

the NIH Record

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

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NATIONAL INSTITUTES OF HEALTH

Dr. Robert W. Berliner Cited for Distinguished Medical Contributions

Dr. Robert W. Berliner, NIH Deputy Director for Science, has received the 1969 *Modern Medicine Award for Distinguished Achievement*.

The award was presented in recognition of Dr. Berliner's "fundamental studies of renal physiology, especially electrolyte transport and mechanism of urine concentration and dilution."

Dr. Berliner's findings on the excretion and reabsorption of potassium have added to the understanding of how water and electrolytes are handled by the kidney.

According to the announcement of the award in the Jan. 13, 1969 issue of *Modern Medicine*, Dr. Berliner was described by Dr. James A. Shannon, former Director of NIH, as "a brilliant consultant es-



Dr. Robert W. Berliner, honored for fundamental studies of "renal physiology, especially electrolyte transport and mechanism of urine concentration and dilution."

teemed for his ability to provide constructive advice and insight into fields ranging from physiology to biostatistics."

The author of some 90 major scientific papers, Dr. Berliner came to NIH in 1950 to head the Laboratory of Kidney and Electrolyte Metabolism at the National Heart Institute.

In 1954, he was appointed director of intramural research at the NHI and, in 1968, was named to
(See DR. BERLINER, Page 8)

Former Cal. Lt. Gov. Robert H. Finch Assumes Post as DHEW Head Jan. 22



Robert H. Finch is administered the oath of office as Secretary of DHEW at the White House by Chief Justice Earl Warren as President Nixon looks on. Mrs. Finch is holding the Bible for the ceremony.—White House Photo.

Robert H. Finch, Lieutenant Governor of California since 1966, was sworn in as Secretary of the Department of Health, Education, and Welfare on Jan. 22.

At a news conference several weeks before assuming his duties as head of DHEW, Sec. Finch noted that he will seek "the greatest possible involvement of local and state governments and nongovernmental resources because it is so obvious in this area that government resources are just not adequate."

At the press conference, Sec. Finch revealed that President Nixon had offered him his choice of Cabinet posts, and he said he chose DHEW because it offered the greatest challenge.

"As I told Dr. Marston recently, I have heard from many sources that NIH is the greatest biomedical research organization in the world," Sec. Finch said, "and I hope to be able to visit the research Institutes and the Library of Medicine and see for myself very soon."

"I am also interested in its newer responsibilities for helping meet the Nation's needs for physicians, dentists, nurses, and allied health personnel through the Bureau of

Health Professions, Education and Manpower Training."

When he became Secretary-designate, Mr. Finch conferred at length with the outgoing Secretary, Wilbur J. Cohen, and with three former Secretaries of DHEW: Mr. Gardner, Mrs. Oveta Culp Hobby, and Arthur S. Fleming.

As Lieutenant Governor, Mr. Finch won recognition for leadership in coordinating a massive job training program with the needs of private industry in his capacity as chairman of the California Job Training and Placement Council.

Born in Ariz., Moves to Calif.

Born in Tempe, Ariz., Oct. 9, 1925, Mr. Finch moved to California in 1933.

He received an A.B. degree in political science from Occidental College in 1947, and was graduated from the University of Southern California Law School in 1951. He also holds an honorary doctor's degree from Occidental.

In 1943, at age 19, Mr. Finch interrupted his schooling to enlist in the U.S. Marines, and was discharged as a sergeant in 1945. He was recalled in 1951 during the Korean conflict, and was discharged as a first lieutenant.

After Korea, Sec. Finch estab-
(See MR. FINCH, Page 6)

Dr. Kac to Deliver Next NIH Lecture On Feb. 12 at CC

Dr. Mark Kac, professor of Mathematics at the Rockefeller University and one of the country's most distinguished mathematicians, will deliver the next NIH Lecture on Wednesday, Feb. 12 at 8:15 p.m. in the CC auditorium.

In his lecture, "The Role of Mathematical Models in Sciences," Professor Kac will discuss the computer as a tool in a new kind of experimentation.

Will Show Math Models

He will present examples of mathematical models from the physical sciences, some with significance for biologists.

Professor Kac is widely known for his work on the theory of probability, mathematical statistics, and number theory. He has been with the Rockefeller University since 1961, coming there from Cornell.

He began his work as an instructor in mathematics at Cornell in 1939, was made an assistant professor in 1943, and was elevated to professor in 1947.

Professor Kac is interested in
(See DR. KAC, Page 4)



Professor Mark Kac is well known for his work on the theory of mathematical probability.

Reprints of Reorganization Article, 2 Charts Available

A limited number of reprints of the article on the NIH reorganization and charts (*NIH RECORD*, Jan. 7, 1969) are available.

To obtain copies, please call Miss Pate, Ext. 62125.

the NIH Record

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Dr. Hutchison Advocates More Part-time Medical Positions for Women



Dr. Hutchison recently spoke on Radio Station WGMS. In an interview with Win Clearwater she suggested construction of additional medical schools to alleviate the physician shortage.

In order to alleviate the physician shortage and make medical careers more attractive to women, a policy of part-time positions in that field was advocated by Dr. Marilyn Hutchison, Bureau of Health Professions Education and Manpower Training.

Dr. Hutchison, who is assistant director in the Division of Physician Manpower, recently aired her

Dr. Clarence V. Hodges Joins NIAMD Council

Dr. Clarence V. Hodges, head of the Division of Urology, Department of Surgery, University of Oregon Medical School at Portland, has been appointed to the National Advisory Arthritis and Metabolic Diseases Council.

The 2-year appointment was announced by Dr. Robert Q. Marston, Director of the NIH.

Dr. Hodges will serve in completion of the term of Dr. William P. Herbst who recently resigned from the Council.

views on the WMAL-TV show, "Here's Barbara." She was interviewed by George Wilson.

The shortage of physicians—about 50,000 more are needed—will not be alleviated until additional medical schools can be constructed, and sufficient faculty trained to teach the students.

Dr. Hutchison also suggested retraining inactive men and women physicians. Part of BHPEMT funds have been used to support such a retraining program.



NIH Patient Welfare Fund contributions are not limited to a special time of year. Dr. Jack Masur (l), CC Director, accepts a check from Katherine M. Ryan, Office of Personnel Management, while John M. Sangster, Director of OPM, observes the transaction.

