

*"Still
The Second
Best Thing
About Payday"*

The NIH Record

A Boon for Morale

Reengineering Team Embarks on Efficiency Quest

By Carla Garnett

Have you ever been at work and whimsically thought: "Boy, is this process long and tedious! If I could just cut out step X, Y or Z, I probably could do a lot more." Called "business process reengineering" when done on a grander, more formalized scale, these and similar musings are being said aloud and examined seriously for NIH's administrative processes. This is in response to Vice President Gore's National Performance Review, intended to "reinvent" a leaner, more efficient government. Even though the effort is just a few months old, administrative reengineering has already shown valuable potential dividends in an often overlooked resource—workforce morale.

"It's giving me a new outlook on my own work," said Deon Johnson, an accounting technician who has worked in NIH's Office of Financial Management for 4 years and is one of about a dozen NIH'ers chosen to serve on the agency's first reengineering team. "I can now see things from a procurement point of view. Also, it's very interesting meeting people outside my organization and dealing with upper management. Unless I have a problem, it's not often that I get the opportunity to share my thoughts and views."

Another team member, Laura McNay, a purchasing agent for NIAID's Laboratory of Immunoregulation since 1991, is encouraged by the promise of reengineering.

"Anything we can do to save the government money is certainly important," she said, explaining that for her the most interesting aspect is reengineering's wide-open philosophy. "Right now, we're looking at things 'as is.' But the next phase will let us look at things the way we want them to be. We're going to attack this from all sides and everyone gets a look from several different points of view."

(See **REENGINEERING**, Page 4)

Coppin State Choir Returns

King Commemoration Features Post Journalist

It has always been the policy of the NIH Martin Luther King, Jr. planning committee not to schedule a consecutive appearance of any participant in the MLK commemoration. This policy will be broken on Jan. 13 for the first time. The Coppin State Choir is returning by popular demand of NIH employees to perform a medley in its own unique way.

All of the program participants—keynote speaker Juan Williams, journalist and author of *Eyes On The Prize*; the Coppin State College Choir; the NIH Pre-School Day Care Song and Dance Troupe; the Montgomery County Office of Volunteer Services; and the House of Imogene in Washington, D.C.—will echo the theme "Everyone Can Serve; Help Somebody."

Also, on Jan. 3, receptacles were placed in the basement of Bldg. 1 and lobbies of Bldgs. 10, (See **KING PROGRAM**, Page 7)

Mantle Passes, Mission Remains

BIG's NIH Chapter Changes Guard, Stays Course

By Carla Garnett

When 1994 closed last week, so too did the second 2-year term of Vincent A. Thomas, Jr. as president of NIH's chapter of Blacks in Government. Chief of NIAID's Management Services

Branch and an early member of the 13-year-old BIG chapter, Thomas left legacies of outspoken activism, unwavering advocacy and strategic coalition building. Clearly, 13 years (and counting) in the organization—including at least 5 in top leadership roles—have taught him a thing or two about power, authority and the struggle to advance minorities, particularly Blacks, in federal service. One of the hardest lessons—one he will pass on to his successor at BIG's helm—is that change is often slow and painful. On the receiving end of that lesson is new BIG President Zita Givens, an 11-year NIH employee who rose to her new post from a 2-year stint as chair of BIG's research committee. A program analyst with NIA's Office of Planning, Analysis and International Activities, Givens

(See **BIG LEADERSHIP**, Page 8)

BIG President Vince Thomas will pass mantle to Zita Givens on Jan. 17.

NEI's Wurtz To Give Mider Lecture, Jan. 18

In the seconds it takes you to read this sentence, you are probably not even aware of the movement your eyes make across the page. Yet the rapid or "saccadic" eye movements you make every time you look at something are just as critical to vision as the eye's ability to remain still and focus or to receive light.

Although many areas throughout the brain are responsible for eye movement, one region, called the superior colliculus, is particularly important.

Contained in this structure is a map of the visual world that the

brain uses when it moves the eye. The critical importance of these maps for rapid eye movements will be the topic of the upcoming G. Burroughs Mider Lecture given by Dr. Robert H. Wurtz, chief of NEI's Laboratory of Sensorimotor Research, entitled "Brain Maps for Eye Movements." The lecture will be held on Wednesday, Jan. 18, at 3 p.m. in the Clinical Center's Masur

(See **MIDER LECTURE**, Page 2)

NLM Unveils 'Visible Man'

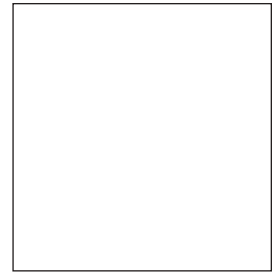
By Roger Gilkeson

The scenario is a fantastic one: before his execution, a convicted murderer wills his body to science and is "resurrected" 16 months later as a three-dimensional, computer-generated "cadaver" destined to be a teaching and research tool for the world.

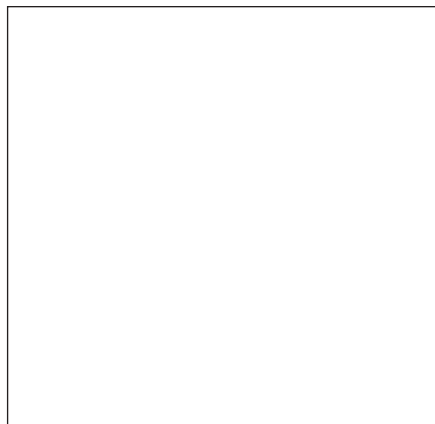
That story received widespread media attention following presentation of the Visible Man recently in Chicago. The VM was released onto the Internet during a meeting of the Radiological Society of North America. That event marked completion of the first phase of NLM's Visible Human Project. Phase two, the Visible Woman, will be completed next year.

NLM director Dr. Donald A.B. Lindberg said, "The Visible Man represents an incredibly detailed atlas of human anatomy, created from thousands of images of a human body collected with state-of-the-art radiographic and photographic techniques. This is the first time such detailed digital information about an entire human body has been compiled."

The Visible Man is so complex that those (See **VISIBLE MAN**, Page 6)



Dr. Robert H. Wurtz



MIDER LECTURE TO FOCUS ON VISUAL-SACCADIC SYSTEM

(Continued from Page 1)

Auditorium.

For more than 25 years, Wurtz has studied vision and oculomotor control in rhesus monkeys—animals whose visual system is “remarkably similar to ours,” he says. He and his colleagues have developed a technique of isolating the brain cells that allow investigation of saccadic eye movement. Twenty years ago, Wurtz was the first scientist to record the activity of single cells in the primary visual cortex in monkeys who were awake and actively responding to stimuli in the environment. Wurtz’ techniques, developed at NIH, are now widely used in laboratories throughout the world to study the functioning visual system.

“Eye movement is a microcosm of how the brain works,” he explains. “In addition to helping us see, eye movement is also one of the first things a physician tests when giving a neurological exam. This system is an indicator for several aspects of nervous system function.”

In addition to studying eye movement, Wurtz has also used the primate model to investigate the series of events that lead to motion perception, particularly visual motion processing in the middle temporal and medial superior temporal areas of the brain’s cortex.

The visual-saccadic system, he explains “is understood at higher levels in the primate than, for example, the auditory system or the somatosensory system—not because we’re brilliant scientists, but because it’s a system that’s relatively simple.”

Wurtz is a member of the National Academy of Sciences and served as president of the Society for Neuroscience from

November 1990 to November 1991. He leads the Integrative Neuroscience Group, which meets regularly on the NIH campus. A native of St. Louis, he received his A.B. in chemistry from Oberlin College in 1958 and a Ph.D. in psychology from the University of Michigan in 1962. He has served in his current position at NEI since 1978, when he was invited by institute director Dr. Carl Kupfer to organize the Laboratory of Sensorimotor Research. Before coming to NEI, he served as a physiologist at the Laboratory of Neurobiology, NIMH. □

Canalis To Address Bone Group

On Tuesday, Jan. 10, Dr. Ernesto Canalis, director of research at St. Francis Hospital and Medical Center in Connecticut, will discuss “Skeletal Growth Factors: Basic Bone Biology and Therapeutic Implications” at a meeting of the federal working group on bone diseases. The meeting will be held in Bldg. 31, Conf. Rm. 8, from 9:30 to 11:30 a.m. For more information, call Sharon Louis, 6-0801. □

Camera Club Holds Meeting

The NIH R&W Camera Club will meet on Tuesday, Jan. 10 at 7:30 p.m. in Bldg. 31, Rm. 6C07. The guest speaker will be David Brown from PhotoPro, who will talk about portrait lighting techniques. The subject for the competition of the evening is “reflections.” The club is open and all who are interested may join, but only members can submit for the competition. For more information, contact Yuan Liu, 6-8318. □

Dr. Michael B. Sporn, chief of the Laboratory of Chemoprevention, NCI, recently received the American Cancer Society’s Medal of Honor. He received the award for “groundbreaking studies related to the growth of cells and chemoprevention,” a term he invented in 1976. His early studies involving breast, bladder, and other epithelial cancers “increased the understanding of how biologically active substances such as retinoids and closely related compounds inhibit growth of cancer cells.” His most recent accomplishments include pioneering studies of transforming growth factor-beta and its role in cell regulation. A graduate of Harvard College, Sporn received his medical degree from the University of Rochester Medical Center. He has been at NIH since 1960 and has been a PHS commissioned officer since 1962.

