in Wilson Hall. Forty-one length-of-service awards were also presented at the ceremony.

Noting the occasion as "a once-a-year opportunity to publicly acknowledge and reward excellence," NINCDS Director Dr. Murray Goldstein announced that the Public Health Service Superior Service Award had been presented to Dr. Paul Kornblith and PHS Special Recognition Awards to Drs. Rodney A. Brooks, Giovanni DiChiro, and Victor J. Sank at an HHS ceremony earlier this year. All recipients are from the NINCDS Surgical Neurology Branch.

Dr. Goldstein also announced the presentation earlier this year of the Harvey J. Bullock, Jr. Award for EEO Achievement and the NINCDS EEO Award to George Duvall, NINCDS Intramural Program; the NINCDS EEO Award to Fannie Alexander, Developmental Neurology Branch; and PHS Commendation Medals to Dr. Richard C. Henneberry, Laboratory of Molecular Biology, and Dr. Gerald E. Leob, Laboratory of Neural Control.

NIH Merit Awards were presented to Dr. W. Watson Alberts, Neurological Disorders Program; Mary Ann Bragg, Intramural Research Program; Edward M. Donohue, Extramural Activities Program; and Dr. Zekin Shkhashiri, Office of Planning and Analysis.

Receiving Length of Service Awards were:
40-year award: Vernita Bergmeyer.

30-year award: M. Arthur Banks, Mary K. Burns, Edith W. Messitte, Willie Perkins, Joseph M. Ricketts, Lillian L. Wease, and Alexander B. Wheaton.



EEO award winners Fannie Alexander (l) and George Duvall (r), shown here with NINCDS Director Murray Goldstein, were among those honored at the NINCDS annual awards ceremony.

20-year award: Jean S. Batchelder, George M. Dold, Dr. Joseph S. Drage, Dr. Elizabeth G. Freese, Dr. Ernst Freese, Charlotte A. Jackson, Thelma Koerber, Phyllis E. McMullen, Margaret A. Meadows, Dr. Alfred F. Naylor, Agnes E. Reday, and Catherine D. Wildman.

10-year award: Dr. W. Watson Alberts, King P. Bond, Jr., Dr. Rodney A. Brooks, Corrine A. Crawford, Betty A. Doolittle, Mary B. Fitzpatrick, Michael J. Frye, Dr. Ralph M. Garruto, Otto Gutenson, Cynthia J. Jaworski, Andrea M. Keyes, Mary S. Kontner, Dr. Ernest J. Moore, Sally P. Morris, Dr. Eugene J. Oliver, Steven G. Ono, James D. Pomeroy, Edward M. Schmidt, Pearl J. Selby, Patricia J. Stephenson, and Myrtle M. Sullivan. □

First AAFA Poster Child, Lanny Powell, Visits NIH

Lanny Powell, the First National Poster Child selected by the Asthma and Allergy Foundation of America (AAFA), visited NIH July 15 as part of his nationwide tour to publicize the plight of millions of children suffering from asthma and other allergic diseases. Since birth, Lanny has had asthma, eczema and severe allergic rhinitis, now controlled with treatment.

The National Institute of Allergy and Infectious Diseases has for many years collaborated with the Foundation in cosponsoring workshops and seminars on allergic and immunologic diseases and in developing patient education materials.

Lanny's selection as the National Poster Child, and the naming of six regional poster children, will help to increase the Nation's awareness of the seriousness of allergic diseases and the vital need for continuing research.

While at NIH, Lanny and Professor Sunshine (Donnie Schaller)—a clown who works with AAFA's Cumberland, Md. chapter—were taken to one of the Clinical Center's pediatric wards by Dr. Richard M. Krause, NIAID Director.

There they were met by Drs. Michael Frank, NIAID's clinical director and Michael Kaliner, chief of the Institute's Asthma and Allergic Disease Center at NIH. Lanny visited briefly with patients, and with the help of Professor Sunshine, distributed colorful balloons.

Lanny was accompanied to Washington by his parents, Mr. and Mrs. Michael Powell, and his sister Darla, of Greenville, S.C. He was escorted on his whirlwind, 5-day tour of Washington by Barbara Layman, president of the AAFA, other officers of the Foundation, and Professor Sunshine. Besides NIH, they visited other hospitals in the area, the White House, Capitol Hill, and the National



Lanny Powell (c), the first AAFA Poster Child who suffers from asthma and other allergic diseases, met Drs. James B. Wyngaarden, NIH Director (l), Krause, NIAID Director (r), and Claude Lenfant, NHLBI Director (not shown), during his visit to NIH. Summing up his trip as "very exciting," Lanny said he "would love to come back for another visit, especially to the National Zoo."

Zoo.

Lanny said that the highlight of the trip for himself and for his family was meeting President Reagan in the Oval Office of the White House. He thought that the President looked "younger and was taller" than he expected, and that "he was easy to talk to."

In an exchange of gifts, Lanny was given a large box of jelly beans and in return presented the president with a Foundation T-shirt—with an extra one for Mrs. Reagan—as well as an immunoglobulin molecule tie (IgE) representing the allergy molecule. □

Vasectomy Not Linked With Atherosclerosis in Men

In contrast to the results of earlier research in monkeys, a new study has found no relationship between vasectomy and atherosclerosis in men. Atherosclerosis—a form of hardening of the arteries—can lead to heart attack if it affects the coronary arteries which supply the heart muscle with blood.

More than 7,000 men took part in the new project, which was supported by the National Institute of Child Health and Human Development. All of the men had undergone x-rays of the blood vessels, or angiography, to measure atherosclerosis in their coronary arteries. Five percent, or 370 of the men, had vasectomies.

The researchers compared the extent of disease in the men with and without vasectomies. "Our results provide no evidence for any association between atherosclerosis and vasectomy in men," according to Dr. Alfred Rimm, who headed the study at the Medical College of Wisconsin in Milwaukee.

Dr. Rimm added that the study generally supports other research in humans that found no increased risk of heart attack in men with vasectomies.

An estimated 10 million men in the U.S.

have had vasectomies. Following vasectomy, men continue to produce sperm, which their bodies absorb. In more than half of all men who have had vasectomies, the body produces antibodies to the sperm.

Several years ago, some research suggested that these antibodies—which circulate in the bloodstream—speed up the development of atherosclerosis in vasectomized monkeys.

Coronary Arteries Examined

In the Milwaukee study, the researchers looked at the degree of atherosclerosis in the coronary arteries of 7,420 men. The patients were enrolled in the Milwaukee Cardiovascular Data Registry, a computer system that keeps track of people who have undergone angiography for symptoms of heart disease.

"If vasectomy accelerated the blocking of coronary arteries, then the men with vasectomies would have more extensive coronary artery disease than the nonvasectomized men," according to Dr. Rimm.

"The results show, however, that the vasectomized men do not have a higher degree of coronary artery blockage," he

Commercial Vending Prohibited During Official Work Hours

The Recruitment and Employee Benefits Branch, Division of Personnel Management, has received complaints from employees who have been contacted at the worksite by insurance or investments salesmen.

The DPM reminds employees that Federal Management Regulations state that "commercial vending on Government Services Administration-controlled property is prohibited." Employees wishing to meet with these representatives may do so before or after their official duty hours or in the cafeteria or snack areas during their official lunch break.

Employees are asked to notify the NIH Guard Office if agents attempt to conduct business contrary to these restrictions. The Guard Office will take appropriate action to remove the agents. □

Air Quality Index Article Available

What do you do when a health advisory or pollution alert is announced?

An article that answers this question and explains the new standardized "Pollution Standards Index" (Air Quality Index) is now available to NIH employees.

The article from the Metropolitan Washington Council of Governments, "Air Quality Index: Here's How It Works," explains what causes air pollution, why the index is important, the general health effects of pollution, and what to do in a pollution alert, warning or emergency.

It also described the changes mandated by Federal regulations for reporting air quality in metropolitan areas that were to go into effect by Jan. 1, 1981.

For a copy of the article, contact the Division of Safety, Bldg. 13, Rm. 2E43 or call 496-1983. □

said. "In fact, the only trend that was noted was in the opposite direction. The vasectomized men actually had less coronary blockage than men their own age who were not vasectomized."

To see if the length of time following vasectomy affected the degree of atherosclerosis, the researchers analyzed separately 79 men who had vasectomies at least 10 years before having an angiogram. They found no greater proportion of these men among the patients with serious cases of the disorder than among those with mild cases.

