the NIH Record

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

March 16, 1971
Vol. XXIII, No. 6

NATIONAL INSTITUTES OF HEALTH

Dr. Bruce Is Appointed Director of DPHPE

Dr. Harry W. Bruce, Jr. has been appointed Director of the new Division of Physician and Health Professions Education, BHME.

He has been a PHS commissioned officer since 1954 and was Acting Director of the Division since its establishment in October 1970.

The Division provides financial assistance to health professions institutions and to their students in an effort to alleviate the health manpower shortage and meet the Nation's health care needs.

Responsibilities Noted

Dr. Bruce is responsible for directing Federal activities concerned with all aspects of education of the Nation's physicians, osteopaths, dentists, optometrists, pharmacists, podiatrists, and veterinarians.

These activities include administration of institutional grants to increase the number of health professionals, and construction grants for educational facilities.

Dr. Bruce is a graduate of Carson Newman College, and the Uni-

(See DR. BRUCE, Page 6)

Newborn Opossum Considered a 'Natural' For Many Areas of Biomedical Research

Half-formed, with undeveloped stubs for hind legs, a brain only partially complete, and many of its other organs just beginning to grow, the baby of an experimental animal emerges from its mother's birth canal. Barely ½-inch long and 5/1,000 ounce in weight, it wriggles blindly amid the forest of hair on its mother's belly, searching for a nipple the size of a pin head.

Dr. Jurgelsky removes an opossum from a nest box in the building developed at NIEHS to house the opossum breeding colony. To avoid a painful and often severe bite on the hand, the animals must be restrained by quickly and firmly grasping the nape of their neck.—Photos by Bryant Duke.

Finding the nipple, it begins to nurse. Within a few days, its jaws fuse so the infant animal cannot release the nipple.

In this state, protected from the outer world by a warm, moist envelope of its mother's skin, it completes, over a period of 2½ months, much of the growth which in other animals takes place in the womb.

This animal, a product not of science fiction but of an 80-million-year-old experiment of nature, is known to science as *Didelphys marsupialis* but is better known as the 'possum.

Thrust into the world just 12¾ days after its conception, this familiar inhabitant of the southern woods is sufficiently immature at birth to be considered a kind of naturally-occurring test tube baby.

In studies being conducted by Dr. William Jurgelsky at the National Institute of Environmental Health Sciences, Research Triangle Park, N.C., this "abortion which has learned to survive outside the womb" is being developed as a pow-

(See OPOSSUM, Page 7)

Dr. David Rall to Assume Position as NIEHS Head In North Carolina Soon

Dr. David P. Rall has been selected to be Director of the National Institute of Environmental Health Sciences in Research Triangle Park, N.C.

Dr. Rall is associate scientific director of the National Cancer Institute, supervising experimental therapeutic programs.

He succeeds Dr. Paul Kotin, Director of NIEHS since its establishment in 1966. Dr. Kotin has accepted a position as Vice President for Health Sciences of Temple University.

Lauded by Dr. Marston

"Dr. Rall has the special scientific and managerial qualifications needed for the direction of research programs in the environmental health sciences," said Dr. Robert Q. Marston, NIH Director.

The position requires not only that the NIEHS Director have the ability to manage an active in-house research program, but also calls for him to play a strong role in the training of specialists in environmental health, Dr. Marston explained.

Also, the Director must identify research programs throughout the country that are worthy of strong encouagement through NIH financial support.

(See DR. RALL, Page 5)

Scientists Suggest Autoimmunity Causes Sympathetic Involvement of 'Other' Eye

Evidence that may explain why severe injury to one eye will, in some persons, cause a serious inflammation to develop in the other eye has been presented by National Eye Institute scientists.

The condition, called sympathetic ophthalmia, because of the "sympathetic" involvement of the uninjured eye, has long puzzled physicians and scientists.

In recent years, autoimmunity, the body's allergic reaction to its own tissue, has been suggested as a cause.

Now, Dr. Vernon G. Wong, NEI Clinical Director, and his associates, Richard R. Anderson and Dr. Paul J. O'Brien, have obtained experimental evidence to suggest that in sympathetic ophthalmia the initial injury may "sensitize" the body's white blood cells (lymphocytes), causing them to attack the other eye as if it were foreign tissue.

Lymphocytes from each of 8 patients with sympathetic ophthalmia

(See OTHER EYE, Page 3)

5-Day FASEB Meeting To Be Held in Chicago

Registrations for the 55th Annual Meeting of the Federation of American Societies for Experimental Biology (FASEB) will be accepted through Friday, March 19.

The meeting is to be held in Chicago on April 12-17.

Dr. Marshall W. Nirenberg, National Heart and Lung Institute and NIH's Nobel Laureate, will address the FASEB General Session on Tuesday, April 13, at 8 p.m., in the International Ballroom of the Conrad Hilton Hotel.

Dr. Nirenberg will talk on "Molecular Neurobiology—Some Approaches." Dr. Stanford Moore, FASEB President, will preside at this session.

Dr. Robert Q. Marston, NIH Director (r), completes a tour of NIEHS facilities with (l to r): Dr. David P. Rall, recently designated Director of the Environmental Institute; Robert W. Scott, Governor of North Carolina, and Dr. Paul Kotin, who is leaving the post of NIEHS Director. Gov. Scott spoke at dedication of four NIEHS buildings at Research Triangle Park (see story on page 5).

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.

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Time-Off Rules Stated For Eligible Personnel Voting in D.C. Election

NIH employees who live in Washington, D.C. and work the normal shift of 8:30 a.m. to 5 p.m. may not have additional time off for voting. Polls will be open from 8 a.m. to 8 p.m. in D.C.'s first general election for a delegate.

Employees on different shifts may have limited time off under certain conditions. Time will be charged to administrative leave.

According to the D.C. Board of Elections, voters in the last election who have since moved, but did not notify the Board, must vote in their last polling location.

Polls will be listed in local newspapers.

Two Scientist-Educators Named to NINDS Council

Two scientist-educators have been appointed to serve on the National Advisory Neurological Diseases and Stroke Council: Dr. George B. Koelle, professor and chairman, Department of Pharmacology, University of Pennsylvania School of Medicine, and Dr. Richard P. Schmidt, Dean, College of Medicine, Upstate Medical Center, State University of New York, Syracuse.

Dr. Koelle has a Ph.D. degree from the University of Pennsylvania, an M.D. degree from The Johns Hopkins School of Medicine, and a D.Sc. degree from the Philadelphia College of Pharmacy and Science.

He is vice president of the International Union of Pharmacology, and a past president of the American Society of Pharmacology and Experimental Therapeutics.

Dr. Schmidt was president of the American Academy of Neurology in 1967 and 1968. His major research interests have been in the field of epilepsy.

R&W Sponsors European Flights Using TWA Jets—at Savings

Three TWA charter flights to Europe, on B707 jets, have been arranged by R&W for its members and families. Flights, leaving from Dulles Airport, will go directly to Paris, and will also return from that city to Dulles.