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Dr. Peter Kador (second from l), chief of NEI’s Laboratory of Ocular Therapeutics, was honored recently at the German Embassy with the Bundesverdienstkreuz (Cross of Merit of the German Federal Government). The medal was presented in the name of German President Roman Herzog by Thomas Matussek, minister of the Federal Republic of Germany for America. The award was presented to Kador for his longstanding achievements for cultural unity between the two nations, and for his organization of a 2-day National German American Choral Festival in which more than 2,000 singers representing over 50 choirs from the U.S., Canada and Germany participated. Kador is president of the Washington Saengerbund, a German choral organization founded in 1851. Shown at the ceremony are (from l) NEI Deputy Director Edward McManus, NEI director Dr. Carl Kupfer, and Matussek.

Normal Intestinal Bacteria Play Role in Some Arthritis

By Elia Ben-Ari

In a novel study on the causes of some forms of arthritis, researchers have now shown in animals that both a bacterial trigger and genetic susceptibility are necessary for the disease to occur. This discovery is the fruit of a research effort that began with a study to determine if a human gene called HLA-B27 was the major cause of a group of rheumatic disorders called spondyloarthropathies.

Earlier studies showed that rats carrying the human HLA-B27 gene develop joint inflammation (arthritis) and other symptoms characteristic of the human spondyloarthropathies. In an article in the December issue of the *Journal of Experimental Medicine*, researchers now report that when these B27 transgenic rats are raised in a germfree environment, they no longer develop arthritis.

"HLA-B27 is the tightest genetic link to complex, acquired human disease yet known," said Dr. Michael D. Lockshin, acting director of NIAMS, which helped support this research. "These latest experiments show that, although the gene plays a central role, intestinal bacteria are needed to cause the arthritis."

HLA-B27 has long been known to be a marker for the spondyloarthropathies. People who inherit the HLA-B27 gene have a markedly increased risk of developing one of these disorders, which can affect multiple organ systems.

Four years ago, Drs. Joel Taurog, Robert Hammer and colleagues at the University of Texas Southwestern (UTSW) Medical Center in Dallas introduced the human HLA-B27 gene into laboratory rats in an attempt to create a model system for studying the role of HLA-B27 in the spondyloarthropathies. To the researchers' surprise, these transgenic rats spontaneously developed a series of symptoms that bear a striking resemblance to the HLA-B27-associated human disorders. These symptoms include joint inflammation, inflammation of the intestine, skin and nail lesions that resemble psoriasis, and male genital inflammation.

The HLA-B27 gene is the molecular blueprint cells use to build the HLA-B27 protein. All cells of an individual bear a characteristic set of HLA protein markers, or tissue types, which play a crucial role in control and function of the immune system. Scientists have known since 1973 that a large number of patients with spondyloarthropathies carry the HLA-B27 gene. In that year, researchers reported that over 90 percent of patients with ankylosing spondylitis have this tissue type. From 50 percent to 80 percent of patients with other types of spondyloarthropathy also carry this marker. In contrast, only about 8 percent of the general population have the HLA-B27

tissue type.

Arthritis researchers believe that many rheumatic diseases result from a combination of genetic factors that determine susceptibility and bacterial or other environmental triggers. Researchers already know that some forms of spondyloarthropathies, termed reactive arthritis, are triggered by certain types of infections, particularly in individuals with HLA-B27. "We knew from studies in humans that there are disease-causing bacteria such as *Salmonella* that can trigger arthritis. What we didn't know was whether normal gut [intestinal] bacteria could do this," Taurog said. "The ability to raise the HLA-B27 rats in a germfree environment allowed us to test this hypothesis." Normally the large intestine in both humans and rats is full of benign bacteria, but rats raised and kept in a germfree environment do not have any bacteria in their gastrointestinal tract.

Arthritis-Free Rats Reared

Now, Taurog, Hammer and colleagues from UTSW and the University of Wisconsin, Madison, report that when HLA-B27 transgenic rats are raised in a completely germfree environment, the rats no longer develop the arthritis and inflammatory bowel disease, whereas skin and genital inflammation still occur. These results provide strong evidence that normal intestinal bacteria play an important role in the development of B27-associated intestinal and joint inflammation, but not in development of the psoriasis-like skin and nail lesions or genital inflammation.

"This is the epitome of a disease in which there are two crucial elements—genetic and environmental," says Taurog. "Not just pathogenic [disease-causing] bacteria but normal bacteria can apparently trigger the disease. The gut bacterial system is very complex—there are many different types of bacteria," he says. Finding out which types of bacteria trigger arthritis in these rats, and just how these bacteria contribute to the disease process, is the next step. "This gives us a system where we can reduce the variables. We have gone from a highly complex system to one where we can introduce defined types of bacteria one by one and try to reproduce the disease. If we can do this successfully, then we will have made major progress," says Taurog.

Once they find the specific types of bacteria that trigger arthritis, the researchers plan to study the immune response to these bacteria in HLA-B27 rats and in normal rats. A variety of experiments in animals and in the test tube can be done to get at the mechanism by which bacteria trigger disease. Finding this out could lead to development of highly specific treatments to prevent arthritis and intestinal inflammation in people who carry the HLA-B27 gene. □

NIDDK Scientists Honored

The Sicilian Society of Nephrology recently awarded the Malpighi Gold Medal to NIDDK researchers Drs. Gary and Liliane Striker for their contributions to renal pathology and for the use of molecular biology techniques to study glomerular diseases. The Strikers accepted the award at the society's recent annual meeting in Messina, Italy.

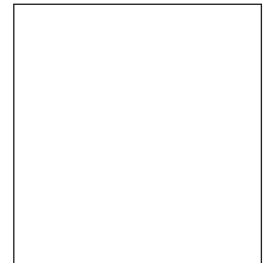


Dr. Liliane Striker

The husband and wife team are recognized internationally for their renal and vascular research. The principal focus of current studies is the pathogenesis of glomerulosclerosis, the main cause of end-stage renal disease in the United States. The Strikers were the first to isolate and characterize human and mouse glomerular epithelial, endothelial, and mesangial cells in vitro. They were also first to apply competitive polymerase chain reaction techniques to the analysis of experimental animal models of glomerular disease and to apply their observations and techniques to the evaluation of human glomerular disease.

Liliane Striker is chief of the renal cell biology section, Metabolic Diseases Branch, and Gary Striker is a senior investigator in the laboratory and director of the institute's extramural Division of Kidney, Urologic, and Hematologic Diseases.

The Malpighi award is named in honor of Italian scientist Marcello Malpighi (1628-1694), the first person to describe the glomeruli and tubules of the kidneys. Malpighi, who invented the microscope, was a noted anatomist, and is considered one of the fathers of modern renal pathology. □



Dr. Gary Striker

Skin Diseases Committee Meets

On Thursday, Jan. 12, Dr. Roger D. Cone, a scientist with the Vollum Institute for Advanced Biomedical Research, Oregon Health Sciences University, will discuss "Agouti and Extension: The Yin and Yang of G-protein Signalling in Mammalian Pigmentation" at a meeting of the skin diseases interagency coordinating committee. The lecture will be held in Bldg. 31, Conf. Rm. 8, from 1:30 to 4 p.m. For more information, call Sharon Louis, 6-0801. □

REENGINEERING

(Continued from Page 1)

With the agency facing a projected 15 percent reduction in full-time employees (FTEs)—mandated by a presidential executive order—NIH's resource allocation group (RAG) recommended restructuring NIH's administrative processes.

The RAG report to NIH director Dr. Harold Varmus indicated that NIH is "administrative-intensive," that some centralized functions could be streamlined and that some decentralized efforts are repetitive and therefore wasteful.

The team is determined to avoid a common mistake: developing and employing computer systems before evaluating basic administrative procedures. That approach, typical 20 years ago, places the cart before

ribbon steering group. Endorsed by the RAG and received enthusiastically by the ICD directors, NIH's first administrative reengineering project joins other NIH efforts to streamline.

