

"The Second
Best Thing
About Payday"

The NIH Record

Pays Tribute to Pratt

New Computer Exhibit Added To Stetten Museum

By Anne Barber

A new exhibit, "Computers in Medical Research," was recently added to the DeWitt Stetten Jr. Museum of Medical Research. The exhibit is located near the patient elevators on the first floor of the Bldg. 10 clinic. Opening ceremonies on Oct. 17 combined a symposium on computers in medical research with a tribute to Dr. Arnold W. "Scotty" Pratt, the first and only director of the Division of Computer Research and Technology since its origin in 1966 until Pratt's recent retirement this past June. Pratt was paid homage by many of his colleagues and friends at NIH.

"DCRT, in its very essence, is the house that Pratt built," said Dr. William F. Raub, NIH acting director. "It is tangible and durable. It was because of Scotty's foresight and commitment that DCRT moved ahead.

"Computers need to serve medicine, and medicine should serve people—that is what NIH and Scotty Pratt are all about," Raub stated.

(See **COMPUTERS**, Page 4)

Budget Cares Aside, NIH Launches Biggest CFC Drive Ever

The threat of furloughs and budget woes notwithstanding, NIH kicked off the 1990 Combined Federal Campaign with gusto on Oct. 17, aiming toward a record goal of \$730,000—\$100,000 and 13 percent more than last year.

"Caring, fun and community—that's what CFC is all about," said Dr. William Raub, NIH acting director, to a crowd that had gathered outside Bldg. 1 on a brilliant fall afternoon.

Conceding that "none of us is going to be a happy camper" if furloughs occur, Raub nonetheless exhorted NIH'ers to consider those who face immediate needs—the homeless, persons with AIDS, alcoholics and sufferers of chronic illness—in short, some of the populations that CFC targets for care.

"The pain (of possible salary cuts) pales in comparison with what these people face every day," he said.

Raub's remarks followed a 20-minute parade through Center Dr., the main campus thoroughfare, by two high school marching bands heralded by ranks of NIH police and fire vehicles, their sirens wailing.

As bystanders, including patients from the Clinical Center, gathered from nearby buildings, members of the Eastern High School Marching Band of Washington, D.C., put on

A Team Effort

Emergency Branch Prepares for All Contingencies

By Anne Barber

Building evacuations are often taken for granted, especially when employees know it is just a drill. It looks so easy; just file out one-by-one. "It is not that easy," says Richard E. Shaff, chief of the Division of Safety's Emergency Management Branch. "It involves a lot of planning and coordination. All responsible parties must know exactly how to get the employees, especially those with disabilities, out of the building as quickly and efficiently as possible."

The branch, created in November 1986, is involved in every aspect of emergency planning and response—beginning with the design of new buildings to combating the hazards that threaten their existence.

"Most of these functions existed in one form or another prior to forming the branch," says Shaff. "However, they were fragmented throughout the Division of Safety. The purpose of centralizing was to have one particular group that focuses on the delivery of all emergency planning, fire protection and emergency response efforts."

Ralph A. Stork, who makes evacuation drills seem so effortless, is the emergency

planning officer. He coordinates all NIH evacuation procedures, which include training and assisting the ICD occupant emergency coordinators and their staffs. He also serves as the liaison with DHHS and PHS in dealing with the effects of large scale disasters such as Hurricane Hugo in the Virgin Islands and Charleston, S.C. Stork coordinates the delivery of medical supplies and locates for PHS the appropriate expertise within NIH to act as consultants, advisors or responders to these disasters.

"With technology moving so rapidly and NIH's continued expansion, the knowledge and training required by our fire fighters to protect NIH employees and visitors must be continually updated," said Michael L. Spillane, assistant to the branch chief. "There are over 700,000 chemicals along with numerous biological agents and radioactive materials in use on campus and the fire fighters must be prepared to deal with any exigency that could arise. One of my duties is to develop and present training in hazardous

(See **EMERGENCY**, Page 8)

Restless Nights Are Common

Sleep Disorders Go Untreated, Says Commission

By Carolyn S. Shanoff

Medical practitioners and the public have miles to go before they understand disturbed sleep and biological rhythms, reports the newly formed National Commission on Sleep Disorders Research. The commission took testimony from nearly two dozen patient witnesses and medical experts at its first public hearing, held recently on Capitol Hill.

"The message of the witnesses was loud and clear," said Dr. Andrew A. Monjan, chief of the National Institute on Aging's Neurobiology of Aging Branch and commission executive secretary. "There is a lack of appropriate education among the public and the medical community about sleep disorders. The result is that many medical professionals and patients are unable to recognize disorders related to disruptive sleep. It's clear that there is a need to increase awareness of the role that sleep disorders play in everyday life."

Established in 1989 by DHHS Secretary Sullivan in response to a congressional mandate (P.L. 100-607), the commission is to

(See **SLEEP**, Page 2)



Dr. William Raub, NIH acting director, leads the applause for this year's Combined Federal Campaign, an effort whose goal is \$730,000 at NIH.

a particularly impressive, and percussive, show, pausing to dance in place at several points along the route. Clowns, antique cars, the Baltimore Orioles bird, and carloads of dignitaries filled out the parade ranks.

"Our friends at NIH have always responded when people were in need," said Ken Carney, NLM executive officer and this year's CFC coordinator for NIH. "The need for our help still exists and those needs must be met."

Noting ironically that Montgomery County, although the fifth richest county in the United States, has homelessness on its doorstep, Car-

(See **CFC**, Page 6)

SLEEP

(Continued from Page 1)

develop a national plan for studying and treating sleep disorders. The commission chairman is Dr. William C. Dement, director of the sleep disorders clinic and laboratory at Stanford University School of Medicine.

According to Monjan, large segments of the population have trouble sleeping at night and staying awake during the day. Other groups such as shift workers, long-distance drivers, and travelers with jet lag face poor productivity and accidents because of sleepiness and loss of alertness. Even American troops in the Persian Gulf are burdened by time zone changes that are interrupting normal sleep patterns. (Saudi Arabia is eight time zones away from the east coast of the United States).

In addition, pathological processes that produce poor health such as depression, narcolepsy, and apnea severely disrupt normal sleep patterns and result in insomnia or intractable sleepiness.

"The magnitude of these problems, in terms of the numbers of people affected and the costs to the individuals and the public in general, has not yet been established," Monjan said. "But the implications of disturbed sleep for the health of society are immense."

Monjan said that sleep problems of older people present particular opportunities and challenges for researchers. "According to some estimates, more than half the people over age 65 experience disruptions in their sleep."

According to Monjan, "Several factors may cause these disturbances, including retirement and other social changes, the death of a spouse or close friend, and the increased use of medicines for chronic illnesses."

"While changes in sleep patterns used to be viewed as part of normal aging," he added, "new information shows many of the problems are related to pathological processes associated with increasing age."

The commission has a 2-year mandate to assess the current state of diagnosis and treatment of sleep disorders in the United States and to recommend ways to improve access to care. As part of that process, members plan to focus on manpower needs and resources to diagnose and treat people with sleep disorders, as well as research initiatives including biological, physiological, behavioral, environmental, and social programs that can improve the management of sleep and related biological rhythm disorders. They also plan to increase public and professional education programs to heighten awareness and promote early detection of sleep disorders.

Commission members, who are appointed by Secretary Sullivan, include well-known sleep specialists from around the country. Among those representing NIH are Dr. Floyd Brinley Jr., NINDS, and Dr. James P. Kiley,



Scientists (starting fourth from l) Deborah Claman and Andrew A. Monjan of NIA, along with Dr. William C. Dement of Stanford University, listen to testimony at the first public hearing of the National Commission on Sleep Disorders Research, held recently on Capitol Hill. The commission will recommend to Congress the funding needed to improve research and care.

NHLBI, in addition to NIA's Monjan. Ex officio members represent NIA, NICHD, NHLBI, NIMH, NINDS, the Centers for Disease Control, the Department of Veterans Affairs, and the Department of Defense.

To continue to collect information from patients and health professionals, the commission plans to hold additional public hearings in other cities across the country. □

NIMH's Judd Returns to Academia

Psychiatrist Dr. Lewis L. Judd recently returned to the University of California, San Diego (UCSD) School of Medicine as chairman of the department of psychiatry after having served as director of the National Institute of Mental Health since 1988.

Although NIMH has a long history of distinguished directors drawn from public service and academia, Judd is the first active scientist to head the institute. Previously, he served for 10 years as professor and chairman of the psychiatry department at the UCSD School of Medicine, and as chief of the psychiatry service at UCSD Medical Center.

During Judd's tenure at NIMH, national research initiatives were implemented in three key areas: schizophrenia, neuroscience ("The Decade of the Brain"), and child and adolescent mental disorders. A fourth project, a research plan to improve the care of individuals with persistent and severe mental disorders, is in the final stages of development.

The budget for the NIMH increased under Judd's leadership as well, with the institute receiving two large increases in 1989 and 1990—the largest in its history.

Dr. Alan I. Leshner, NIMH deputy director, will serve as acting director of the institute while a search for a new director is conducted. □

Cultural Workshops Postponed

The Division of Equal Opportunity is still planning a workshop series on the various cultures and groups represented at NIH. Owing to budgetary uncertainty, however, the series, originally scheduled to begin in November, has been postponed until January.