There will be a savings of over one-half of the normal excursion economy fare.

Flights have been arranged for June 9, returning July 3; July 15, returning Aug. 12, and Sept. 2, returning Sept. 29.

For further information call Jonan Downs, R&W administrative assistant, Ext. 66061.

NIH Television, Radio Program Schedule

Radio

DISCUSSION: NIH

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

March 19

Catherine S. Delea, Endocrinology Branch, NHLI
Subject: Hypertension

March 26

Dr. George E. Garrington, Clinical Director, NIDR
Subject: Dental Clinical Research

Interview takes place during intermission of the Library of Congress concerts.

The television series, NIH REPORTS, will be rescheduled later.

Additional Psychiatrists On Staff Enable EHS To Offer More Counsel

The addition of four part-time psychiatrists to the staff of the Employee Health Service, making psychiatric counseling available 5 days a week, has been announced by Dr. John M. Lynch, EHS chief.

Previously, National Institute of Mental Health psychiatrists in administrative positions offered counseling in their free time to maintain direct contact with patients.

Counseling Available

This service had made the equivalent of 2 days of counseling service available to employees.

The Employee Health Service now offers group or individual counseling in its Clinical Center office.

In addition, psychiatrists are accessible for consultation with management through individual supervisors, administrators, and personnel officers, as well as through seminars for supervisors to assist them in understanding employee problems.

Sometimes problems which are not work related develop at home —a family breaking up, a son or daughter on drugs or dropping out of school, a sudden death in the family—and the effects of these problems carry over to and interfere with the work situation, Dr. Lynch noted.

May Help Employee Function

"Crisis intervention" may help the employee cope with his problem, enabling him to function effectively on the job again.

Such counseling is generally short-term, but should the employee require further assistance, the Employee Health Service can refer him to the psychiatrist or clinic best qualified to deal with his particular problem.

Organization for Women To Meet April 1 at CC

The NIH Organization for Women will hold its first general meeting in the Jack Masur Auditorium, Clinical Center, Thursday, April 1, at 12 noon.

Guest speaker will be Dr. Estelle R. Ramey, professor of Physiology at Georgetown University Medical School.

Dr. Ramey attracted attention last year when she challenged Dr. Edgar Berman's statement that physiological differences between the sexes make women unfit for top-level jobs.

Her topic will be "Sex Hormones, Wage Board, and GS Rank." She will discuss job performance capabilities of men and women and how to change attitudes which may be based on myths.

All NIH employees are invited to attend.

C.O.'s Leaving Active Duty To Meet March 17 at CC

A special meeting for NIH Commissioned Officers separating from active duty during June or July will be held tomorrow, Wednesday, March 17, at 3 p.m. in the Jack Masur Auditorium, Clinical Center.

Officers will be informed about separation procedures, travel entitlements, shipment of household effects, and veteran benefits by the Commissioned Officer Unit, Office of Personnel Management.

Administrative personnel concerned with separation procedures for Commissioned Officers may also attend.

Robert L. Stewart Dies; Was Personnel Specialist

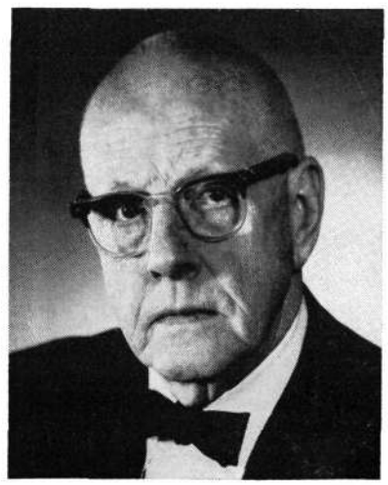
Robert LeRoy Stewart, 42, an employee in the Office of Personnel Management since 1966, died on March 4 at his Bethesda residence.

During his career in personnel, he was assigned to several institute and division Personnel Offices, and for the past year he was detailed to the Employee Relations and Recognition Branch.

One of his contributions to the work of that office was the design of a Retirement Annuity Form, NIH 1680, which was adopted for agency-wide use. He received an award for this suggestion on Oct. 9, 1970.

Mr. Stewart received a B.S. degree from the University of Maryland in 1951. He then enlisted in the Air Force, serving for 4 years.

He was a member of the Society for Personnel Administration.



Dr. Harold L. Stewart, who retired in 1969 as chief, Laboratory of Pathology, NCI, delivered the Maude Abbott Lecture at the meeting of the International Academy of Pathology, U.S.- Canadian Division. The lecture honors the late Dr. Abbott, renowned Canadian pathologist. Currently, Dr. Stewart is consultant to the NCI Director and clinical professor of Pathology at Georgetown University.

Kent A. Smith has been named executive officer, National Library of Medicine. Formerly, he was with DRR in the same post. Mr. Smith received a B.A. degree from Hobart College, and an M.P.A. degree from Cornell University's Graduate School for Business and Public Administration.

Booklet Tells Progress Of Hormone Research

A booklet and an exhibit on Human Growth Hormone (HGH) has been prepared by the National Institute of Arthritis and Metabolic Diseases in collaboration with the National Pituitary Agency. The agency, which operates under a contract from NIAMD, collects and distributes HGH for clinical and basic research.

Both booklet and exhibit, which show the research progress of HGH, were on display at the recent meeting of the American Association of Pathologists and Bacteriologists in Montreal.

Among the subjects covered in the booklet are a history of dwarfism and other disorders associated with short stature, and the biochemistry and physiology of HGH.

The hormone, extracted from human pituitary glands obtained at autopsy, is purified and given to patients participating in clinical research studies.

Recently, Dr. C. H. Li, an NIAMD grantee, succeeded in synthesizing HGH in the laboratory. However, years of further research and testing in humans will be required before the man-made substance may replace human pituitaries.

NIH Sailing Association to Show Film of 'Flying Scott,' Mar. 30

The NIH Sailing Association, sponsored by the R&W Association, will show a film of the Flying Scott sloop at 8 p.m., Tuesday, March 30, main floor conference room, Bldg. 30. The showing is open to all members and the public.

The film, which depicts the sloop sailing in a variety of conditions, will demonstrate how to get the best performance from this type of sailing vessel.

Three sailboats, docked near Annapolis, are maintained by the Association.

Are Parking Permit Problems Puzzling? Employees May Find the Answers Here

Tinted windshield or damaged parking permit—the answer to questions about parking problems may be found below.

Q. What do I do if my new permit is damaged when I try to put it on the windshield?

A. Return the pieces to Bldg. 31, Room B1C-11, and you will receive a replacement.

Q. Why can't we cut the NIH insignia off and just display the number?

A. The permit must be displayed as issued—the insignia is part of the official identification. Cutting off any part of the permit renders it invalid, and regulations require display of a valid permit.

Windshield Tinted

Q. What if we have tinted windshields and the permit is difficult to see?

A. This possibility was considered when the permit was designed. If properly placed, the special policeman can read it.

Q. Why can't we place the permit in a pocket on the windshield and display it only when the vehicle is parked on the reservation?

