

*"Still
The Second
Best Thing
About Payday"*

The NIH Record

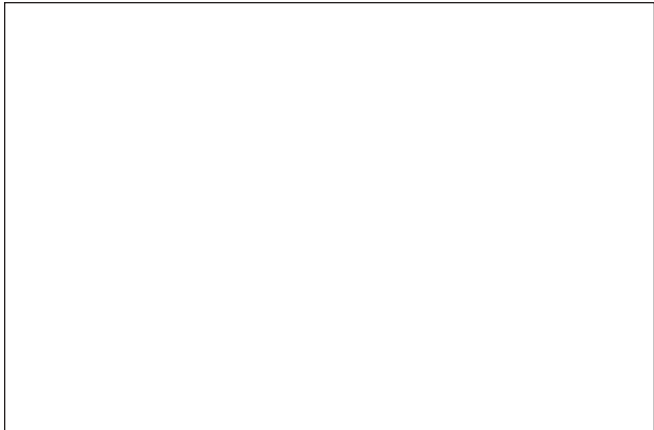
When Disaster Strikes

NIH'ers Answer Emergency Call in the Caribbean

By Carla Garnett

More than 2 months remained of 1995's history-making tropical storm season when a dozen or so NIH'ers were officially put "on alert status" Saturday, Sept. 16 at 4 a.m. by the federal Office of Emergency Preparedness. Hurricane Marilyn—the latest in a month-long string of severe tropical disturbances—had swept through the Caribbean, drenching the island of St. Croix and virtually shutting down neighboring St. Thomas. By Sept. 17, NIH members of the PHS Disaster Medical Assistance Team (DMAT) and subsequently several other NIH volunteers were en route to the area, via commercial and military planes.

"The damage to modern construction, much of it less than 30 years old, was extensive," said Dr. Mark Schmidt of NIMH's Experimental Therapeutics Branch, who spent 10 days providing psychiatric counseling in St. Thomas after the hurricane. "Some homes had only their foundations remaining. Many homes in Charlotte Amalie [capital of the U.S. Virgin



PHS DMAT member Ed Davis, a Clinical Center employee, tends to a St. Thomas resident after Hurricane Marilyn.

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Networking NIH Beyond 2000:

What's the AMG and Why Should NIH'ers Care?

By Josh Greenberg and Larry Mahan

Would you like to log into all the NIH databases that you are authorized to access with just one login and password? When sending e-mail, would you like to access a central on-line directory of all NIH personnel? Maybe you would like to do a topic-specific search of all NIH intramural research projects? If you're like most people, you'd like to do these tasks from your personal computer or workstation, knowing your transmissions are secure and nobody can intercept and read your e-mail or sniff out your password. Some people at NIH would like to bring all these things and more to your desktop. They're the architectural management group (AMG), formed in 1994, whose mission is to make computing and networking at NIH as easy as using your telephone.

When the PC explosion hit NIH, everyone wanted to do computing at the desk. As local area networks (LANs) grew, computers became the "next-generation" telephone. PC "platforms" (e.g., Windows/Dos, Macintosh, Unix) proliferated, operating systems varied, and the complexity of hardware and software grew exponentially. More recently, the explosion of Internet activity has vastly increased the resources available to NIH users.

Despite this nearly universal access to personal computing, NIH has lacked a common blueprint to build an information technology "architecture" into the 21st century. Most ICDs set up their own LANs with little concern for interoperability. In many cases, intramural scientific staff have limited or no access to administrative LANs. NIH now houses some 18,000 PCs, 280 LANs, a half-dozen network operating systems, and innumerable combinations of hardware and software. Additionally, in the new era of Internet access, LANs are not as secure as they should be. System

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NIAID, NHLBI Sponsor Asthma Awareness Day

By James Hadley

Right on the edges of their seats, the children sit transfixed. Between magic tricks, jokes and balloon sculpturing, three clowns—Sparkles, Precious and Yogi—offer tips on how a child can cope with asthma. Puppets from Kids on the Block, Inc., explain—from what appears to be first-hand experience—what it's like to be a child with asthma. Representatives from voluntary health organizations and a pharmaceutical company answer questions and distribute literature, including coloring books.

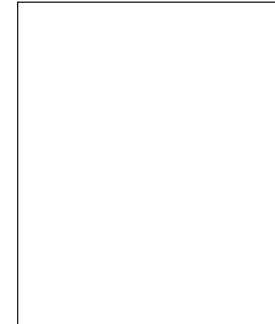
These are typical scenes from Asthma Awareness Day for Family and Friends, held recently on the campus of Howard University, and targeted for 500 third-through sixth-grade children from District of Columbia Public Schools.

"Asthma Awareness Day for Family and Friends is an innovative way to disseminate important medical information to children, their parents and teachers," said Dr. Floyd J. Malveaux, dean of Howard's College of Medicine. "We want our

(See *ASTHMA DAY*, Page 4)

Desowitz To Deliver Gorgas Lecture, Dec. 6

Torrid Diseases in a Temperate World: As American as the Heart Attack" is the topic of this year's Gorgas Memorial/Leon Jacobs Lecture. The speaker, Dr. Robert S. Desowitz, might be described as an ambassador whose



mission is to heighten world awareness of parasitic diseases and the extent of their effect on human populations. The presentation will be on Dec. 6 at 3:30 p.m. in Wilson Hall, Bldg. 1.

Dr. Robert Desowitz

Desowitz is known not only for his scholarship in parasitic diseases, but also is recognized internationally by tropical medicine organizations that have benefitted from his expertise. With a

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GORGAS LECTURE

(Continued from Page 1)

background of interests that range from psychology to parasitology, he is highly regarded as both a writer and a teacher. His 1981 book *New Guinea Tapeworms and Jewish Grandmothers* conveys to lay people and scientists alike the excitement of parasitology research. He also wrote *The Thorn in the Starfish* and *Malaria Capers*. Desowitz is currently working on a book illustrating the origins of infectious diseases in the western hemisphere and approaches to disease control. In his talk, he will explore this theme in some detail.

Desowitz earned his undergraduate degree in zoology in 1948 at the University of Buffalo. He received his Ph.D. from the University of London, School of Hygiene and Tropical Medicine in 1951 and a D.Sc. degree in 1960. He was the last student of Dr. Henry Shortt, who discovered that sand flies transmit leishmaniasis, identified the liver phase of malaria, and is considered by many to be the greatest protozoologist of the 20th century. Desowitz spent a brief period at NIH to study with the highly regarded Dr. Theodore Von Brandt, an expert in the biochemistry of parasites.

From 1951 to 1960, he worked for the British Colonial Medical Research Service at the West African Institute of Trypanosomiasis Research in Nigeria. From there, he went to the University of Singapore as professor and chairman, department of medical parasitology, School of Medicine. For 3 years, until 1968, he served as chief, department of parasitology, for the SEATO Medical Research Laboratory in Bangkok, Thailand. Desowitz joined the faculty of the University of Hawaii in 1968, where he was professor of tropical medicine and medical microbiology and professor of public health (in epidemiology) at the university's School of Public Health. In the spring of 1995, he moved to North Carolina, where he is now adjunct professor of epidemiology at the University of North Carolina, Chapel Hill, School of Public Health. From 1961 to 1993, he served on the World Health Organization expert panel. He was also consultant to the United Nations as an epidemiologist for a tropical forests ecosystems project.

His extensive list of scholarships, fellowships, and awards began with a 1948 Fulbright scholarship to the University of London's School of Hygiene and Tropical Medicine. The

Laboratory of Parasitic Diseases at NIH awarded him a research fellowship in 1977, which was followed by a second fellowship in 1979. The Rockefeller Foundation awarded him a scholar-in-residence position at its Bellagio, Italy, Cultural Center in 1983 and 1990. He went to Papua New Guinea in 1984 as an NIH Fogarty senior international fellow. In 1994, he accepted a Fulbright research fellowship to Belgium, where the Prince Leopold Institute of Tropical Medicine also honored him with a fellowship that same year.

The lecture will also serve as a memorial to the originator of the lectureship, Dr. Leon Jacobs, who died this fall. Long-time friends and colleagues Dr. Thomas Kennedy and Dr. Eugene Weinbach will each present a tribute.—

Karen Leighty □

Sea Cruise with Scientists

Interested in getting away this winter on an ocean cruise? In the company of heavyweight intellectual shipmates? The Friends of the DeWitt Stetten, Jr., Museum of Medical Research at NIH are sponsoring a 7-night cruise through the waters of the eastern Caribbean, Feb. 17-25. The ship, Holland America's "Westerdam," leaves Ft. Lauderdale, Fla., and calls at Philipsburg, St. Maarten, St. John, U.S. Virgin Islands, St. Thomas, Nassau, Bahamas and returns to Ft. Lauderdale.

Guests on board the cruise, which is a fundraising venture to support the Stetten Memorial Fellowship in the History of 20th Century Biomedical Sciences and Technology, include: Dr. C. Everett Koop, Dr. Robert N. Butler, Dr. Kurt Isselbacher, Dr. Seymour Kety, Dr. P. Roy Vagelos, and Marshall Loeb, an editor at *Fortune* magazine. They will form a panel discussing, "Medicine Now and in the 21st Century."

For more information, call Continuing Education, Inc., 1-800-926-3775.

Volunteers Needed for Study

The Cardiology Branch, NHLBI, is recruiting patients with high blood pressure for an outpatient study. Volunteers should not have any other medical problems and should not have a cholesterol higher than 200 mg/dl. Participants will be paid. Call Cressie Kilcoyne, 6-8739. □

Dr. Frederick Batzold of NIAID has been appointed chief of the Clinical Site Management Branch in the institute's Division of AIDS Therapeutics Research Program. The branch is responsible for the administrative and programmatic management of major clinical trials programs. Batzold participated in the NIH Grants Associate Program in 1989 and joined DAIDS as a health scientist administrator in 1990. He earned his doctoral degree in organic chemistry from Syracuse University and was a postdoctoral fellow in pharmacology at Johns Hopkins University School of Medicine. He taught pharmacology and biochemistry at Albany Medical College.

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Cholesterol Education Program Science Symposium, Dec. 4

NHLBI will sponsor a science symposium in honor of the National Cholesterol Education Program's (NCEP) 10th anniversary on Monday, Dec. 4, from 1 to 4:30 p.m. in Masur Auditorium, Bldg. 10. The symposium is the centerpiece of a series of events commemorating this milestone, which includes the 10th anniversary meeting of the NCEP coordinating committee on Dec. 5.