The first workshop in the series will discuss Hispanic culture. Employees who have topics or questions to discuss may call Toni Pineau, 496-6301, or TTY 496-9755. □

The NIH Record

Published biweekly at Bethesda, Md., by the Editorial Operations Branch, Division of Public Information, for the information of employees of the National Institutes of Health, Department of Health and Human Services, and circulated to nonemployees by subscription only through the Government Printing Office. The content is reprintable without permission. Pictures may be available on request. Use of funds for printing this periodical has been approved by the director of the Office of Management and Budget through September 30, 1991.

NIH Record Office
Bldg. 31, Room 2B-03
Phone 496-2125
FAX 496-0019

Editor
Richard McManus

Assistant Editor
Anne Barber

Staff Writer
Carla Garnett

Editorial Assistant
Marilyn Berman

The NIH Record reserves the right to make corrections, changes, or deletions in submitted copy in conformity with the policies of the paper and HHS.

Staff Correspondents:
CC, Karen Riedel
DCRT, Anita S. Ferguson
DRG, Sue Meadows
FIC, Louise Williams
NCI, Patricia A. Newman
NCNR, Gerry Pollen
NCR, Polly Onderak
NEI, Linda Huss
NHLBI, June Wyman
NIA, Carolyn Shanoff
NIAID, Ann C. London
NIAMS, Barbara Weldon
NICHD, Carol Florance
NIDCD, Gail Blatt
NIDDK, Eileen Corrigan
NIDR, Mary Daum
NIEHS, Hugh J. Lee
NIGMS, Wanda Warddell
NINDS, Carol Rowan
NLM, Roger L. Gilkeson

Louis Kunkel To Give NIH Lecture on Dystrophin

By Lauren E.D. Ward

Duchenne muscular dystrophy (DMD) is devastating. About 15,000 American boys with this X-linked disorder suffer muscle degeneration that leaves them in wheelchairs by age 11. During the course of this disease, highly organized muscle fibers disintegrate, causing, among other things, the muscles that control breathing to fail. Most patients die in their thirties. Scientists now know that the muscles of affected boys lack dystrophin, a protein critical for muscle cell integrity. Dystrophin was first described just 3 years ago by Dr. Louis M. Kunkel, who will present an upcoming NIH Lecture entitled "Dystrophin Abnormalities in Neuromuscular Disease" on Nov. 14 at 3 p.m. in Masur Auditorium, Clinical Center.

Dystrophin is the product of the DMD gene. Since the early 1980's, scientists worldwide have searched for and studied the DMD gene using technologies of molecular genetics, some of which would be considered crude by 1990 standards. Because only boys are affected by DMD, scientists could determine that the X chromosome harbors the faulty gene. (Boys lack another X, which would have the normal, functional gene). By using specific markers, Kunkel and his colleagues traced the gene to the short arm of this chromosome. In 1986, he reported finding several regions of the DMD gene, called exons, along this portion of the chromosome. Each exon contains many nucleotides, or the individual units that make up the genetic material. His arduous efforts have helped reveal that the dystrophin gene is composed of 70 or more exons, making it a behemoth among genes. To find all the exons, the researchers searched a vast terrain of 2.4 million nucleotides. By 1987, Kunkel had reproduced, or cloned, the full gene and dubbed its product dystrophin for its important relationship to DMD.

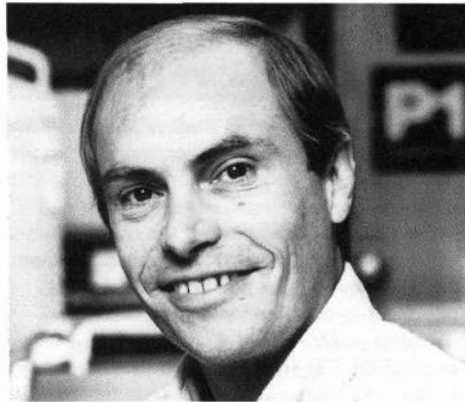
Studies of dystrophin by Kunkel and others have shown that the protein is found in minute but detectable quantities in muscle cells and in some cells of the nervous system. The protein sequence for dystrophin resembles those of other cytoskeletal proteins, molecules that form a latticework of supports inside the cell. Dystrophin is traceable to the plasma membrane, which envelops muscle fibers and which may control the intake of calcium essential for muscle contraction. The function of dystrophin is uncertain, but it may have several.

"Dystrophin is organized in a network that provides structural support, yet enables the cell to change shape," says Kunkel. He adds that it may have the additional role of anchoring other molecules in the membrane, possibly the protein channels that control calcium

intake.

Quantitative and qualitative changes in dystrophin may cause a number of muscular dystrophies, according to Kunkel. In DMD, dystrophin is absent. In a less severe disease, Becker's muscular dystrophy, an abnormal form of the protein is found in low concentrations.

Genetic counseling and clear diagnostic criteria for DMD and other muscular dystrophies are realities in large part as a result of Kunkel's efforts. Moreover, "the molecular



Dr. Louis Kunkel

genetic analysis of DMD has taken us from a state of ignorance to a point where rational therapies can be addressed," Kunkel says. Attempts at therapy can be assessed now because the defect—the absence of dystrophin production—can be easily assayed. Examples in point are the recent preliminary trials in which healthy immature muscle cells have been injected into muscles of patients with DMD. Researchers can measure the success of the transplant, in part, by seeing whether the new cells produce dystrophin.

The discovery of dystrophin is no less important for further studies of muscle biology. Future research in Kunkel's laboratory will focus on discovering which gene mutations produce flawed dystrophin and on how the function of dystrophin is affected by these mutations.

Kunkel is a professor of genetics in the department of pediatrics at Harvard Medical School. In 1971, he received a bachelor of arts from Gettysburg College. He received his Ph.D. from Johns Hopkins University in 1978. For 3 years, he has been an associate investigator of the Howard Hughes Medical Institute. He has published more than 80 articles and has received numerous awards, including the Passano Foundation Young Scientist Award and the Gairdner Foundation International Award. This year he was elected to the National Academy of Sciences. □

Intramural Genome Work Takes Off, How-To Workshop Planned Nov. 9

Most of the research funds from the National Center for Human Genome Research go to scientists in university and industry labs located around the country. Although it has no formal intramural research program, NCHGR is interested in having NIH intramural scientists participate in the human genome project. Opportunities to do so are available to all intramural scientists. This past fiscal year, NCHGR awards were made to three intramural scientists:

Dr. Berton Zbar, chief of NCI's Laboratory of Immunobiology, is identifying and characterizing genetic landmarks on human chromosome 3 and constructing a detailed linkage map of that chromosome. The more detailed the linkage map, the easier and faster it is to locate genes.

Dr. Jonathan Silver, in NIAID's Laboratory of Molecular Biology, is attempting to develop new ways to apply the polymerase chain reaction (PCR) to chromosome mapping and DNA sequencing.

Dr. Andreas Chrombach, chief of NICHD's section on macromolecular analysis, is developing new gel-based techniques for separating large DNA pieces and whole chromosomes, using chemical cross-linking of various separation media.

NCHGR is revising its program for intramural participation and will now accept applications three times a year on Feb. 1, June 1, and Oct. 1. Areas of interest include physical and genetic mapping of human chromosomes and of the genomes of selected model organisms; technology development in chromosome mapping and DNA sequencing; technology development in computer hardware and software to store, retrieve and analyze genome research data; and in the social and ethical implications of access to genetic information. Applications will be reviewed by the standing NCHGR review committee. Because of these and other changes in the program, interested researchers should contact NCHGR staff before applying.

NCHGR staff will conduct a workshop to discuss planned revisions in the program, research opportunities, and application procedures. The workshop will be held on Nov. 9, from 3 to 5 p.m. in the 11th floor solarium, Bldg. 10. For further information, contact Dr. Jane Peterson, 496-7531. □

NIAAA Seeks Volunteers

NIAAA seeks male volunteers between the ages of 20 and 60 who are in good health, on no medication and have no personal or family history of alcoholism. Call Dr. Tanya Alim 402-0708 for details. □

COMPUTERS*(Continued from Page 1)*

Pratt came to DCRT from the National Cancer Institute, which he joined in 1948 as head of the energy metabolism section in the Laboratory of Physiology. In 1948, computing did not exist, even as a punchcard operation. Pratt's research at NCI led him to investigate a number of biomedical research areas to which computers might be applied. He subsequently published several papers on computational analysis of ultraviolet absorption spectra and the use of computers in cancer chemotherapy.

At Pratt's retirement, 42 years later, biomedical research at NIH had made major strides and computers had become an integral part of biomedical programs and administrative procedures, with more than 5,000 personal workstations campus-wide and an \$800 million central computer facility.