Chaplain LeRoy Kerney Named President-Elect, Col. of Chaplains, APHA

Chaplain LeRoy G. Kerney, chief, Department of Spiritual Ministry, Clinical Center, has been named President-elect of the College of Chaplains of the American Protestant Hospital Association.

Chaplain Kerney was elected at a meeting on Jan. 14 in New Orleans, La.

He will serve as President-elect for 1 year, and then become College president for a 1-year term.

Among his new responsibilities will be planning and organizing the program for the annual meeting of the College to be held in Washington, D.C., in 1970.

As President-elect, Chaplain Kerney also becomes a member of the executive committee of APHA advising on policy matters.

Chaplain Kerney joined the CC staff as supervisory chaplain in 1963. Prior to that time he served as chaplain at Saint Elizabeths Hospital, Washington, D.C., and Manteno State Hospital, Manteno, Ill.



Chaplain Kerney's new duties will include planning for the annual meeting of his organization to be held in 1970 in Washington, D. C.

NIH Television, Radio Program Schedule

Television

NIH REPORTS

WRC, Channel 4
Sundays

Feb. 9—3:55 p.m.

Dr. Lester Goodman, chief, Biomedical Engineering and Instrumentation Branch, DRS
Subject: Laser Power in Medicine

Feb. 16—4:25 p.m.

Dr. Daniel I. Mullally, chief, Vaccine Development Program, NIAID
Subject: Status of Rubella Vaccine Studies

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo
103.5—Friday Evenings—
About 9:15 p.m.

Feb. 7

Dr. Charles P. Hutterer, Fogarty International Center
Subject: Medicine and Music

Feb. 14

Dr. Viron L. Diefenbach, Director, Division of Dental Health, BHPEMT
Subject: Perspectives on Dental Health in America

Both interviews take place during intermission, Library of Congress Chamber Music Series.

That Tax Time Is Here Again! Call for HELP in Bldg. 31

Employees may seek income tax information and assistance in computing income tax returns from L. Ramelli, Bldg. 31, Room B1B35, Monday through Friday, 9:30 a.m. to 4 p.m.

For information via telephone call Ext. 62550 between 8:30 and 9:30 a.m., or from 4 to 5 p.m.

If assistance is required a draft copy of the tax return should be completed and brought to the tax assistant.

It is planned to have income tax services provided in Bldg. 10 and the Westwood Building in the near future.

Statistics on Visits to Doctors Reveal Decrease in House Calls

Americans went to the doctor, in person or by phone, 831.1 million times from July 1966 to June 1967, according to the PHS National Center for Health Statistics.

House calls accounted for 3.3 percent of the total, down from 10.2 percent recorded in the July 1957-June 1958 period.

Total Health Benefits Enrollment Costs

For itemizing deductions on income tax returns, the 1968 health benefits enrollment costs of the three major plans totaled below may be helpful:

	<i>Aetna (Indemnity Benefit Plan)</i>	<i>Blue Cross- Blue Shield (Service Benefit Plan)</i>	<i>Group Health Association Plan (Wash., D.C.)</i>
High Option			
Self only	\$95.56	\$100.00	\$155.16
Self and Family	238.92	245.92	399.76
Low Option			
Self only	\$37.64	\$ 43.68	\$ 95.18
Self and Family	90.24	106.60	253.38

DCRT's Reorganization Seeks to Meet Need for Broader Scientific Base

A reorganization of the Division of Computer Research and Technology was recently announced by the Division Director, Dr. Arnold W. Pratt.

The reorganization emphasizes the three basic elements of computer technology—applied mathematics, engineering, and computer science.

Two new branches, the Data Management and the Computer Center Branches, were formed by dividing the functions of the Computation and Data Processing Branch, which had grown too unwieldy to be handled in a single unit.

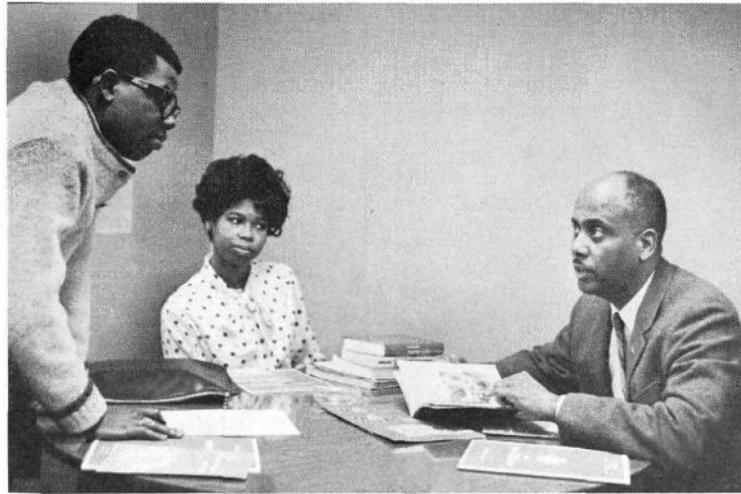
The Computer Center Branch will provide equipment and operators for the central computers housed in Bldg. 12 and for the growing number of remote terminals located around NIH.

The Data Management Branch will develop special purpose computer programs and add to a large library of general purpose programming tools.

A new Heuristics Laboratory was established, which will join the Physical Sciences, Applied Studies, and Computer Systems Laboratories created in January 1967.

The Heuristics Laboratory will develop methods for producing artificial intelligence, or deducing

NIH Science Administrator Jehu Hunter Turns Recruiter for Qualified Students



The give-and-take question and answer period between students and Mr. Hunter leads to lively discussions. Besides facts and figures, the recruiter uses his own practical and knowledgeable experience to illustrate the advantages for neophyte scientists to work at NIH.

At one time, not too long ago, Jehu Hunter was a very busy NIH biologist. Now, he may very well look back on those days and describe them as almost pastoral.

For Mr. Hunter does a chameleon-like switch from a scientist administrator with the National Institute of Child Health and Human Development, to a program official who recruits qualified minority group college students for NIH.

The recruiting is a seasonal thing, and this is the season. It starts when the first leaf turns russet in October, and ends in March when a new leaf is budding into spring green.

NIH has seven program officials, who, along with their regular work, are recruiting in universities and colleges with the distinct emphasis of interesting minority group students to come and work for NIH.

The program is under the aegis of John D. Ewan, College Relations Officer, Office of Personnel Management. His assistant is Frances Jones, a former National Heart Institute medical technologist whose forte is now personnel work.