A. The use of a pocket would allow transfer of permits to an unauthorized vehicle. Also, the permit could be easily stolen so it *must* be affixed to the windshield as directed.

Placement of the permit has been cleared with motor vehicle authorities of the various jurisdictions in the area. Placing the permit in any other position might result in violation of local or state laws.

500 Vacant Parking Places

Q. What if I can't find a legal place to park?

A. A daily check reveals an average of 500 vacant parking spaces. Although there are not enough spaces immediately adjacent to all buildings, fringe lots are available.

In the near future, the multilevel parking facility located off Lincoln Drive immediately south of Bldg. 36 will be open. It will accommodate over 800 vehicles.

C-A-L-L-I-N-G A-L-L C-A-R-S! New Permits Now Required

New NIH parking permits have been delivered to all properly registered employees and should be displayed on their vehicles.

Anyone who does not have a new parking permit for his vehicle, should call Ext. 66851.

Initially, guards will place warning notices on cars parked in violation of regulations, according to Willard E. Vincent, chief of the Protection and Safety Management Branch.

The warnings will put employees on notice that violators of traffic and parking regulations will soon be given actual tickets.

Tickets will require alleged offenders to appear before the U.S. magistrate or forfeit collateral (see *NIH Record*, Dec. 8, 1970).

A marked improvement in compliance with parking regulations has been noted recently, Mr. Vincent said.

Dr. John A. Biles Joins Health Advisory Council

Dr. Robert Q. Marston, NIH Director, has announced the appointment of Dr. John A. Biles, Dean of the School of Pharmacy, University of Southern California at Los Angeles, to the National Advisory Council on Education for the Health Professions.

The council advises NIH on program policies and grant applications related to construction of educational facilities for the health professions.

The construction grants program is administered by the Division of Physician and Health Professions Education, BHME.

Violin and Piano Team Offers Chamber Music Concert at CC

The fourth concert in the 1970-71 Chamber Music Series will be held at 4 p.m., Saturday, March 27, in the Jack Masur Auditorium, Clinical Center.

The concerts are presented by the Foundation for Advanced Education in the Sciences.

James and Ruth Laredo, violin and piano duo, will play sonatas by Bach, Schuman, Debussy, and Franck.

Admission is by ticket only.

Enas Broadway (l), National Library of Medicine, Administrative Services Section, receives a Special Achievement Award from Dr. G. Burroughs Mider, NLM Deputy Director. Mr. Broadway, with NLM over 20 years, received the cash prize for his excellent work.

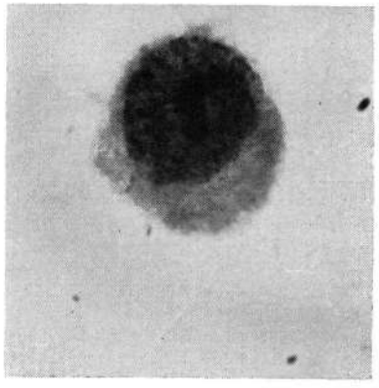
OTHER EYE

(Continued from Page 1)

were cultured with uveal and retinal tissue obtained from an eye bank.

In 7 of the 8 cultures the lymphocytes increased in size and underwent other changes known as blastic transformation, indicating that an immunologic response had occurred.

Following transformation, these cells, now called lymphoblasts, probably from antibody-producing cells which in sympathetic ophthalmia presumably attack healthy ocular tissue.



Transformed human lymphocyte, called a "lymphoblast," indicates that an immune response has occurred.

Lymphocytes from the blood of a control group of patients with eye disease, but without sympathetic ophthalmia and of normal volunteers were not significantly transformed when cultured with eye tissue.

The reaction appears to be tissue-specific because control cultures containing skeletal muscle antigens fail to evoke a significant transforming response.

These results indicate that autoimmunity plays an important role in sympathetic ophthalmia, although it may not be the sole cause of this condition, according to Dr. Wong.

He presented these findings to the 23rd Annual Wills Eye Hospital Clinical Conference in Philadelphia last month.

History of Med. Society Meets Tonight (Tues., Mar. 16) at NLM

The Washington Society for the History of Medicine will meet this evening (Tuesday, March 16) at 8 p.m., in the Billings Auditorium of the National Library of Medicine.

Dr. H. V. Wyatt will talk on "Avery Before the Double Helix." Dr. Wyatt is a visiting scientist at the National Cancer Institute.

Dr. Henry F. Dowling will discuss "The Rise and Fall of the Pneumonia Control Programs." He is Professor of Medicine, Emeritus, at the University of Illinois School of Medicine.

The meeting is open to visitors.

Carpentry Shop Personnel Whittle Wood Into Vital Equipment for Scientific Labs

Photos by Ed Hubbard

The delicate operation of adjusting a table saw that will soon be used to cut down wood to size is discussed by (l to r) Wilbert Drecktrah, Stanley Allen, Hubert Whitney, and Monette Ross.

A sign on the bulletin board hanging near Monette Ross's desk says "Why Is There Never Enough Time To Do It Right, But Always Enough Time To Do It Over?"

The proverb is certainly not applicable to the men who work in the section headed by Mr. Ross, chief of the Shop Section, Plant Engineering Branch, Office of Engineering Services.

That section provides a great many of the services that make the wheels run smoothly at NIH. It includes facilities for painting, electrical repairs, and carpentry; it is staffed by pros and also apprentices with ambition and talent in their own particular field.

Take the carpentry shop—to an untrained eye it looks large enough to house a baseball diamond. The sun pours through the windows, there is remarkably little litter for all the work that's going on—just some shavings on the floor. The buzzing of the saws adds a cheerful noise.

Process Explained

Much of the equipment used in scientists' laboratories is made in this room.

Mr. Ross, who has been at NIH since 1958, explained the process from the time a request comes through from a scientist in an Institute to the start of the job in the carpentry shop.

A PEB planner and estimator does just what his title implies.

"He plans the job, estimates the cost, suggests the design and draws a sketch of the project," Mr. Ross said.

He talks to the scientist requesting the article, and when the specifications are settled the facts are sent to the Institute's administrative officer. Then they talk finance; most of the time there is a meeting of minds.

"Occasionally, an A.O. might think the estimate is more than the job is worth, but that doesn't happen very often," Mr. Ross said.

From here on the carpentry shop takes over. There are 30 carpenters and 6 cabinet makers. They prepare the laboratories, install equipment, and construct special furnishings, including animal operating tables and holding devices.

The cabinet makers build furniture such as bookcases and cabinets, but one of their more repetitive tasks is the building of bench (counter) tops for chemical experiments.