The researchers also looked at subgroups of men at the two extremes in extent of disease—those with the least coronary blockage and those who had severe blockage requiring coronary bypass surgery. Again, the men with vasectomies within both of these groups had no greater degree of blocked arteries than the men without vasectomies.

Although the study showed that vasectomy does not influence the severity of atherosclerosis, it did indict smoking, high levels of blood fats, and age. All of these increased the degree of coronary blockage in men with vasectomies, just as other research has shown for men in general. □

Two New Data Bases, DIRLINE, CANCEREXPRESS, Go Online With NLM's MEDLARS This Summer

Two new MEDLARS data bases—DIRLINE (Directory of Information Resources Online) and CANCEREXPRESS (a new current awareness data base for published cancer information) are this summer joining 18 existing files accessible online to over 2,000 U.S. institutions on the National Library of Medicine's computer network.

The new CANCEREXPRESS data base is now available. This file contains bibliographic records identifying articles covering all aspects of therapy, etiology, and biology of cancer as well as studies of mutagenic agents and agents that stimulate cell division.

These records are derived from monthly SDILINE (Selective Dissemination of Information) updates using a search profile developed by the National Cancer Institute. (Since this file can be accessed by entering either FILE EXPRESS or FILE CANCEREXPRESS, it is referred to as EXPRESS throughout this article.)

EXPRESS is one of a series of technical information products prepared for cancer researchers by NCI's International Cancer Research Data Bank (ICRDB) program in cooperation with the NLM. It is a companion file to CANCERLIT, which is a comprehensive archival file of 350,000 bibliographic listings of cancer-related documents published since 1963 in several thousand biomedical journals and other publications.

A more selective, current file than CANCERLIT, EXPRESS contains some 10,000 records describing cancer-related articles in several hundred high-quality journals published during the most recent 4-month period.

Records entered into EXPRESS are simultaneously entered into the CANCERLIT file so they will be included in more comprehensive searches. Records are dropped from EXPRESS after 4 months but are retained in CANCERLIT.

Records are entered into EXPRESS as quickly as possible, with a target date of 1 month after receipt of the journal at NLM. Most records selected for EXPRESS have author abstracts and an author address, or at least an organizational affiliation.

EXPRESS records originate from a group

of 180 core journals identified by the NCI as being of high quality and having a high yield of relevant articles. The list of core journals is available from the ICRDB program (Westwood Bldg., Rm. 10A18, Bethesda, MD 20205).

Records also will be generated from a second group of journals yielding fewer cancer-related articles but of equally high quality. The total number of journals covered by CANCEREXPRESS is approximately 400.

For information on accessing EXPRESS, contact NLM's MEDLARS management section, (301) 496-6193. For further information on EXPRESS content and search strategies, contact NCI's ICRDB, (301) 496-7403.

The new DIRLINE data base will be made available Aug. 1 to U.S. users for a 1-year experimental period. It is being implemented on the NLM network to complement existing data bases and to provide a unique resource for answering certain information needs not met by bibliographic citations.

DIRLINE will be available without charge for the first 3 months of the experimental period. Offline print capability will not be available during this free period.

Currently, the only component of DIRLINE is the National Referral Center (NRC) data base, developed and maintained by the Library of Congress's National Referral Center. The NRC data base lists 13,000 organizations which either provide information themselves or are knowledgeable enough to suggest appropriate experts.

Candidates for inclusion in the NRC data base must possess relevant, preferably specialized, information. They may be libraries and information centers, data analysis centers, Federal, state or local government offices or laboratories, research institutes, university departments and research centers, committees of national or state academies, foundations, the headquarters of societies and associations, museums, etc.

For information on accessing DIRLINE, contact NLM's MEDLARS management section, (301) 496-6193. For information on DIRLINE content and search strategies, contact the Library's Specialized Information Services, (301) 496-1131. □

professional societies and has served as president of the American Rheumatism Association. He was chairman of the Program Committee for the XIV International Congress of Rheumatology in San Francisco.

Dr. Decker was recently appointed to the American College of Physicians' Board of Governors and serves as governor for the Department of Health and Human Services.

He has served on the editorial boards of Arthritis and Rheumatism and the Annals of Internal Medicine, and is associate editor of the *American Journal of Medicine*, and author of more than 160 scientific articles on the rheumatic diseases. □

The only end of writing is to enable readers better to enjoy life or better to endure it.—*Dr. Samuel Johnson* □

Dr. E. Stadtman Awarded ASBC Biochemistry Prize

Dr. Earl R. Stadtman, chief of NHLBI's Laboratory of Biochemistry, has received the 1983 ASBC-Merck Award in Biochemistry in recognition of his outstanding research in biochemistry and significant contributions to the advancement of biomedical research. Dr. Stadtman is the third recipient of the award presented annually by the American Society of Biological Chemists and the Merck Sharp and Dohme Research Laboratories Division of Merck & Company.

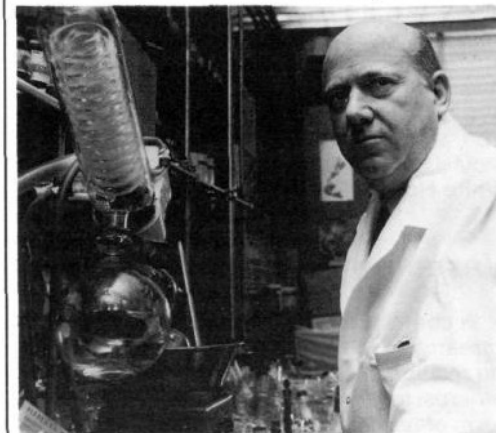
Dr. Stadtman's studies of glutamine synthetase, an enzyme that controls nitrogen metabolism in the cell, resulted in his describing the enzyme cascade system and establishing the basic principles underlying this important regulatory mechanism.

The importance of glutamine in metabolism is evidenced by its being a precursor in the biosynthesis of all amino acids, purine and pyrimidine nucleotides. It is critical, therefore, that glutamine synthetase be closely controlled.

In studies begun in 1967, Dr. Stadtman and his colleagues have since uncovered the details of this highly complex enzyme cascade system, characterized all its proteins and carried out detailed studies on regulatory mechanisms of the enzyme both in vitro and in vivo.

It is this work for which Dr. Stadtman received the ASBC-Merck Award.

Dr. Stadtman has earned many other



A native of New Mexico, Dr. Stadtman received his Ph.D. from the University of California at Berkeley.

awards during his 30-year career at NIH. He received the 1979 National Medical of Science, bestowed by President Carter, and the 1980 Presidential Rank Award for Senior Executive Service as well as the 1981 Distinguished Senior Executive Award presented by President Reagan.

He also has received the HEW Distinguished Service Award, the Annual Hillebrand Award of the Chemical Society of Washington, the National Academy of Science Award in Microbiology and numerous others.

Dr. Stadtman is a member of the National Academy of Sciences, and served as their delegate to the International Union of Biochemistry in Australia in 1982. He belongs to the American Society of Biological Chemists in which he has served on a number of committees and as president of the Society in 1982. □

DR. DECKER

(Continued from Page 1)

Columbia University College of Physicians and Surgeons.

He was awarded a research fellowship in medicine at Harvard University and Massachusetts General Hospital where he received training in rheumatology. He then joined the faculty of the University of Washington School of Medicine, and in 1965 came to NIH.

This past June, the Arthritis and Rheumatism Branch was awarded the IVth Alessandro Robecchi International Prize for Rheumatology Research. It was awarded on the basis of research conducted under the direction of Dr. Decker since 1968 on nephritis of systemic lupus erythematosus

Dr. Decker is a member of the major

SECRETARY HECKLER

(Continued from Page 1)



Secretary Heckler (l), Drs. Wyngaarden, Brandt (rear), Martin M. Cummings, NLM Director (r), and accompanying guests toured the NLM and the Lister Hill National Center for Biomedical Communications.

Secretary Heckler said she "spent an impressive day and unforgettable morning" on her NIH tour. She listened to presentation on "Brain Imaging: Aging and Dementia" by Dr. Stanley I. Rapoport, chief, NIA Laboratory of Neurosciences; "Advances in

Treatment of Hemolytic Diseases" by Dr. Arthur Nienhuis, deputy clinical director, National Heart, Lung, and Blood Institute; "Arthritis Research" by Dr. Alfred Steinberg, chief, cellular immunology section, National Institute of Arthritis, Diabetes, and Digestive

and Kidney Diseases, and "Research Perspectives in Diabetes" by Dr. Jesse Roth, chief, Division of Intramural Research, NIADDK.

