

the



Record

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

April 24, 1973
Vol. XXV, No. 9

NATIONAL INSTITUTES OF HEALTH

Papers on Two Major Oral Diseases Read At Internat'l Meeting

Papers on dental caries and periodontal disease—two major oral diseases—were read by National Institute of Dental Research grant-supported scientists at the 51st annual meeting of the International Association for Dental Research, which was held April 12-15 in Washington, D.C.

Dr. Ronald J. Gibbons and his associates at the Forsyth Dental Center, Boston, reported on a prime bacterial suspect for causing tooth decay—*Streptococcus mutans*.

This organism inhabits specific locations, usually where teeth adjoin or in surface pits. It is very

(See ORAL DISEASES, Page 6)

Nuclear-Powered Pacemaker Developed In U.S. Is Implanted by NHLI Surgeons

The first nuclear-powered pacemaker developed completely in the United States was implanted in a patient April 9 during an operation at the Clinical Center by National Heart and Lung Institute surgeons.

Along with the NHLI implant, 15 similar operations were completed at the Newark Beth Israel Medical Center in New Jersey. A total of five are expected to be implanted by the Heart and Lung Institute.

The pacemakers were developed and manufactured by ARCO Nuclear Company of Leechburg, Pa., under contracts from the Atomic Energy Commission.

Only the second such device to be licensed in America, they are being utilized in clinical trials for evaluation and study before mass production is started.

The pacemakers have been test-

ed extensively in research animals prior to human implantation.

According to Dr. Peter L. Frommer, NHLI associate director for Cardiology, the devices are designed to have a useful life of about 10 years, and could last longer.

Pacemakers with conventional batteries usually are replaced after 2 to 3 years.

There are between 30 to 60 thousand pacemaker patients in the U.S. and about 10 thousand new patients each year. Battery replacements number around 30 thousand yearly.

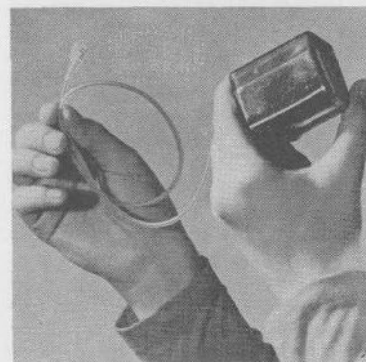
Janet Bickel, who received her first pacemaker at NIH in 1962, has had 10 pacemaker-related operations over the last decade.

The Colts Neck, N.J., patient said, "The most difficult part of living with pacemakers is getting them replaced." She expressed happiness that it might be another 10 years before a new one is needed.

Patients using the unit usually are suffering from an ailment called heart block—a condition in which the heart rate is abnormally slow.

The device, implanted by Dr. Charles L. McIntosh, NHLI Surgery Branch, is 1½ inches wide, 2 inches deep, 2¾ inches long, and

(See PACEMAKER, Page 4)



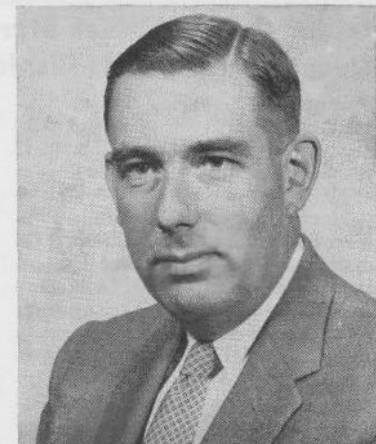
Clinical testing of this nuclear-powered heart pacemaker is underway at several medical centers throughout the country.

Dr. Donald Tower Named NINDS Acting Director

Dr. Donald B. Tower has been appointed Acting Director of the National Institute of Neurological Diseases and Stroke. Dr. Tower is chief of the NINDS Laboratory of Neurochemistry; he will assume his new post on May 1.

He succeeds Dr. Robert Q. Marston, who has been Acting Director of NINDS since January of this year.

Dr. Tower, who came to NINDS in 1953 as chief, Section of Chemical Neurochemistry, received his



Dr. Tower, who is an associate professor of neurology at Georgetown's Medical School, is chief editor of the "Journal of Neurochemistry."

M.D. from Harvard Medical School in 1944 and his Ph.D. in neurochemistry from McGill University in 1951.

Before coming here, Dr. Tower was an associate neurochemist at the Montreal Neurological Institute and an assistant professor of experimental neurology at McGill University.

In 1963 he became chief of the Laboratory of Neurochemistry where he has remained except for one year as acting associate director of NINDS Extramural Programs.

Dr. Tower, who holds the rank of medical director in the PHS, is also an associate professor of neurology and a research consultant in neurobiochemistry at Georgetown University Medical School.

For the past 5 years he has
(See DR. TOWER, Page 7)

Marston Leaves Federal Service; Tenure Lauded for 'Stability . . . High Purpose'

Dr. Robert Q. Marston, ninth Director of NIH (1968-1973) will leave the Federal service at the end of this month. On his last day on campus, April 27, a farewell ceremony will be held at NIH (details are outlined in the adjacent box).

Earlier this year, then Secretary Elliot L. Richardson described NIH under Marston as follows:

"Under your leadership, NIH has grown in scientific stature as well as in the range of program activities.

"The highest honors in science, both nationally and internationally, that have been awarded to NIH personnel since you have been Director should be a tremendous source of satisfaction to you, and are indeed a tribute to the stability and sense of high purpose which have characterized your administration.

Richardson Continues

"The quality and ability of the senior program officers who have been recruited during your tenure speaks eloquently of the esteem in which you are held in the highest circles of science.

"On a personal note, I have appreciated your friendship, loyalty, and keen devotion to the best interests of the citizens of this Nation as well as the interests of NIH and the Department as a whole. . . . I join your many friends and colleagues in HEW in wishing

(Continued on Page 5)

Ceremony, Reception Held For Dr. Marston This Friday

Farewell ceremonies honoring Dr. Robert Q. Marston will be held on Friday, April 27, at 3 p.m. in front of Bldg. 27, followed by an informal reception in the Bldg. 31 cafeteria.

In case of inclement weather, the ceremonies will be held in the Jack Masur Auditorium and the reception in the east lobby of Bldg. 10.

