the NIH Record

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

July 17, 1973
Vol. XXV, No. 15

NATIONAL INSTITUTES OF HEALTH

NCI Scientists Develop Rapid Method to Detect Carcinogenic Chemicals

National Cancer Institute scientists have developed a new method for rapid testing of chemicals for potential cancer-causing activity.

The technique, which tests chemicals by using animal embryo cells growing in a glass dish, may offer an efficient and economical procedure for the screening of thousands of environmental substances.

Environmental chemicals are currently tested for cancer-causing activity by feeding them to mice and rats throughout the animals' lives. Costly and time-consuming, each current test requires over 500 laboratory animals and 2 to 4 years to evaluate a chemical.

NCI is presently testing over 400 chemicals, but it has determined the need to test tens of thousands of chemicals to which people are exposed.

The new method, which may indicate cancer-causing activity in as little as 2 weeks, is a modification of an earlier technique developed by NCI's Dr. Joseph A. DiPaolo and scientists at other institutions.

The new procedure is described in the June issue of *Archives of Pathology* by Dr. DiPaolo, Richard L. Nelson, Paul J. Donovan, and Dr. Charles H. Evans, all of NCI's Biology Branch.

Under the new procedure, a test chemical is first injected into a pregnant hamster. The hamster

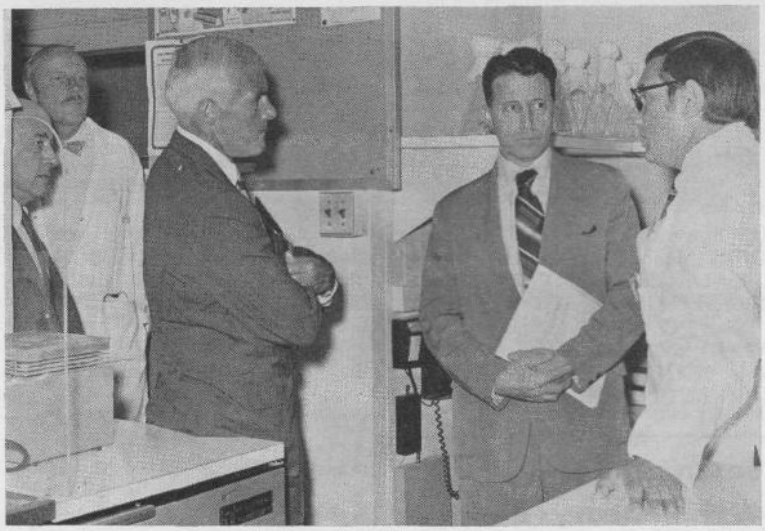
(See METHOD, Page 6)

NIH Library Will Continue Services During Alterations

Sections of the NIH Library book and journal stacks on the B-1 level of the Clinical Center will be closed from July 23 to Sept. 14 for alterations to improve the heating and air conditioning systems.

The NIH Construction Engineering Branch and the contract construction company have asked that visitors to the Library not enter any of the cordoned-off areas.

Services will be maintained by library personnel stationed at the entrance to the closed stack areas.



Secretary Weinberger (second from right) and Dr. Edwards visit Dr. Sheldon M. Wolff in his CC lab. Dr. Wolff is NIAID's clinical director. Dr. Berliner and Dr. Chalmers accompanied the visitors on their tour here.

Researchers Reverse Effects of a Rare Disorder With Enzyme Injection Therapy

Investigators at the National Institute of Neurological Diseases and Stroke have succeeded in temporarily reversing the effects of a rare hereditary disorder in two patients by employing enzyme replacement therapy. This is the first time that direct replacement of a body enzyme has shown beneficial results in a genetic disorder.

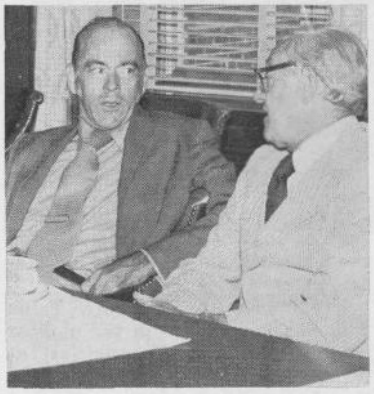
Only about 300 persons in the United States are known to be affected by this rare disorder called Fabry's disease, which occurs only in men.

But it may be possible to treat by enzyme replacement others—numbering tens of thousands—who are suffering from similar genetic disorders.

The disease is caused by a deficiency of one of the enzymes needed to help the body in the normal disposal of lipids. Without this enzyme, a lipid—fat particle—accumulates in various organs of the body.

The disease becomes evident during the teens with the onset of pain in the legs and arms, eye problems, and a rash along the torso.

A patient in his 40's will have accumulated so much fatty material in his kidneys that death may be expected unless he undergoes dialysis or a kidney transplant.



At a recent meeting, Dr. Brady (l) and Dr. Julius Axelrod, NIMH, discuss research taking place in their respective labs. Dr. Brady is interested in producing enough enzyme to see if the problems caused by the hereditary disorder can be improved or reversed. He believes they can.

Dr. Roscoe O. Brady, chief of the NINDS Development and Metabolic Neurology Branch, said at a recent press conference that soon after one of his patients was in-

(See THERAPY, Page 7)

Secretary Praises NIH; Announces Training Program

HEW Secretary Caspar W. Weinberger brought NIH employees reassuring words on the future of research funds, and announced a new $30 million program of Research Training Fellowships in a speech in the Jack Masur auditorium July 9.

In an appearance sponsored by the Interassembly Council of the Assembly of Scientists, the Secretary praised the quantity and quality of research done at NIH, confessing that he himself is a "frustrated doctor."

Health research faces a time of "fiscal realities," Mr. Weinberger said, since Federal resources are limited and priorities in expenditures need careful determination.

Research scientists, however, have little cause for concern, the Secretary said, because funding will continue at its present levels, with allotments for steady future growth. Slight changes of direction can be expected from time to time, however.

The present concentration of funds on heart and cancer research does not constitute a commitment to a NASA-type venture, the Secretary said, and "a reasonable balance" will be maintained. Unlike the landing on the moon, he commented, in cancer research we don't know "where is there."

Program Begins Soon

The new Research Training Fellowship program will begin this fiscal year, he said. Fellowships will be in the amount of $10,000 each and come from already budgeted funds which will not be needed to fulfill existing commitments under the old programs.

"As the old commitments, principally to institutions, phase out over the course of the next 3 years," he said, additional funds will be added "bringing the program to a total of $90 million."

