

# The NIH Record

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Health

## 'Seesaw Signal' Process Identified in Brain

A discovery that may help explain how the body uses information stored in the brain has been reported by scientists at the National Institute of Child Health and Human Development. The researchers think a newly identified mechanism, dubbed "seesaw signal processing," may play a key role in converting neural signals into chemical information in the brain.

Memory, behavior, and other information are believed to be stored in the brain in chemical form. Seesaw signal processing, which involves two opposite responses by the same cell to the same neural signal, may be one way neural signals control the retrieval and use of the stored information, according to Dr. David Klein of NICHD's Developmental Neurobiology Branch.

Neural signals travel along nerves as electrical impulses. At the end of the nerve, the impulse triggers the release of a chemical messenger, called a neurotransmitter, which carries the signal to a second nerve cell.

When the second cell receives the signal, it produces a chemical called a second messenger. This chemical activates the nerve cell so it can synthesize the compound it has been directed to produce.

There are only a handful of known second messengers. The most thoroughly studied is cyclic adenosine monophosphate (cAMP). It regulates many hormonal and metabolic processes in the body.

The amount of cAMP produced in re-

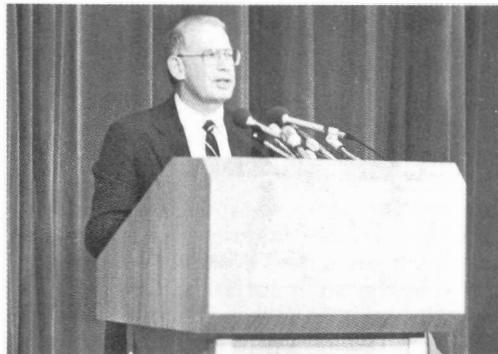
*(See SEESAW, Page 9)*



Dr. Stetten's essay about blindness in the August issue of the *New England Journal of Medicine* has been well received. See Page 3.

## Beta-Blocker Trial Study Determines Drug Reduces Heart Attack Mortality

Propranolol, a drug used today by physicians primarily in the management of angina pectoris, high blood pressure and migraine headache, has now been found useful in the prevention of death in persons who have survived a heart attack. An NHLBI sponsored collaborative clinical trial has demonstrated that in patients treated an average of 24 months, total mortality can be reduced by 26 percent.



Dr. Frommer responds to news media questions after announcing the early completion of the clinical trials.

This would represent at least 6,500 lives saved each year in the U.S.

These were part of the findings released from the National Heart, Lung, and Blood Institute's \$20 million Beta-Blocker Heart Attack Trial (BHAT), involving 31 insti-

tutions in the U.S. and Canada.

Although the trial had been scheduled with a minimum treatment period of 24 months for all patients, unequivocally positive results were obtained earlier and it was possible to stop the trial 9 months before its scheduled completion date in order to make the results of the study available promptly to other patients at the earliest possible date.

The double-blind controlled clinical trial enrolled 3,837 men and women aged 30 to 69 with a documented myocardial infarction (heart attack). Patients with the conventional contraindications to the use of a beta-blocker were excluded, as were patients who were not suitable for participation in a long-term clinical trial.

After informed consent, patients who participated were randomized into one of two study groups: 1,916 patients to propranolol and 1,921 to a placebo. The two groups turned out to be very closely comparable as to age, sex, race, medical history, blood pressure, blood cholesterol levels, smoking history and severity of the myocardial infarction.

Treatment was started between 5 and 21 days after onset of the heart attack—14 days on the average. The eventual dose of propranolol was 60 or 80 mgm three times

*(See BETA-BLOCKER, Page 10)*

## NIH Primate Centers To Celebrate 20th Anniversary

Assistant Secretary for Health Dr. Edward N. Brandt, Jr., and Dr. William F. Raub, NIH Associate Director for Extramural Research and Training will be the principal speakers in Atlanta on Nov. 19 to mark the 20th anniversary of the NIH-funded Primate Research Centers program.

The seven regional centers are supported through the Animal Resources Program of the Division of Research Resources. At the ceremony, the director of each primate research center will report on current research endeavors taking place at the facilities. A panel discussion will also take place on human health advances brought about by primate research activities.

Dr. Brandt's presentation will highlight an evening program presided by Dr. James F. O'Donnell, acting DRR Director.

NIH initiated the Primate Research Centers Program in order to create specialized facilities where biomedical scientists could study primates for the purpose of learning more about human health. By 1965, seven centers had been established, forming the largest primate research base of its kind in the world.

According to Dr. William I. Gay, director of the Animal Resources Program, the seven regional primate research centers have made many significant contributions to science, medicine, and primate biology during the past 20 years.

*(See CENTERS, Page 12)*

# The NIH Record

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## Blood Drive To Be Held at Landow

The CC Blood Bank and the American Red Cross will conduct a pre-Christmas blood drive on Thursday, Dec. 3, in Conf. Rm. A of the Landow Bldg., from 9:30 a.m. to 3:30 pm.

This blood drive is to recruit new blood donors and make it convenient for regular donors at the Landow Bldg.

For information or an appointment, call the CC Blood Bank, 496-1048. □

## Training Tips

The following courses, sponsored by the Division of Personnel Management, are given in Bldg. 31.

Office Skills	Course Starts	Deadline
Letterwriting for Secretaries	12/2	11/17
Refresher Typing	1/19	1/1
<b>Communications</b>		
Human Relations	12/9	11/24
<b>Communications Skills</b>		
Introduction to Sign Language	12/29	12/15

To learn more about these and other courses in office and communication skills, contact the Training Assistance Branch, DPM, 496-2146.

## NIH CFC Rally Aided by Prominent Speakers



Distinguished guests and speakers at the CFC rally were: (l to r) William Schaeffler, National Capital Area CFC director; Dr. Ruth Kirschstein, NIGMS Director; Dr. Malone; Mr. Swoap; Dr. Faye G. Abdellah, acting director, Office of the Deputy Surgeon General; Ira Goldstein, HHS CFC director; and Dr. Koop, Surgeon General Designate.

"Reaching people who need you," the theme of the 1982 Combined Federal Campaign, was eloquently addressed by speakers at the NIH kickoff rally at Masur Auditorium on Oct. 20.

"See the campaign in terms of the people it helps," Acting NIH Director Dr. Thomas E. Malone urged CFC workers attending the rally. He introduced the film, *Message of Love*, featuring CFC contributors who described why they felt the campaign is so important at this time.

HHS Under Secretary David Swoap, on his first official visit to NIH, discussed goals for the 1982 campaign. Posters now appearing at NIH and asking, "Have you joined the 60/50 campaign?" refer to the HHS campaign goal of \$945,000, which can be reached if 60 percent of HHS em-

ployees participate, and 50 percent take the payroll deduction.

The vital work CFC agencies do for people was the theme of a short talk by Surgeon General Designate Dr. C. Everrett Koop. He urged the NIH workers to raise both money and consciousness "to transcend the paper work and really touch people."

At the close of the rally, Dr. Malone expressed his belief that participants had shared in the most persuasive launching of a CFC drive in some time.

The NIH Combined Federal Campaign began Oct. 14 and will continue for the next 6 weeks. The NIH campaign goal is \$280,000, which represents the sum of the agency's personal commitment to those who need help.

The following is a list of this year's campaign coordinators:

	NIH	— William Fitzsimmons Westwood Bldg., Rm. 922 496-7714		
DRG	— Sharon Porter Westwood Bldg., Rm. 44B 496-7954		FIC	— Thomas Leffingwell Bldg. 38A, Rm. 606C 496-4625
NHLBI	— Jack Nance Bldg. 31, Rm. 5A-50 496-2411		DRR	— Louis Wagner Bldg. 31, Rm. 5B-38 496-5131
DRS	— Doris Marshall Bldg. 10, Rm. B2L-326 496-3467		NIDR	— Joan Shariat Bldg. 10, Rm. 5N-214 496-3664
NICHD	— Dr. Peter Alterman Landow Bldg., Rm. 7C-19 496-9583		NIA	— Ann Connors Bldg. 31, Rm. 2C-11 496-9121
NIGMS	— Robert Willcoxon Westwood Bldg., Rm. 925 496-7714		NIADDK	— David Dwyer Bldg. 31, Rm. 9A-24 496-5765
CC	— Mary Thompson Bldg. 10, Rm. 1A-08 496-5661e		NCI	— James Prather Bldg. 31, Rm. 11A-29 496-5801
DCRT	— Gloria Crawford Bldg. 12A, Rm. 3017 496-4647		NEI	— Phyllis McKee Bldg. 31, Rm. 6A-17 496-4233
OD/ORS	— Ann Dulaney Bldg. 1, Rm. 32 496-2567		NIAID	— Elnora Jackson Bldg. 31, Rm. 7A-22 496-1012
NLM	— Jerome Kerkhof Bldg. 38A, Rm. B2N-08 496-5441		NINCDS	— David Kerr Bldg. 31, Rm. 8A-47 496-2575



## Dr. Stetten's Essay Brings Favorable Response

Two thick manila folders containing over 200 letters received in response to a 2,000-word personal account about blindness written by NIH's senior scientific advisor for the Aug. 20 issue of the *New England Journal of Medicine* have brought to light the question of how a handicapped person might better live in a sighted world.

For the past 15 years, Dr. DeWitt Stetten, Jr., former NIGMS Director and Deputy Director for Science NIH, expert in metabolic diseases, and physician, has been learning to live with, and has quietly helped others to deal with the shadowy, progressively narrowing world of blindness.

"Many of the letters were from young physicians whose parents are blind," observed Dr. Stetten, while he held some of the correspondence received at his Stone House office.

Others were from blind persons who had been scientists themselves. Most wrote telling him of the medical care they had received from ophthalmologists, and about their experiences in seeking help to cope with the loss of perhaps man's most precious ability—the capacity to see clearly the color, activity, and the faces of the people, and things—that make up their now darkened world.