Secretary Heckler was then joined for lunch at Stone House by Dr. James B. Wyngaarden, NIH Director; Dr. Thomas E. Malone, NIH Deputy Director; Dr. Joseph E. Rall, NIH Deputy Director for Intramural Research; Dr. William F. Raub, NIH Deputy Director for Extramural Research and Training and NIH BID Directors.

Presentations were made after lunch by Dr. Vincent T. DeVita, NCI Director, on Chemoprevention; by Dr. Claude Lenfant, NHLBI Director, on the Hypertension Program; by Dr. Carl Kupfer, NEI Director, on Diabetic Retinopathy Studies; and by Dr. Richard M. Krause, NIAID Director, on Accelerated Development of Vaccines.

Best Repository

Referring to NIH as the "crown jewel of the Department," Secretary Heckler said that "the best repository of medical science resides here," and that she will remain committed to preserving the quality of NIH research in the face of highly competitive budget dollars.

She said NIH scientific and administrative teamwork has made the great medical breakthroughs possible, that NIH is well-respected for the integrity of its research process because it is totally removed from political pressures, and that the scientific work performed at NIH is often at a great financial sacrifice to many NIH scientists.

Secretary Heckler ended with the quote, "Give unto others the fruits of thy contemplations," by St. Thomas Aquinas, saying that society receives the fruits from NIH. She said she was "one who cares about the American quality of life," and that her job as HHS Secretary is "public service at its purest." □

Hilah Thomas Retires From Government After 23 Years But Not From Hiking, Canoeing, Camping and Editing

Hilah Thomas retired from the Federal Government on June 30, ending a career of nearly 23 years.

Since 1966, Mrs. Thomas has been a medical science writer with the Office of Scientific and Health Reports in the National Institute of Dental Research. Prior to coming to NIDR, she worked briefly for the Division of Research and for 6 years at the National Institute of General Medical Sciences.

In retirement, Hilah plans to continue her many outside activities—only now she is excited about having an extra 8 to 10 hours a day to squeeze in a few more.

A nonconformist at 73, she enjoys doing things many younger people could not keep up with such as weekend hiking and camping trips that include sleeping in a tent and paddling a canoe up the Potomac. Raising flowers and attending plays and ballets are a few of the other activities she and her husband enjoy together.

Hilah started her work days differently than most people. From April to October, she got up early enough to swim at least 20 minutes in her outdoor pool before coming to work. Then once at Bldg. 31, she left her carpool riders at the elevators and disappeared down the hallway to climb the 82

steps to her office. She says that climbing is good exercise at any age.

Born in Charlottesville, Va., Hilah spent most of her childhood on east coast Public Health Service reservations. She graduated from Smith College in 1931, and has remained an active alumna since. For the past several years, she has opened her home to Smith College students who work in Washington during their summer vacations. This is her way of paying back some of the generosity shown her during her college days when funds were limited.

Hilah received a master's degree in biology from the University of Virginia and then became a research assistant in pharmacology with a Baltimore pharmaceutical company. By 1939 she had also held positions as a secretary with the Miller School of Biology at the University of Virginia and laboratory instructor at Sweet Briar College.

She temporarily ended her "professional" career to become a housewife and mother. It was only after her children went away to school that Hilah began to work for the Government, citing as her reason—to help educate her children.

Mother of four achievers—two medical doctors, a church historian, and an artist

with a master's degree in fine arts—she is also the grandmother of four.

At NIDR, Hilah was responsible for scanning the dental literature and translating the scientific reports into laymen's terms. She had developed a love for teaching from her days at Sweet Briar and thoroughly enjoyed explaining difficult scientific concepts to others. She will be sorely missed by the scientists who appreciated her editing talents and her knack for recalling rhymes and quotes to fit all occasions.

Throughout her working career, Hilah has actively participated in her church, citizens' association, and the American Medical Writers' Association (AMWA). In 1980 she was elected an active fellow of the AMWA in recognition of her professional achievements and her many contributions to the goals and activities of the association.

Sometime this fall, Hilah and her husband, who recently retired from his law practice, will leave the Washington area and move to Charlottesville.

Their first order of business will be renovation of her family home. She will also have more time to visit with her 101-year-old mother who lives nearby. She also plans to take some courses, starting with geology at the University of Virginia, and do some freelance editing. □

Fingerprints May Say Something About Your Health

For centuries, people have looked for messages in palm and finger patterns. Determined before birth, these patterns are unique for every individual, even identical twins, and have served as an important means of personal identification.

In 1939, a scientist named Harold Cummins noticed that a high proportion of Down syndrome patients have certain characteristic finger and palm print patterns. Since then, other scientists, including Dr. Chris C. Plato, a geneticist at the National Institute on Aging's Gerontology Research Center (GRC) in Baltimore, have focused on the relationship of finger and palm prints (known as dermatoglyphics) to some birth defects and diseases associated with aging as well as other diseases.

Dr. Plato oversees a collection of finger and palm prints from over 200 different human populations and disease groups. The prints come from such diverse groups as Pacific Islanders in Micronesia to Indian natives in the South American Andes. Some prints are from individuals exposed to chemicals or drugs before birth, such as children of the Love Canal area. Others are from victims of such diseases as cancer or Down syndrome.

Finger and palm prints are analyzed by the variations in patterns such as whorls, loops, arches and ridges.

The patterns vary by sex, age and racial group. Both environmental and genetic factors influence dermatoglyphic patterns during the first trimester of pregnancy, after which they do not change throughout life.

Dr. Plato and his colleagues, Drs. Ralph M. Garruto and D. C. Gajdusek from the National Institute of Neurological and Communicative Disorders and Stroke, and Dr. Wladimir Wertzlecki from the University of South Alabama School of Medicine, are investigating how exposure to chemicals and other environmental and genetic factors may affect dermatoglyphic traits. In collaboration with other laboratories, the investigators are analyzing prints from children exposed to the chemicals at Love Canal since before birth and are comparing them to prints from children of other areas.

At GRC, Dr. Plato and associates are particularly interested in possible associations between dermatoglyphics and normal aging processes as well as diseases of the middle and later years. They are studying dermatoglyphics in patients with osteoporosis, osteoarthritis, amyotrophic lateral sclerosis, parkinsonism dementia, breast cancer and other diseases, and comparing them with the dermatoglyphics of nonaffected individuals.

In collaboration with scientists from the University of Medicine and Dentistry of New Jersey and the St. Barnabus Medical Center in New Jersey, Dr. Plato has examined the association between fingertip whorls and the development of breast cancer.

The investigators collected fingerprints from 119 women, including 34 who had breast cancer, 53 who were considered a high risk of developing breast cancer, and 32 who were free of the disease and not considered at high risk. This pilot study showed that over 32 percent of the breast



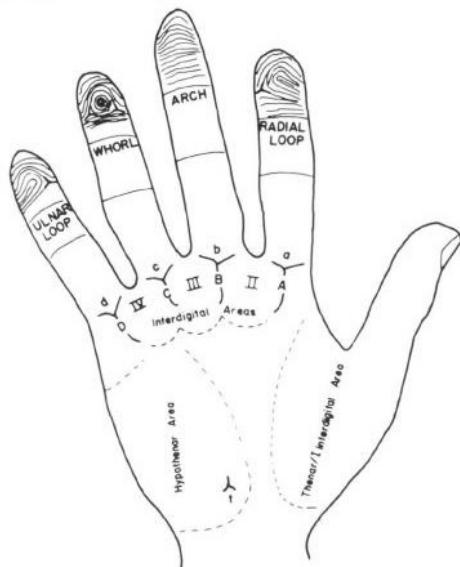
Scientists at NIA's Gerontology Research Center are exploring ways that fingerprints (dermatoglyphics) can be used in the diagnosis of diseases associated with aging as well as other diseases.

cancer patients had a total of six or more whorls on their fingers compared with 3.1 percent of the controls. The high risk women fell in between. In this sample, 95 percent of the women with six or more whorls on their fingers had breast cancer or were at high risk of developing it.

Dr. Plato cautions that these findings cannot be used at this point to predict whether or not an individual might develop breast cancer. "A relatively small sample of women was used, and further research is necessary before this information can have practical diagnostic applications for individuals," he explains.

Dr. Plato and his colleagues are collecting finger and palm prints from breast cancer patients and as many of their family members as possible for clues to the development of this disease.