The fellowship awards will be made either directly to the student or to the student through an institution.

"The vast majority will be made

(See SECRETARY, Page 8)

the NIH Record

Published biweekly at Bethesda, Md., by the Publications and Reports Branch, Office of Information, for the information of employees of the National Institutes of Health, Department of Health, Education, and Welfare, and circulated by request to interested writers and to investigators in the field of biomedical and related research. The content is reprintable without permission. Pictures are available on request.
The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policies of the paper and the Department of Health, Education, and Welfare.

NIH Record Office ..... **Bldg. 31, Rm. 2B-03. Phone 49-62125**

Editor ..... **Frances W. Davis**
Assistant Editor ..... **Fay Leviero**
Staff Writer ..... **Ed Driscoll**

Staff Correspondents

ADA, Robert Manning; BHME/OD, Florence Foelak; CC, Thalia Roland; DAHM, Laura Mae Kress; DCRT, Joan Chase; DDH, Carolyn Niblett; DMI, Marian R. Fox; DN, Evelyn Lazzari; DPHPE, Frank A. Sis; DRG, Sue Meadows; DRR, Jerry Gordon; DRS, Cora M. Sult; FIC, Lois P. Meng; NCI, Robert J. Avery; NEI, Bonnie Friedman; NHLI, Bill Sanders; NIAID, Krin Larson; NIAMDD, Pat Gorman; NICHD, Kathy Kowalczyk; NIDR, Sue Hannonffi NIEHS, Elizabeth Y. James; NIGMS, Wanda Warddell; NINDS, Carolyn Holstein; NLM, Ann R. Lindsay.

Virginia McCormick, night supervisor of Nursing at the Clinical Center, retired June 29 after 19 years of service. Miss McCormick, who received her training at Johns Hopkins University, spent 2 years as a nurse in the U.S. Army early in her career.

Annual Savings Bond Drive Ends; NIH'ers 'Take Stock in America'

The final results of NIH's 1973 Savings Bond campaign are in.

DCRT led the field—closely followed by FIC and NIEHS—with a 29.1 percent total of new buyers plus former buyers who increased their deductions per pay period.

DRG, DRR, and NLM respectively won win, place, and show honors with over 50 percent of each organization participating in the savings bond program.

Driver who takes one for the road gets state trooper for chaser.
—*D.C. Traffic Safety Reporter*

Seymour Taine Heads WHO Library; First American to Hold Post

Seymour I. Taine, chief of the Technical Services Division, National Library of Medicine, has been appointed chief librarian of the World Health Organization in Geneva, Switzerland.

Mr. Taine, who had also served as Director of the NIH Library, is being transferred under the Federal Employees International Organizational Service Act.

This act encourages Federal employees to take positions in international technical assistance programs. He is the first American appointed to the assignment.

In 1964-65, Mr. Taine served as a WHO consultant for the planning of the World Health Research Center, the WHO Biomedical Research Information System, and the International Agency for Research on Cancer.

From 1949 to 1964, Mr. Taine was closely involved in the pioneer library automation activities at NLM. He was project officer of the Index Mechanization Project and MEDLARS I (Medical Literature Analysis and Retrieval System).

James Davis Elected President Of R&W's Board of Directors

James B. Davis, Director of the Office of Administrative Services, has been elected president of the NIH Recreation and Welfare Association's board of directors for 1973-74.

Others elected to board positions are: Diane Shartsis, NCI, second vice president, and Kathleen A. Maguire, NHLI, assistant treasurer.

Clerk-Typist Training Plan Offers a Chance For Job Advancement

Are you interested in a new career at NIH?

The NIH Clerk-Typist Program is offering a chance for advancement to career and career-conditional employees in dead-end or limited skill jobs.

Employees in GS-1 through GS-3, those in an equivalent wage system job (WG 1-5, WP 1-7, or WL 1-4), or GS-4 clerical employees are eligible to apply.

Typing or clerical experience is not required for the 6-month full-time training program. There will be 3 months of classroom instruction and 3 months of on-the-job clerical training.

From Sept. 10 through Dec. 10 classroom training in Bldg. 31 will include typing, English, mathematics, writing, filing, and general office procedures.

Up to 15 employees will be accepted for the program with selections made in accordance with the NIH Upward Mobility Training Agreement. Those selected will be reassigned to the Office of Personnel Management rolls as clerk-typist trainees.

General schedule trainees' grades and pay will not be changed but wage system employees who are selected for training will be converted to the General Schedule at a step rate equivalent to their present pay if it does not exceed GS 3, Step 10.

Trainees Reassigned

Trainees successfully completing the course will be assigned to clerk-typist positions. Those not meeting course requirements will return to their original assignment or to another job with comparable salary.

Applicants should send completed SF 171 forms before Monday, July 23, to Career Development Branch, Bldg. 31, Rm. B2-C21, Tube Station CS-5. For additional information, call Ext. 66211.

Sick and Annual Leave Authorized for 2nd, 3rd Shift Wage Employees

Because of a recent comptroller general decision, the Civil Service Commission has revised its pay regulations authorizing agencies to pay night shift differentials to second and third shift wage employees while on sick and annual leave. The pay is retroactive to Nov. 17, 1972.

NIH employees in this category will receive an adjustment in their pay for sick or annual leave taken since Nov. 26, 1972.

Timekeepers have been asked to review time and leave records and to submit information to the Division of Central Payroll in order to expedite correct back payments.

Employees with questions about these provisions may consult their timekeepers.

Dr. William W. Tullner, Noted Gland Researcher, Retires From NICHD

Last year Dr. Tullner was given the first NICHD EEO award for his assistance to employees in the Institute.

Dr. William W. Tullner, National Institute of Child Health and Human Development, is retiring after 27 years of Federal service. He first came to NIH in 1946 as a biologist in the National Cancer Institute, and, with Dr. Roy Hertz, studied endocrine aspects of cancer.

After obtaining his M.S. and Ph.D. degrees from George Washington University in 1953 and 1957 respectively, Dr. Tullner investigated pharmacological agents capable of altering hormone secretion and growth of normal and neoplastic endocrine tissues.

In 1965 he became chief of the Section on Endocrinology, Reproduction Research Branch, NICHD, and has held that post until his retirement.

Chapters Explain Research

In recent years, Dr. Tullner has examined the pattern of chorionic gonadotropin secretion in subhuman primates used in reproduction research.