At the height of his career while working in Bldg. 1, Dr. Stetten began to experience the first signs of macular degeneration, a condition associated with aging which affects 100,000 Americans.

### Central Vision Affected

Macular degeneration is an eye condition that develops over several years, and starts with the loss of the central vision. A person's peripheral vision remains to some degree but eventually narrows until, as Dr. Stetten has written, "until my world has shrunk to a sphere with a radius of about an arm's length."

Despite his handicap, he conducts a full work schedule that includes his Friday morning science seminars where invited researchers lecture on the latest developments in science. In addition, Dr. Stetten has been involved in writing a history of the National Institutes of Health.

Today, there is no known treatment for his condition, although attempts have been made with vitamins, vasodilators (medications to dilate the blood vessels) and low-fat diets. In a few cases early diagnosis may permit the use of lasers to occlude damaged blood vessels in the eye's macular area.

It was the plight of a laboratory-research assistant at NIH that prompted Dr. Stetten to write his *JOURNAL* essay. The woman was suffering from another form of blindness—progressive retinitis pigmentosa, an inherited condition that gradually impairs the retina's response to light causing loss of peripheral vision.

Although the woman was under the care of an able ophthalmologist, no one had mentioned to her the variety of modern optical and electronic aids available today

to persons with low vision problems. Also, she was unaware of the specially prepared audio materials, which in many cases, are distributed without charge.

"The loss of sight is just one of the senses," says Dr. Stetten, who now relies upon his other senses to act as "guides" for him in his daily activities. He says that he has developed an excellent memory for telephone numbers, even though he has an automatic dialer next to his desk telephone.

### Electronic Aids Help

Holding a small tape recorder in his hand, he says that this device "has replaced my notebook." The switch from the written word to the recorded word has been eased because of the availability of recorded materials that keep him abreast of scientific and other up-to-date information.

He is a regular subscriber to the audio versions of *Scientific American*, *Medical World News*, and *Newsweek*. He also enjoys the monthly selection of recorded books provided by the Library of Congress' free Talking Books Program.

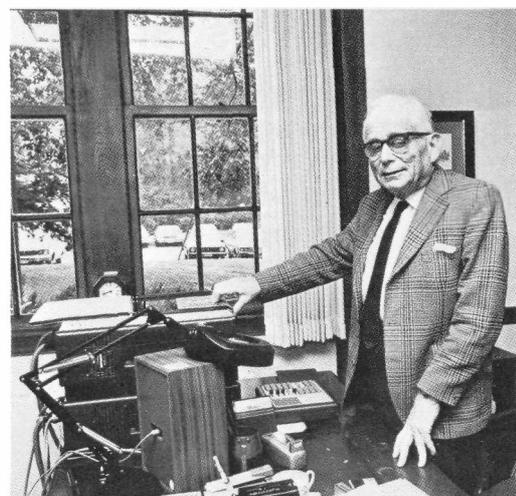
Besides the electronic hand-held tape recorder that he takes everywhere with him, including when he and his wife, Marjorie—also an NIH researcher—travel together, Dr. Stetten uses a sophisticated electronic device, known as a Kurzweil reading machine, when he wants to review a researcher's latest published work.

The unique device scans the printed or typewritten page and recognizes each letter. It has in its memory a list of rules of English pronunciation, and synthesizes each combination of letters into sound approximating speech. This device was referred to Dr. Stetten by his son, while he was taking graduate courses at Massachusetts Institute of Technology.

"It may not be generally recognized by the sighted that as one loses vision one becomes disoriented, not merely in space but also in time," he notes. Fortunately for him, while at the talking books section of the Montgomery County Library in Rockville, a woman told him how he might purchase a talking clock manufactured by the Sharpe Corporation. He bought one for \$75—a mile from NIH—at the Volunteers for the Visually Handicapped located at 4405 East-West Highway, Bethesda, Md. (652-4347).

It was not until 4 years ago that Dr. Stetten was pronounced legally blind. He gave up driving 8 years ago, and for the past year he has been unable to read. During this time, he used a Visualtek machine—a combination of small television camera equipped with a Zoomar lens and an inexpensive television monitor. This unit permits enormous magnification of printed or written material.

Although he feels that he has been fortunate in being attended by several excellent ophthalmologists and specialists, he hears from other blind persons "that each specialist has devoted so much



Dr. Stetten listens to a book being read aloud by the Kurzweil reading machine in his office.

time and effort to the fostering of his particular organ or organ system, he has little energy left over to devote to the patient as a whole. The criticism is not restricted to any one specialty, but is becoming a general trend in medicine that must be countered with a little humanism," says Dr. Stetten.

### Suggestion Offered

This month in Toronto, Dr. Stetten appeared before the American Gerontological Association and suggested that as part of ophthalmology residency training that physicians spend one 24-hour period out of their 3 years of training blindfolded; so that they might experience and encounter the daily obstacles and frustrations that their future patients undergo daily.

He believes that there are still many suggestions that can be marshalled to aid blind persons and those who know that they are going blind; particularly in training people how to live with their handicap.

"These may transform the life of the blind from a living hell to a moderate inferno or, perhaps occasionally, a heaven," says Dr. Stetten.

*Dr. Stetten's Journal article mentions resources for the blind that he has found useful.* □

## History of Medicine Society To Present Lectures on Nov. 12

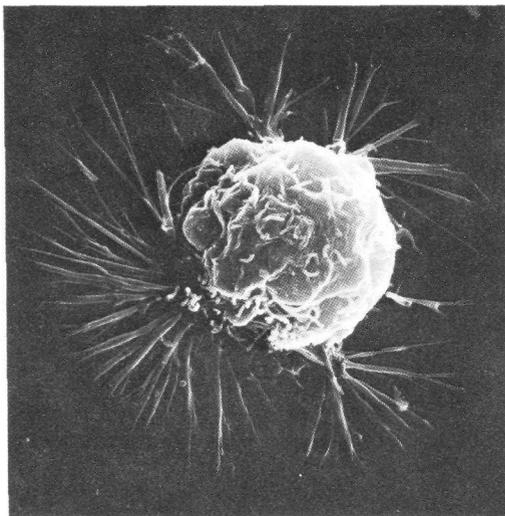
The Washington Society for the History of Medicine is presenting two lectures Thursday evening, Nov. 12, at 8 p.m.

A very strong anti-war complex: Siegfried Sassoon, W. H. R. Rivers and the crisis of shell shock in World War I is to be presented by Dr. Theodore Bogacz, history department, U.S. Naval Academy.

Health-related problems on the Oregon Trail will be explained by Dr. Peter D. Olch, deputy chief, History of Medicine Division, National Library of Medicine.

This meeting will be held in the Cluster Conf. Rm., Lister Hill Center, NLM. For more information, call Dorothy Hanks, 496-5405. □

# Picturing Research . . . Photographs From NIH Laboratories



Scientists are using scanning electron microscopes to study cell surface details. The extraordinary responsiveness of this cell, cultured from breast cancer tissue, reflects its reaction to fixing. Here the cell is magnified 2,100 times. *Photo: Bruce Wetzel and Harry Schaefer, NCI.*

NIH biomedical research is the source and subject of many dramatic images. These photographs are samples from the picture collection available in the Audiovisual Branch, Office of Communications, Office of the Director.

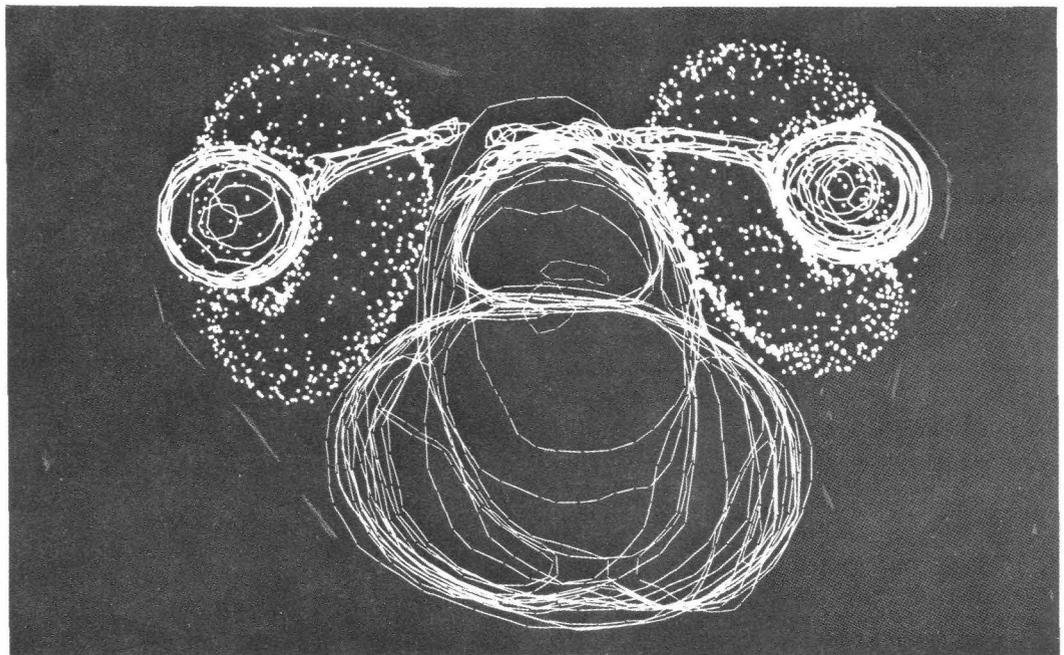
The Audiovisual Branch uses photography, radio, and television to inform the public about newest developments in health research and about NIH activities.