Both visit colleges during this period, but with becoming modesty, they prefer to stress the work of the program officials who, in the words of Mr. Ewan, "were all gung-ho" when they were broached on the subject of visiting colleges with minority group students.

Of the 75 schools that will be visited in the 1968-69 recruiting season, ten are colleges with minority group students.

Mr. Hunter was tapped for the assignment on the recommendation

of the Director of the Laboratory of Applied Studies. And specialized computer systems which connect the power of the Division's central computers to the Institute laboratories are being developed by the Computer Systems Laboratory.

of his Institute's personnel officer. "And I just work it in, I just make time," explained Mr. Hunter. The recruiters are indoctrinated in their work by a series of orientation meetings.

They are given an idea of the questions students might ply them with, and the attitudes they might come up against.

Visits Southern Schools

Mr. Hunter has visited Tuskegee Institute, Fisk University, and Tennessee Agricultural and Industrial University. Soon he will be recruiting at Howard University, his Alma Mater.

A recruiting day in the life of Mr. Hunter, who is with the Perinatal Biology and Infant Mortality Branch of the Institute's Extramural Programs, illustrates the workings of the program.

Mr. Hunter's approach to an interview is straightforward, his talk is succinct, it's the results that count—getting qualified students to work for NIH.

He discusses that subject in the idiom of the student, and right there rapport is established.

First, letters are exchanged, and appointments set up. On the designated day Mr. Hunter reports at 8 a.m. to the college placement officer.

And in his own words:

"I talk about the mission of NIH, and the kind of students we are interested in. Not too many students in the black universities that I have visited know about NIH. They didn't know what it was all about, they thought it was private industry.

Dr. Endicott Promoted To 2-Star Rank, PHS

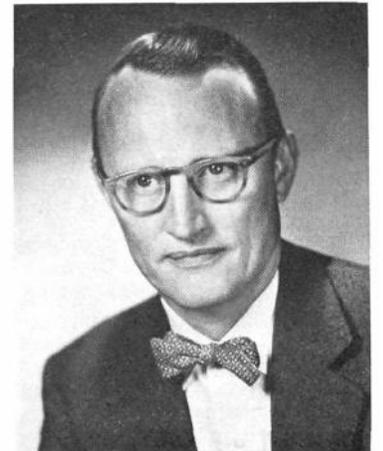
Dr. Kenneth M. Endicott, Director of the National Cancer Institute, has been advanced to two-star grade in his rank of Assistant Surgeon General in the Commissioned Corps of the Public Health Service.

The promotion was announced by Dr. Robert Q. Marston, Director of NIH. The grade is equivalent to that of rear admiral in the Navy or major general in the Army.

Dr. Endicott received his medical degree from the University of Colorado and entered PHS in 1939. He has been at NIH since 1942, serving, at different times, as Scientific Director of the Division of Research Grants, and as NIH Associate Director for grant-supported programs of research and training.

He instituted NCI's worldwide drug research program in 1955 and continued its development after his appointment as director in 1960.

Dr. Endicott holds the Distinguished Service Medal of the PHS Commissioned Corps.



Dr. Endicott now has the grade equivalent to rear admiral in the Navy or major general in the Army.

"I meet each student individually. An interview averages about 15 minutes, and I make notes immediately after each interview. I make an on-the-spot evaluation as to how a student would fit in at NIH. I spend one full day at each college and average about 20 to 30 students.

"I come across some pretty bright kids, some can immediately be considered by NIH personnel officers."

Mr. Hunter explained that "every recruiter has the responsibility to find good people for the Federal Government."

By the same token, Mr. Hunter does not sugar-coat the problems that students coming from rural areas may find in moving to urban

(See MR. HUNTER, Page 7)



John Camp, DCRT, and Dr. Robert S. Gordon, Jr., clinical director for NIAMD, discuss the potential of computers for aiding biological scientists. DCRT has several collaborative projects with NIAMD investigators.

new information from facts "taught" to the computer.

Activities in existing laboratories were broadened by the reorganization. Research in the Physical Sciences Laboratory is creating a widening base of theoretical knowledge which makes possible new applications of computers in biophysics and chemistry.

Increasing numbers of collaborative research projects with Institute scientists are being carried out by members of DCRT's Labor-

RML's Joseph Kochis Wins Hero Award For Saving Life of Ten-Year-Old Girl

A Carnegie Hero Fund Award will be presented to Joseph Kochis of the Rocky Mountain Laboratory, NIAID, for saving the life of a 10-year-old girl.

Mr. Kochis, a fixed equipment operator at RML since 1965, will receive a bronze plaque in addition to the \$750 award to be used for educational purposes.

According to Dr. Herbert G. Stoenner, RML Director, the near-drowning was prevented last July when Mr. Kochis pulled Patty Hunter from an irrigation culvert near his home in Hamilton, Mon-



Joseph Kochis, RML, and Patty Hunter, whom he saved from drowning in an irrigation culvert, read a newspaper description of the rescue.— *Missoulian (Montana) Newsphoto.*

tana.

The stream flow in the culvert—often low enough for children to float through on inner tubes without difficulty—was only 1 to 2 inches from the top and was blocked by debris.

Alerted by a neighbor, Kochis dived into the water, swam into the mouth of the culvert and found the girl and her inner tube lodged against the jam of the debris about 12 feet downstream. She had been carried there by the current of the fast water above the culvert's mouth.

Mr. Kochis, able to pull the debris only far enough to allow the girl to pass through, had to swim upstream to the upper mouth of the culvert. In the process of free-

ing the child, however, he exhausted his oxygen supply.

Unable to reach the air space above the water level, he had the presence to lie on his back, his nose penetrating the small air space left in the culvert. After replenishing his oxygen supply, he managed to reach the upper mouth of the culvert.

In his concern for the child, whom he did not know, and in the excitement of the moment, Mr. Kochis said he did not stop to think of the hazards to himself. Lying on his back to get air saved him, he added.

Father of Four

The father of four, Mr. Kochis expressed the hope that any other person would attempt the same rescue if they found one of his own children in such a predicament.

In order to qualify for the award, the candidate must have voluntarily risked his own life in attempting the rescue, be other than a primary relation to the rescued person, and must have performed the act in the United States or Canada.

DRG Publishes Revised Booklet On Document Codes Used at NIH

The Statistics and Analysis Branch, Division of Research Grants, has published a revised *Document Codes in Use for NIH and Related Extramural Programs*.