He has summarized his findings in chapters of several books which were published recently. He is also known for his extensive studies on the levels of plasma and urinary steroids during the menstrual cycle and pregnancy in rhesus monkeys.

Dr. Tullner has served as lecturer in endocrine chemistry at Georgetown University, a research consultant to the Graduate Council of George Washington University, and a research associate, department of zoology, Howard U.

Six Employees Retire From Division of Nursing

Henry Allnutt, Irene Bernard, Lola Dunn, Bernice Pinkard, Helen Roberts, and Jane Torrance were recently honored at an office reception before their retirement from the Division of Nursing, BHME, on June 30.

Henry Allnutt, who became grants management officer in 1965, had 27 years of service with the Federal government.

In August 1972 Mr. Allnutt received an award for superior accomplishment as a member of a group cited for perseverance and initiative in completing an unusually heavy workload.

He plans a leisurely trip to Florida for rest and golf.

Irene Bernard, a writer-editor in the Division's information office, who retired after 33 years' Federal service, received a number of awards for excellence.

Before joining DN in 1967, she worked as a technical editor at NINDB and the Agriculture Research Service, and she accompanied the hospital ship U.S.S. Hope on a year's voyage to the Far East in 1960-61.

Mrs. Bernard plans to pursue her many interests—gardening, photography, art, and travel.

Lola Dunn, a writer-editor, who retired after 30 years of Federal service, joined DN in 1961.

Looks Forward to Trip

She is looking forward to a trip next year, perhaps to Europe, and then hopes to do some writing.

Bernice Pinkard, a grants technical assistant, Nursing Education Branch, had 29 years with the Federal Government—3 of which were spent with DN—before retirement.

Mrs. Pinkard expects to be kept busy with her family, 2 daughters and 2 sons, and is planning a long trip to California.

Helen Roberts, acting chief of the Training Grants Section, Nursing Education Branch, retired from the Public Health Service after 24 years.

Miss Roberts is anticipating a trip to Europe next month.

Jane Torrance, a consulting nurse, Nursing Education Branch, retired after 7 years with the Federal Government.

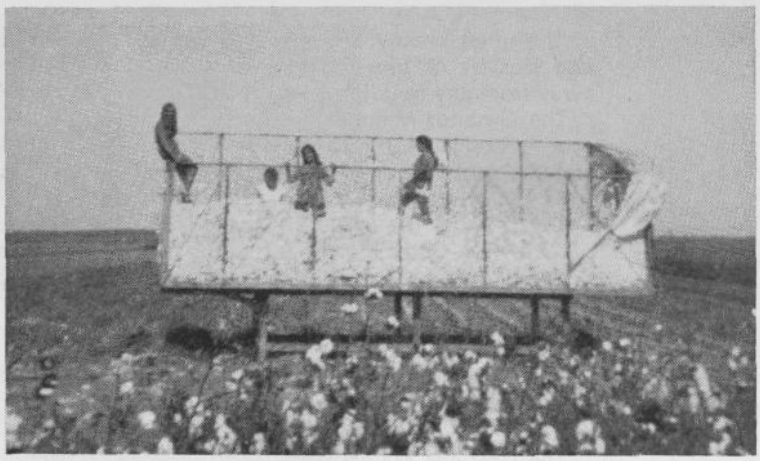
She joined DN in 1966 as a nurse consultant to help interpret provisions of the Nurse Training Act to schools of nursing.

Hospitality Comm. Arranges For Loan of Household Items

Visiting foreign scientists who want to borrow household items from the NIH Hospitality Committee may phone Dr. E. Charney, Ext. 64921, or Mrs. Ruth Cahnmann at home, 530-2921.

Arrangements can be made to return items by calling either number.

A Former 'Kibbutznik' Kibitzes; Switches From Melon Field to Health News Field



Waiting for the harvester

By Nancy Breslau

Bend, reach out, snip that vine, bend again. The tractor set the pace for 4 hours, and I was one of the melon pickers that followed it.

On Kibbutz Haogen, my Israeli home for 7 months, I earned my keep in a variety of ways. I was involved in a work-study program there, and spent 4 hours at work and 4 hours in the classroom learning Hebrew each day.

My 45 co-workers and classmates were an international bunch: a third were new immigrants from the Soviet Union, a third were English-speaking (from Canada, U.S.A., Australia, South Africa, Britain, etc.) and the rest came from North African countries and Europe.

We were all young (18-35) and had little in common besides our age and religion. Half of us were new immigrants (olim hadeshim); half were tourists who wanted to live among Israelis, experience life on a collective farm, and become more fluent in Hebrew.

In return for our half-day of labor we received room, board (home-grown, delicious, fattening!), language lessons, and sightseeing trips.

Though our work hours were much shorter than the other kibbutzniks' (there were 500 members on my kibbutz) our work was particularly useful to the kibbutz in an ideological sense. We were a steady supply of unskilled labor.

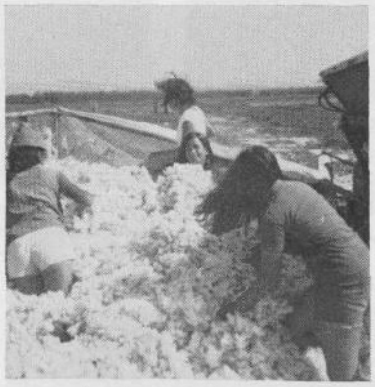
Prickly Problem Settled

For political reasons, the kibbutz is reluctant to become an employer and hire the temporary workers that the seasonal nature of agricultural work requires. Thus, the work-study program and the cheap labor force it creates enables the kibbutz to disentangle itself from a thorny ideological problem.

After all, money and employer-employee relationships have no place on a kibbutz. In exchange for his 8 hours of work each day, each kibbutznik receives an apartment, as much food as he can eat, a clothing allowance, laundry and medical services, use of communally-owned cars, vacation time, etc.

He eats in a central dining room, or can cook in his own kitchenette. He can relax in the kibbutz's theater, clubhouse, or swimming pool.

Work assignments are rotated every few years. The chemist who



Acrobatics in the cotton

works in the kibbutz's plastics factory may also wear an apron and serve meatballs in the dining room at supper time. The woman who crates oranges or irons clothes one year may teach French the next.

On my kibbutz, one man's job was to pursue his talents as a painter. (Shraga Weill, Haogen's artist, produced the frescoes in the Israeli Room of the Kennedy Cultural Center.) Another kibbutznik served as Israel's ambassador to Rumania.

But my work role at Kibbutz Haogen changed from week to week.