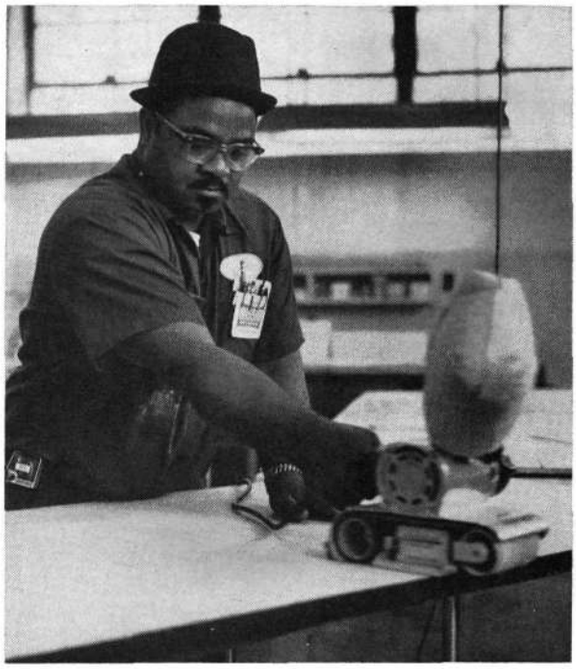
Mr. Ross singled out Alfred Broadhurst, a cabinet maker-trainee who was sanding the edges of a formica-topped bench. The formica looked as good as mahogany that had been hand-rubbed for years.

Mr. Ross explained that "formerly specially treated wood was used for bench tops, but scientists prefer formica because it has a more even surface and is more resistant to chemicals."

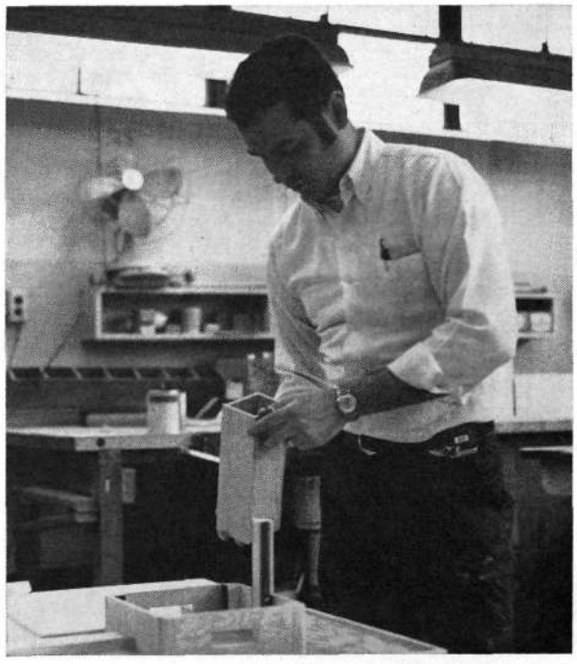
Alfred Broadhurst is in the process of making dados for storage cabinet shelving. He is a cabinet maker trainee who handles tools with all the dexterity of an old hand.

In another section of the shop,

(See CARPENTRY SHOP, Page 8)



Samuel Sewell formerly worked outside on the NIH grounds, but he has acclimated completely to his inside carpentry work. Mr. Sewell is sanding the top of a work bench used for chemical experiments.



Jerry Lawson fits a part of the scale model for a new NIEHS facility in its proper groove. He also plans to landscape it. The replica will undergo ventilation and other important tests, carried out by ESB.

DR. RALL

(Continued from Page 1)

He is expected to take up his new duties in North Carolina in the near future.

Dr. Rall received his Ph.D. degree in Pharmacy and his M.D. degree, both from Northwestern University.

In 1951 he became a PHS Commissioned Officer assigned to the National Cancer Institute, and by 1963 had been promoted to the rank of Medical Director.

He has had extensive experience in comparative pharmacology and cancer chemotherapy studies and has conducted investigations of the blood-brain barrier as well as the blood-cerebrospinal fluid barrier, pesticide toxicology, and drug research and regulation.

Dr. Rall has written or contributed to more than one hundred scientific articles and serves on the editorial board of two authoritative scientific journals: *Cancer Research* and *Pharmacological Reviews*.

During 1970, he was chairman of the HEW Departmental Committee on Drug Research and Regulation.

In addition, Dr. Rall lectured on Physiology at the George Washington University School of Medicine from 1953 to 1962, and is presently a member of its Graduate Council.

DDH Booklet Stresses Need for Daily Flossing

Do you brush your teeth after every meal and consider the job done? If so, you may be one of the more than 70 million American adults who suffer from perio (periodontal disease).

The chief cause is plaque, a sticky, transparent film which clings to teeth. A toothbrush alone will not remove all of the plaque—it cannot reach hidden areas between teeth. Dental floss is needed.

The Division of Dental Health, BHME, has published a booklet, *Dental Flossophy*, which emphasizes the importance of daily flossing to help keep teeth for life.

Cartoon characters illustrate the proper way to hold the floss and clean the hidden areas where the toothbrush cannot reach.

Single copies are available without charge from the Division of Dental Health, Wiscon Building, Bethesda, Md. 20014.

Larger quantities may be ordered directly from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at 15 cents a copy.

Dr. W. M. Christopherson Heads Division, Academy of Pathology

Dr. William M. Christopherson, professor and chairman of the Department of Pathology, University of Louisville School of Medicine, was elected President of the International Academy of Pathology, U.S.-Canadian Division.

Dr. Christopherson is a member of the NIH Clinical Cancer Training Committee and a consultant to the National Cancer Institute.

From 1962 to 1970 he served as special consultant to the PHS Cancer Control Program.

Dr. Harold Baer Named Chief, DBS Laboratory Of Bacterial Products

Dr. Harold Baer has been appointed chief of the Division of Biologics Standards' Laboratory of Bacterial Products.

He will be responsible for a research program on bacterial infections and allergic reactions.

Dr. Baer

Dr. Baer has served as chief of the LBP Section on Allergenic Products since joining NIH in 1960.

Author of some 50 scientific publications, he has been primarily concerned with studies on standardization of allergenic extracts and tuberculin.

He has conducted extensive research on the composition of tuberculin, on poison ivy and related substances that induce delayed sensitivity, as well as allergens derived from pollens and insects.

Education Noted

Dr. Baer graduated from Brooklyn College. He received his M.A. from Columbia University in 1940, and his Ph.D. from Harvard University in 1944.

He served as assistant professor and subsequently as associate professor, Department of Microbiology, Tulane Univerity Medical School, for 10 years prior to his NIH appointment.

Prominent Guests Speak At Dedication Ceremony For NIEHS Facilities

At the March 1 dedication ceremonies for the new "Phase II" facilities of the National Institute of Environmental Health Sciences, in Research Triangle Park (see *NIH Record*, March 2), Robert W. Scott, North Carolina Governor, hailed the "blue chip" people such organizations attract to the State.

Governor Scott, Dr. Robert Q. Marston, NIH Director, and Luther Hodges, Chairman of the Research Triangle Foundation and former Governor of North Carolina, actuated switches to officially open the doors to the four buildings which add 30,000 net square feet to NIEHS.

Governor Scott declared that the new structures enhance "an already impressive plant," adding that the construction was "a heartening development."