Materials available include nearly 2,000 black and white photographs and color slides. The collection gives an overview of NIH activities and facilities; there are shots of equipment, buildings, research projects and scientists. People in and outside of NIH can borrow slides and photographs for 1 month (or longer if arrangements are made). They can be used to illustrate textbooks, journals, and NIH

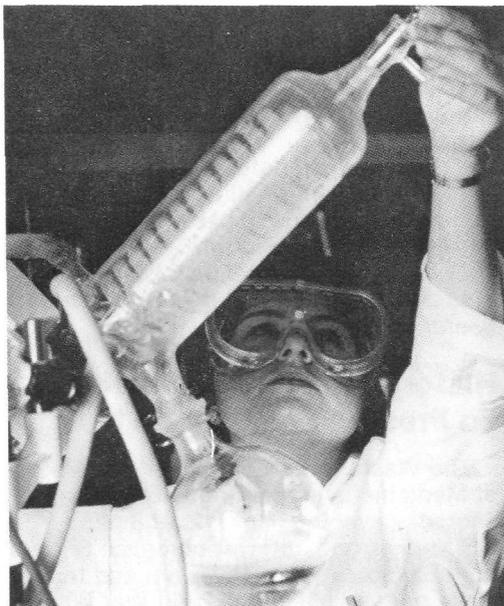
employee slide shows.

The AV branch has responded to requests from more than 200 organizations and individuals in the past year. These requesters select pictures to help them teach, describe and explain scientific advances to the public. The growing demand for photographs by authors, publishers, and producers of educational filmstrips indicates the effectiveness of pictures in presenting information.

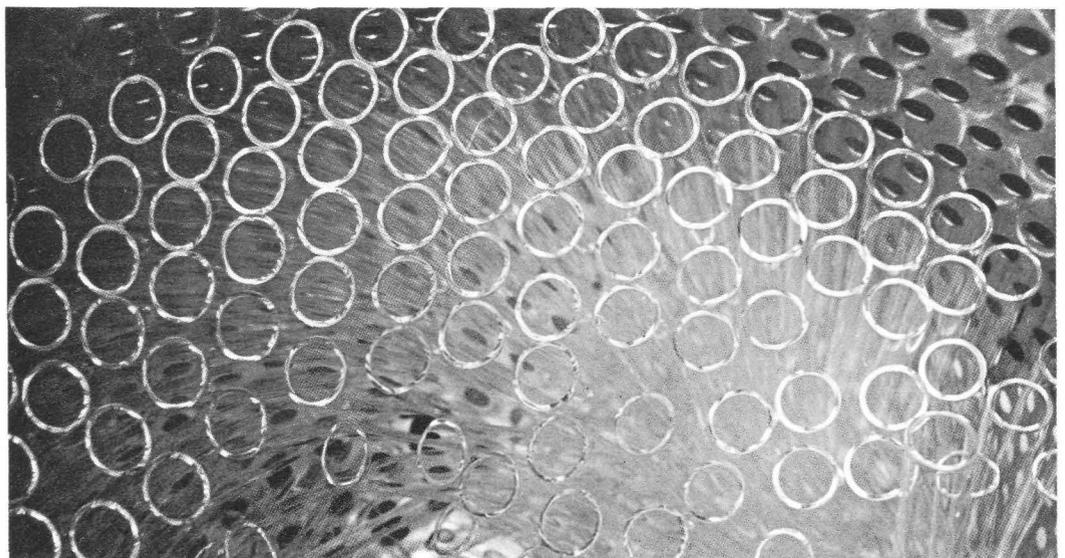
The branch is interested in obtaining photographs or slides of work being conducted at NIH in order to build a comprehensive file for the public. If you have pictures, or would like more information, please contact Dale Blumenthal, 496-5895; or visit Bldg. 31, Rm. 2B-37.



A computer displays in three dimensions the forebrain, eyes, and optic nerves of a newborn zebrafish. The connections and pattern illustrate the branching and weaving of nerve tracts. *Photo: Division of Research Resources.*



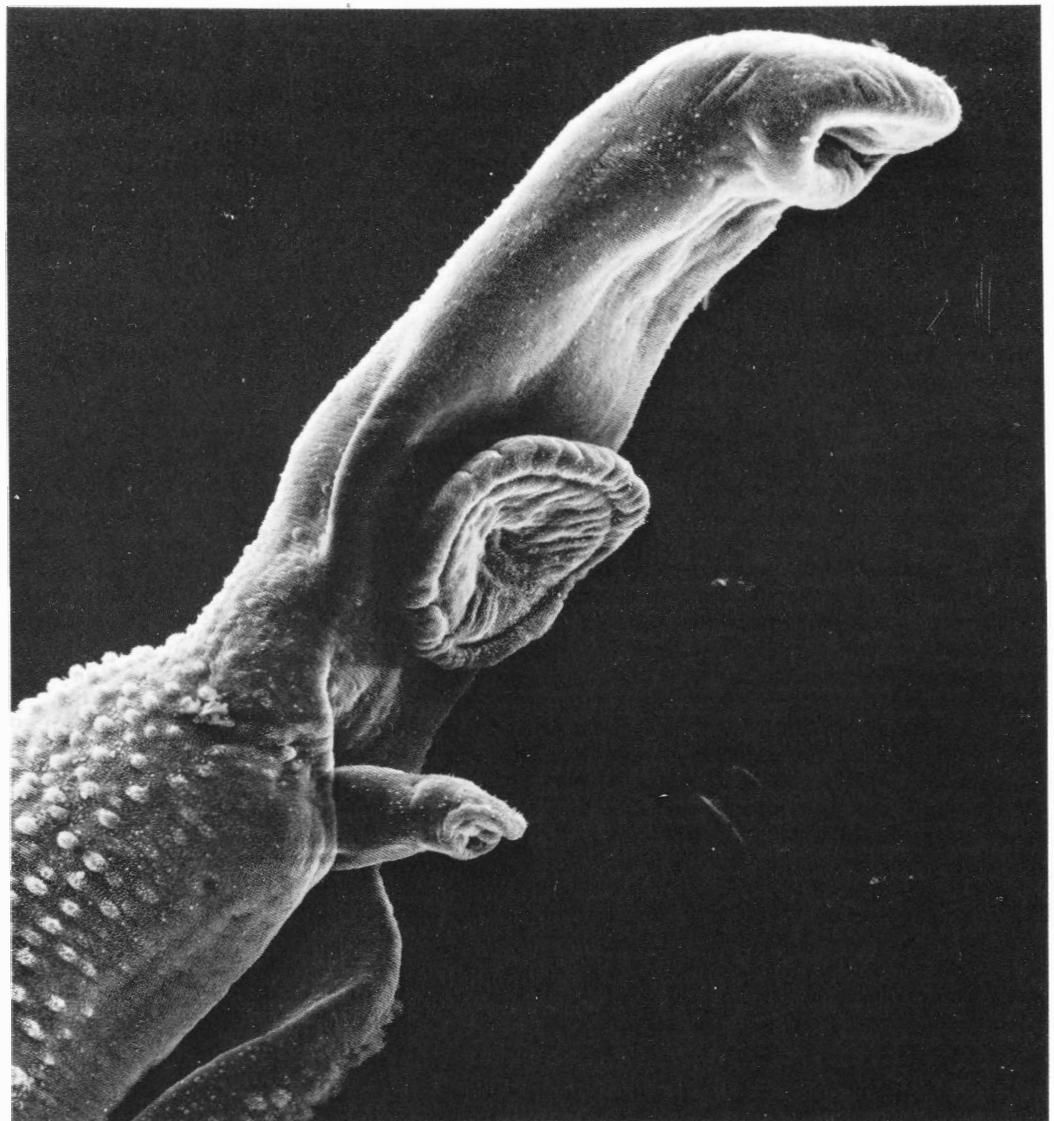
A laboratory technician removes solvent from a rotary evaporator. She uses this instrument to concentrate a chemical solution while performing an experiment to synthesize an anticancer drug. *Photo: NCI.*



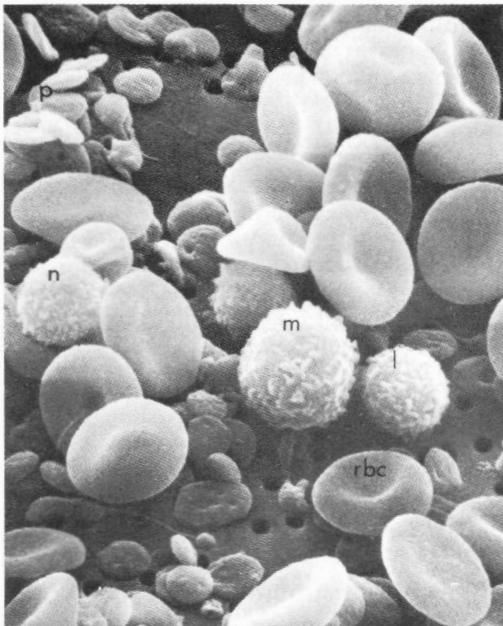
Test tubes are the common laboratory vessel. Here is a photographer's creation to enhance the ordinary image. *Photo: Jerry Hecht.*



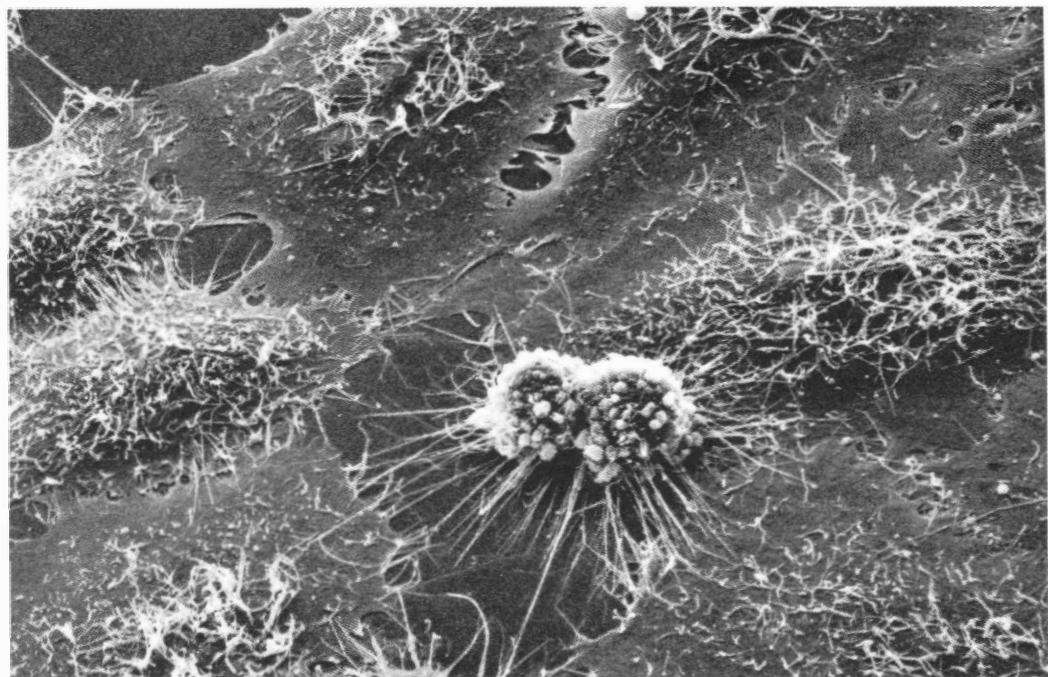
This young macaque monkey takes a short Q-tip break from his work in the lab at NIH. Photo: Jerry Hecht.