Many clinicians and other scientists have contributed palm and finger prints from their patients or groups they are working with. Dr. Plato and his colleagues recently received prints taken from babies who were victims of sudden infant death syndrome. The investigators will analyze these in the future.



Fingerprints are analyzed by noting the numbers, locations and other characteristics of fingertip patterns called whorls, loops and arches.

He encourages his colleagues to contact him before sending such prints to learn the proper procedures for recording them.

In 1974, Dr. Plato and scientists representing the fields of anthropology, biology, medicine and related disciplines, established the American Dermatoglyphics Association and Dr. Plato became its first president.

"The study of dermatoglyphics has many potential benefits," says Dr. Plato. "It can be used as an aid for genetic counseling and to help us understand the development of the fetus during the first trimester of pregnancy. Hopefully, it will also enable us to identify carriers of genetic diseases before they show symptoms or pass these genetic tendencies to future generations, and help us diagnose some of the diseases of middle and old age."

—Esther Solomon □

Three Research Scholars Begin Fogarty Fellowships

Three Fogarty International Research Fellowships recently arrived in this country to activate their fellowships.

Dr. Anne Marie Duchemin, Intern of Paris Hospitals, Paris, France, began a Fogarty International Fellowship July 1, 1983. She will be under the preceptorship of Dr. Richard J. Wyatt, Adult Psychiatry Branch, National Institute of Mental Health. The title of her research is "Endogenous Neuroleptic-Like Substances in the Human Brain."

Dr. Jung Bock Lee, assistant professor at the Yonsei University in Seoul, Korea, began a Fogarty International Fellowship April 15, 1983. He will be under the preceptorship of Dr. Stuart T. Brown at the Centers for Disease Control, Atlanta, Ga. The title of his research project is "Advanced Diagnostic Methods for Syphilis and Other STD."

Dr. Gertraud Wasner, Research Scientist at the Austrian Academy of Sciences, Vienna, Austria, began an International Fellowship July 1, 1983. She will be under the preceptorship of Dr. Brad E. Thompson, chief, biochemistry of gene expression section, NCI. The title of her research project is "Properties of Human Mutant Glucocorticoid Receptors." □

New Sons of Italy Chapter Seeks Additional Members

The newly established NIH chapter of The Order Sons of Italy in America (OSIA) will hold its third meeting on Wednesday, Aug. 10 in Bldg. 31, Rm. 4A-04 from 11:30 a.m. to 1 p.m. Bring a bag lunch.

The items to be discussed at this meeting include an appropriate name for the chapter, nomination of officers, and establishment of the organizational structure.

All Italians and Americans of Italian descent are encouraged to attend this meeting as well as all future activities. For more information, contact Nina Baccanari, 946-1780 (evenings). □

PET

(Continued from Page 1)

to use PET to study the living human brain.

A second type of measurement of brain activity in awake humans—the measurement of blood flow—was described by Dr. Myron Ginsberg of the University of Miami School of Medicine.

In one method, a person breathes air containing a trace of radioactive carbon monoxide. After a few minutes the PET detectors determine the amount of isotope present in different areas of the brain.

This method also indicates the metabolism of the brain, explained Dr. Ginsberg, because "blood flow in the normal brain is closely coupled with the level of metabolic activity."

The Normal Brain in Action

PET investigations of normal brain physiology were assessed in the conference's second session chaired by Dr. Henry Wagner of The Johns Hopkins Medical Institutions.

Dr. Michael E. Phelps reported that he and his colleagues at the University of California, Los Angeles, School of Medicine have studied how the brains of normal healthy people process basic information.

The research team found that certain areas of the brain are especially active while the subjects are listening to a story. When the subjects are instructed to remember specific details of the story, additional brain regions come into play.

By this type of experiment the UCLA scientists hope to identify areas of the brain responsible for memory.

Another distinction they found concerns writing one's name and *thinking* about writing one's name. While a person was actually writing his name, the brain showed activity in regions that control hand muscle activity. When that person was told to think about writing, different brain regions lit up on the PET scan.

The areas activated during thinking about writing may represent parts of the brain that plan our actions, the research team hypothesizes, an extremely subtle and important finding.

Another challenging experiment was reported on by Dr. Martin Reivich of the University of Pennsylvania School of Medicine. He and his colleagues asked normal subjects to do two tasks, one requiring verbal analysis, the other spatial analysis.

Several differences in regional brain metabolism were observed. Each task produced different degrees of activity in different portions of the brain. Also, the tasks produced different amounts of activity in only 3 of 35 brain regions analyzed, showing that PET can identify specific brain regions that carry out specific functions.

Experiments like these are the beginning of efforts to draw a functional map of the normal brain. Because PET studies can be done in normal controls as well as patients with brain disorders, the resulting map can demonstrate the metabolic workings of the healthy human brain, something no other brain analysis technique can accomplish.

Newer PET scanners provide even more detailed maps of the human brain. One of

the trailblazers of PET scanning—Dr. Michael Ter-Pogossian—described one of the newest and fastest PET scanners, the "Super-PETT-1," now in use at his Washington University School of Medicine.

For most brain functions, Dr. Ter-Pogossian explained, "blood flow and glucose metabolism in the brain are rapidly affected by external stimuli, with changes occurring in appreciably less than 1 minute." But most PET studies to date have been done between 40 and 45 minutes after injection of the isotope because of the limitations of using 18-fluoro-deoxyglucose.

With Super-PETT-1, and using the positron-emitting isotope 15-oxygen, Dr. Ter-Pogossian said a complete brain scan can be done in 10 seconds. Super-PETT-1 should therefore be sensitive to much more subtle and rapid changes in brain function.

The current scanner with the highest resolution—and therefore providing scientists with the most detailed images—is the Neuro-PET, introduced at NINCDS by Drs. Rodney Brooks and Giovanni Di Chiro.

Using Neuro-PET, NINCDS investigators have been able to image and study the glucose utilization of relatively small structures, such as the brain stem and the spinal cord, Dr. DiChiro told the conferees.

First Scan of Neurotransmitter Binding

One of the conference's most exciting reports described observation of a brain process never before directly seen in action in humans: the binding of a neurotransmitter to its receptor.

Neurotransmitters are the chemicals that brain cells use to pass on messages to each other. And the receptor is the specific structure on the receiving cell that the neurotransmitter interacts with.

Such interactions between neurotransmitters and receptors underlie the working of all brain activity. Many disease states are thought to be caused by derangement of neurotransmitter-receptor function.

The first neurotransmitter observed in action was dopamine, which helps coordinate many muscle activities of the body.

Although several laboratories had been trying to develop a positron-labeled chemical that would show the working of the dopamine system, the first PET scans of the dopamine system in action in a live, awake human were presented at this conference by Drs. Michael Kuhar and Henry Wagner of The Johns Hopkins Medical Institutions.

The scans had been done just 3 weeks before.

PET and Neuropsychiatric Disorders

Dr. Kuhar said he and his colleagues were "excited about the possibility of investigating dopamine receptors in neuropsychiatric disorders."

Several research groups have already looked at brain metabolism in persons with neuropsychiatric disorders. Considerable work has been done by Dr. Alfred Wolf and his team at Brookhaven together with investigators at the New York University Medical Center.

Describing their results, Dr. Jonathan D. Brodie reported that changes have been detected in schizophrenic patients, with the cerebral cortex near the front of the brain showing substantially lower than normal metabolism of glucose.

This "hypofrontality" was more pronounced on the left side of the brain, and was found in newly diagnosed schizophrenics not yet taking antipsychotic medication.

The hypofrontality did not change when medication was given, though the patients' psychiatric symptoms improved. "This suggests we are looking at a marker inherent in the trait of schizophrenia," Dr. Brodie said.

A note of caution regarding the use of PET in psychiatry was sounded by Dr. David E. Kuhl of UCLA. "We are far from being able to make psychiatric diagnoses based on metabolic results," he said. The hope for the future, according to Dr. Raquel E. Gur of the Hospital of the University of Pennsylvania, is that "systematic comparison of patients with psychiatric disorders will enable us to understand better the control of mood in humans."



Dr. Rodney Brooks (r) explains fine points of Neuro-PET scanner to participants in the NINCDS-sponsored international conference on PET research.

PAHO Officials Visit NIH Campus To Exchange Research Information

The Director and 17 administrators of the Pan American Health Organization (PAHO) recently visited the NIH Bethesda campus to exchange information with NIH administrators about programs in health research. The meeting was organized by the Fogarty International Center.