From melon picking I graduated

(Continued on Page 7)

Most Efficient Methods For Treating 3 Cancer Types Made Available

The most effective treatments for three types of cancer will be made more widely available in the United States through approximately 120 hospitals in seven National Cancer Institute contract-supported demonstration projects.

These contracts represent the first treatment demonstration projects in NCI's Cancer Control Program which is headed by Dr. John C. Bailar III, acting associate director for Cancer Control.

Programs' Purpose Stated

The programs are intended for patients who may not have access to the best possible cancer treatment.

Acute lymphocytic leukemia, Hodgkin's disease and non-Hodgkin's lymphomas have been chosen for the demonstration because recent advances in treatment—particularly with anti-cancer drugs—have greatly improved survival for patients receiving such treatment.

Seven "primary" hospitals will act through regional networks of "contributing" hospitals to show community physicians and other health workers the most helpful treatments for these forms of cancer.

Hospitals Listed

The primary hospitals, their program directors and the amounts of each contract are:

- Children's Hospital of Los Angeles, Dr. Myron Karon, $229,573.
- Children's Hospital Medical Center, Cincinnati, Dr. Beatrice C. Lampkin, $218,171.
- Dartmouth Medical School, Dr. O. Ross McIntyre, $128,054.
- University of Alabama Medical Center, Dr. John R. Durant, $356,675.
- Children's Hospital of Denver, Dr. Charlene P. Holton, $211,454.
- New York Hospital-Cornell Medical Center, Dr. Richard T. Silver, $486,097.
- Mount Sinai School of Medicine, New York City, Dr. Louis R. Wasserman, $308,138.

6 Sign 3-Year Contracts

Three-year contracts have been signed with the first six hospitals—the Mount Sinai School of Medicine contract is for one year.

The most effective methods of diagnosis and therapy for all three types of cancer will be demonstrated at most of the primary hospitals, with the exception of Children's Hospital of L. A.

That hospital will concentrate on acute lymphocytic leukemia, the most common cancer among children.

Quiet Beauty ... Only a

Huge White Oaks and smaller flowering Dogwoods line the stairway leading to Stone House.

The quiet beauty and serenity of thick green grass, low-hanging shade trees, and clusters of blossoming shrubs and flowers are no more than a few steps away from any building on campus.

The Grounds Maintenance and Landscaping Section is striving to create a 300-acre naturalistic setting for the comfort and enjoyment of NIH employees, visitors, area residents, and passers-by.

Lawns, trees, shrubs, roads, sidewalks, parking lots, snow removal, excavation —all fall under the jurisdiction of a staff of 45 headed by Thomas J. Cook.

"We work under guidelines set by a master landscape plan, which is constantly updated in accordance with the NIH master development plan," explained Mr. Cook, one of two landscape architects on the staff.

Certain standards guide the design of new construction or renovations, such as natural pruning rather than shearing of plant materials, spacious recreational areas, and a "buffer zone" of approximately 200 feet within which no building may be constructed. This shields NIH from the surrounding residential community.

The Grounds Maintenance and Landscaping Section is responsible for the 300 acres here as well as over 500 acres at the NIH Animal Center and farm in Poolesville, Md. Three men maintain the grounds at Poolesville, a job consisting almost entirely of mowing.

"At the farm you can cut grass with larger mowers and be done quickly," said Mr. Cook. "Here in Bethesda you must use smaller areas are so fragmented; it takes much longer."

One of a myriad of functions performed by the s 10 men 5 days to complete. Mowing must be done is not necessary.

Four units divide the workload. The Turf Unit n mental Shrub Unit cares for shrubs, small flowering as ivy; the Heavy Equipment and Paving Unit over roads and supplies equipment support to other units handles the care of large trees as well as pest and shrubbery. The landscape architects and general fo to be done and by whom.

"The main problem we face is a shortage "With so many things that should be done, we m maintenance will be.

"The campus is set up with some 'intensiv "Where traffic is heavy, or where there are many vi tenance is needed than in areas that are rarely seen b

Some employees and visitors add to the section creating footpaths where they don't belong.

"We must watch closely and prevent people from Mr. Cook said. "If pedestrian traff a sidewalk if appropriate.

"People are a little bit like else will use it. If you let it be u bound to get complaints because

Another problem facing the s areas which depletes the availab out rain necessitates transferring

"When in full leaf, the larger each day," Mr Cook explained. lems caused by drought."

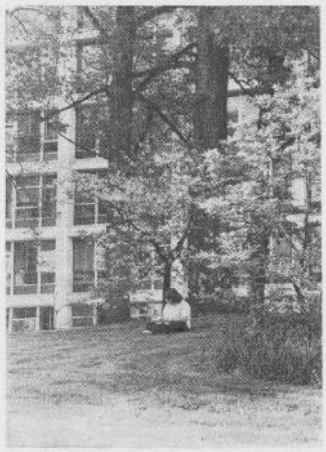
Some of the trees have grown over turf areas, causing the roo heavy rain. To allow more light lower tree limbs is a constant pric

Recently, a problem with ero was eliminated when the bank the slope, and ivy, viburnums, an

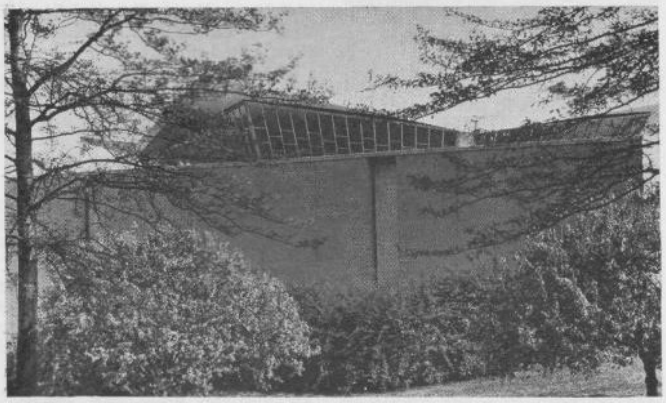
Another part of the long-ran most surface parking to allow fo multi-level structures, more area tion of rainwater.

A small plaza the summer m surround the p

The sun filters through the old Sugar Maple trees that line North Drive. These are some of the original trees that lined the driveway leading to the Wilson Estate.



A student finds time to study during lunch under the shade of Tulip Poplar and Saucer Magnolia trees.



Forsythia, flowering Crab Apple, and Pin Oaks are part of the landscape planning around the National Library of Medicine.