The pamphlet provides a listing of document codes and related definitions, and procedures by which codes are received and disseminated.

CC Reports Eight Donors Achieve a 'Special Status'

The Clinical Center Blood Bank reports that eight donors have achieved a special status. Thomas A. Hallack, NIAID, reached the 2-gallon mark.

Joining the Gallon Donor Club were: Georgia F. Becker, OD; Dr. Nathaniel I. Berlin, Rosemary M. Cuddy, and Dr. Anthony W. Schrecker, NCI; Robert J. Mahon, NIMH, and Charles J. Byrne and Dr. James R. Ganaway, DRS.

Make an appointment to donate today. Call the Clinical Center Blood Bank, Ext. 64506.

Assembly of Scientists, NIAMD, Elects Officers

The Assembly of Scientists of the National Institute of Arthritis and Metabolic Diseases has announced the election of officers for 1968-69.

Chosen as President is Dr. Henry Metzger; Dr. Harry Saroff is President-elect, and Dr. Makio Murayama is Secretary.

Newly elected to the Assembly's Council are Drs. Mones Berman, Louis Cohen, Peter Goldman, Robert Martin, and Saul Rosen.

Continuing members of the Council are Drs. Edwin Becker, Martin Gellert, Irwin Leder, Marie Lipsett, and Everette May.

Founded in 1960, the NIAMD Assembly, with more than 280 members, is one of five such groups representing scientists in six NIH Institutes.

Membership is open to all scientists working in NIAMD as GS-11 or equivalent and above.

Copies of the pamphlet are available from the chief, Data Processing Section, S&AB, DRG, Ext. 67281.

Transcript of Meeting On Reading Process Released by Child Health

The Reading Process, an edited transcript of a recent meeting of researchers, was recently released by the National Institute of Child Health and Human Development.

The interdisciplinary human communication conference, third in a series entitled "Communicating by Language," dealt with the nature of the reading process, how children learn to read, and some of the factors that may cause reading disorders.



Dr. Kavanagh

The conference was convened by Dr. James F. Kavanagh, health scientist administrator for Learning and Human Communication Research of the Growth and Development Branch, NICHD. He also served as the scientific editor of the proceedings.

It is estimated that in the United States about 25 percent of the children from middle-class neighborhoods and 75 percent of the children raised in ghettos experience some reading disability. As a result, these children are grossly underachieving.

Reading Processes Studied

The basic research discussed not only contributes to the understanding of the normal reading processes, but may lead to better diagnostic and remedial reading procedures, and ultimately to the prevention of some reading disabilities.

Participants included some of the foremost contributors of fundamental research related to reading and a selected group of their graduate students.

Their studies with blind persons, deaf individuals, and ghetto children illustrate the differences between various types of deprivation and their effect on the reading process.

Also discussed was a group of children exhibiting dyslexia, or specific reading disability.

College Teachers Discuss Science Career Challenge

Science faculty members from about 100 liberal arts colleges were invited to attend a recent NIEHS Conference, at Rutgers University, to discuss the challenges of a career in environmental health sciences.

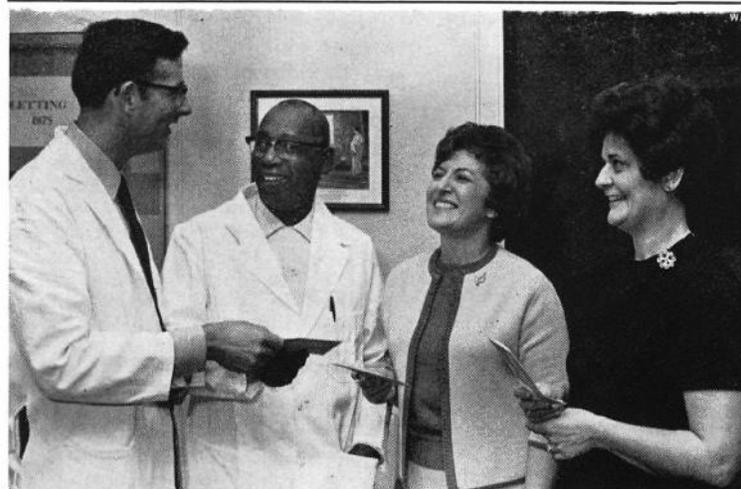
A book on the proceeding of the conference, called *Environmental Problems: Pesticides, Thermal Pollution, and Environmental Synergisms*, gives some insight into environmental problems.

DR. KAC

(Continued from Page 1)

bridging the gap between mathematics and the non-mathematical scientists and philosophers. His wide interests, especially in fields related to the mathematical foundations of modern physics and mathematical probability eminently qualify him for this task.

Mathematics is a way of thinking, logically and deductively, which has remained essentially the same since its invention by the Greeks. There is no new math, just new problems, Professor Kac has said.



At the recent Blood Bank Open House, Dr. Paul J. Schmidt, chief, CC Blood Bank (l), presented \$25 U.S. Savings Bonds to Henry Lutterlough, NHI lab technician; Pauline Smith, NHI statistical clerk, and Nicoletta Karapiperis, accounting clerk, CC Nutrition Dept. The R&W Association provided the bonds.

Simian Malaria Treated By Using Three Analogs Of Antibiotic, Lincomycin

At a recent meeting of the American Society of Parasitologists, Dr. Kendall G. Powers, National Institute of Allergy and Infectious Diseases, reported studies on several compounds useful against *Plasmodium cynomolgi* malaria in rhesus monkeys.

Dr. Powers, who is with NIAID's Laboratory of Parasite Chemotherapy, treated the rhesus monkeys with chlorinated compounds derived from lincomycin. Eight of the 13 infected monkeys were cured of the disease.

The emergence of malaria in Southeast Asia, and other areas, that is resistant to almost all of



Dr. Powers (r), assisted by an NIH technician, Otis L. Kline, injects a rhesus monkey with drugs that have been shown to be effective against *Plasmodium cynomolgi* malaria.

the synthetic antimalarial drugs, has stimulated efforts to find new, safe, and effective agents for use against this disease.

Compounds which differ in chemical structure and presumably in mode of action from present antimalarials are in special demand.

Analogs Show Activity

Three lincomycin analogs which are more rapidly absorbed, give higher blood concentrations, penetrate tissues more rapidly, and have greater antibacterial activity than the parent antibiotic, were prepared. The compounds—7-chloro N-demethylincomycin, 7-chlorolincomycin, and 7-chloro N-demethyl-4'-pentylincomycin—had been previously tested against *P. berghei* malaria in mice and had been found to show significant activity.