Speaking on the "frightening prospect of our physical environment being devastated," the Governor expressed the belief ". . . that the future of mankind rests largely in the hands of scientists here in the Research Triangle Park and elsewhere."

Dr. Kotin Praised

Dr. Marston in his remarks emphasized the "critical national purpose" that the new facilities would serve. He said they would be a monument to Dr. Paul Kotin and his "untiring efforts during the formative years of NIEHS."

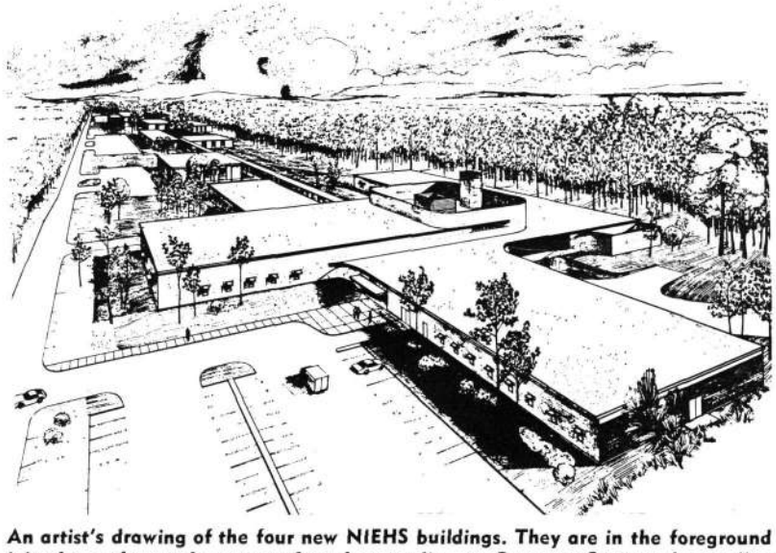
Dr. Kotin, the first NIEHS Director, has been named Vice President for Health Sciences at Temple University.

He also announced that Dr. David P. Rall, who is presently associate scientific director of the National Cancer Institute, will succeed Dr. Kotin.

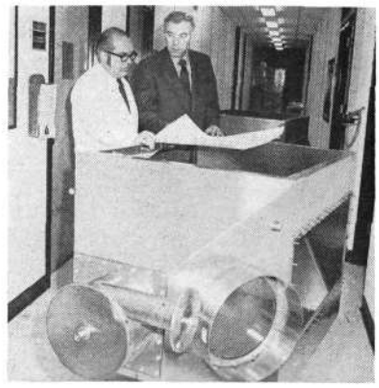
Dr. Marston continued, "All of us in Bethesda look forward to the exciting and outstanding research which I am certain will continue to come from these quarters."

Others taking part in the ceremony included Dr. Kotin; James W. Reid, Vice President of the Branch Banking and Trust Co., Raleigh; the Most Reverend Vincent S. Waters, Bishop of the Raleigh Diocese; Seby B. Jones, Mayor of Raleigh, and Nick Galifianakis, Congressman from North Carolina.

A luncheon and a tour of the new facilities folowed the dedication ceremony.



An artist's drawing of the four new NIEHS buildings. They are in the foreground joined together under one roof, and, according to Governor Scott, enhance "an already impressive plant."



Dr. Robert T. Drew (l), NIEHS Aerosol Toxicology Unit, explains the new animal exposure chambers to Earl Cook, NIEHS Research Services Branch. The chambers will be used to study the effects of pesticides and industrial and household sprays.

Four New Members Join Nat'l Advisory Council On Training of Nurses

Four appointments to the National Advisory Council on Nurse Training were recently announced by Dr. Robert Q. Marston, NIH Director: Drs. Celestino Clemente, Cynthia Kinsella, and Henry Wilson Littlefield, and George D. Monardo.

Dr. Clemente is clinical assistant professor of Surgery at the New Jersey College of Medicine and Dentistry; also, Director of Surgery at St. Vincent's Hospital in Montclair, and chief of staff of the United Hospitals of Newark.

Dr. Kinsella is Director of Nursing at Mt. Sinai Hospital in New York, and also Dean of the School of Nursing at City College.

She now serves as chairman of the American Nurses' Association Commission on Nursing Services, and as president of the Tuberculosis and Respiratory Disease Association of New York.

Dr. Littlefield has been president of the University of Bridgeport since 1962, and is a member of commissions on nursing education and accreditation.

Mr. Monardo has been executive vice president of the Franklin Medical Center in San Francisco since 1966. He is director of both the San Francisco and Bay Area Regional Comprehensive Health Councils.

Ozzie Grabiner Turns Entrepreneur; Sells Hot Peanuts, Buttery Popcorn in Wagon

The stage lost a thespian but NIH gained a Forms and Records Management Officer who can act. He's Oscar (Ozzie) Grabiner and he came to NIH in 1956 in the section he now heads.

Mr. Grabiner is retiring, that is, from NIH. No rocking chair will get him—but a wagon will. In fact, several wagons. For Mr. Grabiner and his wife plan to open a string of wagons, locate them in strategic shopping centers and sell "hot peanuts, warm buttery popcorn, and delicious caramel popcorn." One wagon is already a going concern at the Wildwood Shopping Center.

However, Mr. Grabiner will miss the reservation, and he enjoys talking about it like it was- 14 years ago.

"It was charming, nice, uncrowded, without confusion, and we had smaller appropriations," he said, mock-seriously.

Mr. Grabiner even became nostalgic over NIH's former way of conducting the orientation course for new employees.

"It used to be called the Compass Course," he explained. "I couldn't get much meaning out of that phrase, but the new employees enjoyed it because we had good talent like Dr. Masur (the late Dr. Jack Masur, Clinical Center Director) instead of a motion picture. "We had fine speakers then."

Most all of Ozzie Grabiner's NIH friends attended his farewell party—which made for a crowded affair. His retirement plans include traveling—one of his favorite pastimes.

Directs Suggestion Program

Mr. Grabiner noted that his own job became more and more complex —"the size and scope of the problems changed"—with the growth of NIH. And to take care of some of these problems he donned another hat. The management officer was named NIH Employee Suggestion Coordinator.

"Just dial M-O-N-E-Y from your office phone and you'll get me," he said. This program, started by Mr. Grabiner, evaluates suggestions that will reduce the cost of a project. It will continue after he retires—but the voice at the other end of the phone will be different.

Like dessert, he was saving what used to be one of his favorite campus activities, for the last. Mr. Grabiner was a Hamster from way back—1957, to be exact. He was one of a group of members of the organization made up of NIH employees who were amateur actors.

Mr. Grabiner described himself as an "active" member. He was production manager, and also often took lead parts in many of the plays.

"Some of the shows we put on were *Guys and Dolls, Little Abner,* and *Annie Get Your Gun.* Crowds came back stage every night to congratulate us.

"I remember when we put on *Life at NIH.* We poked fun at ourselves and our daily activities. This is me (pointing to a photograph) when I used to wear a crew cut, and here I am in a beard."