Dr. John F. Sherman, Acting NIH Director, and Dr. Robert W. Berliner, Deputy Director for Science, will speak. Dr. Marston will also give a farewell talk.

Dr. and Mrs. Marston and family plan to be in the receiving line at the informal reception. All NIH employees are warmly invited to both the ceremony and the reception.

Dr. Marston's associates at the Health Services and Mental Health Administration, where he served as Administrator before becoming NIH Director, also are invited.

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.

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Indian Cultural Week Starts May 7, Native American Dances, Arts-Crafts Display Are on Program Agenda

Programs honoring Indian Cultural Week will be observed here from May 7-11, noon to 1 p.m., in the Jack Masur Auditorium.

Native American tribal dances performed by the Washington Indian Society and the Baltimore Indian Society, and speakers discussing the contributions of American Indians to American heritage are on the program agenda.

Speakers include LaDonna Harris, president, Americans for Indian Opportunities; Ben Reifel, Office of Indian Programs, National Park Service, Department of the Interior; Kirke Kickingbird, executive director, Institute for the Development of Indian Law, and Art Thomas, special assistant for In-

dian Concerns, BHME.

During the celebration week, native arts and crafts will be on display from 9 a.m. to 4 p.m. in Conference Room 5, Bldg. 31. There will also be a poster and photo display in the main lobby of that building.

Mr. Thomas is the committee coordinator for the program, assisted by Lucille Brayboy, BHME; John Shopteese and Helen Picciotti, Indian Health Service; Tom Oxendine and John Parker, Bureau of Indian Affairs; Lynn Shelby, Institute for the Development of Indian Law, Julie A. Griffey, Office of Indian Affairs, Office of the Secretary, HEW, and Claudia Nahwoosky, Smithsonian Institution.

ACS Honors Dr. Temin For Research Discovery

Dr. Howard M. Temin, professor of oncology at the University of Wisconsin's McArdle Laboratory for Cancer Research, has been awarded the 1973 American Chemical Society Award in Enzyme Chemistry.

The award—sponsored by Pfizer Inc. since 1945—is presented annually to an American scientist not over 40 years of age who has distinguished himself by outstanding achievement in enzyme chemistry while engaged in non-commercial work.

Dr. Temin, a National Cancer Institute grantee and a member of the NIH Virology and Rickettsiology Study Section, hypothesized the presence of RNA-directed

Lealon E. Martin to Be Honored At Retirement Party on May 1

Colleagues and friends are invited to a farewell party for Lealon E. Martin, associate director, NIMH Office of Communications, who is retiring after 30 years of Federal service.

The party will be held at the Bethesda Naval Officers Club on May 1 from 6 to 8 p.m.

For reservations and further information, contact Dan Rice, Ext. 65989, no later than tomorrow, April 25.

DNA synthesis in RNA tumor virus replication in 1964.

The paper describing his discovery, "RNA-dependent DNA polymerase in virions of Rous sarcoma virus," was first published in *Nature* in 1970.

Performance Ratings Explained, 2 Here Get Highest Evaluation

The determination of annual performance ratings is now underway at NIH and will last through June 15. Last year two NIH employees received Outstanding Performance Ratings.

Supervisors evaluate employees and discuss their assessments with individual staff members. There are three performance ratings—satisfactory, outstanding, and unsatisfactory.

The Employee Relations and Recognition Branch, OPM, explained the evaluation ratings: Satisfactory—overall performance meets position requirements; rating encompasses degrees of performance including that of above average.

Outstanding—an exacting criteria calling for each aspect of work performance to exceed normal requirements.

Unsatisfactory—not meeting requirements of position after a trial period, and after efforts to help the employee are ineffective.

The two NIH'ers who received outstanding ratings are Elizabeth W. Dunn, grants technical assistant, National Institute of General Medical Sciences, and R. Jean Babb, program analyst, Division of Research Resources.

Shows Good Judgment

Miss Dunn received her outstanding rating for demonstrating "... exceptionally good judgment in the application of policies established by both her supervisor and DHEW."

Her evaluation also included the mention of "... her comprehensive understanding of the organization of NIH and by her working relationships with B/I/D's and



Dr. Marie U. Nylén was recently given the honorary degree of Doctor Odontologiae by her alma mater, the Royal Dental College of Copenhagen. Dr. Nylén is chief of NIDR's Laboratory of Biological Structure. Formerly, she had taught at that college and also assisted in setting up its electron microscopy program. Dr. Nylén is associate editor of both the "Scandinavian Journal of Dental Research" and "Oral Sciences." She is the recipient of several awards including the DHEW Superior Service Honor Award.

other Government agencies in assembling information and maintaining communications in relevant program areas. . . .

Mrs. Babb was cited for her "... complete dedication to her work far beyond normal expectations ... manages many on-going projects ... follows through with continuous training programs for her staff ... studies independently on her own time various aspects of the work assigned to her such as new computer languages. . . ."

Both Miss Dunn and Mrs. Babb received the highest rating for their initiative, ability to learn, and interest in work.



Graduation ceremonies for the ninth class of the U.S. Special Police, NIH, were attended by (seated, l to r): Capt. Richard F. Jones, Guard Force Commander; Ralph A. Stork, chief, Protection and Parking Branch, OAS; Leon A. Schwartz, NIH Associate Director for Administration, guest speaker; Willard E. Vincent, assistant director for Protection and Safety Management, OAS; Pfc. Daniel J. Colgan, class representative, and William C. Wright, police training officer. Graduates are (standing, l to r): Pfc. Walter E. Daniels, Cpl. Andrew L. Fortune, Pfc. William C. Hanson, Cpl. Henry B. Blankenship, Pfc. Robert Sensenback, Pfc. Romulo O. Badua, and Lt. William L. Yager, winner of the high scholastic award.

Hugh Lee Heads NHLI's New Information Center On High Blood Pressure

Hugh J. Lee has been named chief of the new High Blood Pressure Information Center which has been established as a branch within the Office of Information, National Heart and Lung Institute.

The dissemination of information on this condition is part of the National High Blood Pressure Education Program headed by Dr. Theodore Cooper, NHLI Director.

This program was started last year at the suggestion of former HEW Secretary Elliot L. Richardson. Other Federal agencies taking part in the program include FDA, HSMHA, VA, and the Department of Defense.