Today, DCRT not only has primary responsibility for incorporating the power of modern computers into biomedical programs and administrative procedures for NIH, it also serves as a scientific and technological resource for other parts of the Public Health Service,

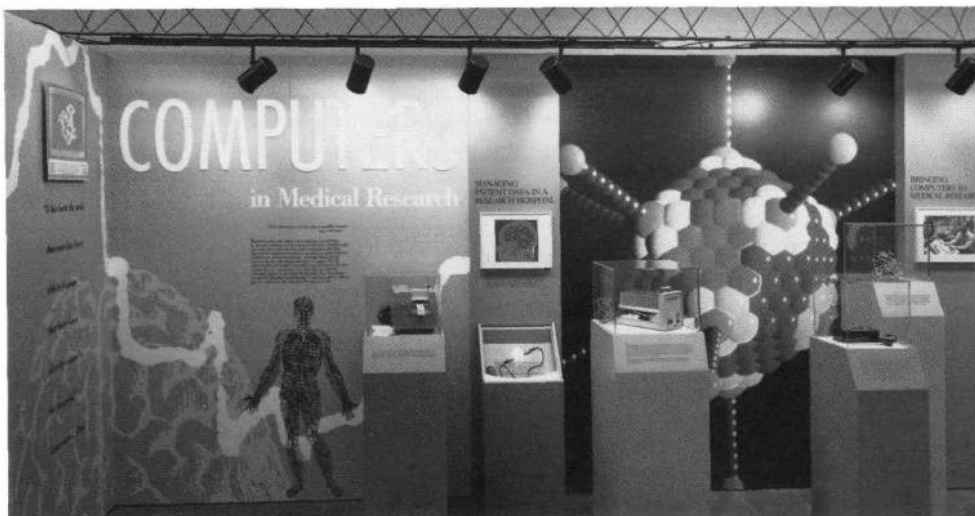


NIH historian and curator of the DeWitt Stetten Jr. Museum of Medical Research Dr. Victoria A. Harden (l) presents Dr. Arnold W. Pratt, director of the Division of Computer Research and Technology from August 1966 to June 1990, with a miniature copy of the poster displayed in the exhibit.

and for other federal components with biomedical and statistical computing needs.

Dr. William C. Mohler, deputy director of DCRT, remembers Scotty as a pioneer in the true sense of the word—he explored the use of new instruments along with computers. "He was also a developer," said Mohler. "He was told by Shannon (former NIH director Dr. James A.) to 'Go build a DCRT.' And that he did."

In his response, Pratt said, "The exhibit tells the story. There is much for all of us to be proud of. I'm so glad that I had a great staff there with me in the minimum security detention center that we call DCRT. Shannon believed the job of NIH was to conduct and



This exhibit, "Computers in Medical Research," is part of the DeWitt Stetten Jr. Museum of Medical Research, which collects and exhibits biomedical research instruments and other artifacts relating to NIH history.

Photos: Bill Branson, MAPB

sponsor research. And since there was no computer vendor that could provide what Shannon wanted, he said, 'You go and do this, and earn your way on a fee-for-service basis.'

Turning to Dr. David Rodbard, the newly appointed DCRT director who will assume his post Nov. 5, Pratt gave this message: "I leave you with some images to live up to, but I also leave you with one hell of a staff and you will need them."

Dr. Thomas Lewis, chief of the Clinical Center's information systems department, spoke on "Medical Informatics, Medical Care, and Medical Education." He stated that Scotty had been his mentor since 1971 when he joined NIH.

"When Scotty began, there were no experts in the computer field. Now they are becoming increasingly specialized, which is essential to NIH's environment. Scotty's theory—'Get rid of those punchcards and make information systems easy to use'—was good news to the CC, which is data intensive," continued Lewis. "With 17 floors and 6 miles of corridors, we really need information systems."

Dr. Daniel R. Masys, director of the Lister Hill National Center for Biomedical Communications, spoke on "Computing in the Future: Visualizing the Virtual Library." Stating that no cards have been added to NLM's catalogue division since 1980, Masys said, "And none will ever be added again. Everything is now done on microcomputers."

"This was all unforeseen 30 years ago. During the past 30 years we have seen computers woven intimately with patient care. Today, however, the game is changing. New science and new technology equal new opportunities." He said computational biology, which compares patterns of molecules, and the human genome project, with its long DNA

sequences, make this the era of images.

NLM is building a digital image library that would have a complete set of x-y-z numerical coordinates representing the internal and external structure of an entire human being at millimeter-level resolution. This "Visible Human" project would yield a computer data set of unprecedented detail and form the basis for a virtually unlimited number of image renderings of the human body. But, he states, "We have far to go to make it usable by our professional colleagues."

Masys closed with an old Chinese proverb: "Tell me and I will forget, show me and I may remember, involve me and I will understand."

Rodbard, following in Pratt's footsteps as the new DCRT director, said he considers himself very fortunate to have been working with Scotty in 1966 when computer use at NIH took off.

"However," he stated, "as exciting as it's been over the last 25 years, it will be equally or more exciting in the next 25."

Rodbard compared DCRT's future to riding two ocean waves at the same time, each accelerating with growth. One wave is the computer with its hardware and software, and the other is biomedical research. "We need to harness these two waves and make them into one."

In closing, Rodbard said, "I am looking forward to going onward from here. My hat's off to Scotty and the entire DCRT staff."

Dr. Victoria A. Harden, NIH historian and curator of the Stetten Museum, presented Pratt with a miniature copy of the poster used in the exhibit as a memento of the occasion.

After a standing ovation from the crowd, Pratt and his many friends and colleagues attended a reception held immediately follow-



Dr. Arnold W. "Scotty" Pratt

ing in Bldg. 10's Visitor Information Center.

The exhibit was produced by the Stetten Museum in collaboration with the NIH Division of Computer Research and Technology, the National Library of Medicine, and the Warren Grant Magnuson Clinical Center. □

Raub Approves Construction Plans, 'Mouse House' in Maine To Gain

Some \$14.8 million in awards for construction and remodeling projects at seven research institutions around the country were announced recently by NIH acting director Dr. William Raub.

The amount includes \$9.5 million for a facility at the Jackson Laboratory in Bar Harbor, Me., which breeds and provides special laboratory mice for many researchers.

A fire swept through the mouse breeding building at Jackson Laboratory on May 20, 1989, virtually destroying it and drastically reducing the nation's supply of research animals.

The facility has been a unique national resource for many years. It supplies inbred mouse strains and special mutants to a broad cross-section of medical investigators worldwide. The NIH grant, funded through NCI, will help restore the "mouse house" to full operation within 2 years.

Thirty-seven proposals, filtered through two special DRG review groups, competed for the \$14.8 million set aside for extramural construction by the NIH director.

Splitting the remaining funds, after Jackson Laboratory, were: the Doheny Eye Institute and the Norris Comprehensive Cancer Center, both at the University of Southern California; the University of Michigan; Purdue University; University of Iowa; and the University of Wisconsin Clinical Cancer Center. □

Hausman Named First NIAMS Deputy Director

Dr. Steven J. Hausman, deputy director of the NIAMS extramural program, has been appointed to the position of deputy director of the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

As the institute's first deputy director Hausman will coordinate activities related to the mission and function of NIAMS and assist in the execution of the policies of the director and in the allocation of resources to carry out these policies. In addition, he will provide leadership, both nationally and internationally, in the development of NIAMS programs.

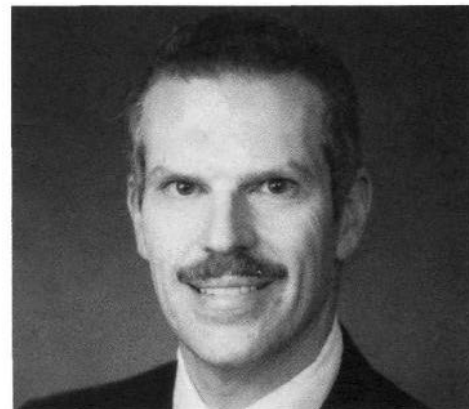
According to Dr. Lawrence E. Shulman, NIAMS director, "Dr. Hausman's impressive scientific credentials and long history of service to the institute make him eminently qualified for his new position. Over the years, his solid judgment and good advice have proven invaluable. He has a proven track record of effective leadership, significant program accomplishments and dedication to the overall goals of both the NIH and the institute."

Hausman has received numerous honors including an NIH Superior Performance Award and an NIH Director's Award "in recognition of extraordinary leadership, management abilities and conceptual skills in managing and developing the NIAMS extramural programs as deputy director."

He has also been recognized for his outstanding community service and received many awards. He is a member of a number of scientific societies including the American Association for the Advancement of Science, the American Association of Immunologists, the American Society for Cell Biology, the Transplantation Society, the Tissue Culture Association, and the American Chemical Society.

A native of Philadelphia, Hausman received his undergraduate degree from the University of Pennsylvania in 1967 and his Ph.D. in biology, specializing in immunogenetics, from the same university in 1972. From 1972 to 1975, he served as a postdoctoral associate at the Institute for Cancer Research in Philadelphia. From 1975 to 1977, he was an NIH staff fellow in the Laboratory of Cellular and Comparative Physiology at NIA's Gerontology Research Center in Baltimore. In 1977, Hausman joined what was then the National Institute of Arthritis, Metabolism, and Digestive Diseases as a special assistant to the associate director for arthritis, bone and skin diseases. In 1978, he became director of the Arthritis Centers Program and continued in that position until 1986. He was appointed deputy director of the NIAMS extramural program in 1986, the same year that the NIAMS was established as a separate institute.

"As the first deputy director of NIAMS, I



Dr. Steven J. Hausman

look forward to my new position with great enthusiasm," says Hausman. "During my years with the institute, I have seen it develop and flourish, and look forward to a great involvement with the research community, voluntary and professional organizations concerned with the institute and the NIH community as a whole."—Barbara A. Weldon □



Dr. Caroline Holloway has been appointed director of the Office of Science Policy, National Center for Research Resources. This newly organized office includes both extramural and intramural responsibility for program planning, analysis and evaluation; legislation, and science policy within the office of the director of NCRR. Holloway came to NIH as a grants associate in 1984, and has since served as head of the biological structure section of the Biomedical Research Technology Program of NCRR and executive secretary to the biomedical research technology review committee. Prior to this she was a visiting scientist at central research and development, E.I. DuPont de Nemours & Co. She has been on the STEP committee since 1988 and was appointed to the grants associates board in 1990. Holloway received her Ph.D. in biochemistry from Duke University in 1964.



