

the



Record

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

October 24, 1973
Vol. XXV, No. 22

NATIONAL INSTITUTES OF HEALTH

Professor Rocha e Silva Becomes First Fogarty Scholar From S. America

Dr. Mauricio Rocha e Silva, professor and chairman, Department of Pharmacology, University of Sao Paulo, Brazil, arrived at NIH on Oct. 8 to participate in the Fogarty Scholars - in - Residence Program. He will remain until next March.

Professor Rocha e Silva, the first FIC Scholar to be appointed from South America, has been affiliated with the University of Sao Paulo since 1936.

Academic Career Noted

In 1957 he became professor of pharmacology at the Faculty of Medicine of Ribeirao Preto, a branch of the University of Sao Paulo. This department is now one of the largest in Latin America with 15 full-time professors.

The distinguished South American scientist has published over 200 scientific articles and several textbooks. He is known for his significant contributions in the field of antihistamines.

Early in his career, Professor Rocha e Silva was a Guggenheim Fellow at Northwestern University and also at the Rockefeller Institute in New York City.

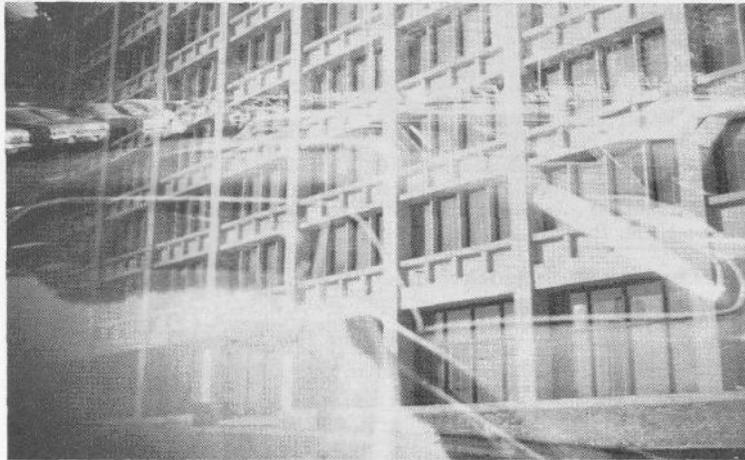
He later was appointed a British Council Scholar and spent a year at the University College Hos-

(See FOGARTY SCHOLAR, Page 6)



Dr. Rocha e Silva

NIH Policy to Provide Employee Parking May Be Subject to Future Modification



The proposed construction of several new buildings may infringe on parking.

The availability of land, limited public transportation, and the difficulty of carpooling have led NIH to establish a policy of providing approximately six parking spaces for every 10 employees.

An adequate level of parking on the reservation has been maintained overall, although some areas have suffered local problems.

Dr. Cooper of NHLI To Receive American Heart Ass'n Award

Dr. Theodore Cooper, Director of the National Heart and Lung Institute, has been selected to receive the American Heart Association's highest honor for volunteer leadership—the Gold Heart Award.

The award will be presented on Nov. 11, at the Association's annual dinner in Atlantic City.

The citation for Dr. Cooper's Gold Heart Award noted that "he has given invaluable counsel in the development of Heart Association programs that complement those of the Institute which he heads. His creative leadership at NHLI and as a Heart volunteer have contributed outstandingly toward our objective of reducing death and disability from heart attack, stroke and related diseases."

Also slated to receive the Gold Heart Award is Dr. William W. L. Glenn, professor of surgery and chief of the Cardiothoracic Section, Yale University School of Medicine.

NCI's Dr. Ira Pastan To Give Mider Lecture

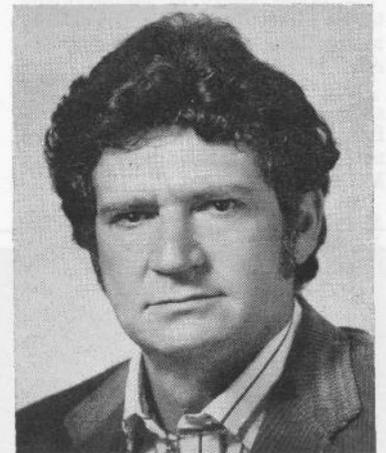
Dr. Ira H. Pastan, chief of the National Cancer Institute's Laboratory of Molecular Biology, will present the 6th Annual G. Burroughs Mider Lecture on Nov. 7 at 8:15 p.m. in the Jack Masur Auditorium.

Will Discuss Cyclic AMP

His address, Cyclic AMP and the Transformation of Cells, will highlight the concept that diminished levels of cyclic AMP are responsible for some aspects of the abnormal behavior of transformed cells.

The reason these cells have a low level of cyclic AMP is due to the decreased activity of the enzyme that makes cyclic AMP.

Members of the scientific community and the press are invited to attend.



Dr. Pastan has received many honors in recognition of his work in molecular biology.

Plan provides for eventual elimination of surface parking by constructing parking structures. The number of spaces after the conversion may be reduced rather than expanded.

No specific timetable or schedule has been outlined for these changes, however, they may occur at any time.

NIH urges employees to participate in and keep informed on actions dealing with public transportation in their communities.

1. Sites for parking are limited. Some areas, particularly along the NIH periphery, are considered objectionable for esthetic and environmental reasons.
2. Plans have begun or been completed for several new buildings, some of which will infringe on existing parking sites. Construction will start when funds are appropriated.
3. The Office of Management and Budget is considering "fee for parking" at all Federal facilities.
4. Metro Rapid Transit and feeder bus systems are being planned to provide public transportation which will decrease use of autos.
5. Public and private pressures emphasize the need to improve the quality of the environment and minimize automobile traffic to reduce pollutants. As a principal health agency, NIH should attempt to cooperate to reach these goals.
6. The NIH Master Building

the  **Record**

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

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

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

Staff Correspondents

ADA, Melissa Howard; CC, Thalia Roland; DCRT, Joan Chase; DRG, Sue Meadows; DRR, Jerry Gordon; DRS, Cora M. Sult; FIC, Lois P. Meng; NCI, Carolann Hooton; NEI, Bonnie Friedman; NHLI, Bill Sanders; NIAID, Krin Larson; NIAMDD, Pat Gorman; NICHD, Kathy Kowalczyk; NIDR, Sue Hannon; NIEHS, Elizabeth Y. James; NIGMS, Wanda Wardell; NINDS, Carolyn Holstein; NLM, Ruth E. Armstrong.

Audio Cassettes, Texts Available From EMDB

The Executive and Management Development Branch, OPM, now provides managers and executives with audio cassettes and programmed texts on modern management theory and principles. The cassettes can be used in the office, home, and even in the car!