Private organizations involved in the campaign to reduce the toll caused by the neglect of high blood pressure include the Ameri-

Annual Bond Campaign Begins on May 1; Use Payroll Deduction Plan and Save

The NIH annual U.S. Savings Bond Campaign will begin on May 1. Dr. John Sherman, Acting Director of NIH, is the chairman, and Dr. A. W. Pratt of the Division of Computer Research and Technology is vice chairman of this year's drive.

According to a recent article in *U.S. News and World Report*, the popularity of bonds is zooming.

Similarly, the sale of bonds enjoyed a boom following World War II, when the U.S. population sought a safe investment against inflation.

Then, as now, bonds represent the safest securities, and are competitive in yield with many other investments. Held to maturity, E Bonds produce an average annual return of 5.5 percent.

Bonds Are Useful

Bonds provide a useful cash reserve. They can be cashed 2 months from the issue date. However, they should be held to maturity for maximum benefits.

A number of tax deferment advantages are offered to the investor which no other form of savings can provide.

Looking ahead to the cost of a college education, a few thousand dollars in E Bonds may be purchased in a child's name.

Tax Return Explained

If the youngster files a tax return the first year and reports the interest annually, normally no tax will be paid because his income will be too low.

Then, when the money is needed, the E Bonds may be cashed—tax free. Note that savings bonds are exempt from state and local taxes.

Payroll deductions make a saving program easy. This offers a safe, convenient way to save for the average investor.

Bonds are replaced if lost, stolen, or destroyed.

Bear these extra benefits in mind when a canvasser visits during the upcoming campaign.

sonal and economic loss."

The address of the NHBPI Information Center is 120/80 NIH, Bethesda, Md. 20014—the numerals relate to what is considered a normal blood pressure reading.

Mr. Lee, who has been at NIH since 1966, has been an NHLI information staff member for the past year. Previously, he had been with the NICHD Information Office. Between 1968 and 1972, he served there intermittently as acting information officer.

He has also been with the Department of Commerce, the District of Columbia Government, and WMAL Radio-TV.

Mr. Lee will be assisted by Helen Neal, on loan from the National Institute of General Medical Sciences, and other members of the NHLI staff.

U.S.-U.S.S.R. Continue Collaborative Studies On Heart Disease

The U.S.-U.S.S.R. Cooperative Health Program in Cardiovascular Disease—the most prevalent cause of death in both countries—is progressing on schedule.

Several U.S. scientific delegations have visited Russia.

These include National Heart and Lung Institute representatives Dr. Donald S. Fredrickson, director of Intramural Research; Dr. Ruth J. Hegyeli, chief, Program Development and Evaluation Branch, Office of Program Planning, and Dr. Clarence Dennis, director of the Division of Technological Applications.

During the visit of a delegation headed by Dr. Fredrickson, the two countries agreed on a collaborative study of hyperlipidemia. This research will involve more than 30 thousand subjects in both Nations.

Dr. Hegyeli was a member of Dr. Eugene Braunwald's delegation, which developed plans for a symposium on Myocardial Metabolism and Function to be held in the United States in November.

Symposium proceedings will be published in both languages.

Dr. Dennis and his delegation discussed possible collaboration in the field of mechanical heart assistance.

Fiorello 'Cappy' Caponiti Dies; Former Printing Officer, Headed Branch



Fiorello Frederick Caponiti

Fiorello Frederick Caponiti — Cappy—died on April 16, at Holy Cross Hospital. Mr. Caponiti, who had been printing officer for NIH, retired last April because of illness.

He came here in 1956 when the printing office had three employees—at his retirement that office had 79 employees and had evolved into the Printing and Reproduction Branch which he headed. Mr. Caponiti directed and administered all of NIH's printing programs.

He started his career in 1938 as a GPO apprentice, but took time out to serve in the U.S. Navy during World War II.

Before coming to NIH, Mr. Caponiti was printing and publications officer of the Department of Commerce.

He was a member of the Franklin Technical Society and the GPO Alumni Association. Just before he retired he was nominated for the Horace Hart Award for distinguished public service in the field of printing. This prize is given by the Education Council of the Graphic Arts Industry, Inc.

Mr. Caponiti leaves his wife Rose of the home address, 10312 Leslie St., Silver Spring, Md., six children and four grandchildren.

Dr. George G. Glenner Elected To Internat'l Scientists' Union

Dr. George G. Glenner, chief of the Section on Molecular Pathology, National Institute of Arthritis, Metabolism, and Digestive Diseases, has been elected to membership in the German Academy for Nature Explorers.

The international academy, which has been in existence for over 300 years, is a free union of scientists working for the benefit of mankind.

Half of its membership lives in such German-speaking countries as West Germany, East Germany, Austria, and Switzerland.



Mr. Lee and his staff hope to reach "a majority of these 11½ million people" to inform them of the consequences of high blood pressure and that it can be controlled once it is identified.

can Medical Association and the American Heart Association.

In discussing the Center, Dr. Cooper said, "More than 23 million Americans have high blood pressure, but at least half of them don't even know it."

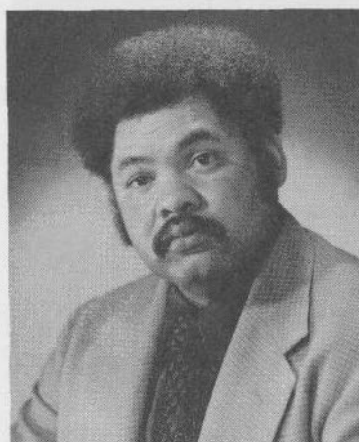
Cooper Discusses Center

"If we can reach a majority of these . . . people . . . there can be a significant reduction in the number and severity of premature heart attacks, strokes and kidney disease, thus saving the Nation vast amounts of unnecessary per-

EDT Begins on April 29th; Set Clocks Forward 1 Hour

Eastern Daylight Time will begin this year on April 29—the last Sunday of the month—for the metropolitan Washington area.

Set your clocks ahead one hour to allow for the change, which will go into effect around 2 a.m.



Robert Shields, an NIH Upward Mobility College student, was recently elected to the HEW Department-wide Upward Mobility College Advisory Board. Mr. Shields, who works in the Printing and Reproduction Branch, will represent more than 2,800 UMC students. He also serves with two other student government representatives on the NIH-UMC Advisory Committee.