Members of the Clinical Center nursing department walked together as a group during the CFC campus walk. They embody NIH's concern for those in need, said Raub.

CFC (Continued from Page 1)

ney said, "The feeling of brotherhood of man is still within each of us."

Kristin Oliver, CFC communications director, said she often brags about NIH generosity at meetings around the region. "I talk about your spirit at NIH and your creativity. You are miracle workers, both at your jobs and in your partnerships with CFC organizations."

Raub singled out the CC nurses, who marched as a group during the annual CFC campus walk, as exemplars of NIH's empathy.

"They embody the spirit of this year's campaign," he said. Referring to the nurses, Raub quoted "that great American philosopher, Joe Namath: 'If you've got it, flaunt it.'"

Following the addresses from the portico of Bldg. 1, the annual CFC 5-kilometer run began, started by Raub's pistol shot. Winning the race, sponsored by the Health's Angels Running Club, in 17:08 was NIAID's Andy Waters. The first woman to finish was Debra Shapiro in 23:02.

At a raffle held during lunch on the lawn in front of Bldg. 1, Geico Insurance Co. offered a cordless telephone, which was won by Rita DeSimone. Guest Services Inc., donated 250 free lunches to the high school bands that were on hand—Eastern, Thomas Wootton High School and Richard Montgomery High School, whose jazz band performed the National Anthem as the Armed Forces color guard passed in front of Bldg. 1.

NIH'ers are reminded that there are at least four organizations on campus that are eligible for CFC funds—the Children's Inn, Special Love Inc. (who put on Camp Fantastic each

summer for kids with cancer), Friends of the Clinical Center, and Childkind Inc., which runs an infant/toddler day care center on campus.

Employees who give a minimum donation of \$26 (a dollar per pay period) are eligible to win a raffle for a JVC TV/VCR entertainment center donated by the NIH Federal Credit Union or a round trip domestic flight for two from USAir. The flight offer is also open to CFC keyworkers.

The slogan for this fall's CFC is "Because You Care...Help Is There." Organizers are hoping that employees will respond with their customary generosity, despite the admittedly uncertain times.—Rich McManus



NICHD's George Gaines helped drum up support for the CFC raffle in his role as "Captain Pledge" on kickoff day.



Kenneth Carney (l), coordinator of NIH's Fall 1990 CFC, and Art Fried of the NIH Health's Angels Running Club, meet with Erica Yarbrough, a patient from Indianapolis on 9 West at the CC and this year's CFC poster child.

Photos: Ernie Branson, MAPB



Top finishers of the CFC 5K run pose with their trophies. They are, with their times (rear, from 1), Lorenz Braun (17:42), Pat Earl (25:02), Eric Long (19:53), Josephine Cox (23:40), Connie Love (26:30), Bob Brunner (18:25). At front are (from 1) Marylyn Westervelt (29:26), Linda Alms (23:22), race winner Andy Waters (17:08), first female finisher Debra Shapiro (23:02), and Louis Mocca (19:17).



If everyone at NIH gave the CFC campaign half as much energy as these members of the Eastern High School Marching Band, we would reach our dollar goal almost overnight.

Elizabeth Blackburn To Deliver Stetten Lecture

Life depends on orderly cell division. Every time a cell divides, its DNA must be replicated so that each daughter cell will possess the same genetic information. This DNA is contained in structures called chromosomes.

The cell uses enzymes to copy DNA prior to cell division. Because of the requirements these enzymes have for beginning their work, chromosomes need special ends, called telomeres, to keep them from shortening a bit each time they replicate. Telomeres make sure that precious genetic information is not lost during cell division.

Until recently, scientists have not understood how telomeres themselves replicate. During the past several years, Dr. Elizabeth Blackburn, an NIGMS grantee at the University of California, San Francisco, has made major contributions to the understanding of the structure and function of telomeres. In 1985, Blackburn and her colleagues identified an enzyme, which they call telomerase, that adds subunits of DNA to the ends of chromosomes. Subsequently, the scientists showed that telomerase is one of a fairly newly discovered class of enzymes in which the nucleic acid RNA is essential for catalytic activity. In more recent experiments, Blackburn has found evidence that telomeres may play a role in other aspects of cell division.

Blackburn will discuss her research at the DeWitt Stetten Jr. Lecture on Wednesday, Nov. 7. The lecture, "Synthesis of Telomeres," will be held in Masur Auditorium at 3:30 p.m.



Dr. Elizabeth Blackburn

Sponsored by NIGMS, the lecture honors Dr. DeWitt Stetten Jr., the third director of the institute. Stetten, who died Aug. 28, had a strong commitment to basic research, especially in the areas of genetics, cellular and molecular biology, and chemistry. □

NIH's Participate in Community Awareness Seminar in P.G. County

Several NIH authorities will be featured speakers at a 3-day health seminar to be conducted at Forestville High School in Prince George's County, Md.

Designed to promote community awareness and education, the seminar will focus on asthma, AIDS, sickle cell anemia and dental health.

Freddie Vaughns of Howard University Medical School will speak Nov. 15 from 7 to 9:30 p.m. on sickle cell disease. On Friday, Nov. 16, Dr. Lawrence Prograis Jr., chief of the Asthma and Allergy Branch, NIAID, will discuss asthma from 7 to 9:30 p.m. The closing session on Saturday, Nov. 17, will feature Dr. John W. Diggs, NIH deputy director for extramural research, who will discuss AIDS from 1 to 3 p.m. Preceding him from 10 a.m. to noon will be two dental health workers.

The seminar will feature poster displays; those interested in helping set up may call Daniel Jones or Angelo Nelson, (202) 275-4994, or (202) 832-5496.

The school is located at 7001 Beltz Dr. in Forestville; the program is sponsored by the youth department of Greater New St. Phillip's Pentecostal Church of District Heights, Md. □

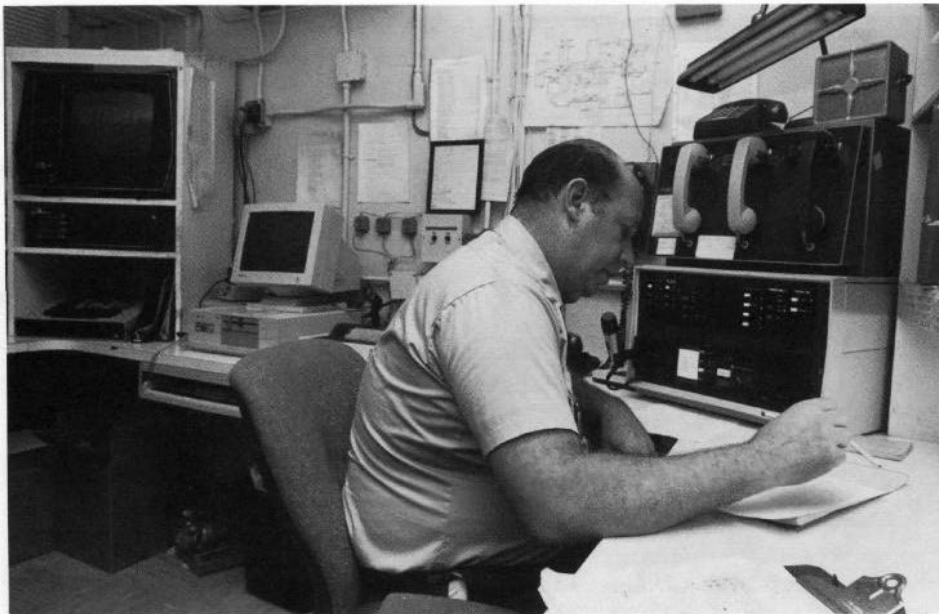
New NIH/ADAMHA Computerized Consultant File Developed

NIH and ADAMHA are in the process of establishing a new consultant file of peer reviewers/advisors. These consultants will be selected from a national pool of scientists who are engaged in basic or applied research.

Data from qualified respondents will be entered into a new computerized NIH/ADAMHA database. This unique database will be used as one source from which candidates for membership on NIH/ADAMHA committees and for other advisory activities are drawn. All qualified scientists are requested to participate; women and minority scientists are encouraged to apply.

A consultant file information form has been sent to every PHS grantee and to study section members. Other scientists who are interested in participating should respond by letter requesting a copy of the form.

Since establishment of the new file will be based solely on positive responses, your response is needed even if you are already a consultant or are a member of a PHS reviewer's reserve. This file is independent of other consultant files. Your request should be sent to: NIH/ADAMHA Consultant File, 4733 Bethesda Ave., Suite 725, Dept. 03, Bethesda, MD 20814. □



Communications officer Archie Tolbert works at the dispatcher station located in the firehouse. Recently, Tolbert won an award for his expertise in communications.

EMERGENCY

(Continued from Page 1)

materials procedures to ensure that our response to technological emergencies is maintained at a high level of competency.

"We are very conscientious when responding to an emergency," he continues. "And we have to be. We do not have the luxury of closing the Clinical Center down when there is a chemical spill in one of the labs."