A broad range of management topics including communications, motivation, planning, and managerial strategy are available.

The material is presented by such management authorities as Drs. George Odiorne, Saul Gellerman, Emanuel Key, and Douglas McGregor.

A copy of the *Executive and*

FAES Chamber Music Series Opens With Beethoven Concert

The first concert in the 1973-74 Chamber Music Series given by the Foundation for Advanced Education in the Sciences, will be held in the Jack Masur Auditorium, Sunday, Oct. 28, at 4 p.m.

Pierre Fournier, cellist, accompanied by his son Jean Fonda, will present an all-Beethoven program.

Admission is by ticket only.

Management Resource Catalog, which describes the instruction material, may be obtained from B/1/D personnel offices. For further information, contact the EMDB, Ext. 66371.

Three Young Librarians Take Part in NLM Program



The coordinator for the year-long program at NLM, Carol Long (second from right) discusses project activities with (l to r) Miss Sinn, Mrs. Eisenberg, and Miss Evans.

Three young librarians are taking part in the 1973-74 National Library of Medicine Associate Program. They are Carol A. Evans, Sally K. Sinn, and Laura J. Eisenberg. All have received their M.S. degrees in library science.

Miss Evans was awarded her undergraduate degree—a B.A. in biology—from Douglass College. In 1973, she received her M.S.L.S. from Columbia University. From June 1969 to Sept. 1972, she was a biologist for Lederle Laboratories.

Miss Sinn received her B.A. in physical anthropology from the University of California, Santa Barbara, and her graduate degree in 1973 from the University of Illinois.

Volunteers for NIAMDD Gallstone Study Needed

The Digestive Diseases Branch, NIAMDD, is interested in patients with X-ray diagnosis of radiolucent gallstones for studies being conducted at the Clinical Center.

Patients should be 40 to 70 years of age, and have X-ray evidence of radiolucent gallstones in a functioning gallbladder.

Symptoms, if present, should not be of such severity that surgery cannot reasonably be postponed.

Selected patients will be offered the opportunity of participating in trials of medical treatments to dissolve the gallstones.

After initial evaluation, treatment will be on an outpatient basis, with followup visits at least every 3 months to monitor progress.

If the medical treatment is unsuccessful, patients will be returned to their referring physicians for further care.

Employees who wish to be considered for the studies must be referred by their personal physician.

Physicians may write to Dr. Robert S. Gordon, Jr., chief, Digestive Diseases Branch, NIAMDD, Bldg. 10, Room 9N-222, or call 496-4181.

Mrs. Eisenberg received a B.S. degree in biochemistry from Cornell University, and her M.S.L.S. from the University of Southern California, L.A., in 1973.

NLM's 12-month program provides supervised training in modern medical library science. The first phase of the curriculum introduces NLM and its programs through lectures, seminars, demonstration, and practical experience.

Projects In Special Areas

The second phase offers assignments in each librarian's special area, and includes projects for developing operational and management procedures.

During the year, the participants will visit nearby medical and research libraries, and also participate in local meetings of professional organizations.

EST Returns October 28; Set Clocks Back One Hour

"Spring forward, fall back." It's that time of year once again to move the clocks back and gain an extra hour's sleep.

At 2 a.m. Sunday morning, Oct. 28, clocks are set back to 1 a.m. for Eastern Standard Time.

NIH personnel who work the tour of duty beginning at midnight Oct. 28 will receive overtime pay for the extra hour worked.

Health Program for Employees Plans November 'Open Season'

An "open season" for the Federal Employees Health Benefits Program will be held Nov. 15 through Nov. 30. During that period any eligible employee who is not enrolled may register for the program.

In addition, any employee who is enrolled may change from one plan or option to another.

Details regarding distribution of program literature and registration procedures will be announced in the next issue of the *Record*.



An NBC camera crew focuses on Paul Cunningham (c) of the "Today Show" during a working session of the conference on obesity sponsored by the Fogarty International Center Oct. 1-3. Mr. Cunningham interviewed conferees for a five-part series scheduled to be shown later this year. At the meeting, treatment of obesity by diet, drugs, exercise, surgery, and behavioral modification was discussed, as well as obesity's psychological and social hazards. Reports of clinical investigators indicated there were no sure "cures" for obesity, and that the obese patient frequently faces a life-long problem of weight control.

Research, Demonstration Centers in Heart, Blood Disease Planned by NHLI

The National Heart and Lung Institute intends to establish a limited number of National Research and Demonstration Centers for heart and blood vessel diseases, lung diseases, blood diseases, and blood resources.

Representatives of institutions who are interested in applying for awards for the centers met at NIH on Tuesday, Oct. 2. The program was described and potential applicants were given an opportunity to ask questions.

Center Part of Complex

As presently planned, each center will be part of or closely affiliated with a major medical complex.

Depending on interests and resources, the program of the center may concentrate on one major area in disease or blood resources, or the program may involve some combination if those combinations more effectively meet goals of the national program.

However, the program of each center must include these elements: 1) fundamental research in fields related to the main thrust of the center; 2) clinical research, including demonstrations of new diagnostic, therapeutic, or preventive measures in a community setting; 3) an environment conducive to the training of young scientists, and 4) an information and education program for health professionals and for the general public.

Each center will also be expected to work in close cooperation with the Institute, which will coordinate center activities with other NHLI programs.

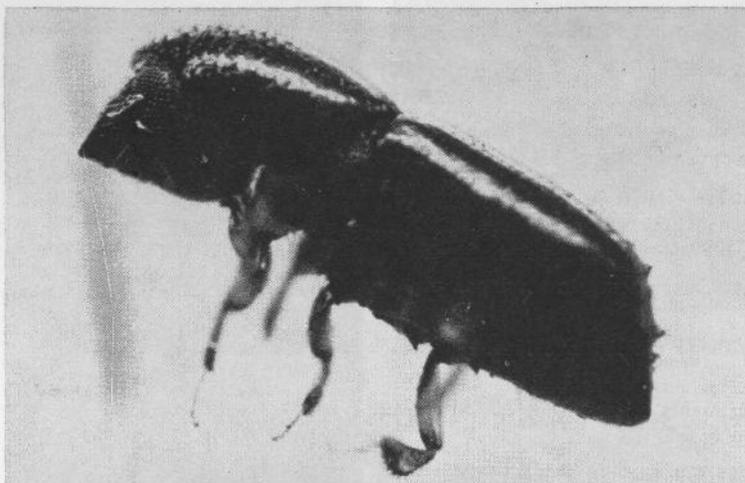
Dr. Green Explains Program

Additional information on the program and the Program Announcement and Guidelines: National Research and Demonstration Centers for Heart, Blood Vessel, Lung and Blood Diseases and Blood Resources may be obtained from: Dr. Jerome G. Green, Director, Division of Extramural Affairs, NHLI, NIH, Westwood Bldg., Room 5A-18, Bethesda, Md. 20014.