NEI Issues Publication Focusing on Cataract

Nearly 5,000 people in the United States will lose their sight this year from cataract. However, permanent blindness caused by cataract is usually needless.

To explain the disease and its treatment, the National Eye Institute has issued a booklet called *Cataract: NEI Focus on Research*.

A cataract is a cloudiness in the lens which interferes with vision. The lens helps focus images onto the retina, which transmits them to the brain.

Most Operations Successful

When a lens becomes clouded, it obstructs the passage of light, impairing vision.

While a cataract's cause cannot usually be determined, cataract extraction is one of the most successful operations performed today.

Ninety to 95 percent of patients undergoing cataract surgery enjoy restoration of sight.

Written for the general public, the publication discusses some causes of cataract, symptoms, treatment, current and experimental surgical methods, adjustments after surgery, and patient resistance to surgery.

Single free copies of the booklet are available from the NEI Office of Information, NIH, Bethesda, Md. 20014.

It may also be purchased in quantity from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, for 50 cents each postpaid, or 40 cents at the GPO bookstore.



Mrs. Bickel is interviewed during a press briefing several hours after she received the pacemaker. Others attending the briefing are (l to r): Dr. Andrew G. Morrow, chief, Surgery Branch; Dr. McIntosh; Dr. Frommer, and Melvin Rosen, Division of Reactor Development and Technology, AEC.

PACEMAKER

(Continued from Page 1)

weighs approximately 4 ounces.

It may be placed just under the skin in the chest or abdomen and is connected to the heart via an insulated, flexible wire electrode.

The pacemaker is powered by 400 milligrams of plutonium-238, a radioactive isotope which generates heat. The unit directly converts this heat into electric current to stimulate the heart.

Produces Fixed Signal

A fixed rate signal is produced by the pacemaker—that is, a constant number of impulses is sent to the heart to make it beat 72 times each minute.

Radioactivity from the nuclear

pacemaker is not considered a hazard to the patient, nor to anyone around him.

The units have withstood tests of severe impact, crushing, and extreme heat without releasing any radioactivity from the capsule.

Extramural Programs Of NIDR Reorganized For Vital Support

The extramural programs of the National Institute of Dental Research have been reorganized.

"To assure the greatest return from the Federal dollar," said Dr. Seymour J. Kreshover, Institute Director, "it is vital that the programs we support are the most responsive to the Nation's oral health needs.

"The new structure will permit not only a better assessment of problem areas but also a more effective followup through grant-supported projects."

The five programs in the new extramural structure and their chiefs are:

Programs Listed

Periodontal and Soft Tissue Diseases, Dr. John F. Goggins; Restorative Materials, Dr. Louis W. Wachtel, and Craniofacial Anomalies, Dr. Richard L. Christiansen.

Also, Mineralization, Salivary Secretions, and Nutrition, Dr. Paul D. Frazier, and Pain Control and Behavioral Studies, Dr. Aaron Ganz.

Three special assistants to Dr. Clair L. Gardner, associate director for Extramural Programs, have also been named: Dr. Anthony A. Rizzo, special assistant for Program Coordination; Dr. Robert J. Schuellein, special assistant for Research Manpower, and Dr. Emil L. Rigg, special assistant for Institutes and Centers.

Just think. If recycling really catches on, having garbage will be patriotic.—*Changing Times*.

Donald Watson Retires After 19 Years at NIH

Donald R. Watson recently retired as assistant director for Materiel Management, Office of Administrative Services, after 19 years at NIH.

His retirement plans include serving as a consultant on contracts and related areas in which he has had extensive experience at NIH and other agencies.

Mr. Watson directed NIH procurement activities in the field as well as on the reservation from 1954 until 1969, when he became assistant director, responsible for all materiel management activities.

Mr. Watson initiated a number of unique programs and streamlined others. Chief among these was the Telephone Charge Order system which reduced red tape for small procurements.

Experience Noted

He began his Government career in 1937 with the Procurement Division, Federal Bureau of Supply (now the General Services Administration).

Prior to World War II, he transferred to the Office of Emergency Management as chief procurement officer responsible for contracting and purchasing supplies and equipment for most of the emergency war agencies.

Later he transferred to the Foreign Economic Administration as assistant branch chief for the procurement of strategic materials, and from 1945 to 1949 was with the Central Office of the War Assets Administration.

In 1950 Mr. Watson joined the Office of the Secretary of Defense as a procurement specialist concerned with procurement program-



As a result of Mr. Watson's innovations, materiel management at NIH has been a subject of study by other Government agencies and industrial organizations.

ming and the development of the Armed Services Procurement Regulations.

He came to NIH's Supply Management Branch as chief of the Procurement Section in 1954.



For his significant contributions in the field of viral carcinogenesis, Dr. Robert J. Huebner (r), NCI, receives from Rector P. De Somer a citation designating him an honorary doctor of the University of Leuven, Belgium. Previous recipients of the degree include President Dwight D. Eisenhower, Dr. Kenneth Galbraith, and Dr. James Shannon. Dr. Huebner, chief of the Viral Carcinogenesis Branch, Division of Cancer Cause and Prevention, has also received honorary degrees from the University of Cincinnati, the University of Parma (Italy), and Edgecliff College.

Subcommittees Named To Review Research Under Cancer Program

Two *ad hoc* subcommittees have been appointed by the National Cancer Institute to review research programs conducted under the National Cancer Program.

One subcommittee, headed by Dr. Norton D. Zinder, Rockefeller University, will review overall research of the NCI Special Virus Cancer Program and make recommendations for future virus-cancer research.

The other subcommittee, chaired by Dr. Sidney Weinhouse, Fels Research Institute, will review a research program conducted by Litton Bionetics, Inc., at the Frederick Cancer Research Center at Fort Detrick, Md.

Litton's program performance will be examined and recommendations made for further development of an advanced systems laboratory at Frederick.

The facility will serve as a sophisticated resource for experiments by visiting U.S. and foreign scientists.



Dr. Paul A. di Sant'Agnese, chief of the Pediatric Metabolism Branch, NIAMDD, was recently presented with an award for his "outstanding contribution" to the development of the International Cystic Fibrosis Association. This organization unites lay and medical leaders of 22 countries in a common fight against cystic fibrosis.