This contrasted with little or no activity seen when the parent compound was used for treatment.

The monkeys were inoculated intravenously with erythrocytes parasitized with *P. cynomolgi*, and treatment was begun on the 8th day with the chlorinated com-

WOMEN AT NIH

Dr. Yael Michaeli, Visiting Israeli Scientist, Studies Histological Techniques at NIDR

When Dr. Yael Michaeli returns to her native country, Israel, after a term as a visiting scientist with the National Institute of Dental Research, she plans to teach dental histology.

And she will be well prepared. Because of her training she will represent the best possible combination of basic science and clinical dentistry.

Instructs at University

Dr. Michaeli received her DMD degree from the Hadassah School of Dental Medicine in the Hebrew University of Jerusalem in 1961. Later, she was a clinical instructor of prosthetics in that university's department of oral rehabilitation.

Her year of study at NIDR, provided under Israeli support, will give her the opportunity to conduct research in tooth eruption and prepare her for further teaching in dental histology.

She is studying cell growth, multiplication and migration in growing rodent teeth by autoradiography, as well as other histological techniques.

Dr. Michaeli has a family: a husband, Uri, and three children, two daughters, Dalit and Tamar, who are five and eight respectively, and a 2-year-old son, Amnon.

Husband Teaches Retarded

Her husband is a physical therapist and physical education teacher who is working with disturbed and handicapped children in Washington, under the auspices of the Jewish Foundation for Retarded Children.

Dr. Michaeli's eyes light up when she describes how well the older children are getting along in school, and how quickly they have picked up English—and ice-skating.

Dr. Michaeli's English is fluent, probably because textbooks and

pounds.

The drugs were given for 5 days either orally or by subcutaneous injection.

When given in adequate dosages, each of the three compounds resulted, at least temporarily, in significant reduction of parasites in the peripheral blood.

Clears Blood Slowly

However, the drugs were slow in clearing parasites from the blood, requiring from 3 to 6 days after the 5-day treatment. This would be an important consideration in the possible future use of these compounds against the human malarial, especially in *P. falciparum*, where rapid interruption of infection is essential.

It was suggested that combinations of those antibiotics with fast-



Dr. Michaeli finds time on weekends to do some local sightseeing with her family. When she returns "home" she will teach dental histology.

published papers at the Hebrew University Medical School are written in English. However, lectures are given in Hebrew.

Her family, and two aunts who were dentists, moved to Israel from Odessa, in Russian Ukraine. Dr. Michaeli developed her own interest in dentistry because of these two favorite aunts.

Works on Kibutz

In Israel, boys and girls spend at least 2 years in the military forces. Dr. Michaeli was a member of the young pioneer-fighters military group. For her service she worked on a kibutz, a pioneer farm, doing agricultural labor and military duties.

Dr. Michaeli enjoys group singing and folk dancing, concerts and the theater; she is also a classical pianist.

The Michaeli family is learning as much as they can about the United States. They take numerous weekend trips. Recently they visited Amish farm country in Pennsylvania. This summer they plan to go on a camping trip across country to northern California.

acting antimalarials could possibly be more effective.

In cases where *P. falciparum* is resistant to present antimalarials, the lincomycin analogs could play a useful role. Testing of these compounds in mice indicates that they are effective against resistant strains, and it is hoped that this will hold true for resistant human malarial.

Beryllium Case Registry Continues to Keep Check On Disease, 'Berylliosis'

Continued operation of the Beryllium Case Registry is being supported by the National Institute of Environmental Health Sciences through a research contract, according to a recent announcement by Dr. Paul Kotin, Director of NIEHS.

Recently termed the "space-age" metal, some of beryllium's compounds produce a characteristic disease, berylliosis, in persons exposed to dusts of these compounds.

Disease Background Cited

The disease made a dramatic appearance in the early days of the fluorescent lamp industry among workers engaged in making and applying the beryllium phosphor then used to coat the tubes and to produce the glow.

As other substances have been substituted, the occurrence of new berylliosis cases has progressively declined. But now beryllium and its compounds are increasingly used for other purposes, and new poisonings could result from these applications.

The Registry, developed by Dr. Harriett Hardy in conjunction with the staff of the Massachusetts General Hospital, is being continued to keep check on unexpected effects. It also seeks to advance understanding of how beryllium acts to produce disease.

The Registry provides a point to which physicians can report diagnosed or suspected cases of berylliosis and get assistance in doubtful cases.

Dr. Lee Is Project Officer

Dr. Douglas H. K. Lee, Associate Director for Scientific Information and Communications, is the Project Officer at the NIEHS.

The Project Director at the Massachusetts General Hospital is Dr. E. Kasemi, chief of the Pulmonary Unit and Assistant Physician.



Helen McManamin, CC unit clerk, retired recently after 9 years with the Cancer Nursing Service. She was presented with a gift from her NIH friends by Mary Louise Burgess, chief of Cancer Nursing Service.

NIH Researchers Use Radioactive Tracer To Locate Cerebrospinal Fluid Leakage

A simple, reliable, and safe method to pictorially localize the site and track of leakage in cerebrospinal fluid rhinorrhea has been developed by a team of scientists from the National Institute of Neurological Diseases and Stroke and the Clinical Center.

The brain and spinal cord are bathed by a liquid which is called the cerebrospinal fluid. Occasionally, as a result of head trauma, or spontaneously, this fluid may leak through the nose.

The condition, cerebrospinal fluid rhinorrhea, is a serious one, and if it does not heal or is not surgically corrected, it may lead to recurrent meningitis.

But before surgery the exact site of the leakage must be determined. In the past this has been difficult since the possible sites are numerous and previous methods for detecting the location of leakage inadequate.

Now the scientists have used a diagnostic technique called isotope cisternography.

Uses Radioactive Tracer

This technique uses a radioactive tracer which is injected by lumbar puncture into the cerebrospinal fluid-containing cavities which surround the spinal cord and the brain.

The tracer drug flowing in this liquid reaches the area of the meningeal break and leaks out through the nose together with the cerebrospinal fluid.

By using radioactivity-detecting devices (scanners, gamma, scintillation cameras) the investigators can view the location of the break and, in many instances, the track from the break to the nose.

In over 30 cases, the investigators were able to determine the majority of the leak sites in this manner. No complications from the method were observed.