On Wilson Drive near the creek is one of several "tree lawns."

Only a Few Steps Away

le trees,
w steps

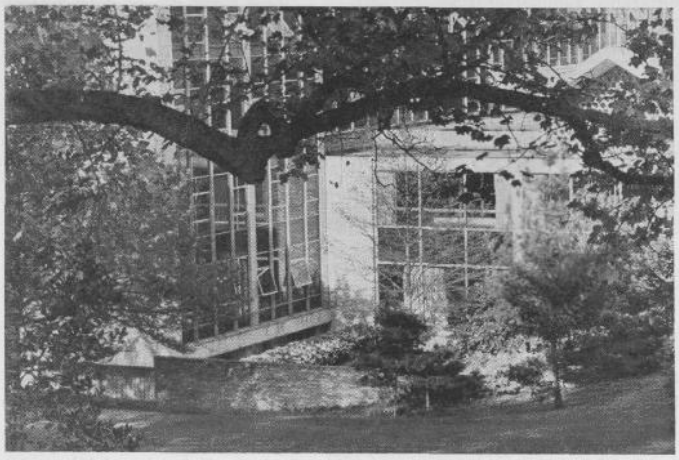
e a 300-
visitors,

cavation
k.
nstantly
ned Mr.

ns, such
s recre-
hich no
sidential

the 300
Pooles-
g almost

ly," said



A small plaza outside Bldg. 31 provides an excellent spot for lunch during the summer months. Indica Azaleas, Baltic Ivy, and flowering Crab Apple surround the patio which includes a reflecting pool.

Here in Bethesda you must use smaller equipment because the grassy fragmented; it takes much longer."

myriad of functions performed by the section, cutting the grass, takes ys to complete. Moving must be done once each week so that raking ary.

divide the workload. The Turf Unit maintains the lawn; the Orna- Unit cares for shrubs, small flowering trees, and ground cover such Heavy Equipment and Paving Unit oversees walks, parking lots, and pplies equipment support to other units, and the Tree and Spray Unit care of large trees as well as pest and weed control on lawns and he landscape architects and general foremen determine what needs nd by whom.

n problem we face is a shortage of help," Mr. Cook stated. ny things that should be done, we must decide what our level of will be.

pus is set up with some 'intensive care' areas," he added. ic is heavy, or where there are many visitors, a higher level of main- eded than in areas that are rarely seen by the public."

ployees and visitors add to the section's workload by littering and paths where they don't belong.

watch closely and prevent people from starting too many new paths," Mr. Cook said. "If pedestrian traffic is particularly heavy in one area, we will install a sidewalk if appropriate.

"People are a little bit like sheep—if one person starts a path, everyone else will use it. If you let it be used for awhile and then try to block it off, you're bound to get complaints because it becomes a habit."

Another problem facing the section is excessive rainwater runoff on surfaced areas which depletes the available water supply for large trees. Two weeks without rain necessitates transferring half the staff to the task of watering.

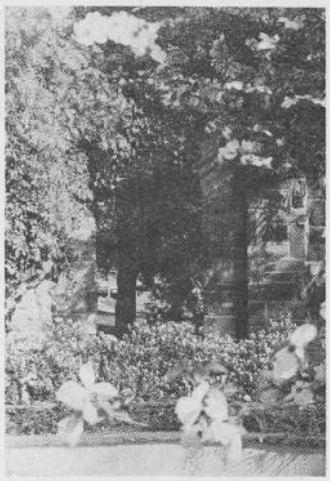
"When in full leaf, the larger trees can transpire up to 150 gallons of water each day," Mr Cook explained. "Plant material needs deep water to avoid problems caused by drought."

Some of the trees have grown so large that they are creating a "shade canopy" over turf areas, causing the roots of the grass to become shallow and erode in heavy rain. To allow more light to reach the ground, the "big job" of elevating lower tree limbs is a constant priority.

Recently, a problem with erosion on the south side of the Bldg. 10 cafeteria was eliminated when the bank was redone. A retaining wall was built to soften the slope, and ivy, viburnums, and azaleas were planted.

Another part of the long-range master plan involves eventually eliminating most surface parking to allow for more natural landscaping. With most parking in multi-level structures, more area will be available for the absorption and percolation of rainwater.

An employee strolls under Wild Cherry and Poplar trees on the grounds behind the Clinical Center.



At the end of the path in the rose garden adjacent to Stone House is a small reflecting pool surrounded by Azaleas and overhanging Dogwood.

Photos and Story
By Sharon Dorfman

Look hard, even birds find NIH a pleasant place to visit and live.

METHOD

(Continued from Page 1)

embryos, exposed to both the chemical and its metabolic byproducts, are later removed and the embryonic cells grown in the test tube. Cancerous transformation is detectable when the cells are viewed under a microscope and confirmed by injecting the transformed cells into healthy hamsters where they produce cancers.

An earlier method consisted in applying a test chemical directly to cells from animal embryos growing in a glass dish to watch for signs of cancerous change. Because some chemicals cause cancer only after activation by metabolic processes in the body, their direct application to the cells may allow some hazardous chemicals to appear safe.

The scientists tested 12 chemicals known to cause cancer, as well as five that do not, using the new method. In each test four pregnant hamsters with average litters of 12-14 embryos were used. Each test correctly identified the cancer-causing potential of the chemical being evaluated.

Cancerous transformation in the embryo cells could be observed under a microscope within 2 weeks of their exposure to the hazardous chemicals. Usually 3 to 16 weeks are required for cancers to develop in healthy animals after injection with the transformed cells.

Further work is now planned by NCI using many other cancer-causing and non-cancer-causing chemicals to determine if such a method, requiring relatively so few animals and few weeks, consistently detects cancer-causing activity.

If its reliability is confirmed, Dr. DiPaolo said, the technique should aid greatly in the identification of environmental factors triggering cancer.

Noted Researchers Hear Laird Discuss Nation's Health Issues at NIDR Meeting

In his address before a scientific conference commemorating the 25th anniversary of the National Institute of Dental Research, Melvin R. Laird, Counsellor to the President for Domestic Affairs, said, "I know how important you are to the health of this country and to our quality of life."

Biomedical research scientists throughout the United States attended the conference on progress against oral-facial diseases and prospects for the future.

The sessions were held Thursday and Friday, June 28-29, at the Washington Hilton Hotel.

Mr. Laird, the featured speaker at the Thursday luncheon, spoke about his role as a Congressman from Wisconsin on the Health, Education, and Welfare Appropriations Subcommittee.