Exhibit at NLM Traces Medical Journal Origins

"The Evolution of the American Medical Periodical," an exhibit now in the National Library of Medicine lobby, traces the origins of the medical journal.

Included in the display are two reports from a European publication, the *Philosophical Transactions of the Royal Society of London*, dated 1758.

Also on display are copies of the earliest American medical journals as well as various specialty publications.

Visitors may view the exhibit until July 1. Lobby hours are Monday through Friday, 8:30 a.m. to 9 p.m., and Saturdays, 8:30 a.m. to 5 p.m.

DR. MARSTON IS LEAVING FEDERAL SERVICE

(Continued from Page 1)

you continuing opportunities for service and success."

Dr. John F. Sherman, Acting NIH Director, in commenting on Dr. Marston's resignation from the Acting Directorship of the NINDS expressed his appreciation "for the leadership which he has given NINDS during a transitional period. This recent service is only one small facet of the tremendous contribution he made to the progress of science and medicine from 1968 to 1973 as Director of NIH."

Marston Announces Plans

Dr. Marston announced some months ago his plans to take a "sabbatical" year.

He is leaving NIH to become a Scholar-in-Residence at the University of Virginia on May 1, where he will focus on the relation of medicine to the broader functions of a university.

He will work not only with medical and nursing schools, but also the schools of law, education, business administration and the college of arts and sciences.

Dr. Edgar F. Shannon, University of Virginia President, said the university's program allows distinguished individuals considerable flexibility in carrying out programs to suit their particular expertise and interests.

In announcing the appointment, Dr. Shannon also said that "Dr. Marston is not only a proven scientist and administrator, but a scholar and an educator of the highest caliber."

"The university and the State are fortunate to be able to draw upon the knowledge and experience of one of the Nation's foremost leaders in the fields of health and science."

Dr. Marston has also been named the first Distinguished Fellow of the Institute of Medicine, National Academy of Sciences. There he will direct the establishment of a new program of Robert Wood Johnson Health Policy Fellowships.

This program, conducted in cooperation with the American Political Science Association, will be funded by a 3-year grant from the Robert Wood Johnson Foundation.

Advises on Policy

In this capacity he will also advise Dr. John R. Hogness, President of Institute of Medicine, on biomedical research policy matters.

The period of Dr. Marston's tenure as Director under two Presidents and five Secretaries of HEW can be characterized as a continuation of the evolving role of NIH in biomedical research which started after World War II.

Program responsibilities were markedly expanded by the addition in 1968 of the Bureau of Health Manpower Education and the Na-



Dr. Sherman termed Dr. Marston's service to NINDS "... as one ... facet of the tremendous contribution he made ... to science and medicine ... as Director of NIH."

tional Library of Medicine.

New research Institutes and programs were created, and existing research programs were expanded.

For instance, in 1969 NIH appropriations totaled \$1.4 billion; in 1972 they were \$2.2 billion, a 60 percent increase.

The continued growth and vigor of American biomedical research is documented by substantive progress in almost all of the areas of biomedical research covered by NIH and by the continued recognition through prizes and awards to American scientists supported by NIH funds.

This has been a period, too, in which an increasing number of intramural NIH scientists have been recognized for historic achievements in biomedicine.

Progress Made

Such progress in recent years has increased the hope that science can be even more effective in improving health and controlling age-old diseases, such as cancer and heart disease, as well as the newer or more recently recognized threats such as environmental or genetically determined illnesses.

In commenting on his total of nine and one-half years at NIH Dr. Marston called it "the dominant institution of my professional life, and my personal and professional ties with the wonderful people at NIH inevitably will remain very close."

"No other single factor will be more important in determining the nature of man's future in this world than the further development and transmission of biomedical knowledge," Dr. Marston added, "so that we can better understand ourselves in health and in disease in our relationship to the environment and in our relationship to others."

Study Shows Training Develops Altruistic Behavior in Children

Research on nursery school children between the ages of 3 and 6 and how they respond to concern for others has been undertaken by scientists at the National Institute of Mental Health.

The researchers, Dr. Marian Radke Yarrow, Dr. Carolyn Zahn Waxler, and Dr. Phyllis M. Scott, feel that too little is known about this type of social behavior.

According to the investigators, training is the key to developing a young child's concern for others. How the children responded to certain situations was noted by the observers. Pictures, dioramas, and—where possible—real life situations were used.

Situations included children eating ice cream cones in the presence of one who had none, a dog whose chain is wound too tightly around a tree, and an adult who bumps her head on a table while picking up a toy from the floor.

The evidence demonstrated that those children who showed the highest degree of concern for others are found where parents themselves show concern in their everyday living.

The NIMH researchers explained that parents must also respond to their children's feelings and point out the best method for expressing altruistic feelings.

If these feelings are lacking in a parent, the lack is shown in the child.

The full report on this research is in the March issue of the *Journal of Developmental Psychology*.



Dr. Yarrow, chief of the Section on Developmental Psychology, said that a lasting impression for feeling concern can be made on a child during early years.

During his farewell ceremony, a portrait of Dr. Marston by the distinguished artist, Bjorn Egeli, will be unveiled. Later, the portrait will hang in the lobby of Building 1 with portraits of previous NIH Directors.

Hospital-Associated Infections Not Decreasing Despite Use of Newer Antimicrobial Agents



Participants at the workshop discuss the first morning's session. L to r are: Dr. Milton Puziss, chief, Bacteriology and Mycology Branch, NIAID's Extramural Programs; Dr. Jay Sanford, University of Texas; Dr. Maxwell Finland, Channing Laboratory, Boston City Hospital, and Dr. William Hewitt, School of Medicine, University of California at Los Angeles.

Hospital-associated infections—a longtime problem of serious proportions—are not decreasing despite newer antimicrobial agents and 15 years of established hospital-based "infection control" committees.

These were some of the conclusions of physicians and researchers who recently took part in an NIAID-sponsored Workshop on Hospital-Associated Infections.

Their report also indicated that sufficient knowledge now exists to significantly reduce the number of such infections, if conscientiously applied.

Problems Discussed

During the workshop, participants discussed the magnitude of the problem, factors predisposing to infection, various control measures, preventive antimicrobial therapy, and the role of viral infections in the phenomenon.