In its decade of existence, the NCEP and the 40 partner organizations represented on the program's coordinating committee have achieved notable success in raising cholesterol awareness. Consumption of fat has fallen, average cholesterol levels and the prevalence of high blood cholesterol have declined, and coronary heart disease (CHD) mortality has continued to drop. The symposium will focus on recent developments in the science base underpinning the NCEP that have improved our understanding of cholesterol's role in atherosclerosis and CHD.

The symposium speakers will address important findings in cholesterol research, including the explosion of new information resulting from the application of cellular and molecular biology to the study of atherogenesis, recent vascular biology research on the role of unstable plaque in triggering heart attacks and other coronary "events," and the latest clinical trials.

The speakers will be Dr. Claude Lenfant, NHLBI director; Dr. Michael S. Brown, director, Johnson Center for Molecular Genetics, University of Texas, Southwestern Medical Center, Dallas; Dr. Daniel Steinberg, professor of medicine, department of medicine, University of California, San Diego; Dr. Valentin Fuster, director, Cardiovascular Institute and professor of medicine, Mt. Sinai Medical Center, New York City; and Dr. Scott M. Grundy, director, Center for Human Nutrition, University of Texas, Southwestern Medical Center, Dallas.

Brown, who shared the 1985 Nobel Prize in Physiology or Medicine with Dr. Joseph Goldstein, will discuss "The Molecular Biology of Cholesterol and Its Clinical Implications."

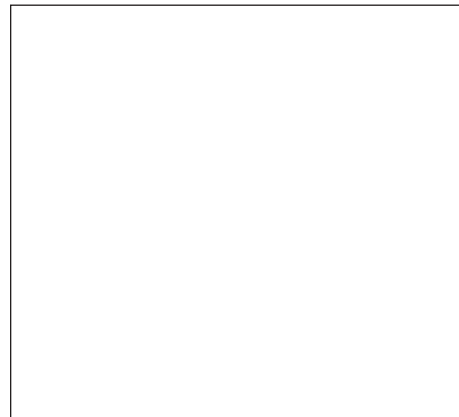
Steinberg, who is currently director of the University of California at San Diego's Specialized Center of Research on Arteriosclerosis, was formerly chief of the Laboratory of Metabolism at the National Heart Institute.

He will present "The Role of Cholesterol-Rich Lipoproteins in Atherogenesis: A Modern Consensus." He will discuss the insights gained from the application of cell and molecular biology to the study of atherogenesis.

Fuster's symposium presentation will be on "Cholesterol, the Unstable Plaque, and Acute Coronary Events." A distinguished cardiologist and scientist, he has been affiliated with the Mayo Clinic, Harvard Medical School, and Massachusetts General Hospital. He will describe current vascular biology research with a focus on unstable plaque and its role in heart attacks. He will also address the effects of LDL-lowering and of HDL-raising on plaque disruption.

Grundy's presentation will be on "Cholesterol Lowering to Prevent Coronary Heart Disease: New Evidence from Clinical Trials." A leading authority on lipids, obesity, and nutrition, and their relationship to CHD, he will discuss clinical trials that have shown the benefit of cholesterol reduction.

For more information on the symposium, call Maureen Harris, (301) 294-5467. □



Dr. David M. Livingston has been appointed by National Cancer Institute director Dr. Richard D. Klausner to NCI under an intergovernmental personnel assignment. Livingston is an internationally recognized expert in the field of cancer biology and holds the positions of chairman, research executive committee at Dana Farber Cancer Institute and Emil Frei professor of medicine at Harvard Medical School. He will retain his positions at Dana Farber. He will be at NCI an average of 2 days a week serving as chairman of NCI's extramural board of scientific advisors and will lead the institute's efforts in a comprehensive review of all NCI extramural programs.

Women's Health Seminar Focuses on Mood Disorders

The ORWH Women's Health Seminar Series kicks off the 1995-96 season with a look at "Women and Mood Disorders" at 2 p.m. on Thursday, Nov. 30 in the Natcher Auditorium.

The program will open with Dr. Mary C. Blehar, chief of the Mood, Anxiety, and Personality Disorders Research Branch, Division of Clinical and Treatment Research, NIMH. She will discuss "Depression and Gender."

Dr. Susan G. Kornstein, assistant professor of psychiatry and obstetrics and gynecology at Medical College of Virginia Commonwealth University, will look at "Depression and the Menstrual Cycle." Many people have long felt there is a relationship between the menstrual cycle and psychiatric illness, particularly depression. Kornstein will provide a brief overview of premenstrual dysphoric disorder, followed by a discussion of premenstrual exacerbation of depression.

The program will also include a discussion of "Women with Bipolar Illness." Unlike unipolar depression, bipolar (manic-depressive) illness is equally common in women and men. Dr. Ellen Leibenluft, chief of the unit on rapid cycling bipolar disorders, Clinical Psychobiology Branch, NIMH, will explain why gender should be considered in treatment and research involving bipolar patients.

The seminar will conclude with a question-and-answer session.

The seminar series is sponsored by the women's health seminar committee of the Office of Research on Women's Health. The annual series includes current research findings by nationally recognized experts. The next seminar will be on Mar. 21, 1996. Admission is free and open to the public. For more information, call 2-1770. □

'Christmas Carol' Bus Trip

On Sunday, Dec. 10, the R&W will host a 1-day bus trip to historic Strasburg, Va., for lunch at Hotel Strasburg and then a visit to the Wayside Theatre for a production of Charles Dickens' *A Christmas Carol*. Both the hotel and theater are historic landmarks and will be decorated beautifully for the holidays. The trip is sure to get you in the holiday spirit. Call the R&W activities desk for more information, 6-4600. □

ASTHMA DAY


(Continued from Page 1)

children with asthma and allergies to feel special."

In addition to information and fun, the students, who were accompanied by a number of parents and teachers, were treated to lunch, t-shirts, balloons and buttons. Northeast Performing Arts Group, a dance company from the D.C. department of recreation, also performed.

Asthma makes it difficult to breathe and asthmatic episodes may range from mild to life-threatening. Asthma is caused by a temporary blockage of the lung's bronchial airways, the tubes that make breathing possible. The obstructions are caused by inflammation, swelling and mucus in the airways and contractions of the muscles surrounding the airways.

Illness and deaths from asthma have been increasing in the United States, and children who live in the inner city are particularly affected. Because of the urgency of this problem, Howard



Dechi Frazier (r) of the Asthma and Allergy Foundation of America gives a student tips for managing asthma.

reminded the students about their role in asthma management. "You do not have to be limited by your asthma. You are just as strong as your classmates who do not have asthma." She told the children that they did not have to miss school, avoid sports or refrain from physical activity.

She urged the participants to take full advantage of the information available to them at the event. "Listen to your doctor or school nurse to learn as much as you can about how to control your asthma," she said. "I am sure many of you participate in basketball, football and play other games. We want to help you continue to do all these things through our research and education programs to help your parents, teachers and doctors better understand asthma."

Dr. Walter Broadnax, HHS deputy secretary, echoed the theme of the day: By working in partnership with parents, educators, the medical and research communities, one can learn more about asthma and help patients better manage their disease.

"As the Olympic decathlon medal winner Rob Muzzio, an asthmatic, says 'You have the power to make a difference. Control your asthma or it will control you.'" Broadnax continued: "Yours is the spirit of Jackie Joyner-Kersey, who won the Olympic gold medal for track. Yours is the spirit of Bob Gibson, the baseball Hall of Fame pitcher. Yours is the spirit of Dominique Wilkins, the former NBA basketball star. These great athletes learned to control their asthma—so they could make their dreams come true. Whether you want to be an athlete or an asthma doctor, a college professor or even the president of the United States—if you set your mind to it—each of you can do wonderful things."

Other guests included Dr. Johnnie Fairfax, executive director of the comprehensive health program of the D.C. public schools. He said he was proud of the partnership between Howard and NIH in sponsoring such an event to help parents, teachers and children to learn more about asthma and allergies.

Asthma Awareness Day was sponsored in cooperation with the American Lung Association of D.C., the Asthma and Allergy Foundation of America, Mothers of Asthmatics, Inc./Allergy and Asthma Network, NHLBI's National Asthma Education and Prevention Program and Pfizer Pharmaceuticals.

NIAID previously cosponsored Asthma Awareness Day with the Howard University College of Medicine in 1990 and 1993. Fauci told the audience at the most recent event that the first event had been highly successful. He said, "NIAID views Asthma Awareness Day for Family and Friends at Howard University as a model educational component for asthma and allergy management.

"I was impressed with the attentiveness and superb behavior of the students in the D.C. schools," he said. "Many people who do not live in the District of Columbia—as I do—may be unaware of the rich history of high schools in the District. It is clear to me that the roots of that tradition begin in the elementary schools. These are the kinds of things we would like to read about in the newspapers and see on television."


One of the most common chronic diseases in the U.S., asthma affects between 15 million and 16 million Americans. Asthma is among the most frequent causes of hospital admission for children and also leads the list of childhood diseases that cause a significant loss of time from school. Each year asthma causes 5,000 deaths in the U.S. □

Treatment for Panic Attacks

People currently experiencing panic attacks may be eligible for a free treatment outcome study evaluating nondrug treatments for panic and anxiety. For more information call Jack Trakowski at the USUHS department of medical and clinical psychology, (301) 295-3651. □

Tenors Needed for Group

Experienced tenors are needed by the NIH Chamber Singers, an NIH R&W organization. The singers are a small acappella group that sings a variety of music. The group rehearses and performs locally. Contact Susan, 6-4496, for more information. □



NIAID director Dr. Anthony S. Fauci greets Susan Kidd of NBC-TV.

University College of Medicine, the D.C. public schools, NIAID and NHLBI sponsored the 1-day health fair.

"Asthma Awareness Day was designed to help children and their parents better cope with asthma and allergies," said Dr. Alvin V. Thomas, Jr., chief of the division of pulmonary diseases at Howard University Hospital and coordinator of the event.

Susan Kidd of WRC-TV moderated the program and expressed her personal interest in the subject. Kidd said she, her husband and their two sons all have asthma. She introduced Dr. Anthony S. Fauci, director of NIAID, who spoke briefly about the role of research. "Regular medical care and appropriate medicines can help control asthma," he said. "Research scientists are looking for even more effective medicines to help you."