This schistosome parasite enters the body through the skin of persons coming in contact with infested waters. The adult worm lives in the veins of its host. The parasite is magnified 256 times in this photograph. Photo: Bruce Wetzel and Harry Schaefer, NCI.



This is a scanning electron microscope image from normal circulating human blood. Red blood cells, several white blood cells including lymphocytes, a monocyte, a neutrophil, and many small disc-shaped platelets can be seen. (Magnified 2,679 times). Photo: Bruce Wetzel and Harry Schaefer, NCI.



This scanning electron micrograph shows cultured HeLa cells derived from cancerous tissue. The rounded double cell in the center is in the telophase of mitotic division. Photo: Bruce Wetzel, NCI.

## Visiting Scientists Program Participants

### Sponsored by Fogarty Internat'l Center

- 9/11—**Dr. Joanna Hill**, Canada, Laboratory of Brain Evolution and Behavior. Sponsor: Dr. Paul MacLean, NIMH, Bg. 112, Poolesville, Md.
- 9/11—**Dr. Kazutaka Miyatake**, Japan, Laboratory of Cell Biology. Sponsor: Dr. Martin Flavin, NHBLI, Bg. 3, Rm. 125.
- 9/11—**Dr. Stella Rosenbaum**, Israel, Laboratory of Pathology. Sponsor: Dr. Peter Howley, NCI, Bg. 10, Rm. 2A29.
- 9/14—**Dr. Malin C. Ingvar**, Sweden, Laboratory of Cerebral Metabolism. Sponsor: Dr. Louis Sokoloff, NIMH, Bg. 36, Rm. 1A27.
- 9/14—**Dr. Andrea Modesti**, Italy, Laboratory of Pathology. Sponsor: Dr. Timothy Triche, NCI, Bg. 10, Rm. 2A10.
- 9/14—**Dr. Kiyoto Motojima**, Japan, Laboratory of Biochemistry and Metabolism. Sponsor: Dr. Takama Oka, NIADDK, Bg. 10, Rm. 9B17.
- 9/15—**Dr. Li-Jun Yao**, China, Environmental Epidemiology Branch. Sponsor: Dr. Joseph Fraumeni, NCI, Landow Bg. Rm. C307.
- 9/16—**Dr. Zsuzsanna Buzas-Orosz**, Hungary, Endocrinology and Reproduction Branch. Sponsor: Dr. Andreas Chrambach, NICHD, Bg. 10, Rm. 12N210.
- 9/17—**Dr. Raul Lazarte**, Peru, Neonatal and Pediatric Medicine Branch. Sponsor: Dr. Marvin Cornblath, Bg. 10, Rm. 13N260.
- 9/17—**Dr. Asima Lahiri Majumder**, India, Laboratory of Experimental Pathology. Sponsor: Dr. Lois Tice, NIADDK, Bg. 4, Rm. 427.
- 9/17—**Dr. Marie Rose van Schravendijk**, Netherlands, Laboratory of Immunogenetics. Sponsor: Dr. John Coligan, NIAID, Bg. 8, Rm. 100.
- 9/20—**Dr. Desmond Carney**, Ireland, NCI-VA Medical Oncology Program. Sponsor: Dr. John D. Minna, NCI, 50 Irving St., NW, Washington, D.C.
- 9/20—**Dr. Yoshio Akagi**, Japan, Laboratory of Vision Research. Sponsor: Dr. Toichiro Kuwabara, NEI, Bg. 6, Rm. 211.
- 9/21—**Dr. Athanassios Kyritsis**, Greece, Laboratory of Vision Research. Sponsor: Dr. Gerald Chader, NEI, Bg. 6A, Rm. 1B07.
- 9/22—**Dr. Kenji Kawano**, Japan, Laboratory of Sensorimotor Research. Sponsor: Dr. Robert H. Wurtz, NEI, Bg. 36, Rm. 1D18.
- 9/23—**Dr. Akiro Takenaka**, Japan, Laboratory of Central Nervous System Studies. Sponsor: Dr. Clarence J. Gibbs, NINCDS, Bg. 36, Rm. 4A17.
- 9/28—**Dr. Guy Lefort**, France, Developmental Endocrinology Branch. Sponsor: Dr. Lynn Loriaux, NICHD, Bg. 10, Rm. 10B09.
- 9/29—**Dr. Adesoji Makinde**, Nigeria, Laboratory of Clinical Investigation. Sponsor: Dr. John Bennett, NIAID, Bg. 10, Rm. 11N210.
- 10/1—**Dr. Colin Cooper**, Scotland, Laboratory of Molecular Virology. Sponsor: Dr. George Vande Woude, NCI, Bg. 41, Rm. 100.
- 10/1—**Dr. Pierre Dodion**, Belgium, Laboratory of Clinical Biochemistry. Sponsor: Dr. Nicholas Bachur, NCI, Baltimore Cancer Research Program.
- 10/1—**Dr. Barbara Felber**, Switzerland, Laboratory of Biochemistry. Sponsor: Dr. Dean Hamer, NCI, Bg. 37, Rm. 4A17.
- 10/1—**Dr. Sakayoshi Higa**, Japan, Laboratory of Clinical Science. Sponsor: Dr. Sanford Markey, NIMH, Bg. 10, Rm. 3N325.
- 10/1—**Dr. Masaji Kasai**, Japan, Laboratory of Chemical Physics. Sponsor: Dr. Herman Ziffer, NIADDK, Bg. 2, Rm. 118.
- 10/1—**Dr. Yoel Kloog**, Israel, Laboratory of Clinical Science. Sponsor: Dr. Julius Axelrod, NIMH, Bg. 10, Rm. 2D47.
- 10/1—**Dr. Jacek Kuznicki**, Poland, Laboratory of Cell Biology. Sponsor: Dr. Edward Korn, Bg. 3, Rm. B1-20.

## Pertinent Occupations Highlighted During NCI Career Day

The second National Cancer Institute career day was held last August in Bldg. 1, Wilson Hall. Approximately 150 summer and stay-in-school students attended the seminar.

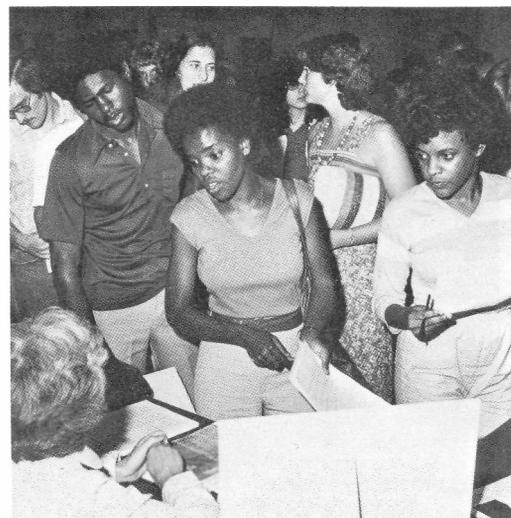
The theme, Look Into the Future With NCI, highlighted various occupations within the Institute, educational preparation, and opportunities for obtaining financial assistance to continue schooling.

NCI career day is aimed at eliminating the information gap students often face when preparing to enter the Federal job market. It is hoped that students will carry this information to others.

A variety of program specialists were on hand to discuss their areas of expertise, and offer advice on educational requirements for specific jobs.

Personnel, administration, clinical and research support, computer technology, extramural and intramural sciences, mathematics and related positions, communications, NCI Equal Employment Opportunity programs, and the NIH-PHS Commissioned Corps were discussed.

Three guest speakers—Robert Jamroz, program specialist, Department of Education; Dr. Herm Davis, director of student financial aid, Montgomery College; and Barbara Williams, assistant director for financial aid, Howard University—offered



Students participating in the NCI Career Day spoke with career counselors about the many options available in education and employment with the government.

comprehensive information on obtaining educational financial assistance. Seminar attendees were impressed with the extensive information provided.

Students who wish to suggest ideas for the 1982 career day may call Pat Rados, NCI personnel office, 496-1771. □

## Laboratory Product Workshop To Be Held Nov. 23

A workshop on Millipore products will be held in Bldg. 10, 14th floor assembly room on Monday, Nov. 23, from 9 a.m. to 3 p.m.

The workshop, sponsored by the Supply Operations Branch, Division of Administrative Services, will feature new applications and technologies including filtration and separation, enzymes, HPLC and water purification.

Millipore, Worthington, Water Associates and Continental Water application scientists will be available to discuss the complete range of technologies and product applications. For more information, call 496-3517. □

## 1970-74 Head and Spinal Cord Injury Statistics Summarized

Major findings and highlights of the NINCDS-sponsored National Head and Spinal Cord Injury Survey have now been published in condensed form. The condensed survey report addresses the rates, costs, and circumstances of a problem that affects 430,000 Americans a year.