Prospective applicants may send letter of intent—which will not be binding—by Nov. 1. The deadline for formal applications is Jan. 15, 1974.

There are now 1,733 physicians enrolled in family practice residency programs. This is an increase of 718 over the 1,015 reported in September 1972—triple the number of family practice residents in 1970.—*American Academy of Family Physicians.*

Key to Unsolved Mysteries in Multitude Of Diseases May Be Held by a Beetle



The wood-boring beetle (magnified 40 times) possesses unique physiological characteristics which promise to make it an important laboratory animal model for biomedical research.

By Jerry Gordon

A professor of entomology at the University of Wisconsin believes that a wood-boring insect 2 millimeters long may hold the key to unsolved mysteries in a multitude of human diseases in addition to the secrets of controlled human reproduction.

Dr. Dale M. Norris has been conducting painstaking pilot studies with wood-boring beetles for the past 10 years in an attempt to prove his belief.

Recently he received a 3-year grant from the Division of Research Resources to develop the *Xyleborus ferrugineus* as a suitable laboratory animal model for biomedical research.

Species Unique

Dr. Norris has determined that this particular species of beetle, originating in Costa Rica, has unique reproductive characteristics enabling multiple experiments with one female.

By manipulation of diet, fertility of the female can be turned on and off. The "on-off" switching can be done repeatedly in the same female.

"You can start with a virgin female and get all male offspring, and then mate the female again and get all female offspring with double chromosome characteristics," he explained.

"You can subsequently deplete or immobilize her stored sperm and later return her to an asexual reproduction period (without union of individual germ cells).

Sex Controlled

"This gives precise control of the sex of offspring as well as the reproduction rate, which can be extremely important in genetics and other studies," Dr. Norris commented.

Working with Dr. Norris on the beetle study at Wisconsin are Dr. Barry M. Trost, Dr. Benami Peleg, Dr. Hendrick Meyer, and John R. Bridges.

They report that they now have approximately 15,000 wood-boring beetles in their lab, composing the 123rd generation. All are inbred descendants from one single female.

In addition to genetic, nutritional and metabolic investigations, the Wisconsin beetle researchers will conduct experiments in such areas as effects of pollution on animal systems, radiation sensitivity and damage, immune responses, cancer virus, trauma, aging, neurology, and naturally-born impaired eye function.

Actually the wood-boring beetle does not devour wood, but merely chews it up. Small particles may be ingested but the bulk of the chewed wood is discarded as the female beetle constructs a tunnel in which to live and grow microbes (fungi and bacteria) for food.

Female Is Dominant

The female is dominant in the wood-boring beetle family, according to Dr. Norris. The adult female is longer than the adult male, weighs more, and can fly. The female lives longer (over 9 months) and can reproduce well over a dozen times during her life.

The male role in the system is definitely subservient. Not only is he born with impaired vision and an inability to fly, but he remains secluded in the "brooding chamber" all of his life. His one duty is to inseminate the females.

As far as the beetle researchers can calculate, the male lives only (See UNSOLVED MYSTERIES, Page 6)

Nov. Safeguard/Discard Drive Aimed at Clutter

A 1973 HEW Records Safeguard/Discard Campaign has been launched for November by Dr. Robert H. Marik, HEW Assistant Secretary for Administration and Management.

Part of the campaign in which all NIH units will participate, is to clean offices of extra copies, obsolete reference materials, and convenience files.

B/I/D Records Management Officers—listed in the yellow pages of the NIH Telephone Directory—are available to answer questions. The number of feet of files destroyed should be reported to the officers no later than Dec. 4.

The following files should be destroyed if obsolete or more than a year old:

Reference Materials

- Telephone directories
- Airline, railroad schedules
- Stock catalogs, price lists, etc.
- Publications, magazines, manuals, listings, newsletters, Congressional Records and Federal Registers, etc.
- Expired I & I Memos

Working Papers

- Rough drafts and notes
- Steno notebooks
- Stencils, masters, etc.

Convenience Files

- Information copies of minutes, notices, reports, telegrams, instructions, etc.
- Invitations, acknowledgements, announcements, letters of appreciation, and transmittals
- Requisitions for office supplies from stock stores and requests for printing, photographing and duplicating
- Records related to charity drives, bond campaigns, etc.
- Unofficial records related to travel arrangements, such as requests for hotel reservations, itineraries, etc.
- Requests for information and replies involving no administrative action, new policy decisions or development of extensive data
- Extra and duplicate copies



Dr. Gertrude B. Elion of the Wellcome Research Laboratories was recently appointed chairman of the Cancer Treatment Advisory Committee, NCI. She has been a member of the committee since 1971 and will be chairman until 1974. Dr. Elion has been with Wellcome Laboratories since 1955 and is currently head of the Department of Experimental Therapy.

Salute to Burns' 'Wee, sleekit, cowerin, tim'rous beastie(s)'

Smaller animals offer many advantages to scientific research provided they are produced under carefully controlled conditions to eliminate unknown variables and spontaneous diseases. Then, they become precision tools for scientific investigation.

Rats, mice, rabbits, hamsters, and guinea pigs—each possesses a unique characteristic which is ideal for certain types of research.

For instance, rats have sulci—fissures—similar to those in human molars. When they are fed snack foods to study sugar's effect on teeth, the reactions on both smooth and chewing surfaces can be obtained.