Dr. Suzanne Hurd, director of the Division of Lung Diseases, NHLBI,

Frog Skin Yields Potential Pharmaceuticals

Chemical secretions from the skins of certain species of Amazonian frogs contain potent opioid compounds that show promise for a variety of clinical uses including the treatment of chronic and acute pain, control of narcotic addiction and alcohol abuse, and suppression of the immune response during transplant surgery.

Structure-activity studies on these amazing peptides (mini proteins) for the past 6 years at NIEHS have produced more than 200 modified kinds, or analogues, of these chemicals.

Dr. Lawrence H. Lazarus and Sharon D. Bryant of the NIEHS peptide neurochemistry group have collaborated with Prof. Severo Salvadori, University of Ferrara, Italy, and Prof. Pier Andrea Temussi, University of Naples, and other collaborators in Italy and Finland.

Lazarus said, "By focusing on the active portion of these opioids, we have created a new and extraordinary series of synthetic antagonists, substances which counter euphoric sensations. These contain only two or three amino acids, the building blocks of peptides."

The international team recently published its findings in *Molecular Medicine* (Vol. 1, issue 6, 1995, pp. 678-689.) The findings are the basis of a patent application.

Opioid peptides and their receptors are present in brain and peripheral tissues of all animals. The name opioid refers to peptides with narcotic opiate activity. Their receptors have been classified by scientists using morphine, the addictive extract from the opium poppy and numerous synthetic derivatives. Normally, the naturally occurring opioids produced by the body interact with their receptors with varying degrees of discrimination during periods of physiological change.

Lazarus notes that these new opioid compounds bind at very low concentrations and exhibit exceptional ability to discern one of three known receptors in animals and surpass the properties of all known opioid peptides and narcotic opiates in potency by 500 to 1,000 times; interestingly, that particular receptor is involved in analgesia, epilepsy and alcohol dependency. A simple chemical modification of the first amino acid and replacement of the second by an unusual amino acid was made possible by work this team published last year in *Biochemical and Biophysical Research*

Communications (Vol. 198, 1994, pp. 933-939).

A computer modeling approach by Bryant has revealed the optimum 3-dimensional structure of these opioids when they bind to its receptor. Lazarus compares the shape of this profile to a hand picking up a box of cookies. This work will be published in the *Journal of Medicinal Chemistry*.

Narcotic opiates have been used for thousands of years, beginning before recorded history, for the treatment of pain. Such use illustrates the concept of environmental mimicry, that is, plant materials that substitute for the body's own chemicals to induce euphoria. These have been administered by different routes—ingestion, inhalation, absorption or intravenous administration.

Only relatively recently have scientists learned that the secretions of certain species of Amazonian frogs contain potent opioid compounds that are specific for two out of three of these mammalian opioid receptors. Lazarus said introduction of frog secretions in medicine, however, probably began before the growth of modern civilizations, since prescriptions appear in cuneiform tablets from Assyria and Babylonia, and were used in the pharmacopeia of the dynastic Chinese and early Romans to treat a variety of illnesses or to regulate bodily functions.

Today the indigenous people of the Amazon basin use frog skin secretions in various ways; for example, "sapo" is part of shamanistic rites for the enhancement of mental perceptions and physical prowess, "to feel like god." Other highly poisonous secretions are regularly used to coat the tips of blow-gun darts for hunting.

"Now science is gaining insight into these ancient practices and finding new and powerful ways to utilize them in medicine," Lazarus noted. □

Healthy Volunteers Needed

Healthy male and female volunteers without significant anxiety problems are needed for a 3 to 4-hour study evaluating cognitive and psychological aspects of anxiety. Eligible participants will receive a \$40 payment. For more information call Jack Trakowski at the USUHS department of medical and clinical psychology, (301) 295-3651. □

Dr. Harold S. Ginsberg of NIAID's Laboratory of Infectious Diseases has been selected for the 1995 Outstanding Alumnus Award at Tulane University School of Medicine; it was presented at the university's recent homecoming festivities in New Orleans. Ginsberg has been the Eugene Higgins professor emeritus of microbiology and medicine at Columbia University College of Physicians and Surgeons, since 1988. His current research at NIH focuses on pathogenesis of adenovirus, HIV and SIV. Over the past 40 years, his work has helped to shape the thinking of a generation of virologists and to introduce modern research approaches to the field of virology. Ginsberg earned his medical degree from Tulane in 1941. He was chair of the department of microbiology at the University of Pennsylvania and was chair of the microbiology department at Columbia University before joining NIH in 1992.

NINDS Joins the Web

Internet users and World Wide Web cruisers now have access to the National Institute of Neurological Disorders and Stroke. NINDS recently added a home page to the information superhighway, providing access to a wide range of users including health care professionals, scientists, teachers, students, patients, journalists, and others interested in neurological research.

The NINDS home page offers information on extramural and intramural programs, research grant funding, minority programs, clinical studies, and the mission and history of the institute. Also available are health information publications, press releases, program announcements, study section rosters, and employment announcements.

Come visit NINDS at <http://www.nih.gov/ninds/> or in the "Institutes and Offices" section of the NIH home page. □

NETWORKING

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hackers have become wise to ICDs' security measures. A year and a half ago, out-of-state law enforcement officials arrested hackers with a list of logins and passwords for more than 400 NIH users from several ICDs.

NIH computing resources have become so complex that a single NIH user may have more than 15 logins and passwords, one for each system or database he or she needs to access. Sending e-mail between ICDs can be difficult and confusing. Overloaded technical support and duplication of effort are the norms. DCRT and ICD support staff, whose responsibilities once were focused on a few central computer and network services, are now faced with the daunting task of maintaining this network maze.

The AMG's goal is to develop consensus guidelines for NIH computing in order to improve information access and sharing, improve support for computer users, and reduce the cost of providing current technologies to administrative and scientific staff. Led by Perry Plexico, chief of DCRT's Computing Facilities Branch, the AMG consists of representatives from all the ICDs. At its first meeting, a 3-day retreat in early 1994, the AMG focused on the basics: how diverse is computing at NIH; if consensus standards can be defined, how can they be adopted and implemented; and what will be the costs and ramifications to the NIH community.

At its second retreat in March 1995, the AMG sought to "evergreen" or update its earlier findings to reflect new technologies in the ever-changing information technology marketplace. By the end of the retreat, the AMG had agreed on concise and uniform computing and network guidelines (see sidebar) including short- and long-term solutions on network operating systems (NOS), e-mail, central directory services, security, platform choices for servers and workstations, and the pilot applications for the futuristic distributed computing environment (DCE).

Implementing the AMG's recommendations will have a welcome effect in this time of fiscal austerity: savings. It will be cheaper and easier to buy, maintain, and support your computers than ever before. Other savings will be found through client-server application sharing, made possible by increased interoperability.

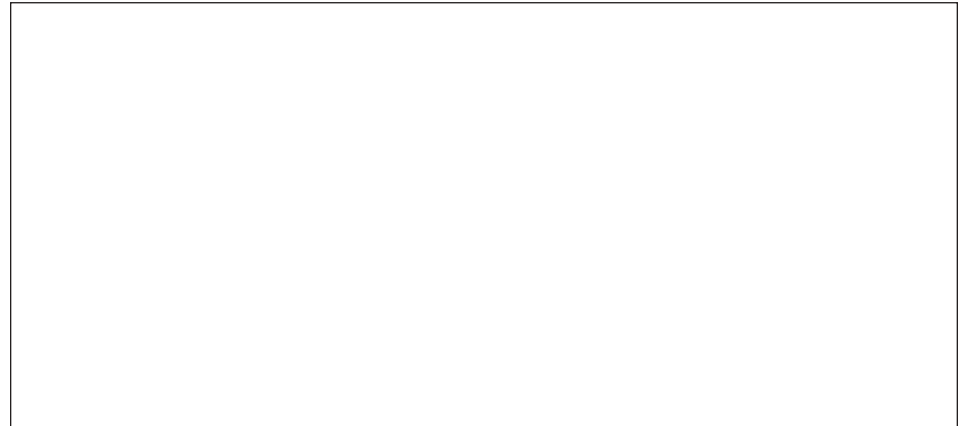
The AMG is not forcing standards on the NIH community. It is identifying technologies that offer the greatest benefits to NIH users and offering its findings to the ICDs. The benefits, however, will only materialize if ICDs adopt the consensus guidelines. As one member of the group put it, "The guidelines are purely voluntary. However, an ICD that ignores the consensus is likely to become isolated from other ICDs and computing resources at NIH, and risks losing the benefits of interoperability within its own LANs. In any case, the cost savings in technical support and procurements will probably persuade ICDs to come on board."

The AMG is currently planning several seminars to present its findings to the NIH community. Initial meetings will involve executive, administrative and scientific officers. NIH staff are welcome

to make comments and suggestions to AMG members.

If and When...

The AMG's goal is to see the consensus guidelines adopted throughout NIH and to implement DCE in every networked computer on campus. Converting all 18,000 personal computers to DCE compliance may take up to 5 years. AMG members agree that the process, both technical and organizational, needs to begin now so that NIH is well positioned for a campus-wide DCE implementation initiative. For more information on the recommendations, call 4-DCRT and request the AMG '94 and '95 retreat reports, *PC Briefs* (June 1995), and the *AMG Quarterly*. Future announcements will be posted on a new Web page accessible through www.nih.gov/dcrt/what's-new.html.



Architectural management group members include (front, from l) Jaren Doherty, Jackie Sanders, Ellen Ring, Perry Plexico, David Wise, Julie Burke, Tom Boyce, Tom Murphy. In middle row are (from l) Carol Martin, Carolyn McHale, Betty Ann Sullivan, Ron Edwards, Anne Robertson, Larry Mahan. In top row are (from l) Nancy Chamberlin, Peter Alterman, Lynda Bennett, Don Fletcher, Sue Hamilton, Alan Harbitter, Fernando Burbano, David Scheim.

AMG Recommendations: A Closer Look

Network Operating Systems (NOS)

A major task facing the AMG was to choose a "corporate" NOS that can meet the complex needs of NIH. A NOS can be thought of as a language that a server (the "command central" computer) uses when communicating with other workstations on a LAN. It allows users to share peripherals and enables file and print sharing. The AMG envisions a computing environment where application sharing would be possible for all NIH, saving time and money while enhancing productivity. One could easily schedule inter-ICD conferences, share reference materials and policy

documents, and transfer electronic forms and associated data fields.