Explains Work

He told about his work with the late John E. Fogarty, Committee Chairman, to help "create and build the National Institutes of Health which has become the leading center in the world dedicated to biomedical research."

He then went on to discuss issues which he said demand and deserve attention.

"I am talking about areas and issues of health care and health quality. Of education, finance, and policy. And of welfare reform. Areas of the economy, the ecology, and the source of supply of energy for this country for the rest of this year and for the rest of the century," he stated.

John S. Millis, president of the National Fund for Medical Education, who spoke Thursday morning, said that dentistry might well be the first branch of medicine to achieve the goal of a preventive practice.

"In the long run the most effective health dollars we spend are research dollars devoted to increasing knowledge to the level which can describe the mechanisms of disease," Mr. Millis stated.

"Whenever a student's knowledge reaches that which has been recorded by others, if he is to continue to learn beyond that boundary, it must be by self-direction.

"The mechanism, the tool, of that self-directed learning is research," he added.

The conference was opened by Dr. Seymour J. Kreshover, NIDR Director. Dr. Louis A. Saporito, president of the American Dental Association, presided at the Thursday luncheon.

Others attending the conference included HEW Assistant Secretary for Health, Dr. Charles C. Edwards, and NIH Deputy Director Dr. John F. Sherman, representing NIH Director Dr. Robert S. Stone who was out of the country.

BHME Funds Retraining Course For Inactive Women Physicians

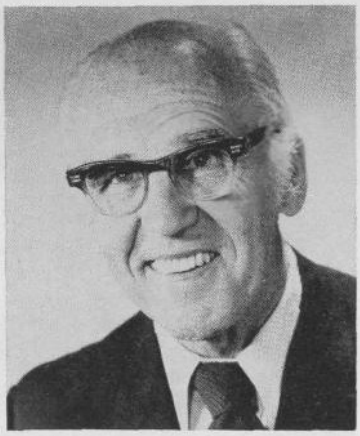
The Medical College of Pennsylvania in Philadelphia has contracted to begin a part-time residency program designed for retraining inactive women physicians.

The $505,000 contract was awarded by DPHPE, BHME.

Eight inactive women physicians will be enrolled in the pilot course beginning July 1, 1974. Two will take residency training in internal medicine, two in pediatrics, two in obstetrics-gynecology, and two in anesthesiology.

The type and duration of the training will be determined during the first year of the 4-year contract.

John McDougall Retires From Fed'l Career That Began Under Roosevelt



Mr. McDougall graduated from St. Cloud State College and did graduate work at the University of Minnesota.

John C. McDougall, associate director for Program Services, National Institute of Child Health and Human Development, recently retired after 35 years of Federal service.

Mr. McDougall joined NICHD shortly after it was established in 1963, assuming responsibility for program services and contract management activities. He helped implement an institute organizational plan that was considered revolutionary at that time.

Is Successful Manager

NICHD was one of the first institutes to be organized on a "program" basis and Mr. McDougall was the first non-scientist to assume responsibility for the administrative aspects of the institute's extramural program.

His successful management in effect freed the scientists from paper work and permitted them to concentrate more specifically on the scientific aspects of the research programs.

Mr. McDougall's Federal service began in the Roosevelt Administration as a regional administrative officer with the National Youth Administration. In 1942 he joined the United States Army, achieving the rank of captain, and later worked with the War Assets Administration in Minnesota.

Receives Award

Prior to joining NICHD, Mr. McDougall had been with the Children's Bureau since 1947.

Mr. McDougall was honored in 1970 with the DHEW Superior Service Award for providing NICHD with excellent leadership in the management of its extramural programs.

He is a member of the American Academy of Health Administration and served as the Academy's president in 1967.

SAFER AND MORE EFFECTIVE USE OF DRUGS was considered at a recent symposium in Washington, D.C., sponsored by the National Institute of General Medical Sciences. Left, Dr. Monroe E. Wall (c), Research Triangle Institute, Raleigh, N.C., pauses between workshop sessions to compare pharmacology advances with Dr. Wendell Weber (l) and Dr. Bert N. La Du, both of New York University. Right, Dr. Marjorie Horning, professor of Biochemistry at Baylor University, chats with Dr. Byron Clark, director of the NIGMS Pharmacology-Toxicology Program.

THERAPY

(Continued from Page 1)

jected with the enzyme, the accumulated lipid in his blood dropped to normal levels.

The other patient, who received less enzyme, had a proportional decrease in the blood lipid. Over a 2-day period the lipid gradually returned to the original high levels. This probably means that a patient would require a new injection every other day.

Dr. Brady cautioned that, "we are not ready to undertake the therapy of any lipid disease at the present. We do not have enough material to treat any patient over any length of time."

Synthetic production of the enzyme is not feasible at present because of the large size and complexity of the molecule, he said.

However, he hoped that Fabry's disease enzyme will follow the same course as insulin, which was very expensive when first discovered but is now used in treating diabetes for pennies a day.

Dr. Brady is interested in producing enough Fabry's disease enzyme for long-term experiments to discover if the pain and kidney problems can be improved or even reversed.

The NINDS researchers on Dr. Brady's team included: Drs. John F. Tallman, William G. Johnson, Anatole S. Dekaban, and Andrew W. Zimmerman.

NIH Visiting Scientists Program Participants

5/27—Dr. Francisco M. de Monasterio, Argentina, Laboratory of Vision Research. Sponsor: Dr. Peter Gouras, NEI, Bldg. 10, Rm. 10D03.

5/29—Dr. Takashi Abe, Japan, Pharmacology and Toxicology Branch. Sponsor: Dr. Richard P. DiAugustine, NIEHS, Research Triangle Park, N.C.

5/29—Dr. Piotr Chomczynski, Poland, Laboratory of Biochemisty and Metabolism Research. Sponsor: Dr. Yale Topper, NIAMDD, Bldg. 10, Rm. 9B18.

5/29—Dr. Hirozumi Inoue, Japan, Laboratory of Chemistry. Sponsor: Dr. Everette L. May, NIAMDD, Bldg. 4, Rm. 135.

5/29—Dr. Christopher John Lovell-Smith, New Zealand, Molecular Diseases Branch Sponsor: Dr. Martha Vaughan, NHLI, Bldg. 10, Rm. 5N314.

June Visitors Listed

6/1—Dr. Holger Kirchner, Germany, Laboratory of Cell Biology. Sponsor: Dr. Ronald B. Herberman, NCI, Bldg. 10, Rm. 5B49.