PAHO has had collaborative relationships with NIH in the past, and the FIC in its role as a World Health Organization Collaborating Center is now attempting to expand them.

PAHO, which also serves as the regional office for the Americas of the World Health Organization, is concerned with public health, disease eradication, basic sanitation, manpower development as well as biomedical research and communications.

Dr. James B. Wyngaarden, NIH Director, opened the Stone House meeting by describing the purpose of NIH, current policies and major issues in the year ahead.

In response, PAHO Director Dr. Carlyle Guerra de Macedo emphasized his organization's desire to promote research in Latin American countries and to improve technical excellence.

He pointed out the need for contacts with research institutions—such as NIH and universities—to enable PAHO to take advantage of new research results and use them to solve health problems in Latin America.

Latin America's major problems traditionally have been infectious and parasitic diseases. But as individual countries have become more industrialized, more urbanized, and increased their number of elderly—the pattern is shifting to a higher incidence of chronic diseases, especially cancer and cardiovascular diseases.

Current common interests of NIH and PAHO were stressed in presentation on environmental health, cancer, cardiovascu-



Dr. Macebo pointed out that PAHO is uniquely suited to advise and assist the U.S. Public Health Service on health matters dealing with Latin America.

lar disease, tropical diseases, laboratory animal health, and biomedical communications.

Other important areas cited for further consideration are oral health, aging, arthritis, child health, blindness, and computer sciences.

The PAHO guests visited NIAID's Laboratory of Parasitic Diseases and the insectary where research on malaria-carrying *Anopheles* mosquitoes is carried out.

Collaboration in research was discussed and specific areas where NIH and PAHO could work together were pointed out. Among these are the International Program on Chemical Safety, supply of genetically defined laboratory animals, compilation of special bibliographies on tropical diseases, and field testing of vaccines. □

NLM Library Technician Retires After 40 Years

Anna Belle Thompson, a library technician in the index section, Bibliographic Services Division, National Library of Medicine, retired July 29 after 40 years of Government service. Friends and coworkers gathered recently at a reception in her honor.

Mrs. Thompson began her Government career as a clerk typist in 1943 with the Internal Revenue Service. She moved to the Veterans Administration for several years and joined the Department of the Army's Armed Forces Medical Library in 1955. Her career at NLM officially began in 1956 when the Armed Forces Medical Library became the "National Library of Medicine."

She began her 27-year NLM career as a clerk typist in what was then known as the Index Division. She moved on to the Office of Computer and Communications Systems as a computer aide, and then back to the index section (now part of the Bibliographic Services Division) as a library technician. There she assisted in control of journals entering the MEDLARS system, the Library's computer-based information storage and retrieval system.



After working 40 years for the government, Mrs. Thompson plans to volunteer her time in a senior citizens home during her retirement.

Life must be lived forwards, but can only be understood backwards.—*Soren Kierkegaard* □

Want to Live Longer? Take This Test

Are you interested in . . .

- Learning how you can stay well, live longer, or even buy back some years?
- Seeing how you stack up health-wise with others of the same age, race, and sex?

All employees are encouraged to take part in a special Health Risk Appraisal program now being offered in all Occupational Medical Service (OMS) clinics. The program, developed by the Centers for Disease Control, is designed to help you identify those lifestyle patterns that may increase your risk of dying within 10 years from certain diseases.

The program will also identify specific actions you can take to decrease this risk by changing your harmful habits. An "achievable age" is also provided that estimates how many years you can "buy back" if you comply with the stated actions.

You can participate in this program by simply completing a questionnaire on your personal and family medical history and your health habits—including smoking, exercise, alcohol useage, weight and blood pressure.

The questionnaire, which takes approximately 5 minutes to complete, is identified by a code number known only to the individual completing the questionnaire.

Besides giving you personal information, the computer-analyzed report will compare the information you enter on the health risk appraisal questionnaire with similar information gathered nationally on other persons of your age, race, and sex.

Participants in the Health Risk Appraisal program can consult with OMS staff or their private physicians to discuss the results of the printout. In addition, employees may elect to participate in one or more OMS programs designed to improve detrimental life style patterns or to control specific diseases.

These include high blood pressure screening and monitoring, smoking cessation, alcohol and drug abuse counseling, and stress reduction.

The NIH Fitness Center and the Wells Fargo Gamefield also provide an excellent opportunity at the worksite to improve physical fitness.

Employees can participate in the Health Risk Appraisal program in the OMS Clinics located on the 6th floor of the ACRF, Bldg. 13, Federal Bldg., or Westwood Bldg.

Preventive health services, including Health Risk Appraisal and blood pressure checks, are available to employees in the following locations:

Bldg. 31, Rm. B2B57	Mondays	1:30-3:30 p.m.
Lister Hill Bldg., Rm. B1N14A	Wednesdays	1:30-3:30 p.m.
Blair Bldg, Rm. 604	2nd Friday of month	8:30-10:30 a.m.
	4th Friday of month	2:30-4:30 p.m.
Landow Bldg., Rm. 7B01	Thursdays	8:30-10:30 a.m.

Those employees who completed the Health Risk Appraisal questionnaire during the Health and Safety Expo in June can still pick up their printouts in the OMS Clinic, 6th floor, ACRF. □

Albert McIntyre, Maxillofacial Prosthesis Expert, Retires From NIDR; 42 Years of Federal Service

Albert D. McIntyre retired from the National Institute of Dental Research June 30, ending a career of 42 years of Federal service.

"Mac," as he is known, came to the Clinical Center's Dental Clinic in 1955. Even though his professional duties and responsibilities changed over time, he worked in the same laboratory at the same bench, for the past 29 years. Mac said, "my bench never wore out, but I went through four chairs."

Mac vividly remembers when his laboratory was remodeled and the only window in his room was turned into a brick wall. While he was working on a denture, he heard a tapping sound and looked up just in time to see the workman wave goodbye before laying the last brick.

Mac was born in Jenners, Pa. which is close to Cumberland, Md., and West Virginia. From 1932 to 1941, he worked in the coal mines, spending two evenings a week playing the fiddle with the Kirby Medley Maniacs at square dances, then called square and round dancing. He also played the fiddle with the Shallmar Midnight Ramblers on a half-hour radio show which was broadcast Saturday afternoons from Cumberland.

Today Mac entertains family and friends by playing the mandolin. On Tuesday nights he plunks out tunes at a singalong at the Colonial Villa Nursing Home in Silver Spring, Md. where his father resides. Mac wraps up each session by turning the mandolin over to his 94-year-old father who

still plays "Yankee Doodle Dandy" and "Home on the Range."

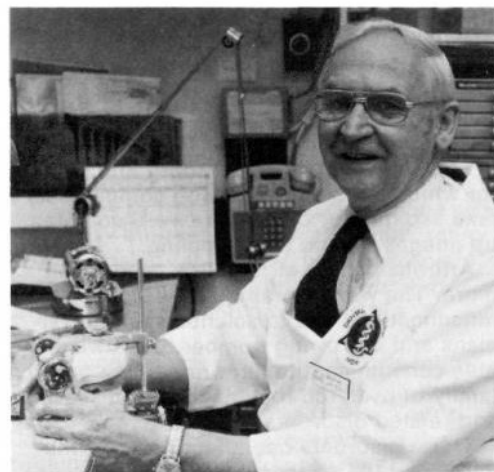
Mac's jovial spirit has gladdened many at NIH. Some 23 years ago, he and several members of the Clifton Park Civic Association initiated a Santa Claus Program for the young patients at the CC.

Each year, Santa and his helpers visit with the patients and bring toys for all the children. Mac still cherishes the memory of the six times he played the role of Santa for the children.

Mac's career at NIDR was challenging. He has been certified in four fields—general laboratory, crown and bridge, partials, and complete removable dental prosthesis—by the National Board for Certification for Dental Technicians. As a restorative dental technician, he was responsible for designing and fabricating maxillofacial prostheses for CC patients undergoing treatment.

At the same time he carried on related applied research in the area of materials and designs. Mac's contributions to the development of new fabrication techniques for maxillofacial prostheses for patients who have had radical cancer surgery of the face are considered invaluable.

In addition to his laboratory duties, Mac lectured to dental laboratory students at the Takoma Park campus of Montgomery College, teaching techniques of maxillofacial prostheses. About 15 students came to the dental clinic for additional laboratory training and were supervised by Mac. He helped place eight of them in commercial laboratories after they graduated.