Hospital-associated infections are still causes of morbidity and mortality among hospitalized patients. As such, they also contribute directly to spiraling increases in the costs of hospitalization.

The problem with infection is the patient's loss of resistance to microorganisms that are normally harmless to healthy people.

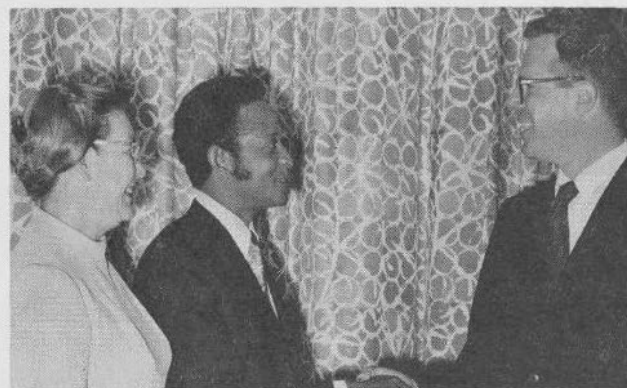
These organisms are easily identified although some of the reasons for the disturbances in human resistance to them are not.

Medical Devices Used

One factor contributing to the problem is the widespread use of medical devices, such as catheters and intravenous procedures, which provide entry portals for microorganisms.

Workshop participants urged that more research should be undertaken on such aspects as host resistance, other risk factors, more efficient diagnostic systems, and improved topical disinfectants.

Further study on the role of food and water as vehicles for infection, the value of air-flow techniques, transmission of hepatitis within dialysis units, measures to increase resistance to the herpesvirus group, and the training of all personnel to ensure implementation of available knowledge about infection control were also recommended.



The NCI-sponsored Burkitt's Tumor Project at the Ghana Medical School in Accra focuses on the treatment and possible causes of Burkitt's lymphoma. Above, Dr. Francis Nkrumah (c) is greeted by Dr. Robert Depue, assistant to the Director, Division of Cancer Cause and Prevention, NCI, during a recent visit to Bethesda. Virginia Perkins, microbiologist and NCI project officer at Accra, looks on. Another recent visit took place at Accra (right photo), where Fred L. Hadsel (r), U.S. Ambassador to Ghana, and Charles Hanson, the Embassy's Chief of Mission, met patients and staff. NCI provides drugs and a small field staff.

ORAL DISEASES

(Continued from Page 1)

slow to spread from tooth to tooth, and therefore may be susceptible to selective chemical control, such as a special iodine solution.

During preliminary tests on a group of children to remove this organism, the researchers found that the solution kept some of the children free of *S. mutans* in those areas for at least 13 weeks.

Dr. Cecil Taylor, Texas Medical Center at Houston, reported that the mast cell seems to hold a key to the rapid destruction of the protein, collagen, which occurs in periodontal—gum—disease.

Collagen Defined

Collagen is the chief protein in connective tissues such as skin and bone; and in periodontal disease, large amounts of it are rapidly destroyed so that sound teeth fall out of the jawbone.

Normally, the collagenase enzyme, which breaks down the long collagen molecule, is inactive in the presence of serum. However, Dr. Taylor found that a substance is released from granules in mast cells which enables the enzymes to digest collagen even when serum is present.

Dr. Jo Max Goodson, University of California School of Dentistry in San Francisco, reported that gum tissues affected by periodontal disease have 10 times the normal level of a prostaglandin. He believes his findings implicate prostaglandins in the bone loss associated with that disease.

Dr. Goodson also stated that daily doses of vitamin E reduced inflammation in patients with periodontal disease.

However, further studies are needed to find out if specific drugs can reduce prostaglandin levels in the gums and actually control loss.

NIH Visiting Scientists Program Participants

3/19—Dr. Nivedita Mitra, India, Mutagenesis Branch. Sponsor: Dr. Heinrich V. Malling, NIEHS, Research Triangle Park, N.C.

3/19—Dr. Hrishikes Mondal, India, Laboratory of Tumor Cell Biology. Sponsor: Dr. Robert Gallo, NCI, Bldg. 37, Rm. 6B15.

4/1—Dr. Richard Hansford, United Kingdom, Laboratory of Molecular Aging. Sponsor: Dr. Bertram Sacktor, NICHD, Gerontology Research Center, Baltimore, Md.

4/2—Dr. Arunendra Majumder, India, Laboratory of Biochemistry and Metabolism. Sponsor: Dr. Frank Eisenberg, NIAMDD, Bldg. 10, Rm. 9B07.

4/2—Dr. John R. Rhodes, United Kingdom, Clinical Allergy and Hypersensitivity Section. Sponsor: Dr. Charles H. Kirkpatrick, NIAID, Bldg. 10, Rm. 11N117.

4/10—Dr. He Duck Mah, Korea, Laboratory of Chemistry. Sponsor: Dr. John Daly, NIAMDD, Bldg. 4, Rm. 210.

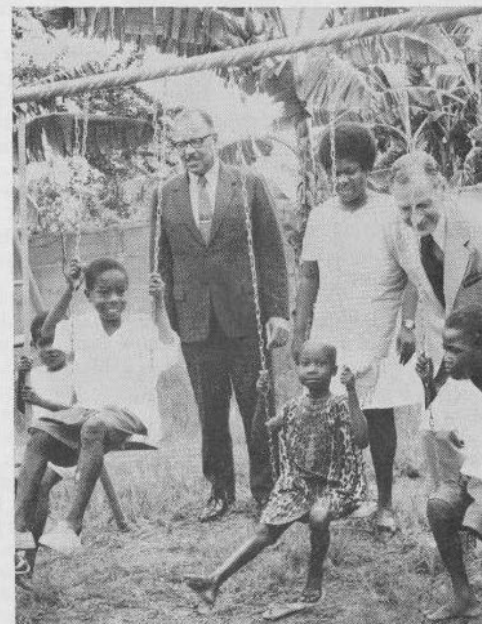
AMSUS Accepts Nominations For Annual Awards Programs

The Association of Military Surgeons of the United States is accepting nominations for its 1973 Awards Program in preparation for November's annual convention.