Even Mrs. Grabiner, formerly an administrative assistant at R&W, turned campus actress because "she got lonely when I was away on rehearsal nights."

And now both he and Mrs. Grabiner are looking forward to a new career, and it all started when they were vacationing in the Bahamas.

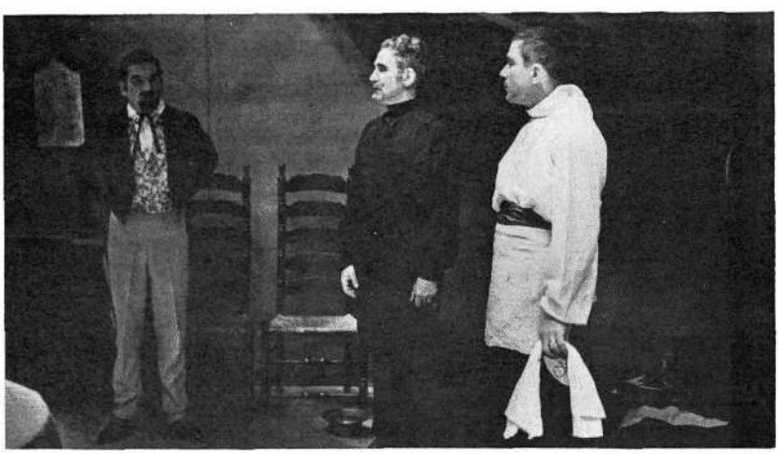
"We saw a photo of the wagon in the newspaper and we fell madly in love with the idea. Five months later we had one, it was delivered on my wife's birthday."

This wagon, as all subsequent wagons will be, is staffed by high-school students "hand-picked by the Grabiners."

With his army service Mr. Grabiner's Government career spans 35 years. He spent some years downtown in the General Accounting Office, and then "came looking for a job in the HEW Building." From there he came to NIH.

The Grabiners will spend a good deal of their spare retirement time in traveling. "Thats' one of our hobbies," he explained.

His farewell party, attended by all his NIH friends, was a crowded affair, and the most repeated phrase heard was, "Ozzie, come back and see us."



"Here I am in a play wearing a beard," explains Ozzie. He's also wearing a flowered vest and a diabolical look—which proves what a very good actor he is; that is definitely not Mr. Grabiner's normal expression.

National MEDIHC Office Established in BHME

Establishment of a national program administrative office for Operation MEDIHC (Military Experience Directed Into Health Careers) has been announced by Dr. Roger O. Egeberg, HEW Assistant Secretary for Health and Scientific Affairs.

"This is the first in a series of steps which will be taken to expand significantly the MEDIHC program nationwide, as was announced by President Nixon in his February 18, 1971 mesage to the Congress," Dr. Egeberg said.

Operation MEDIHC is a counseling and recruitment program for Vietnam and other returning veterans who have health occupations skills, training, and experience.

Through MEDIHC, military personnel with an interest in health careers may locate civilian employment and training opportunities in the health field prior to being separated from the Armed Forces.

The program administrative office has been established in the Division of Allied Health Manpower, Bureau of Health Manpower Education.

By locating the administrative office for Operation MEDIHC in this division, Dr. Egeberg explained, "we are bringing the ongoing operation of the program into direct contact with the most rapidly growing segment of all health manpower."

Dr. John S. Zapp, Deputy Assistant Secretary for Health Manpower will continue his role as HEW coordinator of MEDIHC.

Dr. Zapp has named Alice B. Frazer, a Public Health Service Officer who implemented the initial phase of Operation MEDIHC, as the Program Coordinator.

DR. BRUCE

(Continued from Page 1)

versity of Tennessee College of Dentistry. He started his career as dental officer for the Chattanooga-Hamilton County Health Department.

In 1948 he served as regional dental consultant to the Tennessee Department of Public Health.

Six years later he was commissioned in the PHS as senior assistant dental surgeon, and in 1956 he began serving as regional dental consultant in Charlottesville, Va.

In 1961 he became chief, Manpower and Education Branch, Division of Dental Public Health and Resources. When the division was renamed in 1964 he was made chief, Education and Facilities Branch, Division of Dental Health.

Was Director of DERF

In 1967 he was designated Assistant Director for Manpower. Two years later he was appointed Director of the Division of Education and Research Facilities.

Dr. Bruce is a Diplomate and Vice President of the American Board of Dental Public Health and Past President of the Tennessee Society of Dentistry for Children.

He received an honorary degree, Doctor of Humane Letters, from Loyola University Chicago School of Dentistry. He also received the PHS Commisioned Officers Commendation Medal for his leadership in the dental auxiliary utilization program.

Dr. Bruce, Vice President of the American Board of Dental Public Health, received the PHS Commissioned Officers Commendation Medal for his leadership in a dental health program.

David P. Earle Named To Arthritis Council

Dr. David P. Earle, Jr., a prominent university professor and kidney disease specialist, has been appointed to a 3-year term on the National Advisory Arthritis and Metabolic Diseases Council.

Dr. Earle, whose term ends Sept. 30, 1973, is the Irving S. Cutter Professor and Chairman of the Department of Medicine at Northwestern University Medical School.

The newborn opossum is about ½ inch long, weighs 5/1,000 of an ounce and is no bigger than a bee. It is actually smaller than the mother's toe. A litter of 13 opossums will fit into a teaspoon at birth. The adult animal is about one year old and weighs 8½ pounds. The opossum gains 1,000 times its weight by the time it leaves the mother at 3 months of age. At maturity, about one year of age, the opossum's weight has increased another 24,000 times.

OPOSSUM

(Continued from Page 1)

erful biomedical tool to provide a better understanding of how the developing fetus responds to harmful agents in the environment.

Eventually its use may supplement standard techniques in the study of specific problems difficult or impossible to approach in the pregnant animal.

The newborn opossum is sufficiently like a 2-month-old human fetus to serve as a unique animal model for testing the effect of suspected toxins on infant development.

Has Special Advantages

While it cannot replace the usual pregnant laboratory animals such as the rat or mouse in these experiments, especially in the study of the early stages of fetal development, the opossum's semi-embryonic state at birth does give it special advantages where direct studies on growing embryonic tissue in the later stages of fetal development are desired.

The major advantage of the newborn opossum is that, while still in part embryonic, it is in fact independent of its mother except for the milk it drinks and the protection of the pouch.

A rat or mouse equivalent in maturity to the newborn opossum is only halfway through gestation and still in the mother's womb. To experiment on it, the investigator must either feed the test material to the mother, risking both damage to her and alteration of the material by her system, or he must remove the embryonic animal surgically, a very unnatural procedure which can obviously not be repeated on the same animal.

In the opossum, growing embryonic tissue is directly accessible simply by opening the mother's pouch.

In one series of experiments under way in Dr. Jurgelsky's laboratory, the newborn opossum is being used to seek a better understanding of childhood cancer. Shortly after birth, the tiny opossums are given a single dose of a carcinogen through a threadlike plastic tube inserted in their mouth next to the mother's nipple.