"It's important to note that this is a complementary effort to other reinvention activities around NIH," Riso observed, "especially in the extramural area and in the intramural science area. Dr. Baldwin and Dr. Gottesman have already begun to examine similar proposals."

One of the steering committee's first tasks was to contract for reengineering expertise. Employed successfully by a number of household-word private enterprises such as Ford Motors, Bell Atlantic and GE, reengineering and its coordination are now big business. Several companies jumped at the chance to usher NIH through the process,

but unlike any of the other contractors vying for NIH's venture, Martin-Marietta had first-hand, internal experience with reengineering. Mahoney said that qualification above others tipped the scales in the corporation's favor.

"Martin-Marietta learned by reengineering themselves," he said, "and then they marketed reengineering. I was particularly impressed that the fundamentals they teach are the result of lessons they've learned on themselves."

The OFM pilot team, part of phase-1 reengineering, began dissecting NIH's accounts payable procedures last November. Eventually other aspects of NIH's business side—procurement and inventory, for instance—will undergo each of four reengineering phases as well. The project will take an estimated 2½ years to complete.

According to Mahoney, accounts payable was chosen to be examined first for several important reasons: Number one, the payment of bills is obviously an essential and visible function. Secondly, it is personnel-intensive. The deciding factor, though, was its people.

"More important than anything was the leadership of Francine Little [acting OFM director] and Penny Strong [OFM assistant director for finance]," Mahoney said. "They recognized the potential for improvement and have been very vigorous in advocating the need for reengineering."

Little said hosting the pilot team was mutually beneficial for both her individual office and NIH as a whole.

"The accounts payable function has great impact on the NIH community," Little said, "but it is sometimes unappreciated. As a result, morale is sometimes a little low. When I made the announcement that reengineering was coming about 9 months ago at an all-hands meeting, I wasn't sure how it would be received. What I found was

that people are really positive about reengineering. They see it as a way to redefine what they do and it's real exciting to them."

For OFM, reengineering also presents an opportunity to grow creatively, Little noted. Although no additional FTEs can be allocated, she said, some of the employees from streamlined areas may be able to be retrained for new functions—auditing, systems, or customer service units, for

"We are going to spark the rest of NIH into seeing the positive aspects of streamlining.. This pilot group is going to enhance everybody's motivation to reengineer."

example—required by law of her office, but currently insufficiently or not staffed.

"I have to make do with the FTEs I have," she said. "This is what reengineering means, freeing up staff and staff hours, so that I can redirect them to necessary areas. This is a way to create staff."

Mahoney said that during the question and answer period when reengineering was introduced to OFM employees, some did express concerns about what reengineering meant for them and their jobs in the long run. He said Little answered them forthrightly.

"We have to organize the work so that we can work within the ceilings we've been given," he said. "At the same time, we have to take into account the very real and human needs of our employees. The RAG and the ICD directors are very committed to the NIH policy—a longstanding policy—that no one is going to be separated from NIH who is performing [his or her] job satisfactorily."

"Obviously," he reiterated, "NIH has to be able to operate efficiently within the FTEs that we've been allocated. The community is expecting an increased level of services with fewer FTEs—that is the reality."

OFM has already faced this reality. Since Little began in its acting directorship about a year and a half ago, the office has steadily reduced its number of FTEs. Those positions will not be replaced, yet workloads grow or remain constant. Little said reengineering represents the best chance to downsize in a positive way and she intends to use it fully.

"This will be what is known as a quick-win situation," Little predicted. "We are going to spark the rest of NIH into seeing the positive aspects of streamlining. We represent the ideal conditions. We are a central, highly visible operation with a large number (about 80) of people being affected. If we can do this well, they'll look at us and say, 'Hey, they did it. Everything worked out fine.' This pilot group is going to enhance everybody's motivation to reengineer." □

NIH's first reengineering team is tackling accounts payable procedures. Team members include (seated, from l) Anita Bowrin, Penny Strong, Kathy Hall and Joyce Peeke; (standing, from l) Deon Johnson, Tony Sambataro, Laura McNay, George Dobenecker, Sandra Logan, Jeanne DeAngelis and Joyce Lee.

the horse and simply computerizes many inefficiencies. This time, basic procedures are being studied from "scratch," after which automation will be applied.

"The key to reengineering is that you change the process and then you automate that change," explained Jack Mahoney, senior advisor to the NIH director and cochair of NIH's reengineering steering committee. "What often happens is that organizations have a way of automating the process as it exists. They end up doing something badly, faster, instead of correcting the process, and automating it so that it is done better, faster. That is the key distinction between reengineering and the way organizations often do business. We want to make the work simpler, since we will have fewer FTEs in the future. In that sense, we need to do 'less with less.'"

To spearhead NIH's administrative reengineering project, an oversight committee cochaired by Mahoney and Bill Riso, DCRT deputy director, was formed last spring. Nineteen other members—including NIH deputy directors for intramural and extramural research, associate directors for research services and administration, directors of NIH's offices of human resources, equal opportunity and financial management, several ICD executive officers and a 4-member resource staff—comprise the blue-

Consensus Panel Endorses Total Hip Replacement

By Judith Wortman

A consensus panel convened by NIH recently declared that total hip replacement (THR) is one of the most successful surgical procedures and provides immediate and substantial improvement in a patient's pain, mobility, and quality of life. Compared to treatments for other chronic debilitating diseases, THR is highly cost effective.

More than 800,000 artificial hip joints have been implanted in Americans since the introduction of the surgery in the United States around 1970. The number of THRs performed annually has risen to 120,000, a 64 percent increase over the number reported at a similar consensus conference on total hip replacement held by NIH in 1982.

A total hip replacement currently lasts 10 to 15 years. "Today's implants are quite durable and there's reason to expect that someday artificial hips will last as long as 30 years," said Dr. David G. Murray, professor and chairman of orthopaedic surgery at the State University of New York Health Sciences Center in Syracuse. He chaired the panel at the conference, sponsored by NIAMS and the Office of Medical Applications of Research.

In THR surgery, diseased or damaged bone in the top, ball-shaped portion of the thigh bone (femur) is removed; a canal is drilled into the remaining shaft of the bone and a new artificial ball component is inserted. The ball fits into a cup inserted into a reamed-out portion of the pelvis (the acetabulum). Both components work together to support weight and permit a functional range of motion.

The primary indications for THR are pain and disability, usually accompanied by x-ray evidence of joint disease. There is a broad span of ages among today's THR patients. While the majority of THRs are still performed in older patients, more surgeries are being done now than ever before in younger patients. THR is most commonly performed in men between 65 and 74 and women between 75 and 84 years of age. Unlike in the past, advanced age, presence of some other diseases, and moderate obesity are no longer considered contraindications to the surgery.

Even though the incidences of complications such as infection, blood clots, and fractures of the implant have been reduced since the last consensus conference, loosening of the devices following osteolysis (dissolution of bone) is still of major concern. Previously, this problem was attributed to particles from cement used to secure the implant. However, the consensus panel concluded that osteolysis also derives from microscopic particles that come from materials, such as polyethylene, used in implants. The panel suggested remedies to reduce complications from debris particles including the selection of prosthetic parts

that minimize wear.

Improvements in technique have improved the outcome of THR. For example, newer cementing techniques have achieved a more secure fit of the prosthesis, and the porous coating in a cementless procedure has resulted in generally good fixation. Coatings such as hydroxyapatite applied to implant surfaces to enhance fixation are a new technology still under investigation. The panel particularly highlighted the effectiveness of a cemented femoral component and a porous-coated acetabular component for a first-time THR.

Modular components have also been introduced in THR to provide options for a more tailored fit to the patient and to reduce the need to maintain a large inventory of implants. However, the panel noted that reports of corrosion within the modular parts are of concern and that the use of modular components merits further study.

The problem of osteolysis is likely to decline in the future as progress is made in design and selection of prosthetic devices that minimize surface wear. Because particle development and shedding can occur any time after a THR procedure, but is more likely with increasing time, the consensus panel recommended that the THR patient be examined periodically, using appropriate x-rays, throughout life. Such followup fosters early identification of osteolysis and other indicators of impending failure and permits institution of treatment or revision before total loss of function.

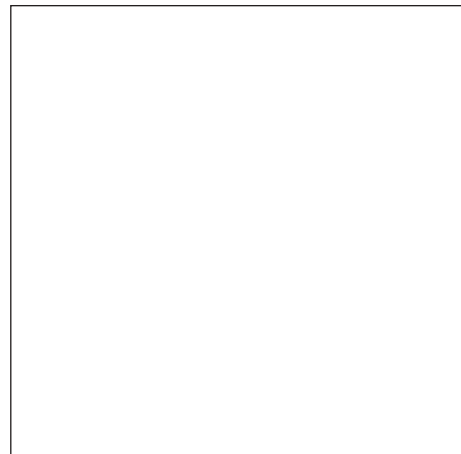
The panel noted racial and economic disparities in total hip replacement. These may reflect differences in access or referral of groups of patients. Possible gender bias was another problem area identified by the panel. The older age of female patients and the fact that many more women than men walk with an assistive device before THR may indicate that the procedure is being performed at a more advanced state in women. Research is needed to understand the cause of the disparities and to devise remedies.