The two prime contenders, Novell NetWare and Microsoft Windows NT Server (NTS), were both solid operating systems already in widespread use at NIH on LAN servers. In the end, the group recommended Windows NTS, which has the added benefit of an already existing DCE building block as an internal communications mechanism. Since one of the AMG's main goals is to implement DCE, NTS was seen as a good first step in that direction. Recognizing that some institutes already have a substantial investment in Novell, the group recom-

mends that if the opportunity arises, a change to Microsoft should be considered. The AMG will study the costs of moving to Windows NTS and will present its results to the ICDs to facilitate network decisions.

E-Mail

Every day NIH staff exchange thousands of e-mail messages, yet NIH has no standard e-mail protocol, so an e-mail message going from one system to another has to run a gauntlet of different protocols and translation gateways to get to the addressee. The result is unpredictable: text may end up garbled or not arrive at all. Attaching application-dependent files to inter-ICD e-mail can make matters worse. The AMG believes the solution to the e-mail problem is simple—Simple Mail Transport Protocol (SMTP), to be precise. It is the standard used on the Internet to get mail from one place to another. Once installed as the e-mail backbone for NIH, SMTP will ensure safe, reliable e-mail transport for all NIH staff. In addition, e-mail messages will automatically be ready for the Internet, affording the NIH community easy communication with others around the world.

The AMG also recommended the adoption of Multipurpose Internet Mail Extensions (MIME), a set of protocols that allows the user to attach a broad range of file types to e-mail messages. Once a file is marked as an attachment, it arrives intact and openable by the appropriate application. The key feature of e-mail (as well as many other LAN services) is "user transparency." Few people really care which e-mail protocol they're using if the user interface is easy to use and their e-mail arrives promptly. Which software is compatible with SMTP? The AMG recommends two products. If you're running a PC-based workstation on your LAN, the AMG suggests Microsoft Mail. Not only do you get the advantages of SMTP, but you can also use the NIH-wide directory services already provided by DCRT. As for Macintosh LANs and stand-alone workstations, the AMG recommends using Eudora mail for native SMTP access. The Mac version of MS Mail isn't as fully developed, and many find it hard to use. The next release of Microsoft Mail (dubbed "Exchange") will address these problems and have built-in MIME attachment support.

The AMG's long-term goals include adoption of universal MIME translators so that all attachments can be read

without trouble and use of a single e-mail software package that works on Windows, Unix and Macintosh platforms.

Shift to DCE: Central Registry Services

The centerpiece of the AMG's recommendations for an information technology infrastructure depends on the creation of a distributed computing environment. DCE is a set of basic client-server and other distributed computing software that runs over an operating system but beneath individual applications. It can be run on any computer platform, and has recently gained popularity among Unix users.

An NIH-wide migration to DCE is planned in four phases. The first phase, Registry and Secure Services, involves the design of an NIH-wide registry of users and access privileges. Once in place, this registry will provide the foundation for many secured services, including telnet, e-mail, and database access.

The second phase, File Storage and Management, will provide managed, shareable network storage. This resource will let users extend their available workstation disk space and will be regularly maintained and backed up. Further down the line, this common disk space can be used for centralized software distribution, providing quick and easy access to new software and program upgrades.

Development Environment, the third phase, will introduce the full suite of DCE tools. One key tool is directory service, which will allow DCE to keep track of where data and services reside, relieving the user of this responsibility. Also available will be Distributed File Service, which will allow transparent access to remote files, keeping the same name for files regardless of where they are stored or from where they are accessed.

The last stage of the DCE implementation, Desktop Services, will extend DCE functions and access to client-server applications to personal computers throughout NIH. Users will have secure and transparent access to all the benefits of DCE.

DCRT is currently testing the DCE initiative. A pilot cell (a defined LAN group) has already been set up and is running security, directory and distributed file services for about ten Unix workstations and PCs. This cell is being used to integrate and test services such as Kerberos-protected telnet and database access to link PCs with the existing

distributed file storage that is a part of the Advanced Laboratory Workstations system, as well as to establish an initial security registry.

Distributed Computing and Security

A key feature of DCE is the security it gives to users. Named Kerberos after the mythical three-headed dog that guarded the gates to Hades, it relies on shared secret-key encryption. When you want access to an application, your computer sends your identification and requests an encrypted authentication "ticket" from the server, which is then decrypted with a special password chosen ahead of time. Your computer then sends the decrypted message back to the server, and it returns a service-granting ticket allowing you access to any information services you have been authorized to use, from databases to e-mail systems, only for a limited time. All this is handled by the computer, so to the user the process seems no different than any other password entry. Since your password is never transmitted to the server, a hacker cannot intercept it. A hacker might intercept the encrypted service-granting ticket, but the ticket would most likely expire by the time it was decrypted. Multi-application access is all accomplished with a single user password for the length of time the ticket is valid.

Recommendations in a nutshell:

Network Protocol

- Transmission Control Protocol/Internet Protocol (TCP/IP Standard)

Network Operating System

- Windows NTS
- Novell Netware (with phased migration to NTS)

Application Server

- NTS, Unix, MVS/ESA (IBM)

Clients (workstations)

- MS Windows, Mac/system 7, Unix/Motif

E-Mail

- SMTP/MIME Backbone (Simple Mail Transport Protocol)
- Microsoft Mail (PC); Eudora (Mac)
- X.400 gateway and X.500 directory products

DCE Pilots

- Registry and secure services
- File storage and management
- DCE tools implementation
- NIH-wide or "enterprise" client/server applications

Security

- Kerberos (DCE)
- NTS proprietary security (NTS LANs)
- RACF (MVS/ESA operating systems, e.g., IBM mainframes)
- RSA (Novell)

EMERGENCY

(Continued from Page 1)

Islands on St. Thomas] lost their roofs, and many homes and public buildings (such as the public health clinic) in the village of Tutu were destroyed. The leeward side of the island and areas around Red Hook fared better. St. Thomas Hospital had a number of patient rooms destroyed. The psychiatric unit that I visited lost half of its patient rooms. All the patient interview rooms in the Community Mental Health Center I visited were similarly destroyed. Only buildings and homes with generators had power. Water pressure was such that few buildings had running toilets. All the high rise public housing facilities that I saw were destroyed. I was told the majority of elementary school buildings were destroyed. The high schools were in use as temporary housing shelters, so there was great concern over the ability to have a school year this year. Interestingly, the older, colonial era buildings in Charlotte Amalie appeared to be largely intact. These buildings were generally heavy stone and masonry construction with heavy storm shutters."

For some volunteers like Ed Davis, the devastation of Marilyn was *deja vu*. A DMAT respiratory technician who works in hospital administration in the Clinical Center's material management department, Davis recalled seeing similar devastation in 1989 after Hurricane Hugo hit St. Croix. "St. Croix took the brunt of Hugo," he noted. "This time it was St. Thomas. The entire east side of

Above, an overturned boat, blown ashore by Hurricane Marilyn, becomes a notepad at a pier in St. Thomas. The craft below ended up on the shoulder of a roadway in the storm.

Photos: Gene Herman, FDA and Van Hubbard, NIDDK

the island was destroyed. For the first week down there, the PHS DMAT worked out of the St. Croix hospital that they had just finished rebuilding after Hugo. The second week, the majority of the PHS DMAT left for St. Thomas via military aircraft. The major parts of the St. Thomas hospital that were damaged were the pediatric unit and the outpatient/emergency room. These units operated temporarily from tents set up outside. In addition, electrical power to the hospital had to be shut down for safety reasons. A pharmacy and medical supplies distribution center, which eventually supplied materials to the

entire island, also needed to be set up outdoors."

Dr. Michael Montello, a pharmacist in NCI's clinical research pharmaceuticals section and DMAT member, spent the first week after Marilyn hit staffing and restocking the St. Croix hospital's pharmacy. During the second week, he flew with the team to assist on St. Thomas. He said the post-hurricane condition of the area's vegetation was most striking.

"When you think of the Caribbean, you think of lush tropical vegetation," he remarked. "St. Thomas after the storm was very brown and desolate. The trees were bare. It looked more like Maryland in the wintertime."

On Saturday, Sept. 23, about 20 PHS DMAT workers were able to move substantial portions of the relief effort from the St. Croix hospital to St. Thomas. Camp-style living quarters for the group were set up inside the island's disabled airport. Because the roof had blown off the facility, workers used tarps to shield their cots, bedrolls and other personal effects from the still-damp and rainy weather conditions. Tents outside the St. Thomas hospital served as a temporary clinic for residents who lived close enough to learn of the availability of medical assistance and supplies.

This post-Marilyn St. Thomas hillside shows the ravaged vegetation and damage to modern housing facilities experienced on the island.

Severely curtailed mass communication and shutdown public transportation left many residents unaware of or stranded from help, however. The next step was to set up an outreach operation.

"We knew before we came that there was a high prevalence of hypertension and diabetes on the island," said Dr. Van Hubbard of NIDDK, deputy commander of the PHS DMAT team and one of the first physicians to make the trip from St. Croix's hospital. "They were going to need medications and a pharmacy. We also realized that the population, especially the elderly, were not going to be able to get to us. We were going to have to go to them."

Using military vehicles and rental cars, several three- to five-person teams consisting of nurses, pharmacists, EMTs and first responders were deployed to hard-hit areas of the island, he said. "We did blood pressure screenings to initiate contact in the neighborhoods. Soon though, community leaders were canvassing their neighborhoods, seeking out senior citizens and others who needed help. We saw about 150 to 200 patients a day and we were keeping a pharmacist and the clinic busy daily from 9 to 5."

NIH Commissioned Corps Liaison Joyanne Murphy, who had volunteered with the PHS DMAT during the Georgia floods last year, arrived in St. Thomas on Sept. 22.

"My mission task was given to me upon arrival at the MSU [management support unit]," she said. "I was asked to perform liaison duties at the St. Thomas hospital for the MSU and PHS DMATs at the hospital. The kind of injuries seen were mostly minor (replacing medicines lost by the hurricane, checking blood pressures, blood sugars, etc., giving



This small plane was split and blown into a ditch during Hurricane Marilyn.

tetanus shots). There was some emergency care as well as major medical interventions. Overall, people on the island were very grateful and did not hesitate to express this sentiment."