6/1—Dr. James Mark Anthony Wilton, Great Britain, Cellular Immunology Section. Sponsor: Dr. Joost J. Oppenheim, NIDR, Bldg. 30, Rm. 322.

6/4—Dr. Akira Warashina, Japan, Laboratory of Neurobiology. Sponsor: Dr. Ichiji Tasaki, NIMH, Bldg. 36, Rm. 1D02.

6/6—Dr. David R. Makulu, Central Africa, Laboratory of Chemical Pharmacology Sponsor: Dr. T. Philip Waalkes, NCI, Bldg. 10, Rm. 6B16.

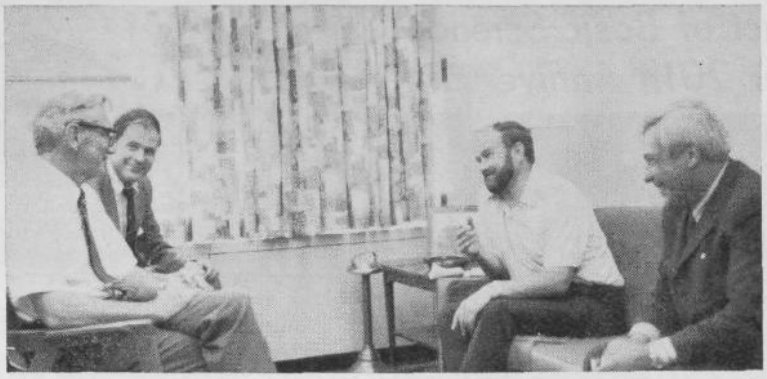
6/11—Dr. T. V. Gopalakrishnan, India, Laboratory of Biochemistry. Sponsor: Dr. E. Brad Thompson, NCI, Bldg 37, Rm. 4C14.

6/24—Dr. Menashe Ben-David, Israel, Reproduction Research Branch. Sponsor: Dr. M. B. Lipsett NICHD, Bldg. 10, Rm. 12N204.

6/25—Dr. Toshio Hirano, Japan, Section on Immunology. Sponsor: Dr. A. A. Nordin, NICHD, Gerontology Research Center, Rm. 1B02, Baltimore City Hospitals.

6/26—Dr. Brian Kilbey, Great Britain, Mutagenesis Branch. Sponsor: Dr. Frederick J. de Serres, NIEHS, Research Triangle Park, N.C.

6/29—Dr. David Rabin, Israel, Clinical Endocrinology Branch. Sponsor: Dr. Jesse Roth, NIAMDD, Bldg. 10, Rm. 8N236.



As part of a visit to the U.S., two Soviet journalists, Demitriv Baltermants (r), photographer for "Ogonyok," and Vladimir Nikolaev, "Ogonyok" deputy editor-in-chief, toured NIH and watched NHLI scientists perform open-heart surgery. Dr. C. Gordon Zubrod (l), director of the Division of Cancer Treatment, and William S. Gray, NCI Office of Public Affairs, answered the journalists' questions about cancer chemotherapy. When their 3-week visit is over, the journalists will have seen small Midwest towns, colonial Williamsburg, Va., Houston's Space Craft Center, Shenandoah National Forest, and the National Gallery of Art.

'KIBBUTZNIK' SWITCHES TO HEALTH NEWS FIELD

(Continued from Page 3)

to cotton jumping. You may ask, "What is cotton jumping?" and as an experienced cotton jumper I'll explain the procedure.

Step 1: A growling harvester picks the cotton. Step 2: Same harvester proceeds to dump the sweet-smelling stuff into huge bins where several workers stand waiting.

Step 3: After clambering onto the top of the fluffy white mounds, we would leap, march, and execute gravity-defying somersaults on the cotton. (The aim of the cotton jumper is to pack in as much cotton in each bin as possible.)

I left the fields and spent some time in the orchards. I picked pecans and avocados, and got my fill of vitamin C in the orange groves.

I ironed in the laundry, served meals in the dining room. Played with toddlers, washed floors. Helped prepare wedding feasts, worked the factory "night-shift."

In my spare time I visited with my kibbutz "family"—each of us was adopted by one of the families on the farm.

I went sightseeing each Shabbot (Sabbath), got a first-class California Girl suntan, saw baby calves being born, clumped along dirt roads in heavy work boots, rose at 5 a.m., smelled wildflowers, thought in a new language, fell in love with a handsome soldier.

It was hard to come home.

(EDITOR'S NOTE: *Nancy Breslau recently joined the Publications and Reports Branch.*)

Overseas G.I.'s Learn Of Job Opportunities In Health Professions

More than 7,000 servicemen and women stationed on U.S. military bases in England, Germany, and Spain had an occasion to find out about education and job opportunities in the civilian health field during the European Job Information Fairs, May 14-25.

The Fairs were co-sponsored by the President's Committee, Jobs for Veterans and the Department of Defense.

Laura Mae Kress, information officer in the Bureau of Health Resources Development, HRA, explained the workings of Operation MEDIHC at the Fairs.

Operation MEDIHC is a program designed to deliver counseling and job and educational referral services to veterans interested in health careers.

MEDIHC coordinators provide services supported through HEW contracts with state agencies.

Dr. L. J. Pecora Retires From Government; First Came to NIH in 1946

Dr. Louis J. Pecora has retired from the National Institute of Dental Research after a 31-year Government career in research and administration. He first came to NIH in 1946.

For the past 5 years he has participated in planning and directing an extramural grants and contracts program on dental materials. Before that he was a scientist administrator in the Division of Research Facilities and Resources.

Dr. Pecora, a graduate of Tufts University, earned a Ph.D. degree in physiology from G.W.U.

During World War II, he was at the Naval Medical Research Institute, Naval Medical Center.

In 1946 he joined the NIH Industrial Hygiene Group as a research physiologist and moved to Cincinnati as chief of its respiratory laboratory.

His studies involved emphysema from exposure to silica and coal dust, industrial fatigue, and the ill effects of high temperatures.

Researches Rice Diet

Between 1948 and 1952 he was with NIAMD where he did research on a rice diet for controlling cardiovascular disease. He discovered that supplementing the rice diet with lysine and threonine had the effect of increasing the growth rate in rats.

From 1959 to 1967 he served as director of pulmonary research at the Veterans Administration Hospital in Cincinnati. Dr. Pecora studied emphysema and asthma and was the first to obtain pulmonary diffusion values in normal children.