Despite improvements in THR success rate, extending the procedure to younger patients who are likely to be more active will result in an increase in wear of the prosthesis, thus increasing the need for revisions (reoperations). The results of revised THR have generally been found to be inferior to those of first-time procedures. Additionally, revision surgery is more complex than a first-time procedure and requires considerable technical expertise, a wider array of surgical options, and a more supportive and skilled health care team.

Preoperative planning and a well-focused program of education and training in activities of daily living may lead to improved postoperative outcome. More patient-specific outcome studies are needed that not

only incorporate medical evaluation but also include the patient's perception of success and quality of life.

The good news about THR surgery was expressed by Dr. Joseph Lane, a panel member and chairman of the department of orthopaedic surgery at the UCLA School of Medicine. He said THR can "take a person who is markedly disabled, who can barely walk more than a block or two, and make that person a useful citizen, independent, functional and pain-free—able to do all the activities of life." □



NIEHS director Dr. Kenneth Olden has been elected to membership in the Institute of Medicine of the National Academy of Sciences. The membership of the institute is broadly based in the biomedical sciences and health professions, and related disciplines; members conduct studies of specific issues and contribute their knowledge and judgment to development of findings and formulation of recommendations, most of which relate to public policy. The panel is concerned with protection and advancement of the health professions and sciences, promotion of health research and development, and improvement of health care.

Cell Cycle Group Meets

The NIH Cell Cycle Interest Group, formed to facilitate communication between scientists working at NIH and nearby institutions who are interested in the cell cycle and related problems, will meet next on Jan. 10 in Bldg. 60 (The Cloister), Rm. 142 at 12:30 p.m. Dr. Mike Kastan of Johns Hopkins University will speak on "Modulation of p53-Mediated Cell Cycle Arrest and Apoptosis." For more information on the interest group or scheduled events, send your name, telephone number, fax number, and mailing and e-mail addresses to either Patrick O'Connor (Bldg. 37, Rm. 5C19, phone 6-3269, fax 2-0752, e-mail O'ConnorP@dc37a.nci.nih.gov) or Mary Dasso (Bldg. 18, Rm. 101, phone 2-1555, fax 2-0078, email mdasso@helix.nih.gov).

VISIBLE MAN

(Continued from Page 1)

who wish to access the data—expected to be predominantly medical schools and researchers—will need up to 2 weeks of uninterrupted Internet time and 15 gigabytes of computer storage space. Although there is no charge for accessing the data, users will be required to sign a licensing agreement with NLM stating how the information will be used.

“The Visible Man will be made available free to those who suggest promising uses for the data and who have sufficient computer storage space,” said Dr. Michael Ackerman, the Visible Human Project coordinator. (Ackerman, previously acting director of NLM’s division of specialized information services, was recently named assistant director for health and biomedical programs of the national coordination office for high performance computing and communications, a multiagency program headed by Lindberg and located at NLM.)

Background

The Visible Human Project has its roots in the library’s 1986 long-range plan, which recommended that NLM should “thoroughly and systematically investigate the technical requirements for and feasibility of instituting a biomedical images library.” It encouraged NLM to consider building and disseminating medical image libraries much the same way it provides access to the biomedical literature. It foresaw a coming era where the library’s bibliographic and factual database services would be complemented by libraries of digital images, distributed over high-speed computer networks and by high-capacity physical media.

Early in 1989, under the direction of the board of regents, an ad hoc planning panel was convened to explore the proper role for NLM in the rapidly changing field of electronic imaging. After much deliberation, the NLM planning panel on electronic image libraries made the following recommendation: “NLM should undertake a first project building a digital image library of volumetric data representing a complete, normal adult male and female. This Visible Human Project will include digitized photographic images for cryosectioning, digital images derived from computerized tomography, and digital magnetic resonance images of cadavers.”

A contract to create these images was awarded by NLM in August 1991 to the University of Colorado Health Sciences Center in Denver.

The Visible Man was created with digitized data compiled from the body of a 39-year-old man who was convicted of murder and executed by lethal injection. The donor body was imaged from head to toe using computed tomography, magnetic resonance, and x-rays. It was then embedded in gelatin, frozen, and sliced crosswise into more than 1,800 micro-thin slices, using a laser-guided technique

The Visible Man compiles cross-section images to form an atlas of the human body.

pioneered by principal investigators Dr. Victor Spitzer, assistant professor, departments of radiology and cellular and structural biology; and Dr. David Whitlock, professor, department of cellular and structural biology, University of Colorado Health Sciences Center.

As each cross-sectional slice was removed from the cadaver, the surfaces were photographed. The digital photographs were stacked and programmed into an imaging computer along with the data acquired from the radiological studies.

“Reconstructions of the data can be rotated in space, viewed in any plane, dissected and reassembled,” said Spitzer. “In the future, any anatomical part can be extracted from the body and viewed separately. Structures such as blood vessels can be followed throughout the body and their relationship to other structures, such as organs and bones, can be seen.”

The data will be a powerful educational tool for students and it also can make an important contribution to medical research, said Whitlock. “Cancer researchers, for example, might introduce a mathematical model of abnormal cell growth into the Visible Man and follow it to see how a cancer grows in the body.”

The data also will be helpful in planning surgery, designing artificial hips and other

man-made body parts and testing various types of medical treatments, the researchers said.

For more information, contact Ackerman via e-mail: ackerman@hpc.gov or by phone, 2-4100. □

Herpes Vaccine Study Recruits

Healthy women age 18 or older are sought to participate in a research study of an experimental vaccine for prevention of genital herpes. Volunteers are needed who do not themselves have genital herpes, but who are in a stable relationship with a partner who is known to have the disease. Both partners will be screened to confirm eligibility. Pay is \$250 for completion of the trial. For more confidential information, call 6-1836. □

Winter Golf Lessons Offered

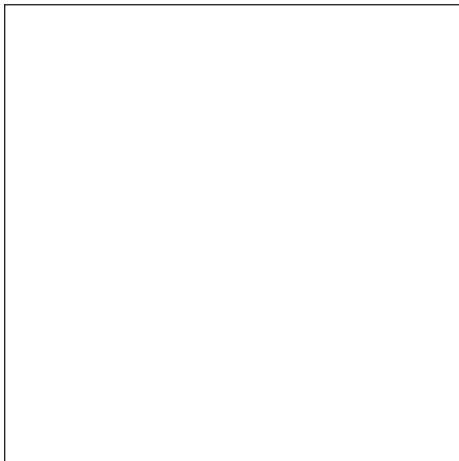
An indoor golf instruction program will be offered at NIH beginning Monday, Feb. 6 at 5 p.m. and Thursday, Feb. 9 at 4:30 p.m. The R&W program, “Winter Golf,” consists of a 6-week session of golf instruction under the direction of 17-year PGA golf professional Mark Diley. Classes meet once a week for an hour. Cost is \$90, but members of the NIH Golf League get a 10 percent discount. Monday class is for beginners; Thursday is for intermediate to advanced. Classes are in Bldg. 10. Call 564-3041 or 6-6061. □

KING PROGRAM

(Continued from Page 1)

31, 38A, 29A, 36, 13, Twinbrook, EPS, Westwood, Solar, and Federal to encourage employees to donate canned food, usable clothing, and other items. Employees also may bring their donations to the Visitor Information Center in Bldg. 10 on Jan. 13. Other needed items include grocery store gift certificates, stamps and envelopes, Metro passes, personal care products, housewares and household items and school supplies. All donations will be distributed to homeless shelters in Montgomery County and Washington, D.C.

For more information about the program or donations, call O.H. Laster of NIH's Office of Equal Opportunity, 6-6302. Sign language interpretation will be provided. For reasonable accommodation, call OEO's Carlton Coleman, 2-3663. □



Dr. Albert J. Hudspeth (l) of the University of Texas Southwestern Medical Center at Dallas meets with Dr. James B. Snow, Jr., NIDCD director, at the NIDCD Anniversary Lecture held recently. Hudspeth's lecture, entitled, "How Hearing Happens: Mechano-electrical Transduction, Frequency Tuning, and Synaptic Transmission," focused on the movement of sensory receptors in the inner ear called hair cells.