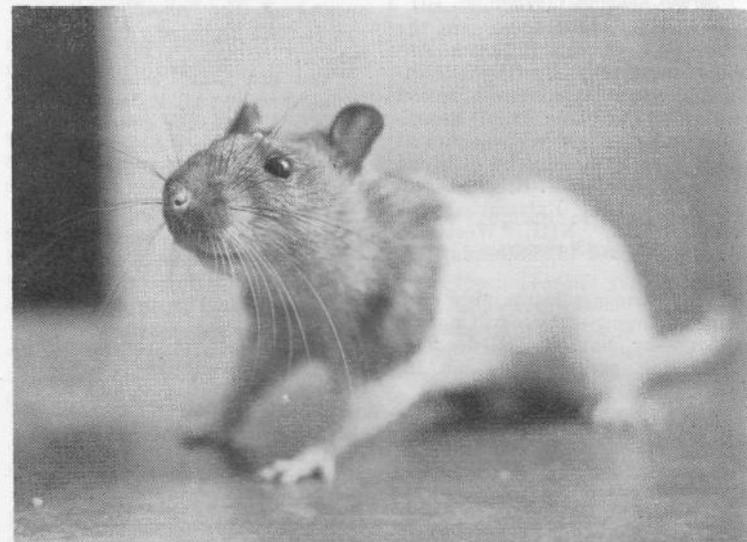
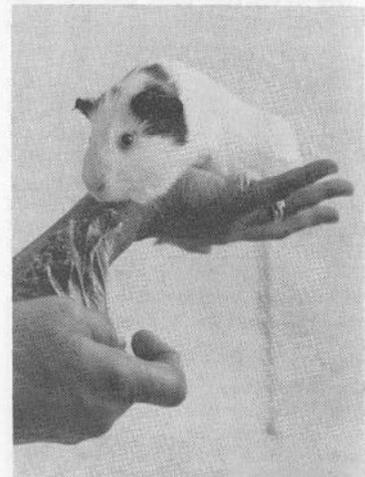
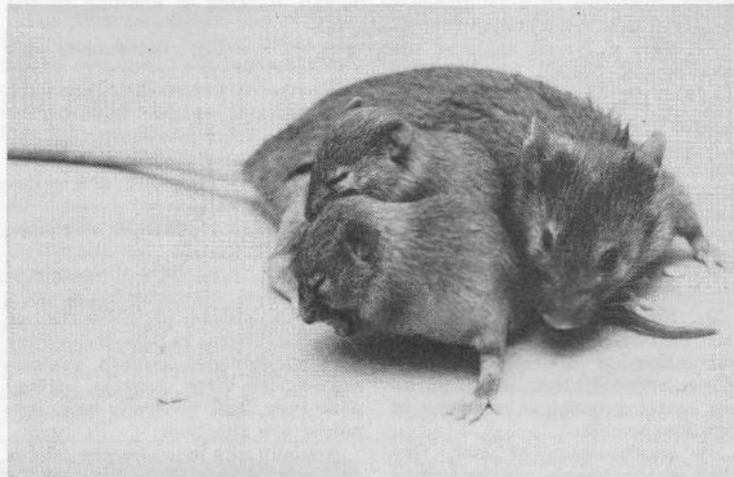
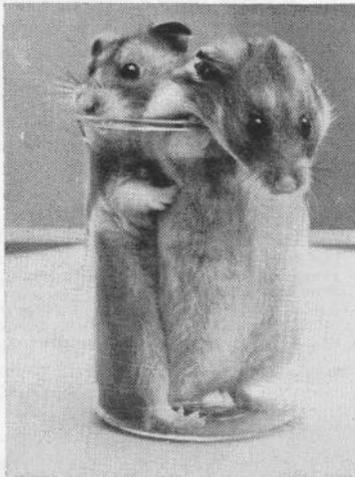
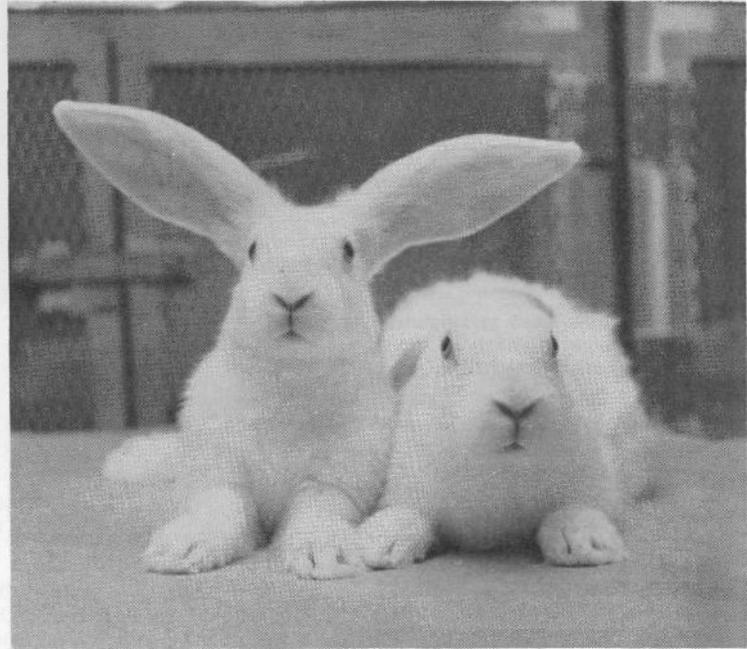
The National Heart and Lung Institute also uses rats for blood pressure control studies.

The short time from infancy to adulthood makes mice ideal subjects for drug studies.

Rabbits are involved in antibody experiments because they can produce many different antibodies in a short time.

In mental health research, guinea pigs are used in studies related to multiple sclerosis. Strain 13 guinea pigs are used because they are so highly in-bred that they respond identically in all their reactions assuring reproducible results in experiments.

Hamsters, in periodontal research, are inoculated with *streptococcus mutans* (a bacteria found in human mouths). The animals are then fed different foods to determine the diets' affect on plaque growth.



Photos by Via

First Cousin of Kangaroo—but Smaller—Participates in Study of Muscle Diseases

Five Rottneest quokkas recently arrived in the United States to participate in a study of muscle diseases conducted by Dr. Shirley H. Bryant at the University of Cincinnati Medical Center.

The quokkas promise to provide significant information on such muscle diseases as myotonia, which causes weakness of muscles, and dystrophy, which results in muscle wasting and atrophy.

The study is jointly sponsored by the National Institute of Neurological Diseases and Stroke and the Muscular Dystrophy Association of America.

Develop Muscular Weakness

Quokkas are nocturnal wallabies, first cousins of the kangaroo but much smaller, being only about the size of a medium to large rabbit.

Dr. Bryant became interested in quokkas when he learned that they often develop progressive muscular weakness when fed a diet deficient in vitamin E.

Also of great interest was the discovery that the condition could be completely reversed with a vitamin supplement.

The quokkas are the third animal species to participate in Dr. Bryant's muscle studies.

His research colony started in 1958 when a genetically controlled muscle disorder, myotonia, was identified in a registered strain of goats.

Goats Scared Stiff

Nicknamed "nervous," "fainting," or "stiff" goats, they demonstrated the inherited muscle fiber defect which causes repeated muscle impulses.

Thus, when a loud noise or unexpected movement startles the goats, they are literally "scared stiff," for their legs stiffen and they go down on their knees or fall.

The research also includes certain highly prized pigeons: "tumblers" that somersault backwards

during flight and "rollers," unable to fly, that perform a series of as many as 30 backward tumbles on the ground.