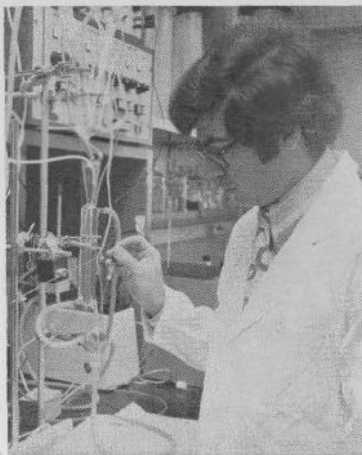
The 16 competitive awards consist of a plaque or scroll and an honorarium. There are also four noncompetitive awards.

Members of the Army, Navy, Air Force, Veterans Administration, and Public Health Service are honored for outstanding performance and significant contributions to research or education.

Nominations for the competitive awards should be submitted prior to June 15. Further information may be obtained by calling AMSUS at 657-1980.



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NIAID allergy research programs are carried out in labs on the campus, in industrial laboratories, and in ten asthma and allergic disease centers. The goal of these studies is aimed at better diagnosis and the prevention and treatment of allergic disorders. The knowledge gained through these programs may "result in better care for those who suffer the debilitating effects of asthmas and other allergies." (L) Dr. Allen P. Kaplan, director, NIAID's Asthma and Allergic Disease Center in the CC, is conducting a bioassay on specialized equipment, using guinea pig intestine. With his lab assistant Charles Tolbert, Dr. Kaplan is assaying clotting enzymes.



DR. TOWER

(Continued from Page 1)

served as chief editor of the *Journal of Neurochemistry*.

He is a member of several professional societies, including the American Society of Neurochemistry and the International Society for Neurochemistry. He is currently a council member of both Societies.

In 1969 he was head of the Neurochemistry Exchange Mission to the Soviet Union under the U.S.-Soviet Exchange Program. In 1972 he was a guest of the Armenian and Uzbek Academies of Science, USSR.

Dr. Y. Kikkawa, C. Lewis Named to NHLI Council

Two new members, Dr. Yutaka Kikkawa and Charlotte Lewis, have been appointed to NHLI's National Heart and Lung Advisory Council.

Dr. Kikkawa, associate professor of pathology, Albert Einstein College of Medicine, Yeshiva University, is also an attending pathologist, Bronx Municipal Hospital Center, and director of pathology in Van Etten Hospital, Bronx, N.Y.

Miss Lewis, a 1969 graduate of Union College in Barbourville, Ky., is particularly interested in politics. She has served as publicity chairwoman for the Kentucky Young Republican Federation and as a publicity specialist for the Kentucky State Department of Information.

The council, which meets 3 times a year at NIH, evaluates NHLI research and training programs. The next meeting will be held in June.

Sciences Review Comm. Is Sponsoring Symposium

The Automation in the Medical Laboratory Sciences Review Committee, National Institute of General Medical Sciences, is sponsoring a "Symposium on Thermochemistry: The Clinical Applications of Microcalorimetry."

The symposium will be held on Tuesday, May 1, 9 a.m. to 4 p.m. in Bldg. 31, Conference Room 6. The meeting is open to the public as long as space is available.

Participants are: Dr. James Christensen, chairman, professor of chemical engineering, Center for Thermochemical Studies, Brigham Young University; Dr. George Armstrong, chief, Thermochemistry Section, NBS, and Dr. Robert Berger, research physicist, NHLI.

Also, Dr. Harry Brown, chairman, biochemistry department, Cancer Research Center, Columbia, Mo.; Dr. Joseph Jordan, professor of chemistry, Penn State University, and Dr. Mario Marini, associate professor of biochemistry, Northwestern University Medical School.

Study of Tissue Matching in Kidney Transplants Receives NIAID Support; 7 Groups Participating

The usefulness of tissue matching in kidney transplants between unrelated donors and recipients will be evaluated by scientists working under a 2-year contract with the National Institute of Allergy and Infectious Diseases.

The nationwide study will be carried out by six cooperative clinical groups and a seventh group providing statistical services.

Intensive research has established that substances (HL-A antigens) in an individual's white blood cells determine the compatibility of his tissues with those of another person.

Since these substances are inherited, a close relative (preferably a brother or sister) makes the best donor for a transplant. The closer the match in HL-A antigens among brothers and sisters, the more successful the operation.

Transplants Increase

As the number of kidney transplants in the U.S. has risen from 200 in 1964 to 2,900 in 1972, the number of organs obtained from unrelated (usually cadaver) donors has also increased.

The new NIAID study will rely on the cooperation of clinicians and laboratory scientists who will collect data on approximately 800 kidney transplants annually. They will use standardized NIH typing materials and methods to type donors and recipients on a regional basis.

Contractors Named

The six regional contractors for this study are: the Cleveland Clinic in Ohio; the University of Utah Medical Center, Salt Lake City; the University of Illinois College of Medicine, Chicago; the University of Rochester in New York; the University of Texas Medical School, Dallas, and the University of Minnesota Medical School, Minneapolis.

The University of North Carolina School of Public Health will serve as a statistics and data management center, analyzing the information coming out of the regional centers.



Margaret Vance, chief of the CC Nutrition Department's Food Production Service, retired on March 30. Miss Vance had been chief since she joined the staff in 1953, shortly before the CC opened. During her 20 years, she helped develop and administer the food production service. In 1966, in recognition of her outstanding contribution to the Nutrition Department, she was awarded a PHS Commendation Medal.

Two DMI Publications List Training Programs For Support Personnel

Two publications listing programs for training physician's assistants and other physician support personnel have been issued by the Division of Manpower Intelligence, BHME.

The third edition of *Selected Training Programs for Physician Support Personnel*, DHEW No. (NIH) 72-183, gives an 86-page detailed description of 112 programs.

Copies are available from the Superintendent of Documents, Washington, D.C., for \$1 per copy.

The second booklet, *Summary of Training Programs: Physician Support Personnel*, was prepared jointly by DMI and the American Medical Association. It lists 83 courses by state within five categories.

Copies of this 46-page booklet, DHEW No. (NIH) 73-318, are available free from DMI, 9000 Rockville Pike, Bethesda, Md. 20014, and the AMA, Division of Medical Practice, Department of Health Manpower, 535 North Dearborn Street, Chicago, Ill. 60610.

Photography Contest Deadline Draws Near

The April 30 deadline for the Camera Club and *Record's* photography contest is drawing near.