It was during one of the early tours of the damage on St. Thomas that Davis, a Vietnam veteran who served with the 101st Airborne division, and a worldwide volunteer relief worker after floods, earthquakes and hurricanes since 1960, said he witnessed the strength and goodness of the human spirit.

A St. Thomas man volunteered to drive several DMAT outreach workers around the island to gauge conditions in more remote areas. During the course of conversation, Davis learned that the man's house had been completely wiped out by the storm, his wife and baby were living with relatives in another less-damaged home and his other child had been suffering with appendicitis in the St. Thomas hospital when Hurricane Marilyn ravaged the pediatric unit.

"All these terrible things had happened to him—he'd lost his home, his family was struggling and he had a very sick

child—and here he was volunteering to help us, to spend his time guiding us around town, looking out for others who needed help," Davis said. "It was incredible. And he never would have complained or said a word about his own troubles if it hadn't come up in passing."

"What was so remarkable to me," agreed Montello, a 2-year DMAT member, "was the resilience of the people. They were all so good-natured. They made me feel very welcome. Even if you weren't helping them directly, they were thanking you. By the time we left, the island looked vastly different. The roads were cleared. Even the trees were turning green again. It gave me a good feeling. I think this is one of the most important things the PHS can offer. When these disasters happen, this is job one for us." □

Thalidomide Effective Against AIDS-Related Mouth Ulcers

Thalidomide effectively and safely heals severe mouth ulcers (also called oral aphthous ulcers) in persons with HIV infection, according to an interim analysis of data from a placebo-controlled study supported by NIAID.

The study, sponsored through NIAID's AIDS Clinical Trials Group, compares the effectiveness and safety of thalidomide with placebo for treating patients with severe oral and esophageal ulcers. In the second or maintenance phase of the study, doctors are evaluating thalidomide's ability to prevent recurrences of ulcers in the mouth or the esophagus. As a result of the findings of the interim analysis, current and newly enrolled study participants with oral ulcers will all receive open-label thalidomide rather than being randomized to receive either placebo or drug. Patients with esophageal ulcers will continue to be randomized. The maintenance phase of the study will continue as originally planned.

"Many patients with HIV infection suffer from these extremely painful mouth ulcers, making eating difficult and contributing to weight loss and debilitation," said NIAID director Dr. Anthony S. Fauci. "Thalidomide is the first treatment shown in a rigorous scientific study to heal these ulcers. As the study continues, we anticipate additional valuable information about the drug's effectiveness and long-term toxicity." □

About PHS DMAT Deployment...

Deployment to St. Thomas after Hurricane Marilyn was just the most recent relief mission by the Disaster Medical Assistance Team (DMAT) of the Public Health Service, according to its deputy commander, Dr. Van Hubbard of NIDDK.

Comprised of approximately 150 employees, primarily from NIH, FDA, and the Health Resources and Services Administration, the PHS DMAT meets monthly, trains intensively for at least 2 weeks a year with the Maryland and Virginia Army National Guard and has been deployed as a team to two other storm sites—Hurricane Hugo in 1989 and Hurricane Andrew in 1993—before traveling to the site of Hurricane Marilyn this year. In addition, individual members of the team have assisted after Hurricane Iniki in Hawaii, the floods in the Midwest and Georgia, in several California earthquakes and in the bombing disaster in Oklahoma City.

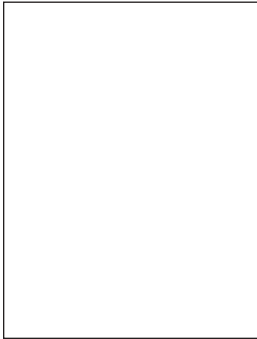
The Office of Emergency Preparedness coordinates disaster response operations for the Department of Health and Human Services and is responsible for deploying the DMAT, which can establish short-term and intermediate-term fully functional clinics.

For more information about the PHS DMAT or for applications to join, call Hubbard, 4-8883, or Ed Davis, 6-4661.

Scientist Emeritus Scow Honored at Symposium

NIDDK's Dr. Robert O. Scow, whose career has spanned the institute's 47-year history, was honored recently at a symposium on "Lipid Transport and Regulation."

Symposium participants were Dr. Martin Rodbell, 1994 Nobel laureate; Dr. Thomas Olivecrona, Umeå University in Sweden; Dr. Donald M. Small, Boston University School of Medicine; Dr. George H. Rothblat, Medical College of Pennsylvania; Dr. W. Virgil Brown, Emory University; and Dr. Louis C. Smith, Methodist Hospital in



Dr. Robert O. Scow

Houston. Now retired and designated scientist emeritus, Scow's "significant contributions to biomedical research" continue, said symposium chair and former NIH deputy director for intramural research Dr. J. Edward Rall.

Receiving his M.D. from the University of California, San Francisco, in 1946, Scow came to NIH in 1948 to join the research group that became the National Institute of Arthritis and Metabolic Diseases (now NIDDK) in 1950.

Scow's early work focused on the role of thyroid hormone and growth hormone in the growth and maturation of young animals. When his interest shifted to diabetes and the effects of insulin on metabolism, Scow began to work with visiting Argentinean Nobelist, Dr. Bernardo Houssay, eventually following him to Buenos Aires.

"Houssay's lab provided an outstanding environment to learn more about the role of insulin in protein metabolism, its mode of action, and its relationship to other hormones in controlling growth of normal tissues," Scow says.

In 1961, Scow became chief of the endocrinology section, Laboratory of Nutrition and Endocrinology (now called the Laboratory of Cellular and Developmental Biology). "Bob organized the section with gifted endocrinologists who used many different ways to assay for hormones," recalls Rodbell. "It was the beginning, in a sense, of modern endocrinology, because through their efforts, hormones like TSH and parathyroid hormone were isolated and purified, and we began to understand what the nature of these hormones and their receptors might be."

Scow's interest next turned to the role

of hormones in fat transport and fat metabolism. Familiar with Rodbell's work on lipoproteins, Scow went to Holland, where Rodbell was then living, to offer Rodbell a job in his lab. Their collaboration was fruitful. Together they found where the enzyme lipoprotein lipase existed, where it was produced, how it was secreted, and how it worked. "Marty introduced me to lipoprotein lipase, and I introduced him to fat cells," said Scow.

He and his colleagues also discovered lingual lipase, the enzyme essential for the first stage of digestion of dietary fat in several species. Intestinal cells package dietary fat into lipoprotein particles, called chylomicrons, for transport by the blood stream to heart, muscle, and adipose tissue. Because these particles are too large to pass unchanged through blood vessel walls, fat (triglyceride) in these particles is converted in capillaries by lipoprotein lipase to fatty acids and monoglycerides for transport across capillary walls into tissue cells.

Scow has spent the last 25 years studying the movement of fatty acids and monoglycerides in cells, tissues, and model membranes, using electron microscopy and various physicochemical techniques. He and his colleagues found that fatty acids quickly acquire properties of membrane lipids when they come in contact with slightly alkaline fluids such as those in cells and tissues. In contrast, monoglycerides always have these properties. Scow and his long-time collaborator, Joan Blanchette-Mackie, have proposed that fatty acids and monoglycerides flow between blood and tissue cells within a continuum of cell membranes.

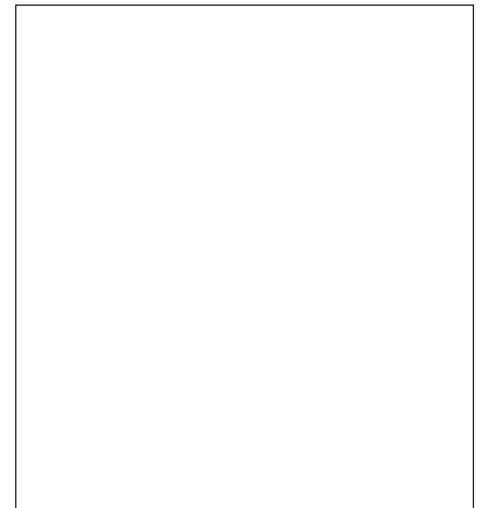
His current research focuses on combined lipase deficiency (CLD) syndrome in mice. Mice born with CLD develop 400 times the normal levels of fat in the blood and die 2 to 3 days after birth. Earlier studies showed that lipoprotein lipase and hepatic lipase (an enzyme involved in HDL metabolism) activities are not detectable in such mice. Scow's research indicates that synthesis of inactive lipoprotein lipase in CLD cells results from their inability to transport the lipase from endoplasmic reticulum.

During his distinguished career, Scow was selected as a Guggenheim fellow and

a Schering scholar by the Endocrine Society. He presented the American Heart Association's 1974 Duff Memorial Lecture, and in 1991, received an honorary M.D. from the University of Umeå in Sweden.

In his spare time, Scow translated his scientific knowledge into art, creating stained glass windows showing the metabolism of fat in a blood vessel wall and honoring the work of Dr. J. Edward Rall in hormone research. Scow has also produced four 16mm motion pictures on fatty acid transport. He has played alto saxophone with the NIH Dance Band, and bassoon with the NIH Orchestra.

Scow's Danish grandfather helped pioneer the settlement of Dos Cabezas, Ariz., where Scow was born. Robert Scow followed in his footsteps by becoming an academic pioneer, the first valedictorian at Avenal High School in California. He was invited back to Avenal in 1988 to give the 51st commencement address. □



Dr. Robert J. Wenthold, chief of NIDCD's section on neurotransmitter receptor biology, received the 1995 Kresge/Mirmelstein Award for Excellence in Hearing Research recently during the Kresge Hearing Research Laboratory of the South's second annual scientific symposium. He received the award for his progressive research that uses molecular techniques to demonstrate the role of amino acids such as glutamate and glycine as neurotransmitters in the inner ear and in the brain's auditory pathways. The Kresge laboratory is part of the department of otolaryngology at Louisiana State University Medical Center. The Kresge/Mirmelstein Award was established in 1994; Wenthold is its second recipient.

Interpreters Serve Employees, Visitors and Patients

The Office of Equal Opportunity has provided sign language interpreting services to the NIH community since Spring 1988. Gary Morin and Mark Langer are the current staff interpreters, providing services to all ICDs on an as-available basis. Interpreting Services can also provide consultation on making the work environment more accessible. Additionally, they are available to provide information and resources for information referral about technical equipment for use by deaf people, i.e., TTYs, decoders, signal flashing systems, and/or the language and culture of deaf people. They can help employees find sign language classes, including contractors for in-house instruction.