Richard K. Entrikin, a graduate student working with Dr. Bryant, found that the birds' neck muscles stiffen and pull the head back.

The muscles show abnormalities of electrical properties, fiber size, and response to drugs (especially acetylcholine).

To serve as comparison with animal studies, several dozen human volunteers in Cincinnati donated muscle samples for the research.

New Gadget Used

The investigator explains that neither the people nor the animals are harmed by the minor surgery performed under anesthesia.

A new gadget, the voltage clamp, recently developed by Dr. R. H. Adrian, University of Cambridge, England, will be used in the quokka studies.

Small samples of muscle tissue are held by the voltage clamp. Three microelectrodes penetrate each fiber to measure electrical currents of muscle cell membrane.

Abnormal muscle contraction after a sudden movement appears to be a defect in the mechanism that controls electrical currents of muscle cell membrane.

It is believed that the voltage clamp technique will provide more intimate knowledge of differences in the membrane properties of myotonic and normal muscles.

Such knowledge, the scientist feels, is the first step toward developing a cure or treatment for

Two DRG Employees Total 59 Years of Fed'l Service



Mr. Ames holds the PHS seal presented to him on his retirement.

Two employees with the Division of Research Grants, Reede Ames and Lindy Mattera, retired from Federal service in September.

Mr. Ames, deputy assistant chief for Referral, Research Grants Review Branch, DRG, retired after 29 years of Federal service. A pharmacist director in the Public Health Service Commissioned Officers Corps, he was

related human muscle defects.

The quokka, goat, and pigeon studies all help explain a similar defect occurring in a human muscle disease known as Thomsen's disease as well as in certain muscular dystrophies.

According to Dr. Bryant, "The increased understanding derived from these experiments may be useful in the design of better therapy or prevention of myotonia."

"It may also extend our basic knowledge regarding the nature of abnormal repetitive firing of excitable membranes—a phenomenon underlying two common human abnormalities, cardiac arrhythmias and epilepsy."

Dr. Cogan to Speak On Vessels of Eye

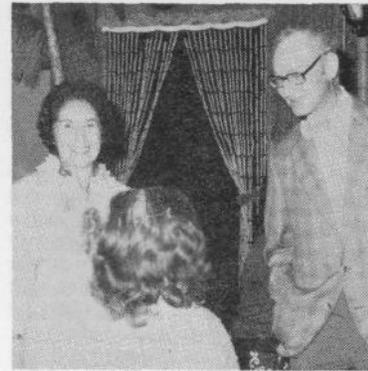
A series of three lectures on Vessels of the Eye and Their Involvement in Occlusive Vascular Disease will be delivered here next month by Dr. David G. Cogan.

Dr. Cogan, professor of ophthalmology and director of the Howe Laboratory of Ophthalmology, Harvard Medical School, will speak on Nov. 5, 7, and 9 at 3 p.m. in Wilson Hall, Bldg. 1.

He is a leading authority on neuro-ophthalmology and ophthalmic pathology.

In addition to his present position, Dr. Cogan has served as chief of ophthalmology at the Massachusetts Eye and Ear Infirmary in Boston and as a member of NEI's National Advisory Eye Council.

Dr. Cogan is also editor of *Albrecht von Graefe's Archive for Clinical and Experimental Ophthalmology* and an NEI consultant.



Ms. Mattera (l) greets friends at the retirement party held in her honor.

awarded the PHS Commendation Medal in 1965.

Ms. Mattera, personnel management specialist in the DRG Personnel Office, retired with 30 years of Federal service.

She joined the Division in 1956 and was the recipient of Superior Performance Award in 1971 and a Superior Performance Group Award in 1973.

Grants and Contracts Guide Issued by DRG

The latest NIH policy on the selection and use of contracts for the support of biomedical research was recently issued.

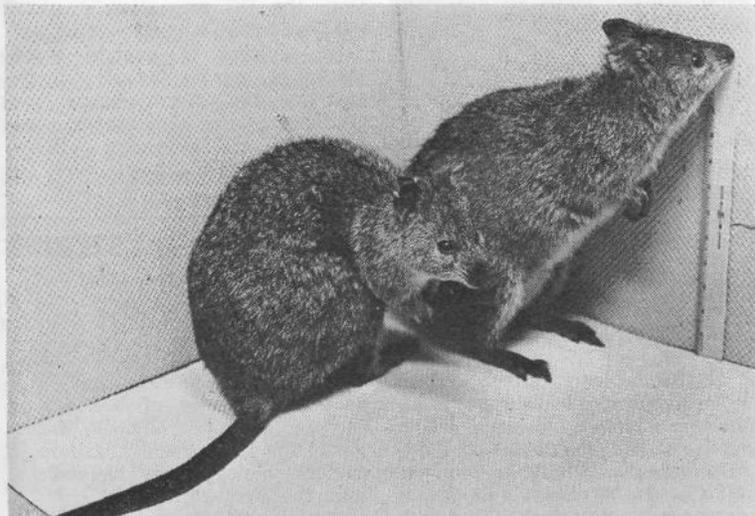
The current issue of the *NIH Guide for Grants and Contracts* will be given the widest distribution to biomedical researchers and engineers in an effort to reach those who have not seen previous issues and may be unaware of NIH contract-supported activities.

In general, contracts are used for support when:

- The awarding institute or division has identified a need for certain research work, has determined that the work must be done outside its own facilities, and has taken the initiative for undertaking the activity;
- The objective is the acquisition of a specified service or end product;
- The collaboration of a number of instructions must be obtained, and work must be coordinated so that the data collected can be combined for statistical analysis; or
- The NIH awarding unit participates in the direction and control over the manner of performance or timing of the work.

The *Guide* contains revised descriptions of research programs of those institutes and divisions which use contracts to support or provide research services.

Copies of the publication, *NIH Guide for Grants and Contracts*, Vol. 2, No. 7, may be obtained from the Grant and Contract Guide Distribution Center, DRG, Westwood Bldg., Room 206.



A quokka sniffs at a ruler while the other awaits its turn. Not much larger than a medium-sized rabbit, quokkas stand and hop on their hind legs. Forelimbs are used when they walk slowly.

Philadelphia Project to Probe Mystery of MS

The most intensive study of multiple sclerosis ever undertaken anywhere in the world has recently been funded by the National Institute of Neurological Diseases and Stroke and the National Multiple Sclerosis Society.

The Philadelphia project is specifically designed to determine the cause and course of the disease often called "the tragiccrippler of young adults."

Key to the entire project is the availability of a controlled patient population at the Multiple Sclerosis Clinic of the Hospital of the University of Pennsylvania. Researchers will attempt to isolate infectious agents from tissue obtained from MS patients.