The complete report was published as a supplement to the *Journal of Neurosurgery* in November 1980. The survey concentrated on injuries occurring between 1970 and 1974, and resulted in hospital admissions.

The condensed summary is available from the Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A-06, Bethesda, Md. 20205; telephone 496-5751. □

## NIH Photography Section Looks for Borrowed Equipment

The NIH Photography Section is looking for a Nikon camera and two lenses which were borrowed by a researcher on campus in February.

The staff members speculate that it is quite possible the borrower may have absentmindedly stuck the equipment away in his laboratory and forgotten about the loan.

In this event, they would very much appreciate the return of the government-owned property or receive any information as to its whereabouts. The photography number is 496-5995. □

## R&W Sponsors Financial Seminar

An investment seminar is being held on Thursday, Dec. 3, from noon to 2 p.m., in Bldg. 1, Wilson Hall.

The Derand Investment Corporation of America, sponsored by R&W, will answer questions on taxes, buying a home, business incorporation and other financial planning.

Anyone interested may attend. □

## Want to Pot Around in Pottery?

R&W plans a trip to Williamsburg Pottery Outlet on Saturday, Nov. 28. The bus will leave Bldg. 31C at 7 a.m. sharp, and depart Williamsburg at 5 p.m. The cost per person is \$17.

Items include crystal, china, pottery, wicker, and Christmas ornaments.

Sign up at the R&W Activities Desk, Bldg. 31, Rm. 1A-18. □

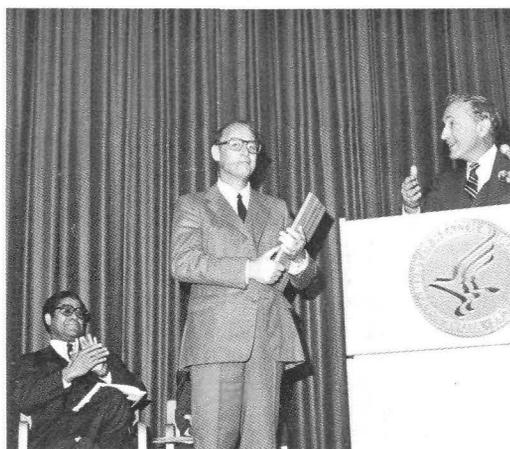
# W. G. Magnuson Clinical Center and ACRF Are Dedicated



Over 500 invited guests from medicine, research, and the government filled the Masur Auditorium for the dedication ceremony.



HHS Secretary Schweiker (r) and Acting NIH Director Dr. Thomas E. Malone officiated at the unveiling of the plaque that will be displayed in the ACRF lobby of the Warren Grant Magnuson Clinical Center.



Former NIH Director Dr. Fredrickson (c) was presented with the Distinguished Public Service Award (DHHS) by Secretary Schweiker at the dedication ceremonies. He is the fifth recipient of this award in its history. Previously, it had been presented to the noted scientist Arthur Flemming.

Over 500 guests attended the official dedication of the new, \$20 million 13-story Ambulatory Care Research Facility and the Warren Grant Magnuson Clinical Center on Thursday, Oct. 22, in the Masur Auditorium.

Among those participating in the ceremony were from medicine, industry, and government, as was HHS Secretary Richard S. Schweiker, who said, "I'm honored to dedicate the Warren Grant Magnuson Clinical Center and its ambulatory wing. They are exciting expressions of our humanity. Because through them we can save lives and alleviate suffering regardless of national origin. The important work done here at NIH symbolizes what is finest in our country's way of life—our scientific and medical achievements. More than that, it serves as a strong desire for health and happiness for people all over the world."

Secretary Schweiker then presented to former NIH Director Dr. Donald S. Fred-

rickson the DHHS Distinguished Public Service Award and a letter from President Ronald Reagan congratulating him. Secretary Schweiker noted "More than any other person, Don Fredrickson was responsible for seeing the ACRF through to completion. As Director of NIH for the last 6 years, he took steps to transform the facility from an idea to a plan of action, and finally to a reality. The ACRF reflects his personal standards of excellence and commitment to the NIH."

### Magnuson Message Read

Although unable to attend, former Washington U.S. Senator Warren G. Magnuson sent a message that was read at the ceremony honoring him. "To have my name permanently associated with the Clinical Center at NIH is indeed a tremendous honor. I have always felt so close to NIH, almost paternal, for it was 44 years ago that we established the National Cancer Institute.

"Whether it be in the fields of cancer, diabetes, eye disorders, or whatever dread disease that brings pain and suffering to individuals and devastation into families, we know what a unique resource for biomedical research the NIH is. The Clinical Center is the focus for so much of that, and we know how interested scientists around the world are in knowing what goes on," observed Sen. Magnuson.

In addition, his message stated, "I was proud to have played a part in establishing the NIH, but more so, in helping over the ensuing years, to see that their missions were adequately funded. That confidence in their professional ability that faith, was shared by others in Congress, including the Secretary. If I could be there at the ceremony, I would counsel those at the NIH not to become overly concerned about fiscal cutbacks of the moment or budgetary politics. The missions of NIH are far too important to be ignored, or short-

changed, for more than a fleeting moment."

There was a luncheon following the dedication in the Visitors Center area of the ACRF, as well as a tour given of the new glass-enclosed facility incorporating the latest features in architectural design and biomedical delivery systems and equipment.

"This is not the first dedication to be held at NIH," noted Dr. Thomas E. Malone, NIH Acting Director, who moderated the dedication ceremony. The auditorium then went dark and a photograph of President Franklin Delano Roosevelt at the dedication of the National Institute of Health on October 31, 1940 appeared on the large screen.

A tape recording of the event was provided by the Roosevelt Library in Hyde Park, N.Y. In his 1940 remarks, President Roosevelt thanked the generous donation of land made by the Wilson family that permitted NIH to be built. He mentioned that nowhere else in the world except at NIH, regardless of a person's race, creed or color, could all people be treated. "The NIH speaks the universal language of humanitarianism."

President Roosevelt, a victim of polio himself, expressed the wish that NIH would come to symbolize "... our hope and prayer for faith in the power of man's humanity to man." □

### Columbia-Bethesda Commuter Bus Welcomes New Riders

The Columbia, Md./Route 29-to-NIH/Bethesda Commuter Bus has room for new riders! This bus, which makes several stops, arrives at NIH at about 8:15 a.m. and departs at 5 p.m. The bus also stops at the Federal and Landow buildings.

For details on the schedule and fares, contact Ann Dieffenbach, 496-1752. □

# Viral Hepatitis, Medicines Discussed During Two October MFL Lectures

## VIRAL HEPATITIS

The ABC's of Viral Hepatitis, the fourth lecture in the Medicine for the Layman series, was presented Oct. 13 by Dr. Jay H. Hoofnagle, senior investigator, Section on Diseases of the Liver, Digestive Diseases Branch, NIADDK.

He explained that viral hepatitis, an inflammation of the liver, is actually three distinct diseases: type A, which is infectious and often caused by unsanitary conditions; type B, a serum disease caused by blood transfusion, contaminated needle puncture, or intimate contact; and type non A/non B, an unidentified virus that is neither type A nor type B.

About 90 percent of those who contract viral hepatitis recover completely. However, another 5 to 10 percent suffer chronic infection that can lead to more serious diseases such as cirrhosis and liver cancer. Up to 3 percent of those who contract the disease die.

Symptoms of the disease include nausea, vague abdominal pain, loss of appetite, fever, headache, muscle and joint pain, and hives. In later stages, many patients experience jaundice and dark urine.

Type A hepatitis is transmitted by poor hygiene and unsanitary conditions. It is very common in developing nations. In the U.S. most cases are traced to food establishments, day-care centers, or shellfish from contaminated waters.

The virus was discovered by Dr. Steve Feinstone, an NIH scientist. While a vaccine has not yet been developed, immune gamma globulin can protect people from the disease for 2 to 3 months.

Although hepatitis B has not yet been grown in culture, as has type A, more is known about it. It was discovered by Dr. Baruch Blumberg, an NIH scientist who was studying proteins in the blood of people from various populations. He found an antigen in an Australian aborigine not present in normal blood. Five years later, the relationship between the Australian antigen and the presence of hepatitis virus was found.

Hepatitis B antigen stays in the blood for years, sometimes for life, and the disease can be chronic. It causes cirrhosis and in some areas of the world, is the major cause of liver cancer. It is transmitted by skin breaks, blood transfusions, sexual contact, or maternal/infant transmission, probably at birth. Tests for the presence of hepatitis B antigen in the blood, developed at NIH and elsewhere, have almost completely eliminated the risk of type B hepatitis following transfusion.

A vaccine has been developed and will be available in the near future.

Neither antibodies nor antigens have been discovered for type non A/non B hepatitis. While extensive research is being conducted at NIH and elsewhere, the viral nature of the disease has not been shown. □

## MEDICINES

"I took it and I got well." Galen, a Greek physician who ministered to Roman emperors in the 2nd century A.D., held that if someone took a drug and recovered, the drug worked. If they died, they were incurable to begin with.

According to Dr. J. Richard Crout, director, Bureau of Drugs, Food and Drug Administration, and lecturer Oct. 6 in the Medicine for the Layman series, Galen's assumptions both dominated and misled medicine for centuries.

In his lecture *Medicine: What You Should Know*, Dr. Crout outlined the history of medicines, where they come from, how they work, why they are tested before marketing, and what you should know when you take them.

Today's \$20 billion drug industry began with the use of herbs, plant extracts, and animal substances such as dried hare blood and turtle oil for treating physical ailments. Although some of these remedies had only mystical medicinal value, some were later identified as the source of drugs used today such as morphine, digitalis, and quinine.