When NIH first began hiring deaf employees, American Sign Language-English interpreting was unheard of. Communication often occurred through paper and pencil or lip-reading. Although mandated by law through the Rehabilitation Act of 1973, section 504, provision of interpreters has been slow in coming for communication between deaf and hearing persons in this and other federal work sites. However, interpreting services are now available to all employees, visitors and patients at NIH. This service is provided for a variety of meetings ranging from campus-wide programs and scientific conferences to one-on-one meetings between supervisors and employees or doctors and patients.

While the Rehabilitation Act is the letter of the law, the spirit of the law is ensuring that respect is shown for all staff members or the audience. For sessions lasting more than 1 hour, interpreters work in teams of two in order to provide them with time to process the information that is transpiring. They aren't simply giving one another a break. The interpreter is not just listening to English and signing word for word. He or she must comprehend the information being communicated and "speak" in a second language.

According to Danica Seleskovitch in *Interpreting for International Conferences*, "modern medical research has established that one can maintain an efficient level of output for no more than 30 minutes at a time on a job which demands close attention and which cannot be performed by conditioned reflexes." When one interpreter is not in "the hot seat," he or she is still functioning in his or her role.

The primary duty of the team interpreter is to feed his or her partner any information or cues that may have been missed.

In the highly technical arena of NIH, almost no information can be considered noncritical. Further, it is not for the interpreter to decide which information is or is not crucial to the communication exchange. Therefore, the second interpreter is monitoring the interpretation to provide any lost or misinterpreted information. To avoid fatigue and ensure occupational safety, two interpreters are required, depending on the content and length of assignments. Carpal tunnel syndrome and repetitive motion injury (RMI) are increasingly common among sign language interpreters. More than 50 percent of the federally employed interpreters now suffer from RMI or some other occupationally related injury.

There may also be occasions when oral interpreters are required. Technically speaking, they do not interpret—which implies two distinct languages—but transliterate. Transliteration is the process of changing the mode of communication while maintaining the original language. Since English is only 30 percent lip-readable, the oral interpreter must substitute words for what is spoken while maintaining the integrity of the

message. Depending on the deaf person's preference, the interpreter may or may not sign at the same time.

Interpreters are required at any event open to NIH employees and/or the public. A specific request must be made with Interpreting Services, OEO. When the NIH interpreters are not available, they will provide information about referral agencies and independent contractors.

Interpreting Services has compiled a wealth of literature on the use of sign language interpreters, specifically in medical and science settings. This material is available through either their lending library or during training on the use of interpreters. Deaf culture and American Sign Language resources as well as presenters on various cultural and linguistic issues are available to lecture or conduct workshops on request.

A copy of the policy and procedures for requesting interpreting services from OEO can be obtained by calling Interpreting Services. For more information, contact the sign language interpreters, Gary Morin, 6-4628 (voice) or 6-9755 (TTY) or Mark Langer, 4-3061 (voice) or 4-3180 (TTY). For general information, Carlton Coleman, Disability Employment Program manager, may be reached at 6-2906 (voice/tty). □

Recent graduates of the Neuroscience Nurse Internship Program at the Clinical Center are (seated, from l) Dianne K. Urcioli, Dirk W. Pennington, Sharon R. Huttie, Mary L. Ley, and James Michael Rucker, all registered nurses. Members of the neuroscience leadership team are (standing, from l) Barbara Bowens, nurse manager, 5 East; Jody Becker, nurse manager, 5 West; Beth Price, clinical nurse educator; Dr. Mark Hallett, NINDS clinical director; Gladys Campbell, critical/acute care patient services chief; Lorena Gaskill, clinical nurse specialist; and Elaine Harrison, nurse manager, neurology clinics and day hospital.

Firestein Gives NIDCD Anniversary Talk

Dr. Stuart Firestein presented the NIDCD Anniversary Lecture recently at the Natcher Conference Center. The lecture commemorates the establishment of NIDCD in October 1988. This year's lecture, "Sensory Signal Transduction in Olfactory Receptor Neurons," featured olfactory system research.

Firestein is associate professor in the department of biological sciences at Columbia University. He earned his B.S. in physiology at California State University in San Francisco and his Ph.D. in neurobiology at the University of California in Berkeley. He was a postdoctoral research associate in neurobiology with Dr. Gordon Shepherd at Yale Medical School. Firestein is an NIDCD grantee, a member of the Association of Chemoreception Sciences, the Biophysical Society and the Society for Neuroscience, and the recipient of many awards, including the NATO Collaborative Research Award.

His research focuses on the use of the vertebrate olfactory receptor neuron as a model for investigating general principles and mechanisms of signal transduction, receptor-ligand interactions, modulation by second messengers, ion channel gating, and the long-term mechanisms of adaptation and desensitization. The



Dr. Stuart Firestein (l), who delivered the NIDCD Anniversary Lecture, is greeted by NIDCD director Dr. James B. Snow.

olfactory neuron is uniquely suited for these studies since it specifically detects and discriminates a wide variety of small organic molecules as odorants.

He emphasized that research in olfaction has changed significantly in the last decade. Advances at all levels of investigation, from molecular to cognitive and behavioral, have increased our appreciation for this elegant sensory system. The olfactory system has become part of mainstream neurobiology, and its continued study will add to the general fund of biological knowledge, as well as providing information on the question: How do we perceive odors? □

HIV Trapped in Lymph Nodes Is Infectious Despite Antibodies

Even when coated with antibodies, HIV trapped by specialized lymph node cells remains infectious, according to researchers supported by NIAID. Ensnared viruses may ambush critical immune cells that migrate through the lymph node, a scenario that provides a possible explanation for the large quantities of HIV and HIV-infected cells found in the lymph nodes of people with HIV disease, many of whom have abundant anti-HIV antibodies.

As reported in the Oct. 26 *Nature*, Dr. Gregory F. Burton and colleagues at Virginia Commonwealth University in Richmond found that HIV, when attached to the external surface of lymph node cells called follicular dendritic cells, infected CD4+ T cells even in the presence of a vast excess of neutralizing antibodies. In the absence of follicular dendritic cells, similar quantities of neutralizing antibodies blocked the infectivity of the virus.

Although the precise mechanisms remain unclear, Burton and his col-

leagues observed the ability of follicular dendritic cells to facilitate HIV infection in the presence of neutralizing antibodies in a laboratory model based on human cells, and in mice.

"These important findings build on previous data that demonstrate that the lymphoid organs are central to the pathogenesis of HIV disease," noted Dr. Anthony S. Fauci, NIAID director.

A commentary on the paper by the Virginia Commonwealth group, written by Fauci and Dr. Lewis K. Schragger of NIAID's Division of AIDS, appears in the same issue of *Nature*.

Follicular dendritic cells have thread-like tentacles and are found in lymph nodes and related organs such as the tonsils and spleen, within hot spots of immune activity called germinal centers. These cells act as flypaper, trapping invading pathogens (including HIV) and holding them in the germinal centers until B cells come along and initiate an immune response. Close on the heels of B cells are CD4+ T cells, which rush into

Clinical Center's on the 'Net

The CC's home page is now a part of the World Wide Web. The Internet address is <http://www.cc.nih.gov/>. Information on the page is arranged in three main categories—general information about the CC, health information for the public, and medical and scientific educational resources.

The listing of current clinical research studies on the home page offers, for the first time, an online resource for physicians who would like to refer a patient to the CC. The service, developed by the CC medical record department and the National Library of Medicine, includes up-to-date details on the protocols. The medical record department updates the listing daily. □

Join the R&W

R&W membership is only \$5 for the second consecutive year. It's a deal you can't pass up: 1996 membership entitles you to a 10 percent store discount at R&W giftshops, movie rentals, travel discounts, dry cleaning and film processing discounts, the Carlton "Buy 12, Get 1 Free" card, and much more. Memberships are now on sale and can be purchased at any R&W location. Call Jodi, 6-6061, for more information. □

the germinal centers to help the B cells fight the invaders.

"CD4+ T cells are the primary targets of HIV," explained Fauci. "These cells may become infected as they enter the germinal center and encounter HIV trapped on follicular dendritic cells." Once infected, CD4+ T cells may leave the germinal center and infect many other CD4+ T cells that congregate in the region of the lymph node surrounding the germinal center.

"Paradoxically, the networks of follicular dendritic cells in the germinal centers, by doing their normal job of trapping pathogens and initiating an immune response, may be an important reason why HIV is so effective at destroying the immune system," said Schragger. "By trapping HIV, the follicular dendritic cells expose a steady stream of CD4+ T cells to the virus, which, as Burton's work tells us, appears to be infectious even in the presence of neutralizing antibodies." □

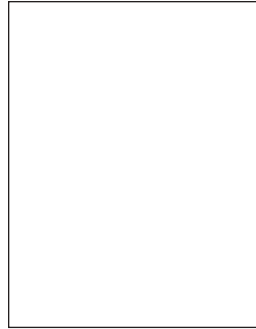
McGowan To Direct NIAMS Musculoskeletal Diseases Branch

Dr. Joan McGowan, director of the NIAMS Bone Biology and Bone Diseases Branch, has been appointed director of the newly reorganized Musculoskeletal Diseases Branch, which incorporates her former programs.

The branch manages extramural grants in three programs—bone diseases under McGowan, bone biology under Dr. William Sharrock, and orthopaedics under Dr. James Panagis. Broad areas of interest include skeletal development, metabolism, mechanical properties, and responses to injury. Diseases covered by the grants program include osteoporosis, a disease of low bone mass that increases susceptibility to fractures; osteogenesis imperfecta, a genetic disorder that leads to fragile, easily-fractured bone; Paget's disease of bone, which results in irregular bone formation and subsequent deformity; osteopetrosis and the chondrodysplasias, which are genetic disorders of bone growth and development; and vitamin D deficiency diseases

such as rickets. The causes and treatment of acute and chronic injuries, including back and neck pain and carpal tunnel syndrome and other repetitive

stress injuries, are foci of other studies. The branch also supports development of new technologies including biomaterials for use in joint replacement, drug and nutritional interventions, cartilage



Dr. Joan McGowan

transplantation, and gene therapy.