Motility Interest Group Forming

An NIH-wide Motility Interest Group is being formed to bring together intramural researchers studying how cells and the molecules and organelles within cells move. This interest group seeks to foster fruitful interactions among the many intramural scientists who use a variety of techniques and approaches to study cell motility in different systems and at different levels of organization. The group's introductory meeting will be held Jan. 10 at 4 p.m. in the Bunim Rm., Bldg. 10, Rm. 9S235. Dr. Edward Korn of NHLBI will present an informal seminar entitled, "Amoeba Myosins: Structure, Regulation and Cell Function." The seminar will be followed by a mingling, refreshment, and sign-up period. □

Rall Visits at NIEHS, Emphasizes Animal Testing

By Thomas Hawkins

"Prevention (of disease) is not very exciting," Dr. David P. Rall, former NIEHS director, said at the beginning of a presentation on his first return to the institute since retiring in 1990 after 19 years as director.

"You don't get any kudos from your patients whom you've protected from sure death. You don't even know whom you've helped. But prevention of disease is a task that ultimately must be done."

Rall delivered his lecture, "The Importance of Animal Testing in Safety Evaluation," as the first visiting scientist for the Duke/UNC/NIEHS Clinical Training Program, part of a larger collaborative effort launched in 1993 to develop a world-class clinical center for environmental health sciences research. On his visit to the Research Triangle Park area, he also gave a grand rounds presentation at Duke Medical Center. The visiting scientist program will bring five internationally recognized environmental health scientists to the collaborating institutions each year.

At NIEHS, Rall dismissed arguments of those in the field of comparative risk assessment, and others, who say that disease prevention is too expensive. "I think we can find holes in these arguments, judging from past work by these authors," he quipped.

Early in his career, Rall was among the researchers developing cures for childhood leukemia at the National Cancer Institute, before he came to NIEHS. "These treatments cost hundreds of thousands of dollars; the illnesses and the treatment cause untold pain and suffering for patients. And the likelihood that patients will encounter cancer in later years is increased. Far better to prevent the disease in the first place. Preventing exposures is really the way to go, yet it's really very difficult. You use predictive toxicology to identify compounds which are present but which can be removed from the environment."

Rall showed slides illustrating in quantified terms that only a small percentage of cosmetics, food additives, pesticides and other chemicals have been adequately studied for their health effects, and that of those studied and found to have health effects in animals, less than half have been regulated. He noted that these figures contradict the insistence by some that "mouse hysteria" causes regulators to ban everything based on limited evidence from animal studies.

He stated that only recently has EPA begun

to move again, after many years, on regulating chemicals based on animal studies, and he asserted that few if any chemicals have been studied under TSCA (Toxic Substances Control Act), which was legislation supposed to require industry to do toxicology testing on its own products before they were released into the environment.

"The real problem is that most chemicals haven't been studied," he said.

Rall noted that animal studies must serve as a primary tool of prevention. Epidemiology studies, while valuable, often provide information "25 years too late." However, molecular biologists are improving epidemiology and making it a better predictive tool. Use of chemical structures to predict toxicity is getting better, but is still not useful in finding the first chemical in a particular series to cause toxicity. Short-term tests such as the Ames test are extremely valuable but provide limited information. Rall said current studies indicate that beginning the dosing of rats and mice earlier in studies, and increasing the length of studies so animals would be followed for around 30 months, would be valuable improvements in current protocols. "Very young rats are much more sensitive," he said.

Among challenges for the future, Rall noted that combination toxicity—looking at the synergism between environmental agents—is "frightfully difficult and horribly expensive, but simply has to be done." He also singled out the problem of mercury in freshwater lakes and streams, and its subsequent appearance in game and food fish; in some instances, this mercury may come from coal-fired plants burning coal that contains mercury. Another emerging issue, Rall noted, is the discovery of the major role in health effects of fine particulates, a previously neglected or underestimated component of air pollution. □

NIH'er's Art Featured at CC

A collection of paintings by Mitzi Yater Fuller, who works in NIH's Office of Communications, OD, will be on display through Feb. 28 in Gallery Three at the Clinical Center.

Fuller, who works in the Editorial Operations Branch, admires the work of the Postimpressionists—Bonnard, Vuillard, Toulouse-Lautrec and Prendergast. "I like their fresh brushstrokes, the application of seemingly random dabs of color which cause the figure or object to 'melt' into the background," she says.

Her exhibit, titled "Figures in a Landscape," was selected by jury for inclusion in the Clinical Center Galleries. □



BIG LEADERSHIP CHANGES HANDS

(Continued from Page 1)

formally takes the BIG mantle in an installation service on Jan. 17.

Chapter leaders during the last 2 tumultuous years, neither Thomas nor Givens expects the organization to miss a step during transition. In a recent interview, Givens voiced a mutual thought: "There is plenty more work to be done. There are some issues that we just can't let slide."

From Humble Beginnings...

In 1982, a group of Black NIH employees gathered to form their own chapter of a national organization called BIG that today claims more than 200 chapters in 11 regions in the United States and several other countries. Incorporated in 1976, national BIG's goals, according to organization literature, are "to promote equity in all aspects of American life, excellence in public service, and opportunity for all Americans."

Armed with that mandate, the newly chartered NIH group identified seven major workplace concerns and met in 1982 with then-NIH director Dr. James B. Wyngaarden to discuss them. According to Thomas, the seven issues discussed were (1) few opportunities available for career advancement; (2) nonselection, nontenure of Black scientists; (3) erosion of Blacks in some administrative and managerial positions throughout NIH; (4) lack of funding for research activities at historically Black colleges and universities; (5) lack of a coordinated effort to address minority health issues; (6) little opportunity for Blacks to participate in research protocols at the Clinical Center; and (7) a backlogged and "broken" EEO complaint system.

The administration's response, Thomas recalled, was denial that most of the concerns had any merit within the agency. BIG took its concerns to Capitol Hill the same year. Using statistical data gathered by NIH, Thomas said, BIG showed workplace disparities among the races here. Stricter oversight by Congress was recommended and put in place after the hearings.

Over the next 3 to 4 years, progress on the issues was incremental: a Black Employment Program manager position was added within NIH's Office of Equal Opportunity; the NIH Office of Minority Health Research was created, with an NIH associate director for research on minority health to direct it; and, two African American scientists were tenured and a third was put on the tenure track.

During those early years, Thomas was elected to a 2-year vice presidential term. Midway through it, however, BIG's president left office and Thomas ascended to the top job in 1984. Then he was reelected for 2 more years. Although leadership was shifting within, the organization's ultimate goals remained true.

Going Public, Getting Results

By late 1992, Thomas—succeeding Dr. James Moone—had again been elected BIG president, but the optimistic character of the

group had changed. NIH management had responded to other BIG concerns over the years by launching a series of studies, surveys, advisory groups and committees. BIG members felt these efforts were being used more to disprove previous findings of inequity than to address the matters. As a result of what was seen as inaction, Thomas recalled, overall patience seemed to wane and frustration spread among the ranks of BIG. Many felt the time for quiet negotiation was over.

Five months into Thomas's second term, after about 6 months of new appeals to the NIH administration, HHS officials and Congress, BIG teamed with Montgomery County's chapter of the National Association for the Advancement of Colored People to host the first of several rallies in front of Bldg. 1 in May 1993. Many of the seven concerns—nonselection, nontenure of Black scientists; backlogged EEO complaints; limited career advancement opportunity for minorities—raised originally by a fledgling BIG in 1982 were as yet unresolved 11 years later. In addition, new allegations of racial discrimination and sexual harassment surfaced. The event drew media coverage as well as renewed attention from NIH and HHS officials and Capitol Hill. The rallies had not been the first choice of handling the concerns, Thomas pointed out, but they proved effective.

"If that's what it takes to move a bureaucracy like this," he explained, "then we will use any means necessary."

The rallies also accomplished something else: They helped BIG forge influential coalitions with NAACP officials and members of Congress, partnerships that Thomas lists among BIG's proudest achievements during his presidency.

"The coalition we built with the NAACP has strengthened our impact on campus," Thomas commented, also noting that BIG now counts several congressional representatives—Democrat as well as Republican—among its advocates.

Reflecting on the past 2 years, Thomas recalled a number of other successes during his term.

"For the second time in its short history, the NIH chapter received the Distinguished Service Award—the highest honor bestowed by the national organization. We established a scholarship fund—with approximately \$1,500 initially—for African American students, something this chapter had never done before. We had a very active youth program in which we worked with stay-in-schools and other young interns at NIH to orient them while they were here for the summer, and more importantly for the long term, to encourage them to think about careers in federal service.

"In terms of community outreach," he continued, "the chapter made a commitment to adopt a family [in fall 1993]. The effort wasn't just for the Thanksgiving and Christmas holidays, but for the entire year.