Two retiring members of the CC Environmental Sanitation Control Department—Lucille R. White (l) and Marion E. Nottage—are pictured at a recent ceremony honoring their combined total of over 43 years of Federal service. They were incorrectly identified in the Jan. 22 issue of the Record.

The isotope cisternogram was found to be ideal for the follow-up of postoperative cases, and could be repeated as needed without any harmful effects.

The method is also useful in diagnosing similar injuries where there is not recognizable leakage through the nose, but which are suspected on the basis of recurrent meningitis.

Dr. Giovanni Di Chiro and his associates from NINDS and the CC reported on their work in the *Journal of Neurosurgery*.

Dennis to Head NLM's Reference Services Div.



Donald D. Dennis, librarian and author, is a member of the advisory group on planning the Federal City College Library in Washington, D.C.

Donald D. Dennis has been appointed chief of the Reference Services Division, Library Operations, National Library of Medicine, succeeding Samuel T. Waters, who is now Deputy Associate Director for Library Operations.

Mr. Dennis comes to NLM from the University of Michigan, Ann Arbor, where he was Health Sciences Librarian. Previous to this, he was head of the Library, Dearborn Campus, University of Michigan.

Authors Volume on Libraries

Mr. Dennis is the author of *Simplifying Work in Small Public Libraries*, the result of a 2-year research project sponsored by the Council on Library Resources, Inc.

In 1968, he became a member of the advisory group on planning the Federal City College Library, Washington, D.C.

Mr. Dennis received a B.A. in English from Bowdoin College, Brunswick, Maine. He also received a B.A. in History and his M.L.S. degree from the University of California at Berkeley.

MR. FINCH

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lished a law practice.

He is a regent of the University of California, a trustee of the California State College, and a trustee of Occidental College. He is a former faculty member at Palos Verdes College and Marymount College.

Mr. Finch also is chairman of the Californias, an international body dedicated to the economic, technical, and cultural development of the Mexican state of Baja California and California, U.S.A.

Active in Community

Active in community affairs, Sec. Finch is a former director of the Centinella Valley YMCA, served in 1967 on the Statewide Committee of YMCA Youth Government, and was a Little League manager from 1962 to 1965. He is a former member of the Los Angeles District Attorney's Advisory Committee.

He is married to the former Carol Crothers. They have four children, Maureen, 18, Kevin, 15, Priscilla, 13, and Cathleen, 11.

PHS Publication, Part V Lists Program Support

The publication of *Public Health Service Grants and Awards, Fiscal Year 1967 Funds, Part V—Summary Tables and Graphic Highlights*, PHS Publication No. 1798, was announced recently.

The booklet is one of a 5-part series published annually to list current support to general health programs of the States and local public agencies, and other non-profit organizations.

It is available at \$3.50 per copy from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Editors may write for single copies, free on request, from the Information Office, Division of Research Grants, NIH, Bethesda, Md. 20014.

Eight NIH Researchers Contribute to Book on Fibrinogen and Fibrin

Dr. Koloman Laki, chief of the Laboratory of Biophysical Chemistry, National Institute of Arthritis and Metabolic Diseases, has edited a unique review series on the biochemistry and physiology of fibrinogen and fibrin, which cites almost 1,000 references.

Entitled *Fibrinogen*, the book was recently published by Marcel Dekker, Inc., N.Y., and consists of 16 chapters by 15 contributors.

Among eight author-scientist contributors from NIH are four from the NIAMD. They are:

Dr. Laki; Dr. Jules A. Gladner, Laboratory of Biophysical Chemistry; Dr. Victor J. Marder, formerly of the Clinical Hematology Branch, and Dr. Neelakant Chandrasekhar, formerly of the Laboratory of Biophysical Chemistry.

Fibrinogen Structure Discussed

In the opening chapter, Dr. Laki discusses the structure of fibrinogen, and the chemistry of blood clotting.

Other chapters summarize fibrinogen metabolism, evolution and the fibrinogen molecule, purification of fibrinogen, immunological properties of fibrinogen and fibrin, and use of fibrin foam and powder in clinical medicine.

The role of fibrinogen in tumor growth is covered in the last chapter, written by Dr. Laki and Sidney T. Yancey, Jr., of the National Cancer Institute, based upon their experiments.

One of Dr. Laki's research interests has been the mechanisms of blood clot formation.

He, in cooperation with Dr. Gladner, was the first to discover the mode of action of thrombin.

Other contributors from NIH were Dr. John S. Finlayson, Division of Biologics Standards; Dr. Elemer Mihaly, National Heart Institute, and Dr. Peter T. Mora, National Cancer Institute.



The National Institute of Dental Research, now in its 21st year, is calling attention to the 21st annual celebration of National Children's Dental Health Week (Feb. 2-8), sponsored by the American Dental Association. Parents and children are urged to "Join the Smile-In." One way—when children ask for between meal snacks, encourage them to eat fresh fruits or vegetables instead of sweets.

MR. HUNTER

(Continued from Page 3)

sections. However, he also said that for those students who really want to come to Washington and work at NIH, the obstacles are not "overpowering."

"Naturally, the students ask about salaries, and I ask them about their career goals, and I give them an idea of what it's like to work in a research lab.

"I tell the students about the important biomedical research that is taking place here, and the unique opportunity they will have to work with some of the world's leading scientists.

"I tell them about the excellent library facilities on the reservation and the seminar programs that NIH offers.

"I also tell them," and here he smiled, "that Washington is a beautiful city to live in compared to Philadelphia or New York."

Mr. Hunter pointed out that an essential part of his recruiting job was to be as much in step with young students—with their way of thinking—as possible.

Students From Rural Areas

"Most of the students I interview come from a southern rural background, and at first they may appear apprehensive. I try to explore other career goals for those students who are not qualified to work here. Some are interested in social service work, and I suggest that they contact HEW downtown, or NIMH."

Mr. Hunter considered the Government's quest for potential scientists from predominantly Negro colleges as an important stride in making scientific opportunity available to black students.

"NIH is expanding its scope of interest, it's taking cognizance of black universities in a positive way, it's tapping a new source of skills."

Mr. Hunter ought to know. He came to NIH in 1949 as a medical biology technician, GS4.