With the patients already on hand, tissue will be available for immediate examination and will not have to be preserved by procedures which can sometimes lead to irreparable damage.

Specialists in clinical neurology, virology, immunology and pathology will be involved in the project.

Multiple sclerosis often results in blurred vision, paralysis of the limbs, speech difficulties, loss of coordination, bladder and bowel dysfunction, uncontrollable tremors and other problems.

At the present time, neither the cause nor the prevention of MS is known, and there is no really effective treatment for it.

Dr. M. W. Woods, NCI, Ends Federal Career

Dr. Mark Winton Woods, research biologist, Cytochemistry Section, Laboratory of Biochemistry, NCI, recently retired after over 25 years of Federal service.

Before joining the Government, Dr. Woods spent 3 years in active duty with the U.S. Navy and a decade of teaching and research at the University of Maryland.

Shares Prize

He was one of the first American scientists to stress the role of both mitochondria and viruses in plant and animal heredity, metabolism, and growth and also their great importance for cancer research.

In 1965 he shared the Gerhard Damagk prize for cancer research, showing the specific importance of glucose metabolism in the development and growth of hepatomas, and he continued experimentation in this field until his retirement.

Dr. and Mrs. Woods are now living in Sun City, Ariz.

Exhibits Space Available For PHS Joint Meeting

Applications for exhibits space at the Ninth Joint Meeting of the Professional Associations of the U.S. Public Health Service, Washington Hilton Hotel, Washington, D. C., Apr. 8-11, 1974, are now available from Scientific Exhibits Committee Chairman Thomas H. Hodges, Bldg. 10, Room 1N-237 (Ext. 64363).

Organizations or individuals who have an exhibit that would be of interest to an audience of about 1,000 health professionals—including physicians, dentists, nurses, engineers, pharmacists, veterinarians, dietitians, scientists, sanitarians, and therapists—are invited to participate.

Last year's meeting in Phoenix, Ariz., attracted some 900 members and guests, and a record number of approximately 320 scientific papers were presented.

Since the Scientific Exhibits Committee will make its selections during January 1974, requests for application forms should be submitted as soon as possible.

Swiss Science Found. Sponsors Fellowships For U.S. Researchers

The National Science Foundation of Switzerland is sponsoring three postdoctoral research fellowships for 1974. They will be awarded to qualified biomedical scientists who are United States citizens.

The purpose of the fellowships—designed for young scientists—is to promote and encourage the international exchange of research workers in the biomedical sciences.

Supported for 1 Year

The fellowships will provide support for 12 months of full-time research experience and training at a Government-supported training institution in Switzerland.

To be eligible, candidates must have Ph.D., M.D., D.V.M., D.D.S., or equivalent degrees. They must also have been engaged in independent research in one of the health sciences for at least 2 of the past 4 years.

Application forms are available from and should be returned by Feb. 1, 1974, to the International Fellowships Section, Fogarty International Center, NIH.

Final selection will be made at the May 1974 meeting of the Swiss National Science Foundation.

FOGARTY SCHOLAR

(Continued from Page 1)

pital in London and 3 months in Canada.

In 1952 he was appointed visiting professor of the National Research Council of Brazil. He spent 4 months in Professor von Euler's Physiological Institute in Stockholm.

Professor Rocha e Silva holds membership in a number of distinguished scientific and academic societies in England, the United States and Brazil.

Dr. Rocha e Silva will reside in Stone House. Later, he will be joined by his wife and daughter and move into an apartment.

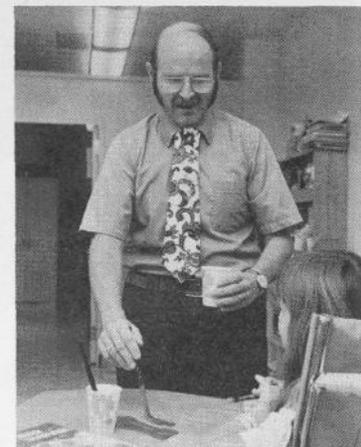
1973 Thesaurus Is Now Available From DRG

A limited number of copies of the *Medical and Health Related Sciences Thesaurus* are now available. The Thesaurus is the subject heading authority list for the *Research Grants Index*, a classified index of research projects supported by the PHS.

It is also an integral component of CRISP, a computerized system for retrieval of scientific and fiscal data pertaining to research grants and contracts programs.

Data from CRISP, as well as copies of the Thesaurus and Index, are available from the Research Documentation Section, SAB, DRG, Westwood Bldg., Room 3A03, Ext. 67543.

Arnold Sperling Receives Recreation Soc. Award



Mr. Sperling assists a young CC patient with a painting project.

Arnold Sperling, chief of the Clinical Center Patient Activities Section, recently received an award from the National Therapeutic Recreation Society for dedicated leadership in the field and service as the Society's director.

The award, a gold plaque, was presented at the 1973 Congress for National Recreation and Parks held Sept. 29-Oct. 4, in Washington, D.C.

During the meeting, Mr. Sperling chaired a session, *Demise of the Boogymen—Understanding Death*.

Assisted by Kathy Roche, psychiatric nurse in the CC Nursing Department, and Harriet Temin, George Washington University graduate student, he described thoughts and emotions about death and dying. The presentation was for recreation therapists who work with people facing death.

Mr. Sperling has been PAS chief since 1961. Under his direction, the CC recreation program has expanded.

In addition to general recreational programs for all CC patients, activities now include special therapy for outpatients, mental health and neurology patients, and special ambulatory care patients.

UNSOLVED MYSTERIES

(Continued from Page 3)

4 or 5 weeks—providing he can escape the ravages of the females who are sometimes cannibalistic.

Dr. Norris contends that "this particular species of beetle may become a more versatile insect model for the current frontiers in modern biology and biomedicine than the *Drosophila*."

The *Drosophila* (common fruit fly) has been the classic animal insect model for use in genetics research for many years.



Mrs. Woods looks on while Dr. Woods receives a citation for his many years of Government service from Dr. Edward L. Kuff, acting chief of NCI's Biochemistry Lab.

NIH Visiting Scientists Program Participants

9/16—Dr. Antonia Geukes Poppen Liuzzi, Italy, Laboratory of Clinical Science. Sponsor: Dr. Irwin J. Kopin, NIMH, Bg. 10, Rm. 2D46.

9/17—Dr. Roger N. Johnson, United Kingdom, Laboratory of Molecular Aging. Sponsor: Dr. Bertram Sacktor, NICHD, Gerontology Research Center, Baltimore City Hospitals, Baltimore, Md.