The majority of the animals develop cancer of various organs within 3 to 4 months. But of these, a surprising number also have birth defects, a rare coincidence in other laboratory animals implying that the opossum may be an ideal animal to use in unraveling the long suspected relationship between cancer and developmental defects.

In a second investigation, the opossum newborn is being used to learn more about the manner in which toxins entering the mother during pregnancy damage the thyroid gland.

Thyroid Functions After Birth

In most animals thyroid function begins in the womb where it cannot be studied without affecting the mother. The opossum is well suited to this work because its thyroid gland does not begin to function until about one week after birth, when it can be studied independently of the mother.

The opossum newborn, because of its markedly undeveloped nervous system at birth, also appears to be a highly suitable animal model in which to investigate alterations in brain growth and function caused by exposure to environmental toxins during early growth.

But the experimental work is only half the story of the opossum colony at the Institute. Experiments using newborn animals were not possible until a way had been developed to induce the animals to reproduce in captivity in large numbers.

Over the 83 years that the opossum has been studied scientifically, no one has been able to breed the animal in the usual cages inside a laboratory; successful breeding was posible only when small numbers of animals were allowed to roam freely in large rooms or outdoor wooded enclosures.

Dr. Jurgelsky, a research pathologist with both Ph.D. and M.D. degrees, while at Duke University, had unsuccessfully attempted to breed the animals in cages in the laboratory over a 3-year period. He found soon after coming to the Institute that outdoor enclosures were also not the answer.

His first attempt at breeding the animals in a ⅛ acre wooded enclosure during the winter of 1968 was a complete failure—only a single litter consisting of two animals was born and most of the adult animals died from a disease which could not be controlled under the outdoor conditions.

The following winter the pen size was increased to one acre, but again disease control proved impossible; in addition, it was found that the time required to locate 60 females every day to check their pouches for young was overwhelming.

In a final attempt to salvage the colony in the spring of 1969, the surviving animals were housed in small cages constructed of wire mesh. These cages were placed in a wooded area in the hope that the animals, though caged, would respond to the natural surroundings. Under these conditions the reproduction rate was surprisingly high.

This approach appeared promising enough so that in the winter of 1969 the concepts developed by Dr. Jurgelsky were incorporated, with the aid of the engineers of the Research Services Branch and the veterinarians of the Animal Science and Technology Branch, into the design of two new buildings, built especially for keeping opossums.

In the unique new facility, 250 animals can be housed under sanitary conditions in individual cages featuring a flip top nest box and a walk-through shelf. During the breeding season, from January to June, romance is encouraged by removing partitions between males and females when a technique similar to a "pap" smear indicates the females may be receptive to courtship. The timing is critical since a female not interested in motherhood will frequently kill the male.

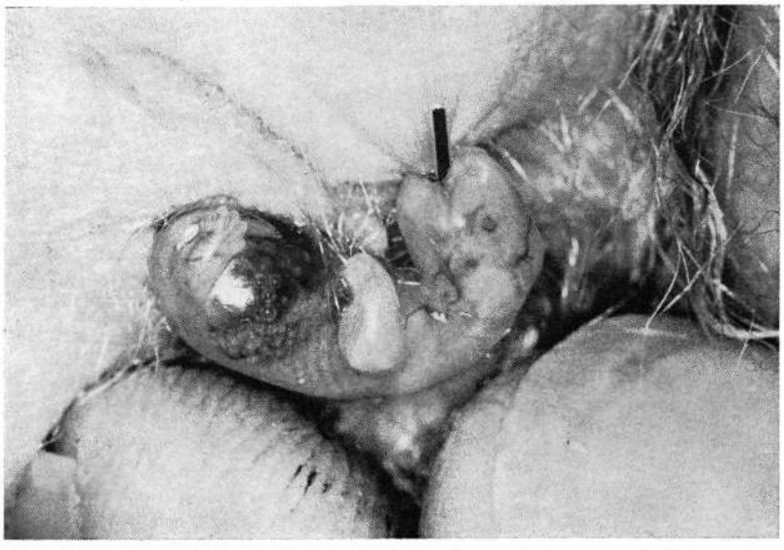
Last year the opossums at the Institute, maintained under the clean semioutdoor conditions made possible by the new building and mated in a controlled fashion, produced approximately 70 litters of young—probably a world's record for opossums in captivity.

Latest Participants in NIH Visiting Scientists Program Listed Here

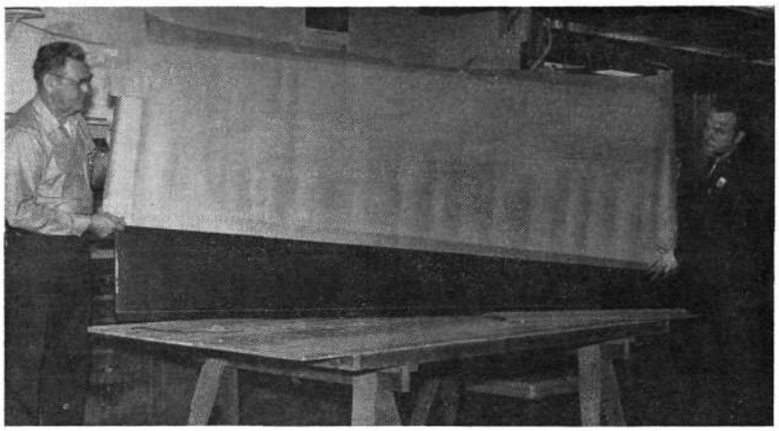
2/7—Dr. Pweh Boon Chock, Taiwan, Laboratory of Biochemistry. Sponsor: Dr. Earl R. Stadtman, NHLI, Bldg. 3, Rm. 108.

2/11—Dr. Pierre F. Freychet, France, Section on Diabetes and Intermediary Metabolism. Sponsor: Dr. Jesse Roth, NIAMD, Bldg. 10, Rm. 9N236.

2/23—Dr. Shiro Ohnoki, Japan, Laboratory of Physical Biology. Sponsor: Dr. Makio Murayama, NIAMD, Bldg. 2, Rm. 225.



A newborn opossum, attached to a nipple in the mother's pouch, is being given a drug through a fine polyethylene tube inserted into its mouth. The baby opossum sucks material from the tube as he nurses, just as a human baby drinks from a bottle. This special technique developed by NIEHS scientists is necessary since the baby will die if removed from the mother's breast before 2½ months of age. Tips of thumb and forefinger of the investigator are visible.



Cabinet maker Lee Harding (l) casts a last professional look at a scientist's bench top that is almost all wrapped up and ready to go to a lab. He is assisted by Alfred Broadhurst.

CARPENTRY SHOP

(Continued from Page 4)

Jerry Lawson, who had just graduated from a trainee to a full-fledged cabinet maker, was building a scale model—working with blue prints—of an NIEHS building to be erected in Research Triangle Park, N.C.