For a few moments he mused about his career, and the careers of other Negro scientists at NIH, and commented, "I was fortunate to be hired by a scientist who was

AAAS Symposium on Genetics Discusses Possibilities, Purposes, and Problems

Dr. Joseph E. Rall, Director of Intramural Research, National Institute of Arthritis and Metabolic Diseases, and Dr. Gordon M. Tomkins, NIAMD, who recently delivered the 40th NIH Lecture on "Control of Gene Activity in Higher Organisms," were among NIH participants in a recent symposium on genetic manipulation, its possibilities, purposes, and problems.

DDH Assigns Dr. Spruce To Health Organization

The Division of Dental Health, Bureau of Health Professions Education and Manpower Training, has assigned Dr. George B. Spruce, Jr. as a full-time dental consultant on loan to the Pan-American Health Organization in Washington, D.C. PAHO is the World Health Organization's regional office for the Americas.

Dr. Spruce will assist Dr. Dario Restrepo, PAHO's regional advisor in Dentistry in giving advisory and technical services in dental health, dental education, and dental research programs in the countries of the Americas.



Dr. Spruce will advise the countries of the Americas on dental health and dental research programs.

willing to let me operate at the level of my ability."

Mr. Hunter considered the presence of NIH recruiters at Negro universities as a further testimony of the interest NIH is taking in minority group students.

"It is offering black students a piece of the action," he stated.

Metabolic Effects of Hormones, Steroids Discussed

A conference on the metabolic effects on gonadal hormones and contraceptive steroids, sponsored by the National Institute of Child Health and Human Development, was held recently in Boston, Mass.

Participants gave detailed accounts of their research on the steroids' effects on the liver and gastrointestinal tract, carbohydrate metabolism, lipid metabolism, and protein and amino acid metabolism.

Also, they discussed respiration, hypertension and electrolytes, cal-

cium and osteoporosis, vascular system and blood, temperature, and the central nervous system.

The conference was supported by contract from NICHD to the Harvard Center for Population Studies.

Dr. Hilton A. Salhanick, Harvard Medical School, was chairman of the conference, whose proceedings will be published this year.

Dr. Philip A. Corfman, director of NICHD's Center for Population Research, represented the Institute.

The discussion was a feature of the annual meeting of the American Association for the Advancement of Science held recently in Dallas, Tex.

The panel, entitled "Genetic Technology: Some Public Considerations," was arranged by Daniel M. Singer, General Counsel, Federation of American Scientists, Washington, D.C.

Other Panelists Named

Other panelists were David L. Bazelon, Chief Judge, U.S. Court of Appeals for the District of Columbia Circuit; Dr. Antonie Blackler, Professor of Zoology, Cornell University; David Daube, Regius Professor of Law, Oxford University, and Dr. Theodore Friedmann, NHI, on detail with the Salk Institute.

Also, Harold P. Green, Professor of Law, George Washington University, and Dr. Rollin D. Hotchkiss, Professor, The Rockefeller University.

Among others present were NIH Nobel Prize winner, Dr. Marshall W. Nirenberg, NHI; David Schwarz, President of Schwarz BioResearch; Dr. Robert L. Sinsheimer, Professor of Biophysics, California Institute of Technology, and Eugene B. Skolnikoff, Professor of Political Science, Massachusetts Institute of Technology.

Current research in genetics is developing ideas and techniques that may make possible the manipulation of human heredity.

Potential Benefits Stressed

The impending "release of genetic energy into the world" was likened by panelists to atomic energy as scientists considered it during earlier years.

While the medical scientists emphasized the potential benefits of genetic manipulation—for example, in interceding against inborn errors of metabolism such as diabetes—the social, legal, and ethical implications of genetic technology also were considered.

Another topic discussed was the need for some form of regulatory control of genetic engineering in the future.

The possibility of having viruses carry genetic messages into the body to countermand faulty signals was foreseen by one participant.

Another described experiments in which the nucleus from a cell from the intestine of an adult frog was inserted into an unfertilized frog egg from which the original nucleus was extracted.

NIH Supported Research Successfully Inbreeds Two Lines of Rabbits

Through research supported by grants from the National Cancer Institute and the Division of Research Facilities and Resources, two lines of rabbits have been successfully inbred for the first time, by Dr. Chen K. Chai at the Jackson Laboratory, Bar Harbor, Maine.

The researcher inbred two albino lines for 20 generations through brother and sister matings and tested the degree of inbreeding through skin grafts.

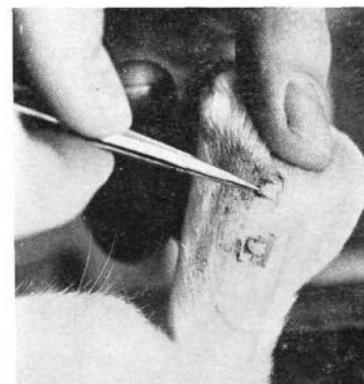
If the animals were not truly inbred, the skin grafts would be rejected. All mammals including man, will reject foreign tissue or organs unless special treatment is undertaken.

In rabbits, as in most mammals, a "depression" during inbreeding is experienced causing sterile matings, small litters, infirmed offspring, and early death.

Dr. Chai found that these fitness problems decreased as the inbreeding process continued into later generations.

In the skin grafts study, Dr. Chai found that the rabbits showed 100 percent acceptance by the 18th generation, while in tests at the 16th, only 43.7 percent accepted the grafts. These tests showed that the rabbits can be used in experiments requiring genetically uniform animals.

Dr. Chai also noted that the average litter size for the inbred rabbits is 2-3 as opposed to 8-9 in non-inbred animals.



Skin grafts, seen here on the ear, were used to test histocompatibility factors. The two lines of inbred rabbits are expected to be of great research value in the genetics of tissue transplantation.

This altered egg developed into a normal frog identical to the frog which supplied the nucleus.

This raises the possibility of producing an almost unlimited number of identical individuals.

The NET Network broadcast the second session of the panel discussions.

Child Health Sponsors Report by Columbia U. On Status of Women

Under the auspices of the Center for Population Research, National Institute of Child Health and Human Development, Columbia University will prepare a report on the relationship between family planning and the status of women in the U.S.

The U.N. has asked member nations to give attention to the section on "the protection of human rights, in particular the rights of women."

Demographer Directs Report

Dr. Jeanne Clare Ridley, a demographer at Columbia's Institute for the Study of Human Reproduction, will direct the report.

She will draw upon existing materials and integrate unpublished data from a number of sources rather than conduct a new study.

Census and vital registration data, and data from a number of university studies will be used to summarize family planning practices, and factors affecting women's status.