Shaff explains, "NIH is like a small city. We have 15,000 residents, industrial areas, a hospital, high-rise buildings, childcare facilities on the premises plus 3,000 research laboratories, cyclotrons, chemical and radioactive waste facilities, and other high hazard



Fowler (l) and Enriquez practice sealing a gas cylinder after being suited properly.

areas. NIH's fire fighters respond to everything a typical city fire department handles plus a myriad of hazardous materials emergencies.

"Our fire fighters are extremely well-trained. On a daily basis, they manage many hazards the average fire fighter would never see in a lifetime."

William T. Magers Jr., chief of the fire and emergency response section, agrees wholeheartedly. With a staff of 18 people, divided into two platoons working 24-hour shifts, 365 days a year, Magers says, "We are always here."

His section handles all kinds of fires, along with chemical, biological and radiological emergencies, as well as the sick and injured. In fact, since Jan. 1, Magers' team has responded to more than 1,300 emergency calls, 300 of which were hazardous materials incidents.

To respond to the varied emergency calls, including chemical spills, the fire fighters designed a mobile command unit that carries a computer with a chemical database system. The computer generates material safety data sheets that list the physical data, exposure limits, toxicity, health effects, and first aid procedures for a specific chemical, and information on methods to clean up and dispose of the materials properly.

Also in the command unit is a cellular phone, radios and other reference materials including floor plans for all the buildings. The unit is outfitted with many of the same facilities available in the communications center at the fire station.

Says Magers, "It has everything we need for

any type of emergency."

"The fire fighters designed and built this mobile command center from a used van they got from the Transportation Branch," says Shaff proudly.

At the moment, a pick-up truck, outfitted to carry the special suits and equipment needed for use with hazardous materials, is used. "We have designed and ordered a new hazardous materials response vehicle which is a larger unit, nearly the size of our large engine. It will also carry a computer. We hope it will be here by March," says Magers.

"Our protective clothing is the best on the market," he adds proudly. "It costs over \$1,000 to adequately outfit each fire fighter." The suits vary by the type of hazardous material being handled. The fire fighters continually look for the safest and most appropriate emergency response equipment.

"Our fire fighters are pretty ingenious," Shaff continues to boast. "They also designed the only mini-pumper in the metro area that will fit in multi-level parking garages."

Magers elaborates: "When the ACRF (clinic side of CC) was built, we had a deficiency as far as responding to fires in the underground parking garage. We did extensive surveys of what equipment was out there, wrote our own specifications, and had it built. It does the same thing the large engine does except it will fit into garages. Since we have the only one in the area, we occasionally respond off-campus. The unit was delivered in 1982."



Putting on encapsulated suits, one of several different types calls, are assistant chief Cipriano Enriquez (l) and fire fig

The section also provides services to all construction sites, and twice had to use the sites' cranes to rescue workers. "Anything that occurs within the boundaries of the campus we respond to," Magers said.

"It's hard to utilize set procedures. Every situation is different," he continued. "The fire fighters here have more responsibility than city fire fighters because NIH is so diverse. Most cities have special teams for different emergencies—for example, hazardous materials. But here at NIH, every fire fighter has to know it all."

To handle this diversity, the fire fighters and their supervisors are constantly in training. All fire department staff attend a basic hazardous materials class offered by the Environmental Protection Agency and as many detailed, hands-on response training courses as they can fit into their schedules. They also utilize the University of Maryland and Montgomery College, which offer fire safety management classes, and the Montgomery County Public Services Training Academy.

Still, much of their training is done in-house. "With a research facility such as NIH," said Magers, "we cannot find the courses that we need because most courses are designed for industrial and transportation incidents. So we developed our own training classes to suit our unique needs.

"In fact," says Magers, "we have developed courses here in hazardous materials that will become part of a program to be certified by



Chris Mattingly performs an equipment check on the special utility truck used for hazardous material calls.

agencies such as the Occupational Safety and Health Administration. We have developed a program that far exceeds their requirements."

The fire and emergency response section also trains nurses, other patient care providers and housekeeping personnel in fire safety procedures and in the use of fire extinguishers. They have tutored some 1,000 nurses who are required to receive annual training. Each nursing unit also must have evacuation training every 3 months. With three shifts of nurses on each unit and each shift trained every 3 months, more than 300 individual sessions are provided annually in the Clinical Center alone.

Says Magers, "Everytime we respond, there is always a chance someone may get hurt. Luckily, we have never suffered serious injuries to our personnel. Training is the basis for personnel safety."

According to Shaff, NIH has excellent response times—3 to 4 minutes, night or day, to any on-campus location. "Our equipment is as good as you will find anywhere. We at NIH have a higher level of fire protection than most people have at their homes," he says.

Working closely with the fire fighters is the fire prevention section. Chief J.P. McCabe says, "We not only work closely with the fire fighters, we also work closely with the Division of Engineering Services' Design and Construction Branch. We want to make sure that all new construction plans and specifications meet the fire and safety codes."

This group follows construction of a new building from blueprint to the finishing touches to make sure the sprinkler systems, fire alarm systems, fire doors, fire walls and interior finishes are up to NIH's specifications.

"We review approximately 500 blueprints a year," states McCabe. This includes not only those for the campus, but all off-campus buildings as well. Fire protection inspectors

complete fire and safety inspections and identify problems requiring correction before a lease is signed and employees take occupancy. Paul Davis, a fire protection inspector for the section, works closely with the Division of Space Management to keep on top of this. Surveys and inspections of existing facilities are also conducted on a periodical basis.

McCabe says, "Whenever you see a construction crane, we are there. We check to see what materials being used or stored could possibly contribute to a fire in the building being built.

"We do a lot of construction quality control and site inspections," he added. Thorough site inspections will save the government money in the long run, he explains. Pre-construction meetings with the contractors are held and all

(Continued on Page 10)



...ent types of suit used in responding to hazardous material and fire fighter Matthew Fowler.



James Helfin of the fire prevention section checks out the fire extinguishers located around the Bldg. 49 construction site.

(Continued from Page 9)

DES project officers and team leaders are educated on a continuing basis to keep them up-to-date on the latest fire safety codes.

One of the major goals, Charles Barrett, a fire protection specialist and former NIH deputy fire chief, emphasizes, is to have complete automatic sprinkler protection for all NIH buildings. "It truly pays for itself," he says. "You can't put a dollar loss on research."

A sprinkler system master plan has been recently designed for Bldg. 10. McCabe would like to see similar projects for all the existing lab buildings; the buildings being renovated through the ongoing round robin process will all have sprinkler systems installed.

"We also assist the fire and emergency response section as technical fire investigators for any fires incurring over \$10,000 damage, serious injury, loss of life, or fires of suspicious origin," McCabe points out.

He used the May 1988 fire in Bldg. 10's Visitor Information Center—when an exhibit caught fire—as an example. After that incident, his group, working with medical arts personnel, developed construction requirements for all new exhibits being built.

"Now, we go to where the exhibits are being fabricated. We check them out before installation and again upon completion for adherence to NIH specifications. We also assisted with the design of a smoke detection system for the Bldg. 10 atrium."

One of their biggest problems, they all agree, is keeping the corridors clear and unobstructed.

Dan Walther, a fire protection inspector for the section and former NIH fire fighter, says, "When the air is filled with smoke, you can't see boxes or equipment that are lined up out in the hall. This is very dangerous for build-



Checking for chemical data through the computer located in the command mobile van is assistant chief Gary C. Hess. The mobile unit, designed by the firemen, is used in responding to all emergency calls.

Photos: Ernie Branson, MAPP

ing occupants evacuating, plus very difficult for the fire fighters to maneuver around with their hose lines. People do not realize how hazardous it is."

Safety is an ongoing process. "As always, a fire protection system is only as effective as it is maintained," states McCabe. "We keep track of the maintenance required after a system has been installed."

NIH is using the National Fire Codes as its basic minimum standards. But for the future, the Division of Safety, in conjunction with the Division of Engineering Services, is also developing other standards that will cover situations unique to NIH's environment.

Last March, the Emergency Management



Going over design and review in regard to safety codes are Robert Deschambeault (l) and Charles Barrett Jr. of the fire prevention section.



Fire fighters Hubert Walker (l) and Ronald Lewis respond to a practice drill recently in Bldg. 11.

Branch presented the 12th NIH Research Safety Symposium, which is part of an ongoing Division of Safety initiative. This conference, entitled "Managing Hazardous Materials Emergencies in Biomedical Research Facilities," was attended by more than 400 safety professionals from across the United States and Canada. The Emergency Management Branch was involved not only with this symposium but also collaborated with the Centers for Disease Control to publish guidelines for prevention of transmission of HIV (human immunodeficiency virus) and hepatitis B virus to health care and public safety workers.

"Team effort. Working together. That is what the Division of Safety is all about," says Shaff. □

*Child Health Day***Early Intervention Is Key to Preventing Adolescent Health Problems**

By Anne Blank

Adolescence—a critical link in the chain of human development—is traditionally a time of uncertainty and risk-taking as young people experiment with different adult roles.

Today, however, some of these roles may not only be risky, but also deadly. From alcohol and drug use to early, unprotected sexual activity under the specter of AIDS, the problems facing the adolescent of the nineties are uniquely different from those experienced by teenagers who came of age in a simpler time.

To address these and other problems threatening the health of today's adolescents, a group of physicians, other health care professionals, health care activists, educators, legislators and corporate representatives convened Oct. 1 for Child Health Day 1990.