What is remarkable about drugs, said Dr. Crout, is that they can be distributed throughout the body, affecting different organs in different ways. Some, like thyroid medications, are concentrated in particular organs.

More commonly drugs affect specific receptors on the cell surface. Binding of drugs to cell receptors may trigger a response in the cell—or may block another substance from binding with the receptors.

Drugs may inhibit specific enzymes. For instance, antibiotics affect enzymes that are crucial to the survival of bacteria but not the human host, so that the infection is controlled without harm to the person receiving the drug.

The specificity of drug action is unfortunately not absolute, he said. Side effects can occur, mostly dependent on drug dose and controllable by dose reduction.

Rare but severe side effects, unrelated to the major pharmacological effects of the drug and independent of dose can also occur. These include anaphylaxis from penicillin and thromboembolism from oral contraceptives. The only way to avoid these effects is to abstain from the drug.

Age, health, and heredity of the individual taking a drug can affect the speed by which the drug is absorbed and metabolized. Absorption of some drugs is affected by the presence of other drugs or food in the stomach.

These factors must be considered when a physician plans an individual's dosage schedule. A drug needs to be at a high enough blood concentration to be therapeutic, but low enough to minimize side effects. Generally, a person must take the drug repeatedly for the blood concentration to build to a level of effectiveness; repeated doses at regular intervals will

maintain this blood concentration for as long as necessary.

In the future, there will be increasing emphasis on individually tailoring drug dosage by measuring drug blood levels, Dr. Crout said. Specialized delivery systems such as the Ocusert, which fits under the eyelid to release glaucoma drugs, will in some cases replace pills, eyedrops, and injections.

Recombinant DNA techniques promise to have enormous impact on the production of certain drugs. New types of drugs, such as those that modulate the immune system, and antiviral drugs are on the horizon.

Finally, the importance of education for both physicians and patients on drug usage will be increasingly emphasized, particularly information to aid patients in making decisions about the drugs they take. □

## Operating Room Nurses Have Their Day on Nov. 14

The third annual observance of Operating Room Nurse Day will be held at NIH on Saturday, Nov. 14, it was announced by the Association of Operating Room Nurses. This day was instituted to educate the public in the role of the operating room nurse and to highlight efforts to reintroduce this specialty into the nursing curriculum.

Operating room nurses are involved in patients' preoperative, operative and post-operative care, and serve as patient advocates during these periods.

OR nurses handle a wide variety of complex instruments, equipment, and medical machines. Nursing care is administered during stressful periods where quick, accurate decisions must be made. The role of the OR nurse has changed over the years, and this had influenced the changing perception of the nurses' role.

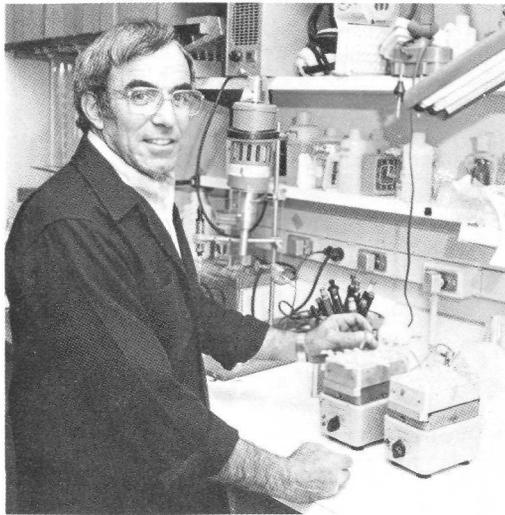
The Clinical Center operating room nurses represent these kinds of professionals. Take time out on Nov. 14 to remember them and the work they are doing. □



NIH preschoolers celebrated Halloween by making costumes for their party on Friday, Oct. 30. From l to r are Sarah Martin, Elicia Berman, Kristina Stannard, Christopher Kraft and Roey Rivnay. Back row: Jeanni Galloway (teacher) and Astrid Sharkus.

# SEESAW

(Continued from Page 1)



Dr. Klein uses the pineal gland as a model for studying the conversion of neural signals into chemical information.

sponse to a neurotransmitter is not constant, and thus the responsiveness of a cell to a neural signal varies. Scientists discovered 20 years ago that many cells build up a tolerance to stimulation by neurotransmitters or hormones. The more stimulation a cell receives, the less it responds. This phenomenon, called desensitization, is common for most neural and hormonal stimulus-response systems. Similarly, the response to a stimulus is heightened after prolonged periods without stimulation.

The NICHD researchers have discovered

## Growth Disorders Next Medicine for Layman Topic

Growth Disorders in Children will be discussed during the next segment of the popular Medicine for the Layman series, Nov. 10.

Dr. Barry Bercu, a pediatric endocrinologist for the National Institute of Child Health and Human Development, will discuss disorders from the perspective of what parents and pediatricians should be looking for as children develop. Some growth disorders are treatable, and children with them should be identified early. He will explain some exciting research being done on the endocrine deficiencies that cause growth disorders.

Dr. Stanley Rapoport, chief, Laboratory of Neurophysiology, National Institute on Aging, will explain the concept of aging at the last Medicine for the Layman lecture, Nov. 17. He will focus on the brain in aging and dementia, exploring both the normal aging process and aberrations that impair function, such as impeded blood flow and Alzheimer's dementia.

Dr. Rapoport will describe new techniques to measure brain blood flow and metabolism in man, which aid in diagnosis, and will discuss current research directions.

The Medicine for the Layman lectures are held in the CC's Masur Auditorium on Tuesday evenings at 8 p.m. □

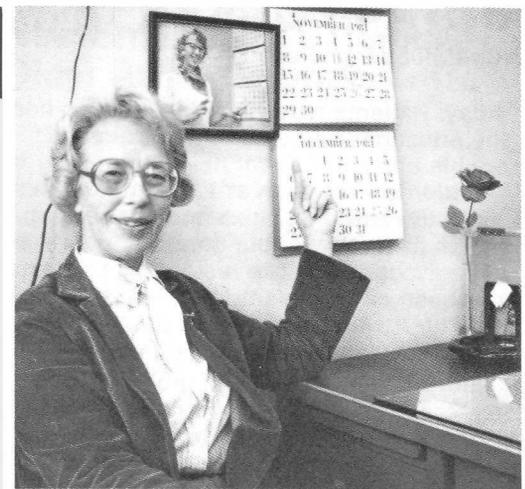
that an opposite phenomenon, sensitization, is also at work in neural cells. In studies on the pineal gland, they found that the controlling neurotransmitter of the gland, norepinephrine, stimulates the production in pineal cells of both cAMP and another second messenger, cyclic guanosine monophosphate (cGMP).

It is known that stimulation of cAMP production by norepinephrine exhibits desensitization. Dr. Klein and his colleagues found that stimulation of cGMP production by the same neurotransmitter exhibits the opposite effect. The more stimulation a pineal cell receives, the more cGMP it produces. Likewise, the cGMP responses to a stimulus decrease after prolonged periods without stimulation. They believe this is the first discovery of sensitization involving a second messenger.

In the same cell, therefore, the history of neural stimulation can increase the responsiveness of one second messenger and decrease the responsiveness of another to subsequent neural stimulation.

Although seesaw signal processing has been identified only in the pineal gland, Dr. Klein suspects it occurs throughout the brain and endocrine system. The reciprocal nature of seesaw signal processing is important, he says, because it allows a cell to switch emphasis from production of one compound to production of another through a change in the pattern of neural stimulation, rather than in the neurotransmitter.

Dr. Klein and his coworkers, Dr. David Auerbach and Joan Weller, reported their findings in the July 1981 issue of the *Proceedings of the National Academy of Sciences*. □



Marion A. Phinney, information specialist, Office of Communications, OD, does a double-take as she points to the calendar indicating a special date. She is retiring to Florida Nov. 20 after 21 years of government service. Instead of a retirement party, Mrs. Phinney has suggested that contributions be made to the Patient Emergency Fund in her name—she will match donations up to \$500. Mrs. Phinney is hoping that her unique and generous suggestion will start a trend with retirees.

## Science Writers' Seminar Will Feature Antibodies

A Science Writers' Seminar on Hybridomas and Monoclonal Antibodies: Technology of the 1980's will be held Nov. 18, from 1:30 to 4 p.m., at the Cluster Conf. Rm., Lister Hill Biomedical Communications Center.

Dr. Jay Berzofsky, a senior investigator in the Metabolism Branch, National Cancer Institute, will present a basic introduction to the production and use of hybridoma monoclonal antibodies. He will also discuss their use in studying the structure of antigens.

Antibody diversification mechanisms and monoclonal antibodies is the topic of a talk by Dr. Michael Potter, chief of NCI's Immunochemistry Section, Laboratory of Cell Biology.

Dr. David H. Sachs, chief, Transplantation Biology Section, Immunology Branch, NCI, will discuss monoclonal antibodies to major histocompatibility antigens and their possible therapeutic uses.

The diagnostic and therapeutic implications of the use of monoclonal antibodies in clinical medicine will be explored by Dr. Anthony S. Fauci, chief of the Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases.

Dr. John D. Minna, chief, NCI-Navy Medical Oncology Branch, will discuss the production and use of monoclonal antibodies against human lung cancer cells.

Science Writers' Seminars, sponsored by the intramural scientists of NIH and the Division of Public Information, OD, are designed to provide members of the press with background information on the various areas of research conducted by NIH.

Due to space limitations, members of the working press will receive preferential seating. Others who wish to attend should register with Bobbi Bennett, 496-1766. □



## MEDLINE Is 10 Years Old

This month is the 10th operating year for MEDLINE (MEDLARS Online) system of the National Library of Medicine.

MEDLINE, offered to the biomedical community in October 1971, was the first nationally available, local-call, online computer retrieval system. The original MEDLINE file contained citations to more than 130,000 articles in the medical literature. Today, MEDLINE and its older backfiles contain over 3.5 million citations dating from 1966 to the present.