What that meant was every month we planned an activity with the family, which included a mother and seven children."

BIG arranged activities that ranged from things most families take for granted such as cleaning the house and swapping outgrown clothes, to field trips and tutoring sessions. "The chapter went all out in terms of support for this one family," Thomas said. "We really wanted to do something more personal than the canned-food banks and toy drives we had done in the past. We're extremely proud of the way that effort turned out."

Not Resting on Its Laurels

Before Thomas decided not to run for a third term, he and chapter officials prepared a list of 26 concerns that they felt needed to be addressed imminently by the NIH administration. The list included many of the concerns from 13 years ago, but several important ones had been added. Along with the glow of BIG's past success, incoming president Givens has inherited oversight of this list and responsibility for further action on it.

One of the most troubling issues on the list, Givens said, involves the NIH police.

"We've had a number of complaints from African American employees about how they've been treated by the NIH police," she said, outlining a BIG plan for addressing the issue. "We've asked that there be an all-hands information forum so that people would have an understanding of the authority of NIH police. We don't think that's asking a lot. We want to avoid any tragedy. It would be effective for all employees, not just African Americans."

A 20-plus-year NIH veteran, Thomas explained that, in years past, the campus police force performed mainly basic security guard functions. Gradually, he said, their authority has grown to full-fledged federal police status. However, NIH employees have never been informed officially of the changes. As a result, he said, some older perceptions of the police have remained.

"As the NIH population," Thomas said, "we need to understand what our rights are. An easy solution would be to send out an NIH-wide letter to all employees explaining [NIH police] authority."

Aside from ushering the 26-item list through NIH channels, Givens has fresh ideas for the direction of BIG that include development of SAM, Strategies for African American Men. At NIH, Black male employees account for the highest separation rate among agency minority personnel. In other words, more Black men leave their NIH jobs more often and sooner than any other workforce group. Givens said BIG wants to discover the reasons for the trend and ways to reverse it.

"What it means is that even when we've been successful at recruiting them, we're losing them," she said. "They are an important element in the workforce that we should be interested in retaining."

Other Givens initiatives for the coming 2 years include establishing a BIG alumni subcommittee for retirees who still wish to be active; developing a leadership training program to groom young people for top BIG positions; and formulating a BIG mechanism to disseminate information on AIDS research and treatment throughout minority communities. All told, Givens foresees a jam-packed agenda during her tenure.

"Vince has been a strong leader," she said. "I hope to follow in his footsteps."

"My terms as president have been a labor of love," Thomas concluded. "It truly has been an honor to serve the number one BIG chapter in the nation. We have a lot to be thankful for." □

Reinvention Touches CMAC

Streamlining and reinvention were the focus of a retreat held recently by the contract management advisory committee (CMAC) in Durham, N.C., hosted by NIEHS. Attending were Dr. Leamon Lee, NIH associate director for administration, the chief contracting officers from various ICDs, and representatives from the Division of Contracts and Grants and the Office of Acquisition Management.

At the retreat, participants considered the changing role of CMAC; streamlining the acquisition process; review of the service center concept presented to the ICD directors by the NIH resource allocation group last summer; and further use of automatic data processing.

Some of the action items include: revising the CMAC charter to reflect new roles resulting from reinvention and streamlining activities; streamlining the acquisition process over the next 3 years with the goal of achieving a reduction in the contract award leadtime; and making more use of automatic data processing such as making the request for proposals available through Gopher.

Several subcommittees will be formed by CMAC in order to work on the action items; all acquisition personnel will be invited to work with them. □

Women Volunteers Sought

NIMH needs women between ages 20 and 40 for a study of brain function and structure, using PET and MRI techniques. The PET scan involves exposure to an amount of radiation that is within both NIH and FDA guidelines. Study takes place on the Bethesda campus. Volunteers will be paid. If interested, call 2-3682. □

Normal Volunteers Needed

Normal volunteers are needed for a sleep/MRI study. Participation involves sleeping at the NIH campus for two nights in the winter and two nights in the summer. It may also involve two MRI scans. Volunteers will be reimbursed. Call NIMH's Clinical Psychobiology Branch, 6-0500. □

Employee Brings Music to NIEHS Cafeteria

Susan Johnson thought the only way to improve the lakeside ambiance of the NIEHS cafeteria was to add music, and when she told her friends, they advised her to submit an employee suggestion. She did, and received a coffee mug in recognition—and a memo

saying it was a wonderful idea and she was in charge of implementing it. A little startled, but by no means stymied, Johnson soon had the cafeteria ringing with music, with new plans shaping up.

Johnson, who works in the Division of Intramural Research, has worked for the Voice of America music branch, where she helped arrange concerts, so the idea of lining up musical talent wasn't foreign to her. As a child, she played violin for a time, and her son Reggie, 12, has been selected as outstanding band student in his age group.

Her first step was to ask some of the known employee musicians to play lunchtime gigs at the cafeteria. At the same time she arranged to have the institute purchase an electronic piano with a full-size keyboard, as well as a selection of instrument voices.

Since it was summer, and there were no

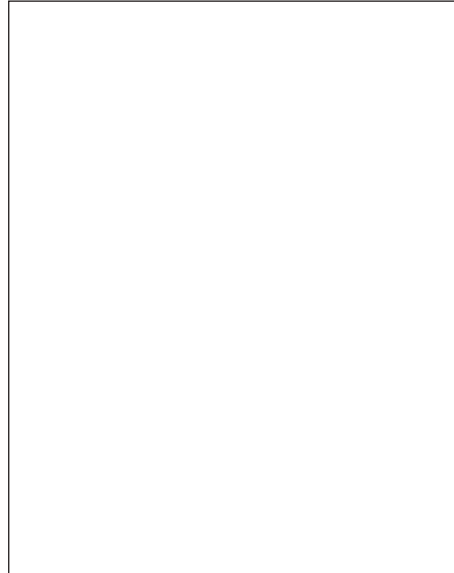
school bands or orchestras to call upon, she invited the Cary Music School to send students to perform. With the school year approaching, she arranged to send the institute bus to transport school musical groups to and from their performances.

Where does she find time to do this? "This is how I spend my flexitime day off," she reports. She plans to recruit school groups once they've had a chance to form and practice for several weeks. In the meantime, some lunchtime concerts aren't planned, but simply occur when someone sits down at the piano and plays a few tunes during lunch.

"Everyone performing understands that this is a lunchroom and that people come and go, and talk," Johnson said. "But the response from both the musicians and the employee audience

has been terrific. It just adds a very special atmosphere to what is already an especially beautiful setting."

Dr. Kenneth Olden, NIEHS director, said, "Ms. Johnson has really taken this from an idea through to realization. People have contributed talent and time, but she's kept it moving. What a good idea to share with all of her fellow employees."—Thomas Hawkins □



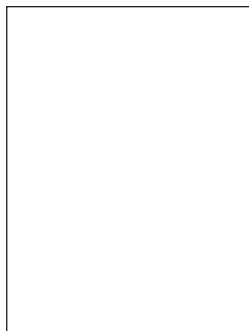
Susan Johnson brings music to NIEHS.

Pruitt Named NIDDK Equal Employment Opportunity Manager

Rose E. Pruitt has been named NIDDK's equal employment manager. In announcing her appointment, NIDDK director Dr.

Phillip Gorden said, "Rose Pruitt brings to this important position a background in science and in management that will contribute greatly to her leadership of the EEO program of the NIDDK and of the NIH."

Pruitt will advise the director and senior staff of all EEO regulatory changes within the federal government and make recommendations concerning any necessary action. She also will manage the institute's equal employment opportunity and affirmative action programs and direct the minority and female recruitment program. In addition, she will serve as liaison to the NIH Office of Equal Opportunity.



Rose Pruitt

Pruitt comes to NIDDK from the Department of Labor, where she served as senior equal opportunity specialist in the Office of Federal Contract Compliance Programs. Previously at the Department of Labor, she was a program policy analyst in the Office of Policy Management and Analysis, where she prepared reports for the assistant secretary of employment standards administration. She began her career at the Department of the Army's Cost and Economic Analysis Center as an operations research analyst in the Office of the Assistant Secretary for Financial Management.

Pruitt received her B.S. degree in biology from Creighton University in Omaha, and her M.B.A. from Long Island University in Brookville, N.Y. □

Retired Scientists Wanted

Retired scientists are sought for a part-time position indexing for Medline. Work at home after 3-month training at NLM. Knowledge of molecular or cell biology, immunology, neuroscience, genetics or other preclinical subjects urgently needed. For information, call Beth van Lenten, 6-6766. □

The NIH Life Sciences Education Connection



The fall session of the Biomedical Research Advancement: Saturday Scholars (BRASS) program ended recently with a graduation ceremony at the Cloister.