Established by presidential proclamation in 1928, Child Health Day this year featured a national symposium entitled "Adolescent Health: Links to the Future." The day-long event featured lectures and panel discussions on the state of adolescent health, as well as recommendations for its improvement. Panelists presented summaries of recent national reports addressing adolescent risk-taking behavior and health issues and discussed successful projects designed to help adolescents, their families and communities overcome health and behavior problems. They also presented innovative ways of helping adolescents get more involved in their communities.

A highlight of the program was a videotape produced by the National Institute of Child Health and Human Development, a cosponsor of the conference. Entitled "Caution: Adolescents at Risk," the video featured teenagers from across the country, most of whom had met and overcome major obstacles in their lives, including drug and sexual abuse, homelessness and debilitating accidents.

Another highlight was the Healthy Mothers/Healthy Babies national achievement awards. Dr. James O. Mason, DHHS assistant secretary for health, was on hand to present the annual awards to various programs that have promoted the health of mothers and babies through education.

While most American adolescents emerge from their teen years ready to meet adult challenges and responsibilities, some are severely impeded by major obstacles such as poverty, drug and alcohol abuse, pregnancy, family breakup and prejudice, to name a few. The following statistics underscore the critical need for help: three of every four adolescent deaths are due to violence and injury; almost 25 percent of all adolescents ages 12-17 will try an illicit drug at some point in their adolescence;

more than 1 million young people drink alcohol weekly; 65 percent of adolescent males and 51 percent of adolescent females will be sexually active by age 18, but only 50 percent of both groups report using contraception; 11 percent of adolescent females will become pregnant during their teen years; 5 million adolescents need mental health services, but are not receiving them; approximately 5 percent of adolescents are obese, and approximately 25 percent are overweight.

"These are just a few of the statistics that stare at our society menacingly," Dr. Antoinette Eaton, president-elect of the American Academy of Pediatrics, said at the symposium. "There are more. They encompass a wide range of social problems. Most . . . are in need of immediate attention."

Any one of these problems can be overwhelming to an adolescent, but when they occur simultaneously the pressure can be devastating. Unfortunately, behaviors that put young peoples' health and lives at risk do not always occur alone, but rather in clusters. Dr. David Hamburg, president of the Carnegie Corporation of New York and the symposium's keynote speaker, noted a number of different studies indicating that many adolescents tend to experience more than one problem behavior at the same time.

"School failure begins at an early age, and once that failure occurs, other events begin to occur," he explained. "As these high-risk children grow older, substance abuse and sexual activity enter the picture. The major negative consequences then ensue—early childbearing, heavy substance abuse, serious delinquency, and school dropout."

According to recent estimates, of the 28 million U.S. adolescents ages 10-17, approximately 7 million—one-fourth—are in the high-risk category. In addition, another 7 million fall into a moderate-risk category. For example, rather than dropping out of school, or engaging in regular substance abuse or early, unprotected sexual activity, these moderate-risk adolescents may underachieve in school, engage in occasional substance abuse or become sexually active early but use contraception.

The challenge facing developers of adolescent health intervention programs is to address health-threatening adolescent behavior problems before they become too severe. One theme that emerged repeatedly throughout the symposium was the importance of early intervention. Speakers emphasized that these problems—no matter how minor or severe—do not suddenly begin in adolescence, but

much earlier in childhood. "There is a crucial need to help adolescents at an early age to acquire durable self-esteem, flexible and inquiring habits of mind, reliable and relatively close human relationships, a sense of belonging in a valued group, and a sense of usefulness in some way beyond the self," Hamburg said.

Similarly, Dr. Cheryl Hayes, executive director of the National Commission on Children in Washington, D.C., emphasized the relationship between adolescent development and earlier developmental stages. "Adolescent health and development is inextricably bound to the other periods of development in a child's life," she said. "All of our efforts to promote the health and well-being of young people in this country need to recognize that adolescence is one link in the chain of human development."

Because high-risk behavior is so often coupled with other problems, another key concept that emerged during the symposium was the integration of services. Health, education and social support services must work together in addressing adolescent health issues, said Hayes. "We must no longer look at interventions only in the area of health, or only in the area of education, or only in the area of social supports," she said.

Project Homeless Youth is a prime example of service integration at work. Located in Los Angeles, which has more than 10,000 homeless young people, the project is comprised of a network of services, including health and mental health counseling, job training and transitional living. In addition, the project provides free health care in its clinics. According to founder Joel Schwartz, most homeless adolescents come to the project through these free clinics, which they use when they have health problems.

While adolescent health is undeniably an immediate, individual concern to the youth at risk, it cannot be separated from society as a whole. To take one example, the lost earnings and taxes of each year's high school dropouts cost the nation approximately \$260 billion over the lifetime of these citizens. As Eaton said: "The link between healthy children and adolescents and a healthy nation is undeniable... Although children and adolescents account for just about one-third of our population, they clearly represent 100 percent of the future of our society."

"Caution: Adolescents at Risk" and the audio tapes of the panel discussions are available from the NICHD's Office of Research Reporting, 496-5133. □

Carlos Caban Named Extramural Policy Officer

Dr. Carlos E. Caban has been appointed extramural programs policy officer in the Office of Extramural Research, Office of the Director, NIH.

He came to OER on July 2 from the National Cancer Institute, where he served as program director for cancer control research in the Division of Cancer Prevention and Control.

As extramural programs policy officer, Caban is responsible for reviewing, evaluating and advising on current and proposed regulations, policies and procedures used in management of NIH-ICD extramural research and development programs, with emphasis on use of cooperative agreement and contract mechanisms and peer review policies and procedures.

Caban serves as an OER member of the cooperative agreement panel, the NIH board of awards for contract presolicitation reviews, OER reviewer of justifications for other than full and open competition contracts, and delegated approving official for the associate director for extramural affairs, NIH, of foreign research contracts. He also participates in meetings of trans-NIH committees.

Caban received his Ph.D. in biochemistry from the State University of New York at Buffalo and, recently, a master of public health degree in epidemiology and health policy/management from the Johns Hopkins School of Hygiene and Public Health.

He came to NIH in 1970 as a staff fellow in the Laboratory of Biochemistry, NHLBI. In 1975, he joined the National Cancer Institute as an executive secretary in the Office of Committee and Review Activities, and from 1978 to 1990 served as program director/project officer on several major NCI grant/contract



Dr. Carlos Caban

initiatives, including the Cancer Information Service, the Cancer Centers Program, the Centers Outreach Program, and most recently the cancer prevention research unit, Cancer Control Science Program, and DCPC Small Grants Programs. He also served as acting chief of the Cancer Control Applications Branch.

Caban has received a number of awards and commendations, including the NIH Award of Merit (1989), NCI Equal Employment Opportunity Award, NCI Special Achievement Award, and an NCI/DCPC certificate of appreciation "for outstanding efforts to further cancer prevention and control research." He also served as chairman and committee member of the cancer minority program advisory committee. He has been active in community organizations, and in 1987 received plaques of appreciation from the mayor and council and planning commission of the City of Rockville for his 10-year service as member and chairman of the city's planning commission. □

Inn Needs Weekend Volunteers

The response to the Children's Inn by NIH employees has been magnificent. However, there is one need for which the inn still lacks the necessary response—weekend coverage.

This contribution means arriving at the inn by 6 p.m. Friday and taking the place of the resident manager until 6 p.m. Sunday. Volunteers get a training orientation from Kate Higgins, resident manager, as well as written house instructions. In case of emergency, help from a staff person is just a beeper away.

There are several attractions to this service. Not only are you helping others in need, but you are also spending a quiet weekend in a beautiful country inn. Most patients' families are back at their own homes for the weekend and the atmosphere is quiet and relaxed. There just needs to be someone "in charge."

Since weekend volunteering means not leaving the property, it is much more fun to share this weekend with your spouse or a friend. That way, one of you can leave while someone is still in residence. If you are interested in helping out, call Pam Keller, 496-5672. □

Normal Volunteers Needed

The Developmental Endocrinology Branch, NICHD, is recruiting healthy women, who have undergone a tubal ligation, for clinical research studies. Candidates must be 21-40 years of age and have regular menstrual cycles. They should not be taking any medications.

Studies last for one menstrual cycle, require frequent blood drawing during a single morning, first morning void urine collection for 10 days, and involve the spraying of a small amount of a hormone-containing solution into their uterus through a very small tube. Compensation is available. For further information call 496-4244. □

High Winds Lash Campus, Many Trees Get Nature's Pruning



The several acres on NIH's northeast corner were the hardest hit during the tornado-like storm that drenched Bethesda, Kensington, Takoma Park and other Montgomery County areas Oct. 18. Battered by high winds and rain, the tree above, located on Cedar Ln. behind the Children's Inn, was one of many that was either severed or severely pruned.



Although the northeast corner of NIH's campus was damaged most, the northwest was not left unscathed. At left, an old oak tree that stood on South Dr. and Old Georgetown Rd. near Bldg. 37 is shown torn from its base. At right, a metal picnic table, obscured in the oak tree's fall, is an example of the huge clean-up effort the storm left in its wake. A willow limb that fell on a car parked on the 31H lot was the only other reported damage to property on campus. (Photos by Carla Garnett)



NIH Black Employees Advisory Committee Forms

In March 1990, the NIH Black employees advisory committee (BEAC) was formed. The purpose of the BEAC is to advise the director, Division of Equal Opportunity through the Black Employment Program manager, on all matters concerning equal opportunity and affirmative action for Black employees, thereby providing a communication channel between NIH Black employees and management.