Sixty-five friends and colleagues attended a dinner recently to honor Albert (Mac) McIntyre on the occasion of his retirement. He was presented with a number of gifts including a gold watch, a plaque, and several letters from section chiefs who had worked with him over the years. One letter read during the presentations was from President Reagan who wished Mac the very best and thanked him for his many years of exemplary government service.

Because of his training program and his unending enthusiasm, administrators at the College have offered Mac a contract to continue teaching after his retirement.

Future plans for Mac and his wife include renovating their home and traveling. They plan to visit Germany and return to Northern Italy to visit one of their daughters who is a math teacher at an American Defense school. Mac also has a daughter who is a nurse at University Hospital in Baltimore, and a son who is an architect. □

Two New Members Appointed to NICHD Advisory Council

Two new members have been appointed to 4-year terms on the National Advisory Child Health and Human Development Council.

The new members are Dr. Ronald A. Chez, senior vice president of Health Learning Systems, Inc., of Bloomfield, N.J., and Dr. Alan B. Little, chairman of the department of obstetrics and gynecology at McGill University in Montreal, Canada.

In addition, Dr. Margaret J. Giannini, director of the Rehabilitation Research and Development Service at the Veterans Administration, has been designated as an ex officio member of the council representing the VA.

The council is the principal advisory body of the National Institute of Child Health and Human Development. Composed of physicians, scientists and representatives of the general public, the council considers applications for research and training support in the fields of reproductive sciences, child health and human development. Its members also make recommendations to the Secretary and the Directors of NIH and NICHD on the Institute's general programs.

NICHD conducts and supports research on the reproductive, developmental and behavioral processes that determine the health of children, adults, families and populations. This support enables scientists at universities, medical schools and research institutions to work to expand knowledge in

these areas.

Dr. Chez, an obstetrician-gynecologist with expertise in fetal medicine, was the first chief of NICHD's Pregnancy Research Branch from 1971 through 1977. He also served as clinical director of the Institute's intramural program from 1976 to 1977, and was associate dean of academic affairs at the University of Pittsburgh School of Medicine from 1970 to 1971.

He received his A.B. degree from Johns Hopkins University and his M.D. degree from Cornell University Medical College.

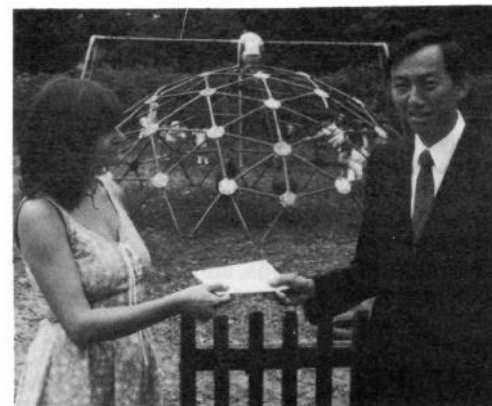
Dr. Little, an expert on the metabolism of reproductive steroid hormones, has served NICHD on the population research committee from 1974 to 1979, chairing that committee from 1978 to 1979. He was also a consultant on the NICHD Five-Year Research Plan and the NICHD Amniocentesis Registry.

From 1972 until recently, Dr. Little was chairman of the department of reproductive biology at Case Western Reserve University School of Medicine. He earned both his B.A. and M.D. degrees from McGill University, where he is now chairman of the department of obstetrics and gynecology.

Dr. Giannini, a pediatrician, has been a pioneer in creating programs for the handicapped. In 1965, she served as a consultant to the NICHD Mental Retardation Construction Unit which developed a network of university-affiliated medical retardation

centers.

Dr. Giannini was the first director of the U.S. Department of Education's National Institute on Handicapped Research from 1979 to 1981. She received her M.D. from Hahnemann Medical University, where she received the 1982 Outstanding Alumnus Award. □



Dr. Philip S. Chen, Jr., assistant director for intramural affairs, NIH, recently presented a donation to the Preschool Developmental Program at NIH on behalf of the 1983 Asian American Cultural Committee. The donation represented sales from booths at this year's cultural heritage week celebration. Accepting the check (l) was Sherrie Rudick, director, NIH Preschool.

Arthritis Affects All Ages: Over 100 Rheumatic Types

Many people associate arthritis with growing older, but, in fact, it affects people of all ages, including about a quarter of a million children under age 16.

To some it's the "minor aches and pains" for which people in television commercials take aspirin. For others, the word conjures up images of pain and crippling.

Arthritis can be all of these—and much more. The word literally means "joint inflammation," but to scientists and physicians and a growing number of knowledgeable consumers, the term refers to a broad family of over 100 rheumatic-type diseases and related disorders.

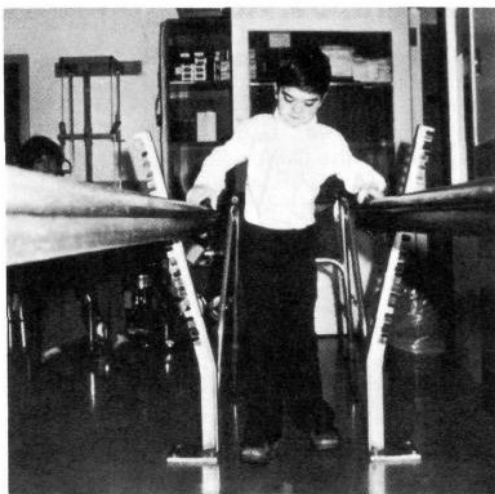
These disorders can affect not only the joints, but the connective tissues—the supporting tissues of the body such as muscles, tendons, and ligaments and the protective coverings of internal organs.

According to 1980 data, at least 35 million Americans—about one in seven—have some form of arthritis. If related musculoskeletal disorders are included, the estimated number tops 39 million.

Most forms of arthritis are chronic. "Many patients face such long-term problems as unemployment, emotional stress, and the financial burden of extended medical care," said Dr. Lawrence E. Shulman, director of the Division of Arthritis, Musculoskeletal and Skin Diseases, NIADDK.

The economic cost of arthritis and rheumatic diseases is about \$14 billion per year, according to current estimates by the Arthritis Foundation.

Each form of arthritis is unique; each has different causes, symptoms and patterns.



Arthritis is not just a disease of the elderly. Adults of all ages can develop arthritis, and the Arthritis Foundation estimates that as many as a quarter of a million children under 16 have some form of arthritis.

The most prevalent forms are described below:

Osteoarthritis (OA), sometimes called the "wear and tear disease," can affect the hips, knees, spine and the end joints of the fingers. In OA there is breakdown of joint cartilage, followed by bony overgrowth at the edges of the joint, often making movement painful.

Rheumatoid arthritis (RA) is the disorder many people think of as "arthritis." Its hallmark is inflammation, which causes

heat, swelling, and pain in both large and small joints. RA can also lead to weakness, fatigue, loss of appetite and stiffness. The disease tends to be chronic, disabling and irregular—the patient can feel good one day and awful the next.

Gout or gouty arthritis is a disorder that results when excess uric acid, a body chemical, forms crystals in the joints causing inflammation and what some call "exquisite" pain.

Systemic lupus erythematosus (SLE or lupus) causes arthritis and a skin rash early on and can later strike various internal organs such as the kidneys, heart and brain. In lupus, the immune or defense system seems to attack the body's own tissues.

Juvenile arthritis (JA), as the name implies, afflicts children. JA is thought to encompass several disease states that differ according to the joints involved, severity, age of onset, and complications. The complications of JA can include growth retardation, crippling, and in 1 of 10 children, iritis or inflammation of the iris of the eye, possibly leading to blindness.

Ankylosing spondylitis or spinal arthritis causes back pain, stiffness, and loss of spinal mobility and can lead to fusion and rigidity of the vertebrae.

Scleroderma or progressive systemic sclerosis is a disorder of the connective tissue, with abnormality of the fine blood vessels. Scleroderma can cause thickening and hardening of the skin and can also afflict the gastrointestinal system, heart, lungs, and kidneys.

—Connie Raab □

Stroke's Early Warnings Often Ignored, Overlooked

Thousands of victims of major stroke could be spared the devastation of that disease if more doctors and the public learned to recognize its early warning signs.

The third most common killer after heart disease and cancer, stroke is often preceded by symptoms that announce its likely onset, according to results of research studies sponsored by the National Institute of Neurological and Communicative Disorders and

The term "stroke" describes a sudden loss of brain function that occurs when that organ is deprived of blood. It is usually caused by blood clots, or by narrowed or ruptured blood vessels in the brain.