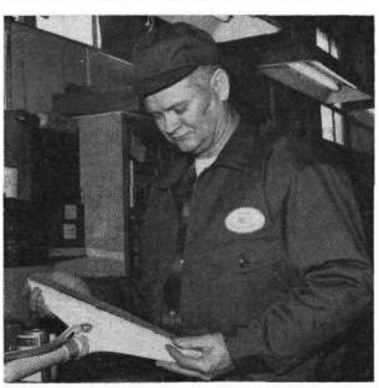
"Jerry also does the landscaping for the scale model. We make up the model here to be sure there are no problems. On this model the Environmental Services Branch will conduct tests for correct ventilation," Mr. Ross added.

This is Mr. Lawson's second landscaped scale model for an NIH component. Previously, he had built a model of a building for NICHD that is in the planning stages.

Workers Cooperate

Nearby, Samuel Sewell, selected from the Ground Maintenance and Landscaping Section as helper trainee, was carefully, and expertly, putting the finishing touches on another bench top that would soon be an integral part of a scientist's lab.

Mr. Ross and his assistant chief, Stanley Allen, praised the cooperative efforts of all the workers in the carpentry group. The shop is headed by Wilbert Drecktrah, foreman. His assistants are Hubert Whitney, assistant foreman, and Oscar Stottlemyer, lead foreman.



Jack Smith, cabinet maker, has just completed sharpening saw blades that will soon make wood fly. Now he is about to repair another piece of specialized equipment.

Scientists Explore New Cystic Fibrosis Research

Outstanding investigators from various parts of the U.S. recently concluded a conference on cell and tissue culture in cystic fibrosis, an inherited disorder of children and young adults.

The meeting, held at NIH, was sponsored by the National Institute of Arthritis and Metabolic Diseases and the National Cystic Fibrosis Research Foundation.

Researchers discussed the results of their investigations and explored the application of new techniques to various cystic fibrosis problems.

Dr. Paul A. di Sant'Agnese, chief of NIAMD's Pediatric Metabolism Branch and conference chairman, said that the exchange of information at the conference led researchers to learn from each other's work months or even years before the results of experiments appeared in print.

Time Lag Is Extensive

He explained that this was because of the time factor—there is an extended lag between the acceptance of a scientific article and the time it appears in print.

Dr. di Sant'Agnese cited a finding, stemming from earlier research, which suggests that tissue culture fibroblasts (the flat elongated cells forming fibrous tissue) from cystic fibrosis patients presented morphologic and chemical abnormalities, which, at times, differed considerably from each other.

Formerly, cystic fibrosis was considered a disease limited to exocrine glands. Now it apears that all body cells may be involved in this generalized disorder.

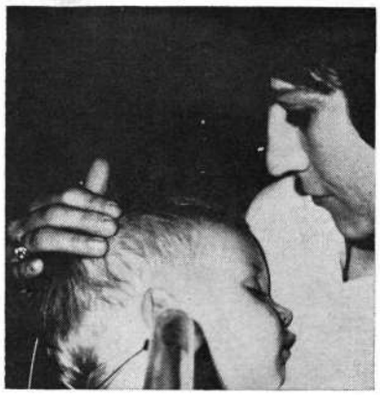
Furthermore, the different chemical changes in groups of patients suggest that the clinical picture of the disease might be due to two or more diseases masquerading as a single one.

Dr. di Sant'Agnese said that the implications of this research are far-reaching and give new insight into the basic molecular defect of cystic fibrosis.

New Method Devised to Test Deafness In Living Animals Aids Genetic Research

A method for testing hearing in human infants may be possible now that National Institute of Dental Research and Eye Research Foundation scientists have found a way to test deafness in living animals. Because the test does not require patient cooperation, researchers feel it should prove useful in studying hearing in human infants.

The research was funded by the National Institute of Neurological Diseases and Stroke.



The new device is tried on a one-year-old deaf child while he rests on his mother. A plastic tube pipes the sound to his ear; the electrode held behind the ear with an adhesive picks up the electrical impulses produced in the ear. The test confirmed that the boy is deaf in both ears.

Causes Not Understood

The causes of genetic deafness, which may account for nearly one-half of all deafness cases in this country, still are not well understood.

Scientists have adapted a lock-in amplifier to measure directly the ability of the animal's ear to convert sound waves into electrical impulses. The amplifier can detect and measure electrical signals of known frequency that are "buried" in high amplitude background noise.

It is the electrical impulses produced in the cochlea that are interpreted by the brain as hearing.

After a pure tone is fed into the ear, the device picks up and measures the impulses made in the ear. If the wave pattern of the ear's electrical signal is the same as that of the sound wave, the subject is not deaf.

Signals Give Clue

If the cochlear signal is missing, then the animal is deaf. The subject is considered to have impaired hearing when the electrical signal is smaller than normal.

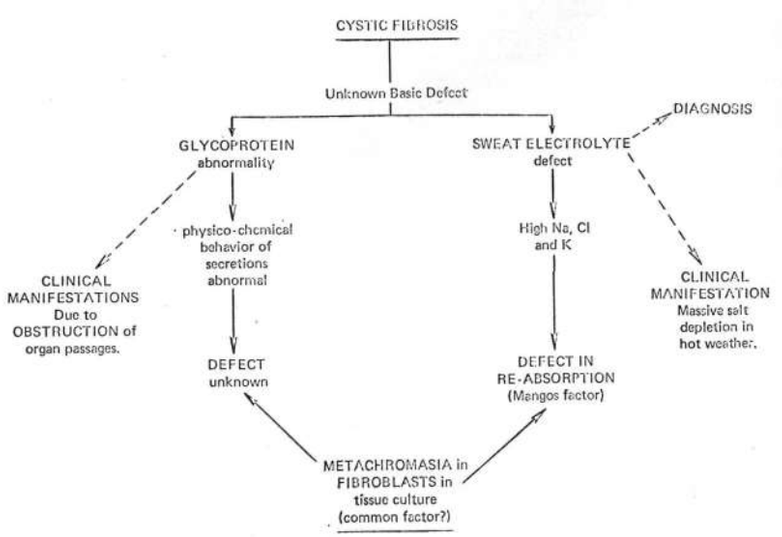
With the new test it is now possible to breed animals specifically for genetic deafness by pairing animals which are deaf or have impaired hearing.

Offspring can be studied at a very early age to determine how normal animals first begin to hear, the pattern of hearing degeneration in animals with impaired hearing, and what genetic mechanisms are involved in deafness.

A human infant born of two deaf parents was tested by this method and found to be able to hear, and another was proven deaf. This indicated that the test might eventually be an indicator of human, as well as animal hearing.

Scientists Describe Tests

Dr. Kenneth S. Brown, NIDR, and Bartley Gordon and Dr. C. Richard Caronius, Eye Research Foundation, Bethesda, described their deafness test in *Nature*.



At the recent conference, Dr. di Sant'Agnese showed the chart demonstrating pathogenesis of the inherited disorder affecting children and young adults.