Members of the BEAC were selected by their respective ICDs and by the NIH chapter of Blacks In Government, a recognized employee advocacy organization at NIH. BEAC members have received extensive training on the rules, regulations and executive orders that govern equal employment opportunity and affirmative action. The officers and members who currently serve on the BEAC are as follows:

Tyrone Bellinger Chairperson	NIGMS	x7191
Dr. Donald Buckner Vice chairperson	NLM	x4441
Marsha Short Corresponding secretary	NEI	x3123
Tisa L. Moore Recording secretary	NCNR	x0234
Dr. Donna Jarrell Chairperson, policy subcommittee	DRS	x9416
Dr. William Ebbs Chairperson, public relations subcommittee	NIDR	x4371
Albert Parrish Organizing subcommittee	BIG	x6284
Dr. Kathryn W. Ballard Education and training subcommittee	NHLBI	x7361
Dr. Leamon Lee	OD	x2567
Shirley McCoy	OD	x1551
Natalie Daley	OD	x1552
Janet Brogdon	ORS	x1595
Ivan G. Wallace	ORS	x5774
Gail Williams	NIA	x5898
Barbara Hughes	NIA	8-301-550-1733
Rita Holliday	NIAID	x4634
Elnora Jackson	NIAID	x1012
Yvonne T. Copeland	NIAMS	x7326
Sandy Davis	NCI	x6266
O.H. Laster	NCI	x8660
Mary Frances Spears	NHLBI	x1763
King Bond	NINDS	x9231
Lucille M. Johnson	NLM	x1276
Joy L. Butler	FIC	x6166
Debra M. Irby	CC	x2247
Edward H. Davis	CC	x9490
Renee B. Edwards	DCRT	x4727
Gloria I. Richardson	DCRT	x4647
Sheila S. Swales	DRG	x7251
Joseph McPherson	DRG	x6604
Gilbert Jones	DRS	x5995
Dr. Gary A. Boorman	NIEHS	8-629-3440



NIH Black employees advisory committee members

Dr. Victor Fung	NIEHS	x3511
Dr. Leslie Cooper	NICHD	x1711
Dr. Edgar E. Hanna	NICHD	x1485
Geneva Dickens	NICHD	x1485
Dr. Chyren Hunter	NIDCD	x2583
Nadine Horne	NIDR	x0670
Ludlow McKay	NIDDK	x6136
Sharon Willis	BIG	x5497
Alice H. Thomas	NCHGR	402-0733

According to NIH Black Employment Program Manager Jalil H. Mutakabbir, during the past months, the committee has been developing various programs for the NIH community that will address many of the longstanding issues that concern Black employees at NIH. The committee extends an open invitation to all NIH employees to submit suggestions or comments to assist them in future program development.

The BEAC meets monthly and employees are invited to attend. You may contact the BEAC by writing or calling Jalil H. Mutakabbir, 31/2B40, 496-6301 or Tyrone Bellinger, BEAC chairperson, WW/9A04, 496-7191. □

Consensus Conference To Explore Clinical Use of Botulinum Toxin

An NIH Consensus Development Conference on "Clinical Use of Botulinum Toxin" will be held in Masur Auditorium, Bldg. 10, on Nov. 12-14. The scheduled sessions are: Nov. 12, 8:30 a.m. to 5:10 p.m.; Nov. 13, 8 a.m. to 1 p.m. On Nov. 14, the consensus statement will be read at 9 a.m., followed by a press conference at 12:30 p.m.

Among the key questions to be addressed at the conference are: What are the mechanisms of action of botulinum toxin (BT)? What are the indications for BT treatment? What are the side effects and complications of therapy?

The conference is sponsored by NINDS and the NIH Office of Medical Applications of Research. □

Reminder to PHS Officers

All NIH commissioned officers are reminded that their COERs—commissioned officers' effectiveness reports—are due in the Division of Commissioned Personnel (DCP) as soon as possible.

The following steps must be taken before submission to DCP: Complete section 1; forward to supervisor for evaluation; discuss with supervisor, sign and date; forward to reviewing official, who must sign and date the COER; maintain a copy for your file and forward original through your personnel office to the commissioned officers section, Bldg. 31, Rm. B3C23. □



Debbie Peoples and Del Ward rehearse a song from Pajama Game in the NIH R&W Theatre Group's "Wonderlands of Broadway" musical review to be presented Nov. 2, 3, 9, 10, 16 and 17 at 8 p.m. and Nov. 4 and 11 at 3 p.m. in Masur Auditorium, Bldg. 10. The show also features music from Gigi, My Fair Lady, and The Sound of Music. Proceeds benefit the Patient Emergency Fund. Tickets are \$7 for adults, \$5 for seniors, \$3 for kids and may be purchased at R&W or the door. For information, call 496-9840 or 530-2319. (Photo by Nancy Magurn)



Six NIAID employees recently received Equal Employment Opportunity Special Achievement Awards for their commitment to the principles of EEO. NIAID director Dr. Anthony Fauci (l) presented the awards to (from l) Dr. John W. Diggs; Thelma A. Gaither; Dr. Lawrence J. Prograis Jr., accepted the award for Dr. Robert A. Goldstein. Gwendolyn Brooks (r), EEO officer, looks on. Recipients Dr. Marshall E. Bloom, Keith E. Hanson and Farrell R. Johnson are not shown.

Six Win NIAID Equal Employment Opportunity Awards

Six NIAID employees recently received Equal Employment Opportunity Special Achievement Awards.

NIAID director Dr. Anthony S. Fauci presented the awards to:

Dr. Marshall E. Bloom, medical research officer in the Division of Intramural Research at the NIAID's Rocky Mountain Laboratories (RML), for "sincere dedication and commitment to uphold the principles of EEO at RML."

Dr. John W. Diggs, former director of the NIAID Division of Extramural Activities, "for outstanding leadership in supporting, promoting, and adhering to EEO principles, serving as an exemplary federal administrator and role model within the NIAID/NIH community and beyond."

Thelma A. Gaither, supervisory biologist in

the Laboratory of Clinical Investigation, "for exceptional dedication to EEO principles by effectively encouraging and training minorities and other coworkers to achieve their highest potential at the NIAID/NIH."

Dr. Robert A. Goldstein, director of the Division of Allergy, Immunology, and Transplantation, "in recognition of your efforts to recruit and select well-qualified women and minorities within the DAIT, demonstrating a sensitivity and commitment to adhere to EEO principles."

Keith E. Hanson, animal caretaker at RML, and Farrell R. Johnson, animal caretaker (foreman) at RML, "for outstanding dedication to EEO principles by fostering a work environment that accommodates persons with disabilities in realizing their full potential." □

NIH Ski Club Offers a Variety of Winter Trips

The NIH Ski Club has another exciting season of trips planned. The first trip includes skiing two areas in the Pocono Mountains—Elk and Montage. This trip will be Jan. 18-21, and includes three nights lodging, transportation, and three breakfasts and dinners. The cost is \$229 (double), \$219 (triple), \$209 (quad).

The second trip will be a day trip to Blue Knob, Pa., on Feb. 1. Lift ticket and transportation from NIH included in the low cost of \$38 for club members and \$42 for nonclub members.

The third trip will be to Canaan Valley Resort, W. Va., Feb. 15-18 for both cross-country and down-hill skiing. The trip

includes transportation, three nights lodging, three breakfasts, two buffet dinners, and admission to the Beach Club (indoor pool). The cost is \$207 (double), \$175 (triple), and \$158 (quad).

Due to popular request the club will return to Banff, Canada, Feb. 24-Mar. 3. We will ski three mountains—Sunshine, Lake Louise and Norquay. The price includes air fare, seven nights lodging in the beautiful Banff Springs Hotel, and a 5-day lift ticket: \$1,025 (double), \$975 (triple), and \$945 (quad). Deduct \$115 from each for cross-country skiing only.

A reservation for these trips can be made at the R&W Activities Desk. □

NICHD Needs Volunteers

The NICHD seeks healthy volunteers ages 18-45 to participate in evaluation of a new vaccine against *Staphylococcus aureus* infection. Volunteers will be tested for HIV and liver function tests; females will also be tested for pregnancy. Positive test for either will exclude participation. For information call 496-6083 or 496-6141. □



Kathleen Matsangakis, a donor recruiter for NIH's blood bank, presents two tickets to the Redskins-Dolphins football game to Henry Kreysa, a blood donor at NIH since 1987. He was one of 500 blood donors during September who were eligible to win the tickets. Every month, the blood bank will issue raffle tickets to all who donate. In October, the prize was dinner for two at O'Donnell's Seafood Restaurant; November's prize is dinner at Sir Walter Raleigh's. Call 496-1048 to schedule your next donation.



Carolyn G. McHale, chief of the NIAMS Scientific Information and Data Systems Branch, recently received the 1990 Harriet E. Worrill Award from Drexel University for "a distinguished career in medical research and information systems." The award is given annually to outstanding alumni of the university. McHale was also recently honored with an NIH Merit Award for "extraordinary skill, leadership and dedication in establishing comprehensive, high quality data management systems" for the institute.