More than 20 other data bases have been added to MEDLARS during the last 10 years. The data bases include files providing MEDLINE coverage for chemistry, toxicology, bioethics, cancer, history of medicine, biomedical audiovisuals, and health planning and administration. □

# BETA-BLOCKER

(Continued from Page 1)

a day. Patients receiving placebo also had their dosages adjusted to maintain the double blind.

Patients were seen at 1 month, 6 weeks, 3 months and then subsequently at 3-month intervals. By the time of the unequivocally positive results, all patients had been on treatment for at least 12 months; on the average, patients had received 24 months of therapy.

Mortality in the placebo group was 9.5 percent, while in the propranolol-treated group, it was 7 percent. This corresponds to a reduction in mortality of 26 percent. Life table analysis showed that a favorable response became apparent almost immediately and most of the difference in mortality between the two groups occurred in the initial 12 to 18 months of treatment; however, the difference persisted throughout the study.

The favorable effect of the beta-blocker was present in each subgroup studied independent of age, sex, race, part of the heart involved and the apparent severity of the heart attack.

"The Beta-Blocker Heart Attack Trial shows that in survivors of a heart attack, beta-blockers—specifically in this case propranolol—yield a statistically and medically significant reduction in mortality," observed Dr. Peter L. Frommer, Acting NHLBI Director, at a press conference announcing the results of the clinical trial.

He was joined by Drs. Sidney Goldstein, chairman of the BHAT steering committee, and division head, cardiovascular medicine, Henry Ford Hospital, Detroit; Curt Furberg, BHAT project officer and chief, Clinical Trials Branch, DHVD, NHLBI; and William T. Friedewald, associate director for clinical applications and prevention, DHVD, NHLBI.

## Stuttering: Hope Through Research

The perplexing nature of stuttering and recently developed techniques to help overcome this disorder are explained in a new National Institute of Neurological and Communicative Disorders and Stroke pamphlet, *Stuttering: Hope Through Research*.

About 1 million Americans suffer the embarrassment and anxiety of stuttering. The tendency of stutterers to repeat sounds, draw out vowels and stop talking mid-sentence creates a frustrating world of instant replay that hinders communication.

Stuttering usually begins between 4 and 6 years of age and affects boys four times as frequently as girls. The new pamphlet identifies several warning signs of stuttering in children, such as a rise in pitch as the child draws out a syllable.

Although the symptoms of stuttering are easy to identify, the cause of this disorder is still unknown. All stutterers can speak fluently some of the time, so the problem is not in the mouth or throat. Neither is

Each year, there are 1,250,000 heart attacks in the U.S., and it includes about 650,000 deaths. Deaths from heart attacks or ischemic heart disease accounts for about 31 percent of the deaths in the U.S. and ischemic heart disease is a leading cause of death in men beginning at age 40. Over 350,000 Americans who have just had a heart attack are discharged from hospitals annually.

Based upon this recent trial, researchers estimate that over "two-thirds of these—and probably three-fourths—could immediately benefit from beta-blocker therapy," noted Dr. Friedewald.

At the news conference, other studies involving beta-blocking drugs following myocardial infarction were discussed. In Norway, a study of timolol involving approximately 1,900 patients who had survived a heart attack and who were followed for approximately 17 months showed very similar results.

In Sweden, a study of metoprolol involving about 1,400 patients who were treated immediately from the onset of myocardial infarction for 90 days also showed positive results.

Both of these studies have been reported within the past 6 months; earlier studies had shown negative or equivocal results. Beta-blockers available on prescription in the U.S. include propranolol, metoprolol, nadolol and atenolol.

Dr. Frommer told the audience that researchers will be discussing further the results of the propranolol trial and other beta-blocker studies. Such questions will be addressed as: would the patients who had had their most recent heart attack months or perhaps even years ago, benefit from starting therapy and at what point can treatment be discontinued?

A succinct report of the BHAT results in being published in the Nov. 6 issue of *Journal of the American Medical Association* and a more detailed account will be published at a later date. □

stuttering associated with any measurable brain abnormality, nor is it related to intelligence.

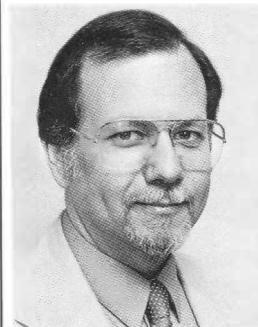
Some scientists believe stuttering is related to problems in controlling the muscles of speech. Others believe that a combination of environmental and genetic factors predispose an individual to stutter. Whatever the cause, 80 percent of children with a stuttering problem can speak normally by the time they become adults—whether they have had therapy or not.

NINCDS-supported studies to identify the cause of stuttering are described in the new pamphlet, as are therapeutic techniques such as biofeedback and larynx control.

Single copies of *Stuttering: Hope Through Research* can be obtained from the Office of Scientific and Health Reports, NINCDS, Bldg. 31, Rm. 8A-06, Bethesda, Md. 20205; telephone, 496-5751. □

## Dr. Norman A. Krasnegor New NICHD Branch Chief

Dr. Norman A. Krasnegor was recently appointed chief of the Human Learning and Behavior Branch of the Center for Research for Mothers and Children, NICHD.



Dr. Krasnegor

Prior to his appointment he worked for the NICHD as a health scientist administrator directing the extramural research program on developmental behavior biology.

In August of this year Dr. Krasnegor received a distinguished service

award from the American Psychological Association for his contributions to the advancement of behavioral pharmacology.

He was also elected to the Collegium of Distinguished Alumni of Boston University in May 1981 for his outstanding contributions to the fields of physiological psychology, neurobiology, and behavioral pharmacology.

Before coming to the NICHD in 1980, Dr. Krasnegor spent a year in Israel conducting a research project on compliance among methadone maintenance patients. From 1972 to 1979, he was a research psychologist at the National Institute on Drug Abuse, where he managed the Institute's Behavioral research program. He worked as an intramural scientist at the Walter Reed Army Institute from 1966 to 1972.

He has authored more than 60 scientific publications and has also served as an editorial consultant for a number of scientific journals. He is currently on the editorial board of *Behavioral Medicine Abstracts*.

As chief of HLB, Dr. Krasnegor will have primary responsibility for administering the NICHD's research programs on behavioral development from infancy to early adulthood. The program encompasses learning and cognitive development, development of communicative abilities, biological bases of behavioral development, affective development, and health-related behaviors. □

## With a Little Bit of Luck . . .

You can travel with R&W once again to Atlantic City's Playboy Hotel and Casino on Nov. 20. Price per person is \$22 and includes motor coach transportation, four complimentary drinks and \$10 in quarters. (Full payment is due at time of booking; no refunds.)

Buses will depart at 8 a.m. sharp from Bldg. 31C and leave Atlantic City at 6 p.m. to return.

Make reservations at the R&W Activities Desk in Bldg. 31, Rm. 1A-18. □

## Ten NCI Employees Presented Awards



NCI awardees pictured from l to r (back row) are: Dr. Hoth, Dr. Kraybill, Mr. Husted, Mr. Kochevar, Mr. Hartinger, and Dr. Phillips. Front row (l to r): Dr. Wolpert-DeFillippes, Mr. Dock, Ms. Wagner, Dr. DeVita, Ms. LaCharity.

Ten National Cancer Institute employees were presented merit and special awards from NCI Director Dr. Vincent T. DeVita, Jr., during a recent ceremony at the Fogarty International Center.

Marianne Wagner, chief, Personnel Management Branch, was recognized for launching a program to increase the number of female and minority employees at NCI.

John Hartinger, chief, Financial Management Branch, enabled his staff to reformat budget information for diverse groups by introducing computers into the budget office.

Dr. Daniel Hoth, chief, Investigational Drug Branch, received an award for implementing a nationwide system to deliver THC, a synthetic marijuana derivative, to cancer chemotherapy patients suffering from severe nausea and vomiting.

Mark Kochevar, administrative officer of the Clinical Oncology Program, was recognized for streamlining reimbursement for travel expenses of Clinical Center patients from outside the Washington area, and for advancing the construction of new facilities for radiation therapy and ambulatory care.

Dr. Mary Wolpert-DeFillippes, deputy chief, Drug Evaluation Branch, developed a

method for evaluating a promising *in vitro* assay that screens compounds using tissue cultures derived from human tumors, rather than laboratory animals.

Dr. Herman Kraybill, scientific coordinator for environmental cancer, organized an interagency collaborative group and numerous projects on environmental carcinogenesis.

Alexander Dock, team leader in the Surgical Pathology and Postmortem Section of the Laboratory of Pathology, received a merit award for his 19 years of continued service in coordinating the collection of tissue samples for laboratory research.

Mercedes LaCharity received a special length-of-service award for 40 years of service, the last 25 as an editor of the *Journal of the National Cancer Institute*.

Harley Husted, acting chief, Administrative Services Branch, received special recognition for his branch reorganization plan encompassing environmental services for NCI offices and laboratories.

Dr. Leo Phillips, microbiologist, Laboratory of Viral Carcinogenesis located at the Frederick Cancer Research Facility, received a special commendation for suggesting a more economical procedure for purchasing radioactive isotopes for laboratory use. □

### Career Booklet Available

The popular health careers booklet, *200 Ways to Put Your Talents to Work in the Health Field*, was recently published in an updated version by the National Health Council.

The 1981 edition, printed in a handy 4" x 9" pocket-size format, provides answers to many questions frequently asked by persons interested in pursuing a variety of health careers: What kind of jobs are available? What about salaries? How should I select a school for training?

Single, free copies of the booklet are available by writing: National Health Council, Dept. 200, 70 West 40th St., New York, N.Y. 10018. □

### 'Oh, My Aching Back!'

Preventing low back pain is the subject of a program presented by the Division of Safety, the Occupational Medical Service, and the Clinical Center Rehabilitation Department. A film entitled *A New Way to Lift* will be shown.

Andrew Novick will discuss how to stand, sit and bend to prevent back problems.