He also held academic posts at the University of Cincinnati College of Medicine, the Kettering Institute, and at the Ohio Mechanics Institute.

Dr. Pecora has written over 75 scientific papers and a book, *Physiological Measurements of Metabolic Functions in Man.*

Laura Mae Kress discusses health career opportunities with servicemen and women in Rota, Spain.

Seminar on the Impact of Basic Science Marks Clinical Center 20th Anniversary

Participants take a break during the day-long Clinical Center's anniversary seminar held in the Jack Masur Auditorium.

In commemoration of its 20th anniversary, the Clinical Center held a day-long scientific seminar on July 6 in the Jack Masur Auditorium. The theme of the program was the impact of basic science on clinical research and practice.

Welcoming remarks were made by Dr. Robert S. Stone, Director of NIH, and by Dr. Thomas C. Chalmers, associate director for Clinical Care and Director of the Clinical Center. Dr. Chalmers also introduced the speakers.

The seminar began, fittingly enough, with a presentation of the case history of the Clinical Center's first patient, Charles C. Meredith, a 67-year-old Montgomery County farmer.

Next, leading medical researchers gave addresses on recent advancements made in cancer chemotherapy and in the treatment of hormone related tumors, allergy and infectious diseases, heart disease, and inherited disorders such as gouty arthritis and lipid storage diseases.

These presentations emphasized the basic research efforts which permitted these clinical advances.

The centerpiece of the program was a noontime speech by Dr. Charles C. Edwards, Assistant Secretary for Health of HEW.

Dr. Edwards began his remarks with the observation that this is an age of constant change and assessment, symbolic of which is the fact that 20 years ago the construction of the Clinical Center was opposed by some as a change not proper to the goals of NIH. Time had certainly shown the error of that assessment, he said.

Cites Personal Commitment

Dr. Edwards assured the assembled scientists that he was "personally committed to maintain a firm research base . . . it must continue." While there were those who felt that the Administration had turned its back on medical research, he himself was trying to correct that impression, and he stated, "I wouldn't be here if I felt that was true."

But, he warned, in the highly competitive Federal budget we must be able to justify our demands and be prepared to defend our position.

Concluding remarks were made by Dr. Robert W. Berliner, Deputy Director for Science at NIH, and a reception was held at the Commissioned Officers Club of the Naval Medical Center immediately afterwards.

Dr. Berk to Head New Liver Disease Section

Dr. Paul D. Berk has been appointed chief of the newly created Section on Diseases of the Liver in the Metabolic Diseases Branch of the National Institute of Arthritis, Metabolism, and Digestive Diseases.

Dr. Berk

Initially the new section will conduct studies on the mechanisms by which the liver metabolizes and excretes waste products.

This research may lead to the development of an artificial support organ for use during acute liver failure.

In addition, the section will continue to study hepatitis and cirrhosis.

Prior to his present appointment, Dr. Berk was senior investigator in the Metabolism Branch of the National Cancer Institute, where he conducted both clinical and laboratory investigations of the rates of red blood cell production and destruction in various disease states.

Those studies led to additional investigations of the mechanisms by which the liver excretes the breakdown products of red blood cells, and ultimately to a re-orientation of Dr. Berk's major interest from the physiology of the red blood cell to that of the liver.

SECRETARY

(Continued from Page 1)

directly to the students. Only when we are unable to find qualified researchers in a high priority area will awards be made through institutions," he said.

The Secretary said the fellowships would also carry a sufficient additional amount for research fellows to use as necessary to reimburse an institution for use of its facilities.

"This feature," he said, "will introduce a degree of mobility into the fellowships and further stimulate research competition between institutions.

"The old programs are being phased out," he said, "because only small amounts of money actually reached the research trainee while the bulk went to institutions."

Institutional training grants will be reserved for areas of distinct shortage, he said, and will be a small fraction of the total program.

He said other provisions of the program are:

- Funds may be used to support only post M.D. and post Ph.D. trainees with each person receiving support for up to 3 years.
- Stipend levels have been raised significantly "to more realistically reflect today's living costs," and
- A pay-back provision "for those trainees who do not spend an appropriate length of time in research and teaching after completing their training."

Policy governing the program and central management will come from the Office of the NIH Director.

Reveals Future Plans

Secretary Weinberger said this would "allow us to handle in a coordinating manner the total research manpower needs now and into the future, and then channel training funds into specific areas of need."

The Secretary closed with the hope that the latter half of the 20th century would be remembered as the age when universal health care was achieved, and that this was the goal towards which all our efforts were ultimately directed.

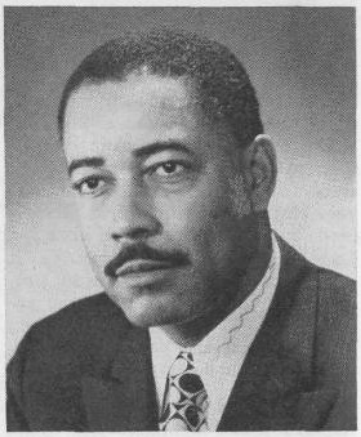
A lively question and answer period followed in which Mr. Weinberger responded to particular points raised by NIH employees.

Dr. William Sadler Named Chief of NICHD Branch

Dr. William Sadler was recently named chief of the Population and Reproduction Grants Branch, Center for Population Research, National Institute of Child Health and Human Development.

Prior to coming to NICHD as health scientist administrator last year he was professor and head, Department of Biology, Texas Southern University in Houston.

Dr. Sadler earned his Ph.D. in physiology and endocrinology at Purdue University in 1961 and joined Texas Southern that same year. During his tenure there, he held a series of scientific and administrative positions.



Dr. Sadler has served as acting branch chief since last March.

He was Director of the In-Service Institute of High School Teachers of Biology, Associate Dean of the Graduate School and chairman of the Committee on Graduate Studies.

Dr. Sadler's major research interests have been the survival and function of endocrine allografts, the role of pheromones and gonadotropic secretion and pregnancy block, and the effect of prostaglandins and cyclic AMP on corpus luteum function.

DCRT Issues Technical Report About Structured Programming

A Structured Assembly Language Source Program Generator is the ninth in a series of Technical Reports issued by the Division of Computer Research and Technology.

Structured programming is a stylized way of writing source language computer programs in order that they may be easily understood, debugged, and maintained.

Anyone interested in obtaining a copy of Technical Report No. 9 may call the DCRT Scientific and Technical Information Office, Ext. 66203.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1972—512-450/26