TRAINING TIPS

The NIH Training Center of the Division of Personnel Management offers the following:

Courses and Programs *Starting Dates*

Management and Supervisory 496-6371

Working With Personnel Differences for Technical and Support Staff	11/8
Practical Management Approaches	11/7
Interpersonal Relationships in the Work Environment	11/27
Positive Influence and Negotiations	11/28

Personnel Management Training and

Special Courses 496-6211

Appropriation Law Seminar	11/5
---------------------------	------

Office Operations Training 496-6211

3 Com PC Network Level 2	11/19
Excel Level 1	11/2
Introduction to Lotus 1-2-3 Release 2.2	11/5
Introduction to PC Keyboarding	11/5
Introduction to Wordperfect (MAC)	11/5
Wordperfect 5.0 — 5.1 Transition	11/6
Foxbase on the MAC — Level 1	11/9
Welcome to MAC	11/5, 11/16
Introduction to Microsoft Word	11/7
Introduction to Symphony	11/14
3 Com Network Manager — Level 1	11/29

Training and Development Services 496-6211

Personal Computer training is available through User Resources Center (URC) self study courses. There is no cost to NIH employees for these hands-on sessions.

The URC hours are:

Mon.-Thurs.	8:30 a.m. - 7 p.m.
Friday	8:30 a.m. - 4:30 p.m.
Saturday	9 a.m. - 1 p.m.

Training Center, DCRT, and other training information is available on WYLBUR. Logon to WYLBUR and type ENTER TRAINING



Dr. Marcel Salive, an epidemiologist in NIA's Epidemiology, Demography, and Biometry Program, has received the Jay S. Drotman Award from the American Public Health Association. The award recognizes young public health workers or students who challenge traditional public health policy and practice in a creative, positive manner. A lieutenant commander in PHS, Salive came to NIH Sept. 1 from the National Center for Health Services Research.



On hand for the dedication of the new NIH Training Center at Executive Plaza South are (top, from l) Dr. Marjorie L. Budd, NIH assistant director for development and training; Carl Fretts, acting NIH associate director for administration; Stephen Benowitz, director, Division of Personnel Management; and Dr. William F. Raub, acting NIH director. "I was here at the beginning (of this project) and I am here at the end—and let me say the end is a whole lot more happy," said Raub. "This is a first-class facility, both physically and the people who staff it." Budd (below, c) leads a tour during the center's open house on Oct. 5. "We're alive and well and in high gear," she told the many employees who passed through.



Medical Clinic Needs Help

Each year the doctors at Zacchaeus Free Medical Clinic provide 4,000 patient visits. This health care is offered free to the poor. The care would not be possible without the aid of the 100 volunteers at the clinic. Volunteers come from a variety of backgrounds—medical and nonmedical—and they assist in all aspects of the clinic's operations.

Zacchaeus has volunteer opportunities for everyone. There are training opportunities as patient advocates, lab technicians, pharmacists and a variety of other positions. Many volunteer positions require no training.

For more information, contact John Matouk, volunteer coordinator, (202) 265-2400. □

Conference on Transgenic Animals

A conference on "Development of Transgenic Animal Model Resources," will be held Nov. 13-14 in Lister Hill Auditorium, Bldg. 38A, sponsored by the Animal Resources Program, NCCR. Sessions will be 8:30 a.m. to 4:30 p.m. on Nov. 13 and 8:30 a.m. to noon on Nov. 14. For information call 496-5175. □

Bowling Lanes Welcome NIH'ers

The Navy Bowling Center, located just inside the Bethesda Naval base off Jones Bridge Rd., will hold "NIH Week" Nov. 12-16 from 4 to 6 p.m. Games will be only \$1 each. A full snack bar is available at the 20-lane center; there is also a pro shop and tap room. Plan a morale-boosting bowling party today. For more information call 295-2034. □

NIH Creates Office of Education, Fordis Named Director

The next decade offers unparalleled opportunity for scientific discovery. Yet in the face of such possibilities, there has been a precipitous decline in the number of young Americans who are training for careers in biomedical research. To address this problem, NIH has created a new Office of Education that is responsible for the development and coordination of a variety of programs and initiatives that will be part of a strategy designed to reverse this trend.

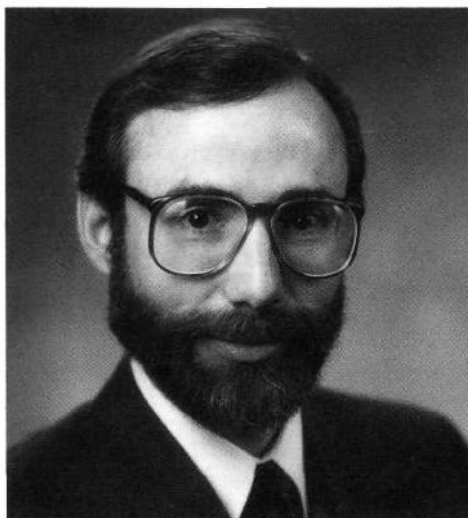
In addition to providing a focal point for postdoctoral recruitment efforts across institute lines, the Office of Education plans to establish a pipeline of opportunities for young people at varying stages of educational development. These opportunities will include, but not be limited to, the Clinical and Research Associates Program, the Clinical Electives and Summer Research Fellowship Programs, and the NIH/Howard Hughes Medical Institute High School Summer Research Program.

In collaboration with the Educational Commission on Foreign Medical Graduates, the office has developed the NIH/International Medical Scholars Program, which will permit foreign physicians to come to NIH for training in clinical and basic research.

The office will also assume responsibility for the administration of all NIH continuing medical education programs, as well as the continuing accreditation of graduate medical education programs.

Dr. Michael Fordis, a former NHLBI and NCI researcher, has been named director of the office by Dr. J. Edward Rall, NIH deputy director for intramural research.

A native of California, Fordis earned his B.S. at the University of California, Irvine; his



Dr. Michael Fordis

M.D. at the University of California School of Medicine in San Diego, where he also completed his residency in internal medicine. In 1977, Fordis joined the Hypertension-Endocrine Branch of NHLBI, where he studied the biochemistry of vasoactive peptides. With a growing interest in the regulation of development, he joined the Laboratory of Chemical Biology in 1981 and investigated the developmental expression of human globin genes. Before accepting his current position, he continued his studies in the Laboratory of Molecular Biology, NCI, where his work focused on genes that suppress cellular proliferation.

The office is located in Bldg. 10, Rm. 1C129 and the telephone number is 496-2427. □

NIH Grantee Elias Corey Wins Nobel Prize in Chemistry

Dr. Elias J. Corey of Harvard University, who has been a grantee of the National Institute of General Medical Sciences for 20 years, is the winner of the 1990 Nobel Prize in chemistry. Corey was cited for "his development of the theory and methodology of organic synthesis." For many years, his laboratory has been outstandingly successful in the synthesis of a varied array of drugs and other complex molecules of biological interest.

One of Corey's most recent achievements is the development of a family of totally synthetic enzymes that he calls "chemzymes." *Science* magazine has called these molecules "among the most intriguing innovations of the decade."

Chemzymes are small molecules that catalyze certain reactions quickly and in such a way that only the biologically effective prod-

uct is made. Moreover, they are produced by "rational" molecular design—that is, Corey and his coworkers start out by understanding the chemical mechanisms involved in a particular reaction and then synthesize molecules with exactly the properties needed.

Conventional chemical synthesis of biologically active molecules results in a product containing molecules that are mirror images of each other—so-called "right-handed" and "left-handed" molecules. A molecule of the wrong "handedness" is usually either useless or may even cause serious side effects. Chemzymes, in contrast, make every one of their product molecules in the same orientation. This eliminates not only the waste of costly raw products at the beginning of a synthesis, but also eliminates the need to remove unwanted products of the wrong orientation at

PHS Technology Transfer Forum To Be Held Nov. 8-9

The NIH Office of Technology Transfer will sponsor the third annual PHS Technology Transfer Forum (previously the NIH/ADA-MHA-Industry Collaboration Forum) on Nov. 8-9 in Lister Hill Auditorium, Bldg. 38A.

The purpose of the forum is to promote and facilitate research collaborations between government scientists and industry pursuant to the Federal Technology Transfer Act of 1986 (FTTA). The FTTA provides an administrative framework for implementing cooperative research and development projects. It is anticipated that a number of these collaborations will lead, through mutually advantageous patent and license agreements, to the beneficial commercial application of basic laboratory research findings made at PHS research agencies.

The forum will begin at 8:15 a.m. each day and will consist of two single-topic sessions. The first day will focus on transgenic animals research and the second day will focus on central nervous system research. The program will present an overview of related research programs in PHS, and will include presentations by industry representatives on the role of government and industry in transferring federal technology to the private sector.

An updated technology transfer directory will be distributed; it lists contact personnel within the PHS and also includes information on the capabilities, resources, and collaborative interests of both government and industrial laboratories.

For further information, contact Carolyn Craig, NIH Office of Technology Transfer, 496-0750. □

the end of the synthesis. The use of chemzymes will thus help synthetic chemists eliminate one of the most persistent roadblocks to efficient, cost-effective chemical synthesis.

NIGMS has also supported Corey for many years to develop sophisticated computer techniques with which chemists can work interactively to synthesize organic compounds. In addition, he recently received an NIGMS MERIT award, which provides for extended support to foster the continued research achievements of distinguished scientists.

Since 1962, NIGMS and four other NIH institutes—NCRR, NCI, NHLBI and NIAID—have awarded Corey 58 grants and contracts totaling \$12,059,338.—Doris Brody □