The program will be presented at 11:30 a.m. and 12:15 p.m. at the following locations: Tuesday, Nov. 10, Westwood Conf. Rm. D; Thursday, Nov. 12, Bldg. 10, Masur Auditorium; Friday, Nov. 13, Bldg. 1, Wilson Hall; and Tuesday, Nov. 17, Federal Bldg., Rm. B119.

Also, Thursday, Nov. 19, at 8:30 a.m. and 12:30 p.m., in Bldg. 13, Rm. G313. □

## NIA, Smithsonian Produce Older Artist Calendar

The National Museum of American Art of the Smithsonian Institution, in conjunction with the National Institute on Aging, has produced a full-color 1982 wall calendar, *The Seasoned Eye*. It features paintings created by older (60 and over) American artists.

Older artists have often astounded observers with their ability to work in a fresh and stimulating manner until the end of their lives. "Beauty and genius are ageless," according to NIA Director Dr. Robert N. Butler.

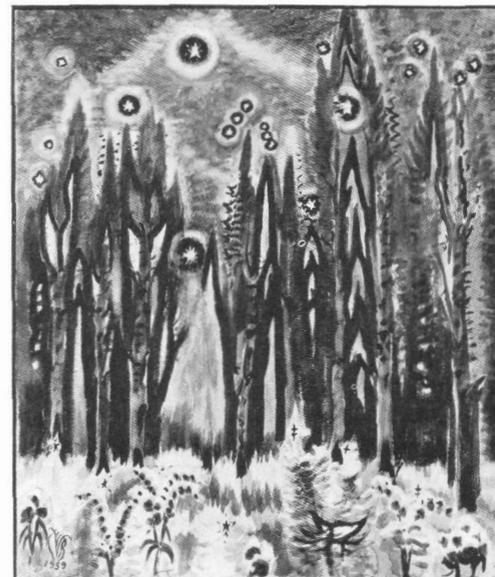
In a brief introduction to the calendar, former museum director, Joshua Taylor, noted that "the 'late style' of artists . . . is usually assumed to present a mellowed, ruminative view of the world. In reality, older painters exhibit an extraordinary range of styles."

According to Dr. Taylor, "a fresh and inquiring art is no less characteristic of older painters than a soft style and a contemplative vision."

The calendar grew from a suggestion by NIA to the Smithsonian that they honor mature artists and their paintings. Dr. Taylor was enthusiastic about the idea and personally chose the works to be included before his death last spring.

Artists represented in the calendar are: Alma Thomas, Gilbert Stuart, George Inness, Raphael Soyer, Georgia O'Keeffe, Peter Blume, Isabel Bishop, Charles Burchfield, Adolph Gottlieb, Benjamin West, Childe Hassam, and Maria Oakey Dewing. A variety of historical periods and artistic styles is included.

The calendar (Universe Press) costs \$6.95 and is available at Smithsonian Institution bookstores. It is listed in their catalogue at \$6.25 (plus \$1.25 for mailing) for Smithsonian associates. The *Seasoned Eye* will serve as a year-long reminder that creativity extends throughout life.



The watercolor *Orion in December* by Charles Burchfield (1893-1967) is one of the works included in the calendar. This painting hangs today in the National Museum of American Art in Washington, D.C.

## CENTERS

(Continued from Page 1)

"Since their inception, these unique facilities have achieved several major goals, including the optimum use of man's closest animal counterpart in preclinical research on the most complex human health problems, adaptation of the primate to the laboratory environment, and achieving near self-sufficiency in domestic production of primates," Dr. Gay said.

Each center has a primary research focus and is affiliated with a host academic institution. In recent years, the research emphases of the seven centers have been as follows:

- At the Oregon Regional Primate Research Center in Beaverton, affiliated with the Oregon Health Sciences University, the major research orientation is in reproductive biology. Other interests include cardiovascular and metabolic research, immunology, cutaneous biology, biochemistry, nutrition, and behavior.

- The Regional Primate Research Center at the University of Washington, Seattle, emphasizes developmental biology, neurological sciences, cardiovascular function, disease models, endocrinology and metabolism, and craniofacial structures and functions.

- At Harvard University's New England Regional Primate Research Center, Southborough, Mass., investigation of diseases of primates relevant to the health of man includes studies of infectious diseases, viral oncology, nutrition, behavior, and neurophysiology.

- At Emory University in Atlanta, Ga., the Yerkes Regional Primate Research Center carries out investigations in neural, behavioral, and experimental pathology research with emphasis on neoplastic and degenerative diseases.

- At the University of Wisconsin, Madison, the Wisconsin Regional Primate Research Center has established a major research focus on interactions among hormones, social environment and the brain, and how these factors influence reproductive functions in nonhuman primates. Cooperative studies have been developed by core scientists in such fields as behavioral, endocrinology, reproductive physiology, neuroendocrinology, and gonadotropic physiology.

- Research at Tulane University's Delta Regional Primate Research Center in Covington, La., concentrates on the microbiology of infectious diseases, biochemistry of genetic disorders, and neurobiology.

- The California Primate Research Center at Davis, a part of the University of California-Davis, studies the effects of environmental factors on nonhuman primates, perinatal biology and reproduction, respiratory diseases, infectious diseases and immunology, and behavioral biology. ■

Make yourself an honest man, and then you can be sure that there is one rascal less in the world.—*Thomas Carlyle* □

## NIH 'Old-Time Entertainment' Opens Nov. 13 at Masur

Over 30 actresses, actors, singers, dancers and musicians have rehearsed for 2 months on a gala NIH/R&W Theatre Group production, combining old-time melodrama and gay nineties musical numbers, to open at Masur Auditorium, Nov. 13.

Produced and directed by Sally Richardson, National Caries Program, NIDR, the show will be presented five times in November. Proceeds will be donated to the Patient Emergency Fund.

Among some 20 segments in the production will be a sing-along audience participation session, a barbershop quartette, a rendition of *The Face on the Barroom Floor*, a high-kicking per-

formance of the cancan, male and female solos, pantomimes, and a variety of unusual dramatic and song-and-dance mini-melodramas.

In addition, an added note of frivolity will be provided by the visit of Professor Silas Grantswinger, a modern villain attempting to secure an NIH grant for research on his snake oil concoction, "an elixir guaranteed to cure all ills."

Performances are scheduled for Nov. 13 and 14 at 8 p.m., Nov. 15 at 3 p.m., and Nov. 20 and 21 at 8 p.m. Tickets for all evening performances are \$4 each, and \$3 for the Sunday matinee. They may be secured at the Bldg. 31 R&W, Rm. 1A-18; at the Westwood R&W, Rm. 10; or at door. □

## High Blood Pressure Levels Being Redefined by Group

A working group of the National High Blood Pressure Coordinating Committee—which guides the High Blood Pressure Education Program of the National Heart, Lung, and Blood Institute—gave preliminary recommendations toward a new way of defining various levels of high blood pressure at their meeting, Oct. 23.

The move by NHLBI to redefine high blood pressure is based on an accumulation of new knowledge over the last decade, including data from clinical trials sponsored by the NHLBI, and on the perceived need to have "standard" definitions acceptable worldwide.

The subgroup agreed on changes in definition that would lower the numerical level of blood pressure considered to be significant in terms of risk of heart attack, stroke, and kidney disease. Previous definitions have considered a diastolic pressure up to 89 to be within the normal range.

The diastolic pressure, the pressure when the heart is at rest rather than pumping, is the lower figure of a blood pressure reading. A diastolic reading of 90-104 has been considered to indicate "mild" hypertension; 105-114 to indicate "moderate" hypertension; and greater than 115 to indicate "severe" hypertension.

The proposed new definition would place the cutoff for minimal risk at a diastolic of 80, based on scientific data showing that there is a doubling of risk in the range between 80 and 90, a range previously considered normal.

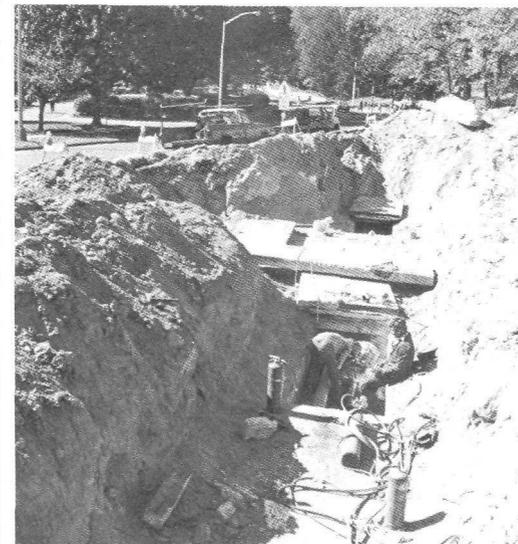
If the definitions of the subgroup were accepted widely, this would substantially enlarge the number of people who should be concerned about their blood pressure. A total of 35 million individuals already are considered under previous definitions to be in clear need of treatment.

The subgroup will continue to refine the wording of its recommendations to the larger committee. The final recommendations are expected to come before the program in early spring. □

## Pipe Replacement Requires Extensive Trenching on Campus

The recent appearance and disappearance of an open trench and two massive mounds of earth near the circular drive in front of Bldg. 31's A-wing may have caused many NIH employees to wonder.

Since the first week in October, excavation has been under way in order to replace the underground, corroded steam condensate pipe lines serving Bldg. 31 and Bldg. 6.



Welders begin the task of replacing the corroded steam pipes in front of Bldg. 31.

"The pipe segment had deteriorated and needed replacement," says Joseph Kuntz, construction representative, Construction and Engineering Branch, Division of Engineering Services.

The excavation has included removal of 10 feet of earth covering the 3-by-6 foot concrete tunnel that houses the steam lines which run along the front of Bldg. 31.

Construction workers and welders should complete the project before their 90-day contract expires. Plans for backfilling of the earth will be done as soon as a segment is completed. No disruption of normal work activities in either building has been reported. □

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