During the 6-week program, 28 seventh graders from Browne Junior High School in D.C. and Gaithersburg Middle School studied hematology, genetics, cancer, AIDS, and animal research. They learned by listening to guest scientist presentations, doing hands-on laboratory activities, and taking special tours of NIH facilities.

On graduation day, students' parents toured the NIH campus, then returned to the Cloister to see some of the laboratory activities the students were engaged in throughout the BRASS course and listen to a "press conference" the students gave about the program. The graduation ceremony was highlighted by the appearance of Dr. Thomas Malone, who gave an inspiring commencement address. Malone served NIH from 1962 to 1986 in various positions, including deputy director.

The BRASS students will continue to learn about and explore science back at their home schools, where BRASS clubs have been formed. The students will meet regularly, do science experiments and activities, and go on science-related field trips.

The Office of Science Education Policy is on the run. The office moved Dec. 12 from Executive Plaza South down the street to 6100 Executive Blvd., Rm. 5H01. The telephone number (2-2469) and fax number (2-3034) remain the same. □

NINDS's Igor Klatzo Closes Federal Career After 38 Years of Service

Dr. Igor Klatzo, a senior scientist in the NINDS Stroke Branch, recently retired, ending a 38-year career of service in the NIH community.

He began his NINDS career in 1956 as head of the clinical neuropathology section of the Surgical Neurology Branch. Since then he has held many positions within the institute including chief of the Laboratory of Neuropathology and Neuroanatomical Sciences, and senior scientist and head of the section of cerebrovascular pathophysiology in the Stroke Branch.

During Klatzo's distinguished career, he gained high esteem and international prominence for his extensive work in the areas of blood-brain barrier disruption, edema, and other pathophysiological mechanisms associated with ischemic or traumatic injury to the brain.

In the early 1970's, he was one of the first scientists to recognize the importance of establishing, within the NIH intramural program, a basic neuroscience initiative to investigate brain ischemia.

"Your studies have contributed many

Retired NIDDK Chemist Bernard Kaufman Is Mourned

Dr. Bernard T. Kaufman, a retired research chemist in NIDDK's Laboratory of Cellular and Developmental Biology, died of cancer on Nov. 19. He was 66 years old and lived in Potomac, Md.

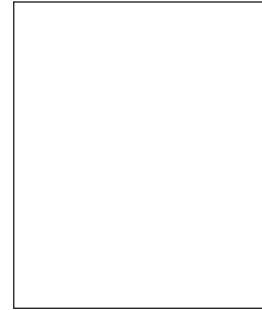
Kaufman, known as Toby to his friends and coworkers, was born in Richmond, Va. He received his B.S. degree in chemistry and his M.S. degree in biochemistry from the University of Virginia in 1947 and 1949, respectively. In 1957, he received his Ph.D. in biological chemistry from the University of California, Los Angeles. He was awarded an American Cancer Society postdoctoral fellowship at Brandeis University to pursue basic research in biochemistry under the sponsorship of Dr. Nathan O. Kaplan.

He joined NIDDK (then the National Institute of Arthritis and Metabolic Diseases) in 1960 as a research chemist in the Laboratory of Nutrition and Endocrinology (LNE). His research focused on the functions and enzyme pathways of folic acid, an important B vitamin. In collaboration with Dr. V.F. Kemerer, a postdoctoral fellow, he developed an innovative method using affinity chromatography to isolate and purify dihydrofolate reductase, an enzyme that helps the body use folic acid.

In 1967, he became chief of the LNE's section on vitamin metabolism where he continued his research on dihydrofolate reductase, characterizing its structure and studying its activation and inhibition activity. These important studies led to the observation that methotrexate, one of the earliest effective anticancer drugs, strongly

inhibits folic acid metabolism by blocking dihydrofolate reductase.

In 1982, he became chief of the section on nutritional biochemistry in the Laboratory of Cellular and Developmental Biology, a position he held until his retirement in June 1993. In recent years, the focus of his research included collaborative studies with



Dr. Bernard T. Kaufman

investigators at research centers throughout the United States on the physical and chemical properties of dihydrofolate reductase.

Kaufman was a member of the American Society for Biochemistry and Molecular Biology, the American Association for the Advancement of Science, and the American Chemical Society. He was also cited in *American Men and Women in Science*.

In addition to his professional activities, his interests included music and gardening and garden design. He was also quite fond of puns.

Survivors include his wife, Ann, of Potomac, three sons, James of Bowie, Joshua of Rockville, and Michael of New Boston, N.H., three grandchildren, a sister, Charlotte K. Schlosberg of Chevy Chase, and a brother, Malvern, of Detroit.

important ideas and observations that have inspired and guided attitudes, opinions, and concepts about cerebrovascular disease," said

NINDS director Dr. Zach Hall in a congratulatory letter to Klatzo. "Indeed, you have been a leader and trendsetter in the field."

Klatzo was born in St. Petersburg, Russia, in 1916. He received his medical degree from the University of Freiburg, Germany, in 1947, and his master of science degree (*summa cum laude*) from McGill University in Montreal, Canada, in 1952.

Among his professional accomplishments are numerous publications dating back to 1952. He also served as coeditor of several books including *Brain Edema, Pathophysiology of Cerebral Energy Metabolism, Cerebrovascu-*

lar Transport Mechanisms, Neurotransmitters in Cerebral Coma and Stroke, and Maturation Phenomenon in Cerebral Ischemia.

Throughout his career he received many awards and honors including the Nicholas Copernicus Medal from the Polish Academy of Sciences in 1990, and an honorary doctorate degree from the University of Poznan, Poland, in 1993.

Although Klatzo has retired, he plans to continue his research interests, both nationally and internationally, through collaborative research projects. His immediate retirement plans, however, include traveling to Florida in his newly purchased state-of-the-art mobile home.—Shannon E. Garnett □

Bone Clinic Seeks Volunteers

Investigators at NIDR are studying methods for bone augmentation. Normal volunteers ages 18-70 are needed for a simple bone marrow needle aspiration. Participants will be paid \$150 for this procedure. For more information, call Dr. Jaime Brahim, 6-4371, or Dr. Pamela Gehron Robey, 6-4563. □

Tom Johnson Retires After 36 Years of Federal Service

Thomas A. Johnson, deputy executive officer at NIDDK for the past 11 years, has traded in his desk for a fishing boat. He retired recently after 36 years of federal service.

Johnson joined the Navy after graduation from high school and spent 4 years aboard a destroyer during the Korean conflict. Living in a room with metal cots stacked floor to ceiling and eating off tin trays while the officers dined on fine china, Johnson said he soon realized that "the only difference between the officers and me was a college education." After completing his Navy service, he moved to Washington, D.C., and graduated from American University in 1962. Following graduation, he was offered an administrative internship at the Department of Agriculture. Johnson subsequently worked as a personnel management specialist for USDA and as a personnel staffing specialist for the Federal Power Commission, an independent regulatory agency.

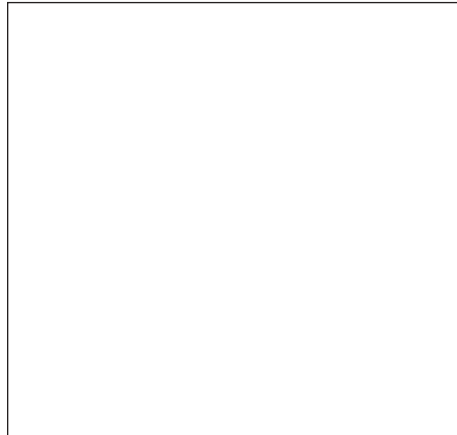
In 1967, he joined NIH as a personnel management specialist in the Clinical Center's Personnel Management Branch. He remained at the Clinical Center for 16 years, serving as personnel officer, administrative officer, and hospital administrator. He was an advisor to four Clinical Center directors, including the late Dr. Mortimer B. Lipsett, who became director of NIDDK in 1985. Lipsett once described Johnson as "a dedicated man who expresses sound and thoughtful judgment in a quiet, sophisticated manner."

Johnson came to NIDDK in 1983 as deputy executive officer. He played a key role in directing institute activities and serving as a senior advisor to three institute directors. "Tom is one of those special people whose good sense and gentle nature have enormously enhanced both the Clinical Center and the NIDDK. His dedication and service to NIH are based on his belief in the important mission of this institution," said NIDDK director Dr. Phillip Gorden.