9/17—Dr. Katharine Yu-Vee Ku, Hong Kong, Pathologic Physiology Branch. Sponsor: Dr. Peter Voytek, NIEHS, Research Triangle Park, N.C.

Others Listed

9/17—Dr. Richard J. Simpson, Australia, Developmental Immunology Branch. Sponsor: Dr. John Robbins, NICHD, Bg. 10, Rm. 13N240.

9/25—Dr. Richard J. S. Duncan, United Kingdom, Laboratory of Cerebral Metabolism. Sponsor: Dr. Louis Sokoloff, NIMH, Bg. 36, Rm. 1A27.

9/26—Dr. Yoriaki Yamashita, Japan, Laboratory of Experimental Neurology. Sponsor: Dr. William F. Caviness, NINDS, Bg. 36, Rm. 4A27.

9/28—Dr. Ko Okumura, Japan, Laboratory of Biochemistry and Metabolism. Sponsor: Dr. Milton Kern, NIAMDD, Bg. 10, Rm. 9B11.

9/29—Dr. Rezso G. Schamschula, Australia, Caries Prevention and Research Branch. Sponsor: Dr. James P. Carlos, NIDR, Westwood Bg., Rm. 528.

9/30—Dr. Christian H. Gisselbrecht, France, Metabolic Diseases Branch. Sponsor: Dr. Paul Berk, NIAMDD, Bg. 10, Rm. 4D52.

9/30—Dr. Pal Venetianer, Hungary, Laboratory of Molecular Genetics. Sponsor: Dr. Philip Leder, NICHD, Bg. 6, Rm. 322.

October Visitors

10/1—Dr. Waldemar H. Krebs, Canada, Laboratory of Neuropharmacology. Sponsor: Dr. Floyd E. Bloom, NIMH, William A. White Bg., St. Elizabeths Hosp.

10/1—Dr. Antonio C. Lerario, Brazil, Reproduction Research Branch. Sponsor: Dr. Judith Vaitukaitis, NICHD, Bg. 10, Rm. 10B05.

10/1—Dr. Youji Mitsui, Japan, Laboratory of Cellular and Comparative Physiology. Sponsor: Dr. Takasni Makinodan, NICHD, Gerontology Research Center, BCH, Baltimore.

10/1—Dr. Tsutomu Nishihara, Japan, Laboratory of Molecular Biology. Sponsor: Dr. Ernst Freese, NINDS, Bg. 36, Rm. 3D02.

10/1—Dr. Maya Ran, Israel, Laboratory of Cell Biology. Sponsor: Dr. Michael Potter, NCI, Bg. 8, Rm. 201.



Twenty-one students representing 18 medical schools in 10 states plus the District of Columbia and Puerto Rico recently joined the Clinical Electives for Medical Students program administered by the Clinical Center. They will spend a minimum of 9 weeks learning about one of three clinical subspecialties: endocrinology and metabolism, oncology-hematology, or immunology. Various Institutes and CC departments cooperate to provide close association between students and senior staff members in these fields. Under the guidance of preceptors, students may be assigned patients to care for during the program.

Adverse Effects of Environmental Lead Exposure Examined by NIEHS and EPA

The National Institute of Environmental Health Sciences and the Environmental Protection Agency co-sponsored a conference of over 100 scientists on Oct. 1-2 in Raleigh, N.C., to review the possible adverse effects of lead exposure.

Concern has grown in recent years over the questions of whether or not increased use and dissemination of lead through the environment result in undetected,

subclinical, adverse effects on human health.

Dr. David P. Rall, Director of NIEHS, said that new research on apparent behavioral effects may require redefinition of what constitutes lead poisoning.

The conference revealed a possible connection, for the first time, between higher than normal lead levels and hyperactivity in children, according to Dr. Rall.

It is well known that lead is a toxic metal when exposures are large, but it is also known that humans appear to tolerate small amounts in body tissues for a lifetime without any apparent ill effects.

A purpose of the recent conference was to examine levels of exposure at which harmful effects to people actually occur. Another was to review the possible environmental sources of lead.

Mining, smelting, refining, secondary recovery, use of lead-containing products and waste disposal result in dissemination of lead in the environment.

Lead is one of the most widely used nonferrous metals in the manufacture of metal products, pigments, chemicals and a variety of other items. It melts at a relatively low temperature and easily volatilizes.

If only a small proportion of the annual production is released into the environment, potentially toxic situations could arise as lead is clearly poisonous under conditions of prolonged and excessive environmental exposure.

Absorbed lead is distributed in bone and various soft tissues. The

Dr. A. Chiarodo Joins Grants Assoc. Program

Dr. Andrew Chiarodo has joined the NIH Grants Associates Program for a year of training in grants administration.

The program trains scientists for administrative positions in extramural research activities and is administered by the Division of Research Grants.

At the time of his appointment as a grants associate, Dr. Chiarodo was on sabbatical leave of absence from Georgetown University as a visiting scientist at the University of Virginia at Charlottesville.

Dr. Chiarodo joined Georgetown in 1963, serving consecutively as an instructor, assistant professor, and associate professor of biology.

He received both the B.A. and M.S. degrees from Fordham University in 1956 and 1959. He earned his Ph.D. in 1963 from Washington University, St. Louis, Mo.

The new grants associate's major interests are developmental biology and neuroembryology.

Dr. Chiarodo has received numerous awards, including the Charles Hayden Memorial Foundation Scholarship, Fordham University, 1952-56; PHS Training Grant Fellowship, Washington University, 1960-61, 1962-63; Washington University Fellowship, 1961-62; NIH Postdoctoral Fellowship, Cornell University Medical College, 1963, and an NIH Research Grant, 1968-72.

largest concentration of lead in persons with no abnormal exposure is in the bone, where it is bound in a non-diffusible form. Lead so bound seems not to be toxic.

It is apparently the small "mobile" fraction located principally in soft tissues that is associated with observed toxic effects.

3 Organ Systems Involved

The most prominent adverse effects of lead involve three organ systems: the nervous, hematopoietic, and the kidney.

The vast majority of the population is, with few exceptions, not experiencing levels of lead absorption which are thought to have any effect upon health.

Today in the U.S., however, industrial workers in lead trades, young children in dilapidated housing in urban areas and imbibers of moonshine whiskey are the groups principally at risk for adverse effects of lead.

For these groups, increments in overall environmental contamination by lead only adds to their risk.



Dr. Chiarodo



Dr. Michael J. Begab, head of the mental retardation research center program of the Mental Retardation Branch, NICHD, was recently chosen as president-elect of the International Association for the Scientific Study of Mental Deficiency. The Association consists of professional organizations representing 30 countries and is primarily a forum for the exchange of information on research in mental retardation.