Physicians now know that major strokes may evolve from small warning strokes, or transient (temporary) ischemic (insufficient blood) attacks, called "TIAs." Timely recognition of the symptoms of TIAs may allow physicians to use drugs, surgery, or both to prevent a major stroke.

Symptoms of stroke, including TIAs, include:

- brief loss of vision;
- numbness or weakness in a limb or on one side of the face;
- unsteady gait or loss of balance;
- temporary speech impairment;
- sudden dizziness, drowsiness, or headache.

If a person experiences any of these symptoms, a complete and immediate physical

examination is crucial, particularly if that person is overweight, consumes a high-fat diet, smokes, or suffers from high blood pressure, diabetes, hardening of the arteries or heart disease.

Because stroke and TIA symptoms often last only a few seconds or minutes, the patient and the physician may believe the danger has passed. A number of studies have shown that when temporary symptoms abate, the physician should immediately begin evaluation rather than adopt a "wait-and-see" attitude. A delay in treatment raises the risk of a massive stroke that may destroy brain tissue or cause death.

Recent progress in surgical techniques has allowed physicians to treat blood vessel ruptures, no matter how severe, as late as a week after their occurrence. Yet, of an estimated 28,000 cases of blood vessel ruptures in the brain that occur each year in the U.S., 6,000 are misdiagnosed and another 4,500 are completely overlooked.

Particularly frustrating to physicians is the fact that while they have the means to minimize brain damage resulting from stroke, they frequently see the patient too late for effective intervention.

For more information on how to detect the onset of stroke, write to "Stroke," Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A16, Bethesda, MD 20205; or call (301) 496-5751. □

French Molecular Biologist Returns to Fogarty Center

Dr. Georgio Bernardi, professor of molecular biology in the Institut Jacques Monod, University of Paris, returned to the NIH on July 1 to resume his Fogarty International Center scholarship-in-residence.

Professor Bernardi is well known for his work on the biochemistry of nucleic acids, in particular the structure of eukaryotic DNAs. His early work was concerned with the physical biochemistry of proteins and the development of fractionation techniques for their purification.

In the 60s he turned his attention to nucleic acids and began his pioneering studies on yeast mitochondrial DNAs and eukaryotic satellite DNAs. Following his isolation of these DNAs in a highly purified state, he showed that they differ in their structure from prokaryotic DNAs in that they have repetitive stretches of poly A, poly T and poly AT.

This work helped lay the foundation for elucidation of eukaryotic genome organization by sequence studies using nucleases.

During his last term in 1982, Professor Bernardi collaborated with Dr. Maxine Singer, NCI, in organizing a conference on repetitive DNA.

Dr. Bernardi will again be associated with the Laboratory of Biochemistry, NCI. He will also have an office in Stone House, where he can be reached at 496-1213. □

Vidarabine, First Effective Antiviral Drug, Curbs Complications of Shingles, Study Shows

Vidarabine, a drug used to treat patients with herpes virus encephalitis, can also prevent life-threatening complications of herpes zoster (shingles) in immunocompromised patients, according to studies supported by the National Institute of Allergy and Infectious Diseases. The Food and Drug Administration recently approved this new use of the drug.

Although the number of patients who may benefit from this treatment is small, Dr. Richard M. Krause, NIAID Director, emphasizes the importance of vidarabine as a lifesaving drug and as a pioneer product in the long search for drugs effective against viral infections.

Earlier NIAID-supported studies led to initial approval of vidarabine as the first injectable drug for treatment of patients with a serious viral infection.

Herpes zoster is caused by reactivation of the chickenpox virus, occurring in 10 percent of the population, usually after age 50. It produces a blistering rash on the skin and pain that sometimes persists for several weeks after the lesions have healed (postherpetic neuralgia). Although uncomfortable, herpes zoster is not life-threatening for most people.

However, in persons whose immune systems are affected by underlying disease or by treatment with anticancer drugs, herpes zoster can spread from the skin to vital organs of the body and may cause death. Until now, there has been no effective treatment for the disease.

In the NIAID-supported study, physicians administered either vidarabine or a placebo (an inert substance) to immunocompromised patients within 72 hours after they developed herpes zoster. The drug or placebo was given intravenously over a 12-hour period on 5 consecutive days.

Neither patients nor physicians knew which substance was being given. Only 5 percent of 63 vidarabine-treated patients with herpes skin lesions developed zoster-related systemic complications compared to 19 percent of the 58 placebo-treated patients.

Vidarabine accelerated healing of the skin

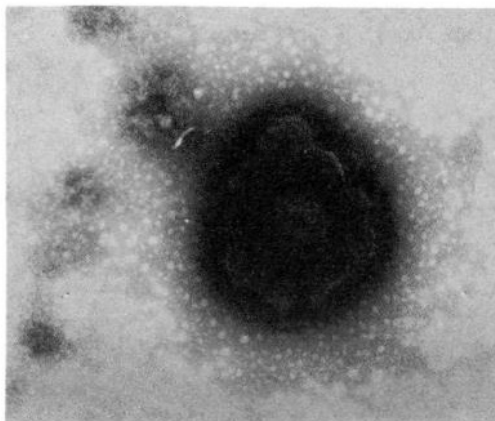
Hazen Nominations Now Open

Nomination materials for the 1984 Lita Annenberg Hazen Awards for Excellence in Clinical Research are now available.

A physician-investigator or team will be awarded \$50,000 (tax free). An additional \$50,000 will be provided for support, up to 3 years, of a research fellow or fellows whom the award winner will select as associate(s).

Nominations will be accepted until Feb. 29, 1984. For additional information, write to Dr. Thomas C. Chalmers, Mt. Sinai School of Medicine, 1 Gustave L. Levy Place, Annenberg 24-64, New York, N.Y. 10029, or call (212) 650-8832. □

We all have strength enough to endure the misfortunes of others.—*La Rochefoucauld* □



Shingles and chickenpox are caused by the same virus, shown isolated here from laboratory studies. The central core of the virus is about 5-millionths of an inch across.

lesions and decreased the frequency of lesion spread to other skin areas. Lesion spread occurred in 24 percent of untreated patients but in only 8 percent of treated patients. Treatment also reduced the length of time patients suffered postherpetic neuralgia.

Four months after the onset of the infection, 56 percent of the treated patients were free of pain compared to only 17 percent of untreated patients.

Physicians noted that patients with lympho-proliferative cancers and those 38 years of age or older were at greatest risk for complications of herpes zoster, and they benefited most from therapy. None of the patients suffered serious side effects.

This study, the Collaborative Antiviral Study Group, was done as part of an ongoing NIAID-sponsored program to test antiviral substances at collaborating medical research centers throughout the country.

The research was reported in a recent issue of the *New England Journal of Medicine*. The study was supported by a contract from NIAID, by grants from the National Cancer Institute and from the NIH General Clinical Research Centers Programs, and by the Robert Meyer Foundation. □

NCI's Dr. Albert E. New Inducted as ACLAM Director

Dr. Albert E. New, director of Library Animal Science at National Cancer Institute, was installed as a member of the Board of Directors of the American College of Laboratory Animal Medicine at the group's annual meeting in New York City on July 19, 1983.

The American College of Laboratory Animal Medicine is a specialty board recognized by the American Veterinary Medical Association. Certification as a diplomate is achieved by demonstrated competence in laboratory animal medicine and successful completion of experience requirements and a comprehensive examination.

Dr. New received his undergraduate training at the Kansas State University and his Doctor of Veterinary Medicine from the same institution in 1960. □

New Optimism on Epilepsy

A new and encouraging definition of epilepsy has been provided by an NIH-sponsored research scientist who found—contrary to prevailing medical views—that only one out of every three people who experience a single epileptic seizure is likely to have another.

Because the risk of seizure recurrence was previously thought to be much higher, many people labeled "epileptics" have perhaps unnecessarily been barred from working, driving, and obtaining health and life insurance.

In a recent study of 244 individuals following their first unprovoked seizure, Dr. W. Allen Hauser, a neurologist at New York's Columbia University, discovered that the cumulative risk of recurrence was 16 percent 1 year after the initial seizure, 21 percent after 2 years, and about 27 percent after 3 years.

A patient who remained free of seizures for 3 years was unlikely to have another, according to the study sponsored by the National Institute of Neurological and Communicative Disorders and Stroke.