McGowan has a master's degree in nutrition from Cornell University and a Ph.D. in biomedical science from Brown University. Prior to joining NIH in 1988 as grants associate, she was assistant professor of pediatrics (biochemistry) at

Harvard Medical School, where she conducted research on regulation of cellular growth and control of differentiation. She also held staff appointments to the Massachusetts General Hospital and the Shriners Burns Institute. She joined NIAMS in 1989.

McGowan has been very active in women's health research activities at NIH, including the Postmenopausal Estrogen Progestin Intervention Trial and the Breast Cancer Prevention Trial. For the latter, she is responsible for an ancillary project in the tamoxifen trial that will assess the effect of this medication on bone density in pre- and postmenopausal women.

She was a member of the NIH planning committee on the Women's Health Initiative (WHI), which is testing promising interventions in cardiovascular disease, breast and colon cancer, and osteoporosis. She is currently a project officer for five of the 40 clinical centers conducting the WHI, including three that are focusing on osteoporosis. □

Johnston Named Deputy Director of DAIDS

Dr. Margaret I. Johnston has been named deputy director of the Division of AIDS, NIAID. She had been acting in that capacity for 2 years, including a period when a permanent division director was being sought.

NIAID director Dr. Anthony S. Fauci said, "Dr. Johnston brings considerable expertise and talent to the position of deputy director of DAIDS, and there is no doubt that through her initiative and dedication, DAIDS will continue to be an innovative and nationally recognized extramural research program."

Johnston was one of the first staff members recruited in 1987 for what was then the AIDS Program of NIAID. Since then, she has served in several positions in the Developmental Therapeutics Branch, including chief, and most recently as associate director for the Basic Research and Development Program.

In recognition of her contributions to NIAID's efforts in AIDS developmental therapeutics, she received the NIH Merit Award in 1991. She was the recipient of the NIH Director's Award in 1994 for outstanding scientific leadership of the Basic Research and Development Program in DAIDS.

Johnston cochaired the NIH Office of AIDS Research coordination committee for vaccines for 2 years, and is a member of the World Health Organization's Global Programme on HIV/AIDS

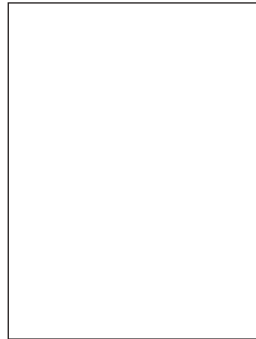
steering committee on vaccine development. During the past 2 years, she was pivotal in the expansion and coordination of NIAID's vaccine research and development programs.

Prior to joining NIAID, Johnston was a faculty member in the biochemistry department of the Uniformed Services University of the Health Sciences, where she was active both in research

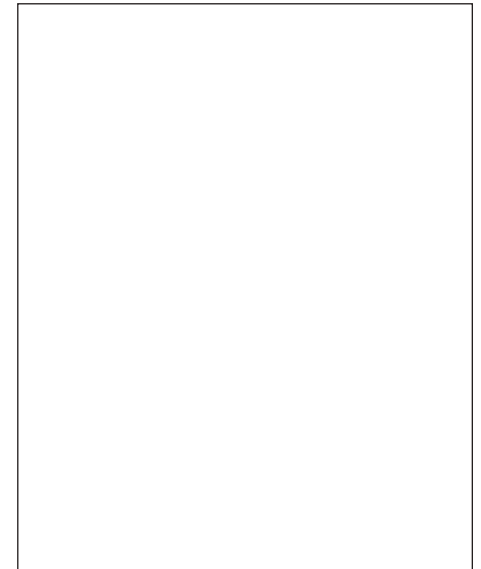
and in teaching of medical and graduate students.

She completed a 4-year staff fellowship at NIH in the Laboratory of Chemistry in what was then the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases. Johnston also did postdoctoral research for a year at the Rega Institute for Medical Research in Leuven, Belgium.

She earned a bachelor's degree in chemistry from Carnegie-Mellon University in 1972, and her doctorate in biochemistry from Tufts University in 1977. □



Dr. Margaret Johnston



Dr. John E. Bennett of NIAID has been elected vice president of the 5,000-member Infectious Diseases Society of America. He has served on numerous committees of the society. One of the nation's leading experts on systemic fungal infections, Bennett is chief of the clinical mycology section in the Laboratory of Clinical Investigation and directs the infectious disease clinical training program for NIAID. In addition to publishing extensively in journals and leading textbooks in his field, he has served on the editorial boards of several journals. In 1991, the American College of Physicians designated Bennett as a "master" for his contributions to the understanding of systemic mycoses.

The NIH Life Sciences Education Connection



NIH director Dr. Harold Varmus taught nearly 100 congressional staffers the basics of cancer during the NIH Mini-Med School on Capitol Hill on Oct. 30.

He discussed what cancer is, the causes of cancer, and how we can use our knowledge of cancer genes to guide prevention, risk assessment, early diagnosis, and therapy. The Mini-Med School students can then use this information to help them make better decisions about their own health and about health policy.

One 24-year-old legislative assistant said she was interested in attending the Mini-Med School for her own education and because she handles health issues in her office. She said the lecture

was interesting and challenging. Another student commented that "Dr. Varmus was able to explain complex processes in a very understandable manner."

The cancer lecture was the second in the four-lecture series being held at the Rayburn House Office Bldg. The other lectures featured Dr. Richard Klausner teaching "Cells, DNA, and Gene Expression," Dr. Anthony Fauci discussing "Infectious Diseases," and Dr. Francis Collins teaching "Human Genetics."

The NIH Mini-Med School on Capitol Hill is modeled after the Mini-Med School for the public held at NIH each spring. The school is a free lecture series that introduces attendees to subjects that might be encountered during a medical school curriculum.

For more information about the NIH Mini-Med School, call the Office of Science Education, 2-2469.

DRG Presents AAMC Workshop for Minorities

Division of Research Grants staff recently presented an all-day workshop at the sixth annual Association of American Medical Colleges (AAMC) minority faculty career development seminar.

The seminar was designed for minority junior faculty, senior fellows, instructors, and assistant professors who wish to pursue leadership positions in academic medicine. Some 150 minority faculty and research scientists, as well as government representatives, attended the conference that included 3 days of workshops, roundtable discussions, a tour of NIH labs, and networking socials.

The DRG workshop featured presentations by staff members and consultants. Entitled "NIH and the Research Support Process," it included individual presentations, small group discussions, and question-and-answer sessions. The division provided information on the peer review system and mechanisms of support for biomedical and behavioral research and research training. It was chaired by acting deputy director of DRG, Dr. Anthony Demsey, who found the session "stimulating and rewarding. We hope that DRG will be invited back next year to organize this session for AAMC." Dr. Donna Dean, acting chief, Referral and Review Branch, DRG, remarked, "It was truly an invigorating and stimulating day. The seminar



Dr. Asher Hyatt (l), chief, DRG chemistry and related sciences review section, and Dr. Anthony Demsey, acting DRG deputy director, chat with Dr. Peggy Dilworth-Anderson of the University of North Carolina, Greensboro.

participants were the most dynamic and interactive audience that I have ever had the pleasure of speaking with."

Also presenting were Drs. Patricia Straat, Elliot Postow, Asher Hyatt, Bruce Maurer, Jeanne Ketley, all from DRG; Dr. Faye Calhoun, NIAAA; Dr. Adolphus Toliver, NIGMS; Dr. Mark Lively, Bowman Gray School of Medicine; Dr. Suzanne de la Monte, Harvard Medical School/Massachusetts General Hospital; and Dr. Peggy Dilworth-Anderson, University of North Carolina-Greensboro. The workshop coordinator was Dr. Samuel C. Rawlings, DRG. □

Dr. Dorothea S. Miller, 86, a scientist administrator with the National Institute of General Medical Sciences from 1964 to 1985, died on Oct. 17. From 1964 to 1975, she was in the biological science section of the NIGMS Research Training Grants Branch; and from 1975 until her retirement in 1985, she was in the institute's Genetics Program. Prior to joining NIGMS, Miller spent 20 years as a faculty member at the University of Chicago.

DRG Training Classes

Getting Started with C	11/27-30
Introduction to WYLBUR	11/27-12/8
JMP for the Macintosh	11/28
Creating Applications for QMF	11/28
Image Processing on the Macintosh	11/28
FASTLINK for Linkage Analysis	11/29
Topics in the Structural Biology of Proteins	11/29, 12/6, 12/13
Introduction to Macromolecular Simulation	11/29, 12/6, 12/13
ENTER MAIL	11/30
Introduction to ISPF/PDF	12/1
PC Viruses	12/4
SAS Fundamentals II for Programmers	12/4-5
Unix Security	12/6
Data Desk for the Macintosh	12/6
SQL for DB2/MVS	12/8
Deregistration of Users for the NIH Computer Center	12/8

All classes are on the NIH campus and are given without charge. □

Sesame Street Live

R&W has tickets for "Sesame Street Live" at the Patriot Center. Tickets are available for two shows: Saturday, Dec. 2 at 10:30 a.m. and Sunday, Dec. 3 at 1 p.m. Cost is \$10.50 per ticket—\$1 off the regular price. Call Gail, 6-4600, for details. □



TRAINING TIPS

The Division of Workforce Development, OHRM, offers the following courses:

Courses and Programs Starting Dates

Management and Supervisory, 6-6211	
Writing Skills Review	12/1
Interpersonal Relationships in the Work Environment	12/5
Working with Personal Differences	12/7
Reinventing NIH: An Introduction to Work Process Design	12/7
Successful Management at NIH	12/12
Effective Supervision: A New Role Perspective	12/12
Time Management	1/24
Meetings That Get Results	1/25
Women in Management	1/29
Recognition Secrets: Innovations for Rewarding Today's Workers	1/30
Managing and Valuing Diversity: Skills for Utilizing Differences	1/31
Communication Skills, 6-6211	
Report Writing	12/14
Working with Personal Differences for Technical and Support Staff	12/12
For the Culturally Diverse Workforce: Speaking Effective English - Advanced	1/30
EEO Training, 6-6211	
Managing and Valuing Diversity: Skills for Utilizing Differences	1/31
Special Courses, 6-6211	
NIH Retirement Seminar	12/11, 14
American Sign Language I & II	1/23
Administrative Systems, 6-6211	
Delegated Acquisition Training Program	1/9
Federal Supply Schedules	1/20
Determining Price Reasonableness in the Award of Small Purchases	1/17
Buying from Small and Large Businesses on the Open Market	1/18
Consolidated Purchasing Through Contracts	1/19
IMPACT for Administrative Staff	12/12
IMPACT A-TRAIN	12/11, 12
Administrative and Skills Development, 6-6211	
Fundamentals of Grammar	1/25
Personal Computing, 6-6211	
Welcome to Macintosh	1/23
WordPerfect 6.1 for Windows	1/16
Intro to Windows 3.1	12/5, 1/9
MS Word 6.0 for Windows	1/29
Lotus for Windows 5.0	1/23
Desktop Publishing with WP 6.1 (Win)	2/15

Additional courses are available by completing the "Training By Request" form. For more information, call DWD, 6-6211, or consult the DWD catalog. □

Toys for Tots Campaign

Once again, the NIH Federal Credit Union will be collecting toys for the U.S. Marine Corps Toys for Tots Campaign. If you would like to help brighten the holidays for less fortunate children in our area, drop off a new children's toy or game at any of the NIHFCU branches from Nov. 27 to Dec. 15. All toys will be picked up by the Marine Corps and delivered to needy kids in the D.C. metropolitan area. □

NIAID's Peter Golway Is Mourned

On Oct. 12, NIH lost one of its most innovative and dedicated staff veterinarians, Dr. Peter L. Golway, chief of NIAID's Animal Care Branch, who was killed in an automobile accident near his home in Hedgesville, W.Va.