10/1—Dr. B. Guruva Reddy, India, Laboratory of Clinical Pharmacology. Sponsor: Dr. James R. Gillette, NHLI, Bg. 10, Rm. 7N119.

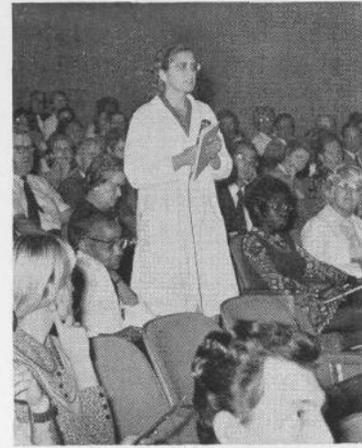
10/1—Dr. Kyoko Uenoyama, Japan, Laboratory of Molecular Genetics. Sponsor: Dr. Heiner Westphal, NICHD, Bg. 6, Rm. 338.



Some 300 NIH Combined Federal Campaign keyworkers and coordinators gathered in the Masur Auditorium on Oct. 3 to kick off the 1974 drive for funds. They heard officials, including (l to r) NIH campaign coordinator Kent Smith, Marty Walsh, CFC campaign director; HEW Sec. Caspar Weinberger, CFC chairman, and NLM Director Dr. Martin M. Cummings, CFC vice chairman, discuss the campaign's goals. Dr. Robert S. Stone, NIH Director, also



spoke. The highlight of the kick-off was an address given by Secretary Weinberger, who urged NIH employees to make an extra effort this year to meet the goal of \$264,000. Following a slide/sound presentation, "Hail to the Key-men," Kent Smith, who chaired the meeting, opened it up to questions from the floor. The rally wound up with a number of lively selections from the NIH Stage and Dance Band.



Drs. Weisburger, Sporn, Page Now Head Three New Cancer Branches

The National Cancer Institute's Division of Cancer Cause and Prevention recently announced the promotional appointments of Drs. Elizabeth K. Weisburger, Michael B. Sporn, and Norbert P. Page to head newly formed branches in the carcinogenesis area.



Dr. Weisburger

joined NCI in 1949 as a postdoctoral research fellow.

In 1951 Dr. Weisburger entered the U.S. Public Health Service, and was awarded the Commissioned Officer's Meritorious Service Medal in 1973.

She received a bachelor's degree from Lebanon Valley College (Pennsylvania) in 1944 and a doctoral degree in organic chemistry from the University of Cincinnati in 1947.

Dr. Sporn, now chief of the Lung Cancer Branch, joined NIH in 1960 as a staff fellow in NINDS. In 1964 he transferred to NCI and in 1970 was appointed head of the Lung Cancer Unit.

Dr. Sporn graduated in 1952 from Harvard College and received his medical degree in 1959 from the University of Rochester Medical Center.

Dr. Page has been appointed chief of the Carcinogen Bioassay and Program Resources Branch. Before joining NCI in 1971, Dr. Page was with the U.S. Air Force Veterinary Service for 13 years.

Until his recent appointment,

NCI Awards Two Contracts to Expand Detection and Treatment of Lung Cancer

Two research contracts will expand the National Cancer Institute's program for early detection and treatment of lung cancer—now at epidemic levels in the United States.

The contracts are for the first year of two planned 5- to 10-year studies of the effect of early detection and treatment on survival from lung cancer.

Other studies in the NCI lung cancer program are already yielding evidence that new techniques can detect and locate lung cancers before they become observable with conventional chest X-rays.

The contracts were awarded to the Johns Hopkins University, Baltimore, and to the Memorial Hospital for Cancer and Allied Diseases, a part of the Memorial Sloan-Kettering Cancer Center in New York City.

Research is sponsored by the NCI Cancer Control Program.

Lung cancer, the leading cause of cancer deaths among Americans, will take an estimated 72,000 lives this year in the U.S. Only about 10 percent of patients survive 3 years after diagnosis of the disease.

The screening programs will focus on persons at high risk of

developing lung cancer—men 45 to 69 years of age who are regular cigarette smokers.

In both programs, men will be divided randomly into two groups, one to be given annual chest X-ray examinations and the other to be given additional examinations of cells coughed up from the lung at 4-month intervals.

The Johns Hopkins study, directed by Dr. John K. Frost, and the Memorial Hospital study, directed by Dr. Myron R. Melamed, will each screen 10,000 men.

In the latter program, men will be examined at the Preventive Medicine Institute-Strang Clinic. Test results will be determined at Memorial Hospital.

Both screening programs involve chest X-rays and a microscopic examination of cells obtained from deep cough sputum samples. Abnormal cells in the sputum can indicate a hidden cancer too small to be seen in X-ray photographs.

Cancers as small as 1 to 2 millimeters can be located with the bronchoscope.

A comparable NCI-funded lung cancer program began in 1971 at the Mayo Clinic. The Mayo contract is administered by NCI's Division of Cancer Biology and Diagnosis.

Earlier research on techniques for sputum analysis and lung cancer location had been conducted at Johns Hopkins under another NCI contract which began in 1969.

Although it is too soon to determine whether early detection

Patients With Recurrent Aphthous Oral Ulcers Needed in NIDR Study

Patients with recurrent aphthous oral ulcers (canker sores) are needed to participate in a new etiology and treatment study conducted by the National Institute of Dental Research.

These ulcers occur *inside* the mouth as distinguished from "fever blisters" (caused by herpes simplex virus) which occur *outside* on the lip margins.

Frequent Sufferers Sought

Only those individuals with frequent attacks (at least twice a month) will be accepted for study.

For more information and a possible appointment, call Dr. Edward A. Graykowski or Dorothy Brode on Ext. 64571.

Patients who are acceptable for study or for whom screening appointments are considered necessary will be given the proper referrals through a mutual arrangement with the Employee Health Services Branch of the Clinical Center.

Employees may also be referred by their own physician or dentist.

will increase survival times of patients after initial diagnosis, it is now known that some lung cancers can be detected at an earlier stage than previously possible.

In previous work at all three institutions, a number of lung cancers too small for X-ray detection were found by sputum cell examination. In almost every case the tumors' locations could be pinpointed by fiberoptic bronchoscopy, making it possible to remove them by surgery.

The progress of patients after surgery may reveal whether early detection and treatment have succeeded in lengthening their lives.



Dr. Page



Dr. Sporn

Dr. Page was acting head of the Program and Data Analysis Unit.

He received his D.V.M. from Ohio State University in 1956 and his M.A. from the University of Rochester in 1962.