Dr. Hauser reported that the risk of having another seizure was greatest during the first year after the initial seizure, and highest among those who had a brother or sister with seizures, or whose brain wave recordings showed spiking instead of normal wave patterns throughout the brain. Recurrence rates were the same at 24 months regardless of whether anticonvulsant drugs had been prescribed.

Epilepsy, one of the oldest known diseases, is not just one but a series of disorders. Symptoms, the best known of which are seizures or convulsions, are associated with sudden, abnormal nerve cell activity in the brain.

There are at least 18 types of generalized and partial seizures, depending on how many nerve cells are affected and where they are located in the brain. Seizures also vary in frequency and duration.

Today epilepsy affects more than 2 million Americans, over half of whom control their disease with antiepileptic drugs. Undoubtedly some of the individuals included in these totals have had only one seizure.

A 28-page brochure, *Epilepsy: Hope Through Research*, describes the symptoms, causes and treatments for different types of epileptic seizures, and includes a historical view of this ancient disorder which, for more than 2,000 years, had no effective treatment.

Single copies of the brochure are available from: "Epilepsy," Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A16, Bethesda, MD 20205; telephone (301) 496-5751.

For further information about this research, write to Dr. W. Allen Hauser at the G.H. Sergievsky Center, Columbia University, 630 W. 168th St., New York, NY 10032; or call (212) 694-6866.—**Maureen Mylander** □

My idea of an agreeable person is a person who agrees with me.—*Benjamin Disraeli* □

Dr. Stephen Weiss, President-Elect Of Society of Behavioral Medicine



Dr. Weiss

The Society of Behavioral Medicine recently announced the election of Dr. Stephen M. Weiss, chief of the NHLBI's Behavioral Medicine Branch, as president-elect for 1983-84.

Dr. Weiss also serves as professor at the Uniformed Services University Medical School, Johns Hopkins University School of Hygiene and Public Health and the Department of Medicine and Physiology at the NIH Graduate School.

He has authored and co-authored over 30 articles and book chapters on behavioral medicine and related topics, and five books on behavioral medicine and health behavior. He is an Associate Editor for the *Journal of Behavioral Medicine* and serves on the editorial boards of four behavioral and biomedical journals.

Dr. Weiss has been engaged in the study of the relationship of psychosocial factors to cardiovascular health and illness since the early 1960's. Following stints at the University of Oregon Medical School and Johns Hopkins University School of Medicine, plus a 2-year stay in West Africa with the U.S. Peace Corps, he joined the National Heart, Lung, and Blood Institute's Office of Prevention, Education and Control in 1974. He then moved to the Institute's Division of Heart and Vascular Disease in 1977, assuming his present position.

Dr. Weiss has been instrumental in achieving acceptance and support for the newly established fields of behavioral medicine and health psychology. □

International Women Scientists Form Association at NIH

Foreign women scientists are cordially invited to attend meetings of the newly formed International Women Scientists Association (IWSA).

IWSA meetings are held on the third Tuesday of every month (Aug. 16, Sept. 20, Oct. 18) at 6 p.m. in Rm. 117, Bldg. 30. For further information, contact Janet Barch of the Fogarty International Center at 496-4335. □

Visiting Scientists

- 5/25 **Dr. Julie Kay Horton**, England. Sponsor: Dr. John Bend, Laboratory of Pharmacology, NIEHS, Research Triangle Park, N.C.
- 5/25 **Dr. Ewa Tamborska**, Poland. Sponsor: Dr. Edward Majchrowicz, Laboratory of Preclinical Studies, NIAAA, Danac 4, Rm. 55C, Rockville, Md.
- 5/31 **Dr. Heinz Arnheiter**, Switzerland. Sponsor: Dr. Robert Lazzarini, Laboratory of Molecular Genetics, NINCDS, Bg. 36, Rm. 3B04.
- 5/31 **Dr. Maria B. Boross**, Hungary. Sponsor: Dr. Bertram Sacktor, Laboratory of Molecular Aging, NIA, GRC, Baltimore, Md.
- 5/31 **Dr. Sushil K. Taneja**, India. Sponsor: Dr. Herbert Tabor, Laboratory of Biochemical Pharmacology, NIADDK, Bg. 4, Rm. 110.
- 6/1 **Dr. Marianne Ewertz**, Denmark. Sponsor: Dr. John Boice, Environmental Epidemiology Branch, NCI, Landow Bg., Rm. 3C16.
- 6/1 **Dr. Usha Thathamangalam**, India. Sponsor: Dr. Peter Mora, Macromolecular Biology Section, NCI, Bg. 8, Rm. 123B.
- 6/1 **Dr. Hauke Sieverts**, West Germany. Sponsor: Dr. Ian Magrath, Pediatrics Branch, NCI, Bg. 10, Rm. 13N240.
- 6/1 **Dr. Toshio Nakaye**, Japan. Sponsor: Dr. Ichiji Tasaki, Laboratory of Neurobiology, NIMH, Bg. 36, Rm. 1D02.
- 6/1 **Dr. Hideo Wada**, Japan. Sponsor: Dr. Martha Vaughan, Laboratory of Cellular Metabolism, NHLBI, Bg. 10, Rm. 5N307.
- 6/3 **Dr. Yasunori Kanaho**, Japan. Sponsor: Dr. Joel Moss, Laboratory of Cellular Metabolism, NHLBI, Bg. 10, Rm. 5N318.
- 6/6 **Dr. Benjamin J. Amaladoss**, India. Sponsor: Dr. Marshall Nirenberg, Laboratory of Biochemical Genetics, NHLBI, Bg. 36, Rm. 1C27.
- 6/6 **Dr. Pasquale Battista**, Italy. Sponsor: Dr. Tibor Borsos, Laboratory of Immunobiology, NCI, FCRF, Frederick, Md.
- 6/6 **Dr. Guo Chan**, China. Sponsor: Dr. Carl Saxinger, Laboratory of Tumor Cell Biology, NCI, Bg. 37, Rm. 6B04.
- 6/6 **Dr. Lalage M. Wakefield**, England. Sponsor: Dr. Michael Sporn, Laboratory of Chemoprevention, NCI, Bg. 41, Rm. 201.
- 6/8 **Dr. Edina Magyarosy**, Hungary. Sponsor: Dr. Sue Ellen Martin, Laboratory of Pathology, NCI, Bg. 10, Rm. 2A17.
- 6/10 **Dr. Tian Xiaoming**, China. Sponsor: Dr. Richard Gruelich, NIA, GRC, Baltimore, Md.
- 6/13 **Dr. Takako Kato**, Japan. Sponsor: Dr. Arthur S. Levine, Section on Viruses and Cellular Differentiation, NICHD, Bg. 10, Rm. 13C108.
- 6/14 **Dr. Yoshiko Hattori**, Japan. Sponsor: Dr. Reuben P. Siraganian, Laboratory of Microbiology and Immunology, NIDR, Bg. 10, Rm. 2B12.
- 6/15 **Dr. Grzegorz J. Blotny**, Poland. Sponsor: Dr. Josef Pitha, Laboratory of Cellular & Molecular Biology, NIA, GRC, Baltimore, Md.
- 6/16 **Dr. Prafulchandra Dalal**, India. Sponsor: Dr. Bruce Schoenberg, Neuroepidemiology Section, NINCDS, Federal Bg., Rm. 804.
- 6/16 **Dr. Myung Kyung Kim**, Korea. Sponsor: Dr. Edward Kimball, Biochemistry Section, NCI, FCRF, Frederick, Md.
- 6/16 **Dr. Masahiro Yanase**, Japan. Sponsor: Dr. Maurice Burg, Laboratory of Kidney and Electrolyte Metabolism, NHLBI, Bg. 10, Rm. 6N307.
- 6/17 **Dr. Reyer T. Ottow**, The Netherlands. Sponsor: Dr. Paul H. Sugarbaker, Colorectal Cancer Section, NCI, Bg. 10, Rm. 10N102.
- 6/20 **Dr. Kuo-Chi Cheng**, Taiwan. Sponsor: Dr. Harry Gelboin, Laboratory of Molecular Carcinogenesis, NCI, Bg. 37, Rm. 3E24.
- 6/20 **Dr. Rita Khanna**, India. Sponsor: Dr. Judah Rosner, Laboratory of Molecular Biology, NIADDK, Bg. 2, Rm. 210.
- 6/20 **Dr. Akihiro Yachie**, Japan. Sponsor: Dr. R. Michael Blaese, Cellular Immunology Section, NCI, Bg. 10, Rm. 4N108.

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