Two New Members Appointed to NIGMS Advisory Council

Two new members have been appointed to the National Advisory General Medical Sciences Council. They are Dr. Thomas D. Pollard of Johns Hopkins University School of Medicine and Dr. Franklyn G. Prendergast of the Mayo Medical School and Foundation. In addition, a current member, Mary D. Wiley of Res-Care, Inc., was reappointed and the Department of Defense named a new *ex officio* member to the council, Dr. Alvin Rene Manalaysay of the National Naval Medical Center.

Pollard is a professor in and director of the department of cell biology and anatomy at Johns Hopkins University School of Medicine in Baltimore. From 1992 to 1993, he was president of the Biophysical Society, and from 1987 to 1988, he served as president of



NIDDK Deputy Executive Officer Thomas A. Johnson proudly displays the tide clock and barometer that were among the gifts he received at his retirement reception celebrating 36 years in government.

Johnson and his wife, Jo, recently bought a home in Pungoteague on the Eastern Shore of Virginia, where Johnson said he "plans to devote more time to boating." No stranger to water vessels, he was first introduced to seamanship working summer jobs on the commercial fishing boats that his uncles ran off the coast of New Jersey. Since those early years, he has been an avid sailor, having brought boats up the Intracoastal Waterway and from the Caribbean. He currently owns his seventh boat, a 20-foot fishing craft.

He also intends to devote more time to the Coast Guard Auxiliary, the civilian arm of the U.S. Coast Guard, a group that educates the public about boating safety and safety patrols. Johnson has been active in the auxiliary for more than 12 years.

At a reception in his honor, Johnson told his many friends and colleagues that "I have had a wonderful career at NIH. It has been very fulfilling to help further the NIH mission." —Eileen Corrigan □

the American Society for Cell Biology.

Prendergast is the Edmond and Marion Guggenheim professor of biochemistry and molecular biology at the Mayo Medical School. He also serves as a professor of pharmacology at the school and is the immediate past director of research for the Mayo Foundation.

Wiley serves as associate general counsel for Res-Care, Inc., a public corporation in Louisville, Ky., that manages facilities for people with mental retardation and developmental disabilities.

Manalaysay currently serves as assistant head of the anesthesia department at the Naval Hospital. □

NINDS Mourns Charles Sartor

Charles Estee Sartor, Sr., a long-time NINDS employee, died recently after an accident during a fishing trip. A native of Washington, D.C., he had retired from the federal government in September with more than 36 years of service.

For almost 30 years, Sartor worked in the Surgical Neurology Branch where he held a variety of positions including operating room technician in the Clinical Center and laboratory technician specializing in animal surgery in Bldg. 9. In 1989, he became a photo lab technician in the NINDS Electron Microscopy Facility, a position he held until his retirement.

Sartor had always been very proud of his work, and he received much recognition and acknowledgment for his contributions to many scientific publications.

"He was a very private person, yet all who came in contact with him respected and liked him. Most of his acquaintances did not even know that he retired because, as he put it, he wanted to 'go quietly,'" said Dr. Susan Cheng, Electron Microscopy Facility manager and Sartor's former supervisor. "His friends and colleagues will remember him fondly and take comfort in the fact that he is now resting in peace."

NCI's Luz Galito Retires

Luz Galito recently ended her 35-year career with the federal government. She had worked as a cytotechnologist in the Laboratory of Pathology, NCI.

Galito received a B.S. in education/biology from the University of St. Tomas in Manila, Philippines, in 1951. In 1959, she received her degree in exfoliative cytology from the University of

Tennessee at Memphis. She was hired in the Cytopathology Laboratory, NCI, in 1959 and worked there until retirement.

Galito plans on spending her retirement enjoying her family at her home in Clinton, Md. Her dream is to travel throughout the United States. □

'Windows 95' Discussion Set

Come see what people are talking about—the next version of Microsoft Windows, Windows 95—at DCRT's PC Topic Session on Jan. 12, from 10 to 11:30 a.m. in Lipsett Amphitheater, Bldg. 10. Featuring a thoroughly redesigned interface, Windows 95 is poised to usher in a new era in PC computing. Sponsored by DCRT's Distributed Systems Branch, this meeting will feature representatives of Microsoft Federal who will preview and answer any questions about the product. All employees are welcome. □

New Federal Leave Entitlements Go into Effect

In accordance with Public Law 103-388 (the Federal Employees Family Friendly Leave Act), the Office of Personnel Management has released new rules that, among other things, permit most federal employees to use their sick leave to care for family members. Until now, employees could use their sick leave to care for a family member only if the person had a contagious disease. Under the new rules effective Dec. 2, 1994, all employees are now permitted to use 5 days of paid sick leave during the leave year to care for family members. Employees who have accumulated at least 80 hours (or 10 days) of sick leave may use an additional 8 days or a total of 13 days per leave year. Part-time employees are also covered, but their entitlement is based on the number of hours worked.

The new legislation defines family member as spouses and parents thereof; children (including adopted children) and spouses thereof; parents; brothers and sisters and spouses thereof; and any individual related

by blood or affinity whose close association with the employee is the equivalent of a family relationship.

Under this law, employees may use their sick leave to provide care to a family member as a result of physical or mental illness; injury; pregnancy; childbirth; or medical, dental, or optical examination or treatment. In addition, an employee may now also use sick leave to make arrangements necessitated by the death of a family member or to attend the funeral of a family member.

The act also eliminates the 3-year break-in-service rule for recrediting sick leave. Previous rules had allowed recrediting only after absences of less than 3 years. Under new rules, an employee who has had a break in service is now entitled to a recredit of previously earned sick leave, if he or she returns to federal employment on or after Dec. 2, 1994. This is without regard to the date of his/her separation; however, sick leave previously forfeited upon reemployment in the federal government before that date

cannot be recredited.

Another recently enacted law, Public Law 103-329, made two significant changes in leave entitlements for federal employees. First, it provides employees with an entitlement of up to 7 days of paid leave each calendar year (in addition to annual and sick leave) to serve as a bone-marrow or organ donor. And second, employees may once again use accrued or accumulated sick leave for purposes relating to the adoption of a child. In addition, this law includes a retroactive clause allowing eligible workers to substitute sick leave for annual leave that was used for adoption purposes since Sept. 30, 1991 (the ending date of the 1-year experimental program to test the feasibility of granting sick leave for adoption-related purposes).

All of the above leave entitlements are now available to NIH employees. If you have questions about or would like more information about any of these programs, contact your servicing personnel office. □

More BRCA1 Mutations Identified

Since the September announcement that scientists had found a likely candidate for the BRCA1 hereditary breast cancer gene, a number of research groups have been scanning it, seeking specific changes in DNA that may trigger the disease. These studies have borne swift fruit. New reports from researchers in the United States and Canada reveal that susceptible families possess at least 22 different mutations in the very large gene, a discouraging prospect for those who hoped genetic testing for liability to breast cancer might be possible soon.

A team led by Drs. Barbara Weber of the University of Pennsylvania and Francis Collins of NCHGR described eight possible disease-causing alterations in the gene's DNA among 50 patients with a family history of breast and/or ovarian cancer. The findings also strengthen the scientists' suspicion that BRCA1 is a tumor suppressor gene.

Groups headed by Steven Narod of McGill University in conjunction with Mark Skolnick of the University of Utah, and by Mary-Claire King of the University of California, Berkeley, brought the total number of study families to 100, and the number of mutations described to 31. Only a few turned up in more than one family, dimming hopes of finding a single mutation that is responsible for a large proportion of early-onset breast or ovarian cancer.

All three papers appeared in the December issue of *Nature Genetics*. □

Right-Handed Females Needed

Right-handed females ages 18-30 are needed for PET study in Bldg. 10. Call Judy Friz, 6-0948, or Dr. Marcel Bahro, 6-3421, for more information. □

NIH Calendar of Events Deadline Changes

The deadline for submitting announcements to the NIH Calendar of Events (the "Yellow Sheet") will be changing to close of business Monday the week preceding the meeting instead of Tuesdays at 10 a.m. This will be effective the week of Feb. 6-12. That means the deadline for that calendar will be Monday, Jan. 30 c.o.b. This new deadline facilitates a new printing deadline and gets the information out sooner to the public. If you have any questions, call Genia Bunn, editor, 6-2266.

NIH marked World AIDS Day last month with a ceremony dedicating an American Liberty elm tree in front of Bldg. 10 in honor of tennis great Arthur Ashe, who died of AIDS. Breaking ground at the unveiling of a plaque are (from l) Carol Sutton, an actress who performed "Angel Mama" at the commemoration, Office of AIDS Research director Dr. William Paul, NIH director Dr. Harold Varmus, Ashe's cousin Staci Canion, and Staci's mother Barbara. Also performing was the concert choir from Duke Ellington School of the Arts, which sang "That's What Friends Are For." The elm tree was donated by Bradley Hills Presbyterian Church, located in Bethesda.