"Dr. Golway engineered a transition and expansion of NIAID's animal care branch to make it one of the finest in the world," said Dr. Thomas Kindt, head of NIAID's intramural program. "He will be missed not only for his professional skills, but also for the extraordinary sensitivity and respect with which he treated both his animal care staff and the scientists doing animal studies."

In 1991, NIH honored him with a Merit Award in recognition of his leadership in the care and use of NIAID's research animals.

Golway was one of the major authors of animal care and use guidelines used by all of NIH. He also helped draft the NIH guidelines for working with HIV-infected rodents. NIH assistant director for intramural research Dr. Richard Wyatt, who worked with Golway on the development of the NIH animal care policies in the early 1980's, recalled, "Dr. Golway was incredibly helpful to all the NIH animal research community as they began implementing the new policies." Other scientists who worked with Golway remember that he was very intense about his work. They recount not only his dedication but also his generosity with his time whenever he was needed for advice or guidance. Colleagues describe him as "an incredible problem solver" who was extraordinarily inventive in handling projects such as the innovative animal housing equipment he devised.

Golway graduated from Florida State University in 1965 and received his doctorate in veterinary medicine from the University of Pennsylvania in 1969. He began his career at the Berliner Animal Hospital, a small animal

practice in Washington, D.C. In 1973, he became staff veterinarian for Litton Bionetics.

In 1980, he joined NIAID and proceeded to organize one of the largest animal units at NIH, a facility that is able to handle the most difficult and sophisticated animal research protocols. Not only did he provide clinical and diagnostic services to approximately 137,000 animals per year, he also managed all of NIAID's laboratory facilities on the NIH campus and oversaw the institute's four off-campus

facilities. Under Golway's leadership, NIAID developed the facilities needed to care for immunocompromised mice, which are vital to NIAID research. To ensure safe handling of the animals and of potentially hazardous materials, he worked closely with staff members in the NIH Division of Safety, who regarded him as a colleague, friend, and mentor.

In his tribute to Golway, chairman of the NIAID animal care and use committee Dr. Jack R. Bennink said, "He had a unique way both in words and deeds of integrating the proactive humane treatment of animals with the needs of the investigator's research." Bennink went on to describe Golway as "always searching for positive solutions to the problem of maintaining the humane treatment of animals while carrying out the scientific mission of the institute."

Golway's haven away from his work was in West Virginia, where he had built his own home. He once mentioned to longtime colleague Dr. Eric Long that although he had no pet of his own, he was taking care of a feral dog that had taken up residence in the woods near his house. He had won the dog's trust enough that the animal accepted food from him, and he continued caring for the dog—even though it would not abandon its life in the wild. Long remarks that it was "this kind of selfless compassion that typified Pete."



Dr. Peter L. Golway

Holiday Bazaar Set, Nov. 30

There will be a Holiday Bazaar on Thursday, Nov. 30 from 10 a.m. to 2:30 p.m. in the Clinical Center's Visitor Information Center. All proceeds benefit the Friends of the Clinical Center. There will be arts and crafts, jewelry, handmade clothing, and other items. This is a great opportunity to do early holiday gift shopping. □

Human Genome Project Symposium Set, Dec. 8

In celebration of the fifth anniversary of the Human Genome Project, the National Center for Human Genome Research is sponsoring a symposium entitled, "Visions of Sequence-Based Biology and Medicine."

The program will be held Friday, Dec. 8, 8:30 a.m. to 5:30 p.m. in the Natcher Conference Center's main auditorium and will explore the impact of large amounts of DNA sequence information on various fields of biology and medicine. The symposium is open to all interested parties.

The following speakers are featured:

Dr. Francis S. Collins, NCHGR director, welcome; Dr. Harold Varmus, NIH director, opening remarks; Dr. Leroy E. Hood, University of Washington, "Large-Scale Sequencing Tools and Their Applications to Biology and Medicine"; Dr. Arnold J. Levine, Princeton University, "Tumor Suppressor Genes and the Origins of Cancer: Where Do We Go From Here?"; Dr. Aravinda Chakravarti, Case Western Reserve University, "Genetic Dissection of Human Polygenic Disease: Neo-Mendelian Paradigms"; Dr. Kay R. Jamison, Johns Hopkins University, "The Genetics of Mental Illness: Prospects From A Patient's Perspective"; Dr. Gerald R. Fink, Whitehead Institute for Biomedical Research, "The Yeast Genome Sequence: Evolution of a Revolution"; Dr. George D. Rose, Johns Hopkins University, "Translating One Dimension Into Three"; Dr. Sean B. Carroll, University of Wisconsin, "Molecular Genetics and the Evolution of Animal Body Plans"; Dr. Mary-Claire King, University of Washington, "After the End of the Beginning: Diversity, Epidemiology and Evolution"; Dr. Eric S. Lander, Whitehead Institute, summary and wrap-up. □

STEP Hosts Forum on Virtual Reality in Medicine, Dec. 14

The Staff Training in Extramural Programs (STEP) committee will present a forum titled "Virtual Reality in Medicine" on Thursday, Dec. 14 from 1 to 4 p.m. in the Natcher Auditorium.

Virtual reality (VR) technologies have the potential not only to revolutionize the education of future physicians and other health professionals, but also to keep practitioners abreast of developing information and procedures and to facilitate the execution of certain procedures. The number of potential VR applications within the sphere of medicine alone is seemingly boundless.

Mistakes made by surgical residents during their first surgical undertakings on live patients may be averted through the use of VR. VR may be effective in the treatment of disorders such as acrophobia. Using a VR system, the patient is able to control both the intensity and duration of exposure to stimuli. VR has been focused on laparoscopic and endoscopic surgery, including the provision of more precise control over surgical instruments, allowing surgeons to visualize the surgical site better, and to simulate procedures prior to the actual operation.

The speakers at the forum will divulge the secrets of VR and provide demonstrations of VR technology.

The speakers will include: Dr. Michael Ackerman, NLM; Dr. Larry Hodges, Georgia Institute of Technology; Dr. Jonathan Merrill, High Techsplanations, and Dr. David Vining, Bowman Gray School of Medicine.

This STEP forum is open to all NIH personnel; no advance registration is required. Attendance will be on a first-come, first-served basis. For reasonable accommodations call the STEP Program Office by Dec. 1 at 6-1493. (ESA continuing education credit is available for this event.) □

Chamber Music Directory Adds to Roster

The R&W Chamber Music Club puts out a directory of members of the NIH community who play instruments or sing, and who want to be able to contact each other to form music groups. To be listed in the directory, submit the following information: name, instrument or vocal range, phone number for music calls (work, home, both), work address, city where you live and self rating of proficiency and experience (A-excellent, B-good, C-fair, D-other). You may also include other information such as special repertoire interests. Send to Suzanne Epstein, Bldg. 29B, Rm. 2G15, HFM-521. Directory will be distributed to all members. □

Wednesday Lecture Series

The final fall lectures in the Wednesday Afternoon Lecture series will be given at 3 p.m. in Masur Auditorium, Bldg. 10.

Speaking on Nov. 29 will be Dr. Richard G.W. Anderson, professor and acting chairman, department of cell biology and neuroscience, University of Texas Southwestern Medical Center, Dallas. His topic will be "Compartmentalization of Signal Transduction in Caveolae." The talk is hosted by the cell biology and signal transduction interest groups.

On Dec. 6, Dr. Marc W. Kirschner, professor and chair, department of cell biology, Harvard Medical School, will discuss "Cyclin Degradation and the Cell Cycle." The Cell Cycle Interest Group hosts this talk.

Dr. Keith Yamamoto visits on Dec. 13 to lecture on "Signal Integration by the Glucocorticoid Receptor." He is professor and chairman, department of cellular and molecular pharmacology, University of California, San Francisco. His host is the Transcription Factors Interest Group.

For sign language interpretation and reasonable accommodation, call Hilda Madine, 4-5595.

The lecture series will take winter holidays on Dec. 20 and 27; no talks are scheduled for those days. The schedule resumes on Jan. 3.

Oxford's Peto To Lecture

The FAES is sponsoring a lecture, "Future Health Effects of Current Worldwide Smoking Patterns," given by Dr. Richard Peto, professor of medical statistics and epidemiology at Oxford University. The lecture will be presented on Wednesday, Dec. 6 from 1:30 to 2:30 p.m. in Lipsett Amphitheater, Bldg. 10. Peto is a world authority on the epidemiology of disease. A reception will follow the lecture. For more information call 6-7975. □

Auction To Benefit PEF

The 23rd annual holiday auction sponsored by the Clinical Center clinical pathology department to benefit the Patient Emergency Fund is set for Friday, Dec. 8, in the department's conference room. A silent auction will be held from 9 a.m. to 1 p.m. and the live auction begins at 1 p.m. To donate baked goods, holiday crafts, or household items, contact Brenda or Norma, 6-6891. □