Three prizes of \$15, \$10, and \$5 will be awarded in each category—landscape, human interest, and scientific activity.

On the back of the pictures, don't forget to put your name, extension, a title for the content, a brief description of what is happening in the scene, and the category entered.

Judges for the contest will be Dr. David Small, president of the Camera Club, Ron Winterrowd, chief, General Illustrations Section, MAPD, and Jerry Hecht, Audiovisuals Branch, OD.

FURTHER RESEARCH NECESSARY

Scientists Report Interferon—Naturally Occurring Antiviral Protein—Effective Against Common Cold

An NIAID-supported scientist and a British medical research team have reported that interferon—a naturally occurring antiviral substance—is an effective preventive against the common cold.

However, the scientists stressed that practical application must await further research.

Dr. Thomas C. Merigan, on an NIAID fellowship from Stanford University, joined with investigators at the Medical Research Council's Common Cold Unit in Salisbury, England, in both laboratory and human studies of exogenous interferon (that prepared outside the body).

Interferon is a protein produced by the body in response to a viral infection. Scientists have long hoped to make interferon available as an antiviral drug since it is active against most viruses and has no significant toxicity.

Recently methods have been developed whereby explanted human cells can be stimulated to produce large amounts of interferon.

After performing interferon susceptibility studies of certain respiratory viruses, the scientists selected rhinovirus 4 and influenza B virus for use in 54 human volunteers.

Study Explained

In experiments with rhinovirus 4, large doses of interferon were given by nasal spray both before and for 3 days following challenge with the common cold virus. Only one of the interferon-treated volunteers showed any cold symptoms.

By applying the interferon locally, the scientists took advantage of the barrier in the nasal skin which inhibits absorption into the entire system.

Smaller amounts of interferon given similarly during the day before challenge with the influenza B virus did not alter the frequency or severity of infection in volunteers.

It did, however, cause a delay in the clinical course of disease in 3 of 11 interferon-treated volunteers.

Dr. Merigan and his co-workers suggested that in future studies interferon administered in larger doses and continued virus challenge could possibly be more effective against influenza infection.

No side effects or late compli-

cations were observed in interferon recipients in either the rhinovirus or influenza virus study.

The study, which can serve as a model for future research, holds promise for patients at serious risk from viral respiratory infections such as influenza.

However, further investigation needs to be done to define the exact dosage and method of administration appropriate for each disease.

Despite the success of the experiment, practical application of the preventive method is still far from realization.

For example, in the rhinovirus study, it was necessary to give each volunteer the amount of interferon produced by white cells from 30 to 50 blood transfusions. Such an effective dose presently costs several thousand dollars.

However, the scientists hope that "given a definite clinical application, techniques will be improved, the cost of interferon will fall, and the method of administration will be simplified."

Other participants in the study reported in the March 17, 1973, issue of *Lancet* were Drs. Sylvia E. Reed, Thomas S. Hall, and David A.J. Tyrrell, all of the M.R.C. Common Cold Unit, Harvard Hospital in Salisbury.

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Attending the Secretary's reception following the Department Annual Honor Awards Ceremony April 11 are (l to r): Dr. Manning Feinleib, NHLI, recipient of the 1972 Mortimer Spiegelman Gold Medal Award; Elizabeth Chase, BHME, recipient of the Distinguished Service Award; Jessie M. Scott, BHME, recipient of the Distinguished Service Medal; Dr. John F. Sherman, Acting NIH Director; Caspar W. Weinberger, HEW Secretary; Dr. Robert L. Bowman, NHLI, recipient of the Distinguished Service Medal, and Dr. Wallace P. Rowe, recipient of one of five Rockefeller Public Service Awards.

Three Doctors Appointed To Dental Council Posts

Drs. Jewel Plummer Cobb, Jose E. Medina, and Hamilton B. G. Robinson have been named to the National Advisory Dental Research Council. Their terms will run through September 1976.

Dr. Cobb, a prominent educator and cell physiologist from New London, Conn., is Dean of Connecticut College.

In 1952, Dr. Cobb joined the faculty of the Medical College of Illinois as an instructor in anatomy and subsequently taught at New York University, Sarah Lawrence College, and Connecticut College.

She received an honorary LL.D. degree from Wheaton College in 1971 and an honorary D.Sc. degree from Lowell Technological Institute in 1972.

Taught at Maryland

Dr. Medina of Gainesville, Fla., is Dean of the College of Dentistry of the University of Florida. Dr. Medina taught at the Dental School of the University of Maryland, serving as assistant dean from 1963 to 1967.

He has been a consultant to the U.S. Navy, the PHS and the Naval Dental School.

Dr. Robinson of Kansas City, Mo., began his career as an educator at the Washington University of St. Louis. Following an assignment at Ohio State University, Dr. Robinson joined the staff of the University of Missouri, becoming Dean of the Dental School in 1968.

The author of many books in the field of oral pathology, Dr. Robinson has received such awards as

DMI Publication Outlines Fed'l Support Programs For Health Manpower

According to the newly issued *Inventory of Federal Programs Supporting Health Manpower Training, FY 1972*, the U.S. Government spent more than \$1.3 billion for training under 165 programs.

About two-thirds (109) of the programs were administered by the Department of Health, Education, and Welfare.

Of the projects in DHEW, more than half (56) were the responsibility of NIH. The remainder were distributed among eight other departments and five independent agencies.

The 100-page inventory, which describes the programs, lists the number of award recipients, and includes summary tables, was issued by the Division of Manpower Intelligence, BHME.

The brochure, DHEW Pub. No. (NIH) 73-146, may be purchased for \$2.50 a copy from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Single copies may be obtained from DMI, BHME, Bethesda, Md. 20014.

the Tufts University award for leadership in oral pathology, the Callahan medal, and the Pierre Fauchard Academy medal.

He has served as president of the International Association of Dental Research, the American Board of Oral Pathology, and the American Association of Dental Schools.

Drs. Rogers and Griffo Named To NIDR Caries Program Posts

Dr. William E. Rogers, Jr. has been appointed scientific coordinator for Caries Grants and Contracts in the National Institute of Dental Research.

Dr. Zora J. Griffo, newly transferred to the National Caries Program, will assume Dr. Rogers' former post as chief of the Caries Grant Program Branch.