These factors include urbanization, industrialization, maternal and child health, death rates, migration, fertility, and marriage trends.

Changes in status will be summarized with emphasis on the post-World War II period.

Patterns of childbearing and family planning practice will also be analyzed.

These include fertility trends—such as the decline in the birth rate, the baby boom, and the post-baby boom of the 1960's—and fertility differentials—such as rural-urban, socioeconomic, and religious factors.

The development of government and private family planning programs and their role in changing patterns of childbearing will also be considered.

Factors Analyzed

Finally, such factors as education, labor force participation, occupation, and public affairs participation of women will be analyzed, and interrelationships considered among status of women, family planning, and family size.

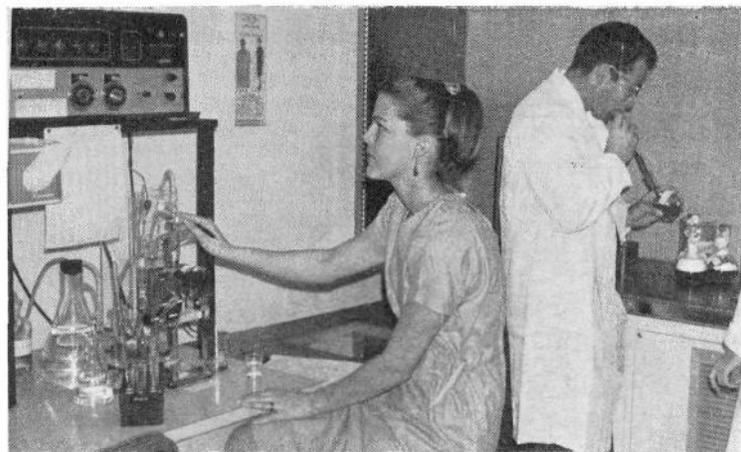
The first three months will be spent searching the literature and analyzing data.

The final three months will be for drafting and writing the report.

DHEW expects to receive the report from Dr. Ridley in July 1969 for forwarding to the U.N.

In 1967 there were 84 approved medical schools, 3 schools of basic medical sciences, and 16 medical schools "in development" in the U.S.

Unique Tissue Culture System at NIEHS Varies Cell Lines for Metabolic Models



Growth kinetics of tissue-culture cells are measured by a Colder Particle Counter operated by technician Liz Ford, while a tissue culture is changed in a medium by Dr. Spalding.

Dr. Judson W. Spalding, research biologist with the National Institute of Environmental Health Sciences in Research Triangle Park, N. C., has, over the past 2 years, developed a unique tissue-culture system.

Its purpose is to establish a variety of cell lines that differ widely in their growth and metabolic characteristics.

Such systems are desirable as metabolic models, because they provide biological systems characteristic of mammalian tissues that can be controlled and defined.

The cell lines represent a wide range in generation times, and significant differences in characteristics of the phases of their replication cycles.

Cell Lines Differ

They differ in cell types and tissues of origin, and are also selected for contrasting metabolic characteristics, e.g., either with respect to specific enzyme systems or to end-products of metabolism.

A major investigation within the program defines at the molecular level, the character of the induction process.

This process is shown in the events that regulate and determine the sequential phases of the cell replication cycle and the regulation of the drug metabolizing process.

In order to facilitate the process an effort is being made to demonstrate, in tissue culture, a model drug metabolizing system.

This approach to the study of drug metabolism and cell replication may lead to a better understanding of how toxic agents affect analogous metabolic processes in both man and other mammals.

Tissue-culture systems are also being used to determine and define the cytotoxic and mutagenic properties of environmental agents, such as pesticides, synergists, and mycotoxins.

Further studies are conducted to determine at the molecular level the site of action or the mechanism

Dr. Kenneth Lynn Named To NIDR Planning Prog.

Dr. Kenneth C. Lynn has been named assistant to Dr. Aaron Ganz, associate director for Program Planning and Evaluation, National Institute of Dental Research. Dr. Seymour J. Kreshover, NIDR Director, announced the appointment.

Dr. Lynn will assist in evaluating aspects of NIDR's research and manpower activities.

Dr. Lynn came to the Institute from the National Library of Medicine where he was coordinator for dental affairs, and special assistant to the chief, Research Services Division.

Served in Training Program

Previously, he was in the Surgeon General's Career Development Training Program.

Dr. Lynn also served as assistant chief dental officer, Division of Hospitals, and chief of the Commissioned Officer's Dental Clinic at NIH.

He holds a D.D.S. from Ohio State University and a Masters in Library Science from the University of Maryland.

by which the activity of a specific agent is expressed.

Currently, a group of mycotoxins isolated from fungi found on foodstuffs are being investigated for their chemical and cytotoxic characteristics.

Another tissue-culture team scientist is characterizing the metabolism of various RNA species and their role in regulating the metabolic steps concerned with the cell replication cycle, and the induction of drug metabolizing systems.

DR. BERLINER

(Continued from Page 1)

succeed Dr. G. Burroughs Mider as Director of Laboratories and Clinics, and with the recently announced new NIH organization became Deputy Director (Science) of NIH.

Last April Dr. Berliner was elected to membership in the National Academy of Sciences.

Other honors include the DHEW's Distinguished Service Award, the Homer W. Smith Award in renal physiology, the Bicentennial Medal of the Columbia University College of Physicians and Surgeons and its Alumni Award for Distinguished Achievement.

In addition to being a member of numerous professional and scientific organizations, Dr. Berliner served as president of the American Physiological Society, the American Society for Clinical Investigation, and the American Society of Nephrology.

NIH Grantees Nominated

Among other investigators nominated to receive the award were a number of NIH grantees. These include:

Dr. Maxwell Finland, George Richards Minot professor, emeritus, Harvard Medical School, and emeritus director of the second and fourth medical services and the Thorndike Memorial Laboratory, Boston City Hospital.

Dr. Marvin D. Siperstein, professor of internal medicine, University of Texas Southeastern Medical School, Dallas.

Dr. Thomas E. Starzl, professor of surgery, University of Colorado, and chief of surgery Veterans Administration Hospital, Denver.

Nominations for the awards were made by readers of Modern Medicine, deans of the medical schools, and officers of national medical organizations on the basis of contributions to the advancement of medicine.



Dr. Lester Goodman, chief, Engineering and Instrumentation Branch, DRS, was recently elected chairman of the Joint Committee on Engineering in Medicine and Biology.