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The Second Best Thing About Payday

nih record

ABOVE • *The campus has hosted a red-tailed hawk in recent years; see story below.*

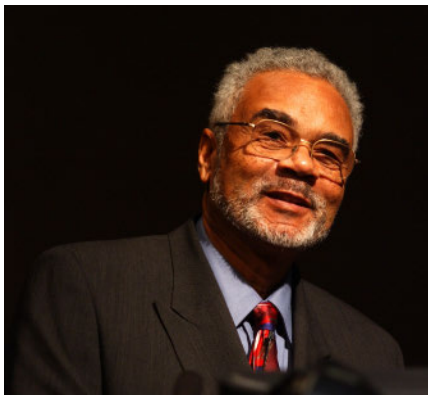
features

departments

NIH Celebrates Martin Luther King, Jr., with Remembrance, Song, Call to Action

By Belle Waring

NIH's 35th annual observance of the life and legacy of Dr. Martin Luther King, Jr., transformed Masur Auditorium into a window on history with a bold perspective by Dr. Clayborne Carson, director of the King Research and Education Institute at Stanford University.



Dr. Clayborne Carson of Stanford University gives King keynote address.

The Jan. 17 program, titled "Remember! Celebrate! Act!" honored what would have been King's 77th birthday with song, image and story—only this time, what might have been routine became a compelling seminar, the sort of class students vie to attend as they crowd around their favorite professor.

"Remember Rosa Parks," said Carson, emerging from behind the lectern and walking to center stage, where, speaking without notes, he set the audience at ease with his gentle, courtly manner.

SEE **KING PROGRAM**, PAGE 6

A Bow or a Handshake?

Foreign Researchers Make Transition to Life at NIH

By Marcia Doniger

Imagine leaving the warmth of family and friends to move to a country where you know few people, little of the language and even less of its customs—all in the name of scientific research. Currently, some 2,800 NIH scientists from nearly 100 countries face that challenge.

Dr. Esteban Fridman, a former visiting fellow from Argentina, knows what it's like. When he first arrived on campus, it took time to get used to "the rhythm of NIH," an environment where "something is always happening somewhere." Once he achieved that, he took pleasure in beginning work at 6 a.m. and meeting with other enthusiastic fellows and his lab chief. "The atmosphere was a wealth of learning," he recalled. "Every Monday morning, the entire section had a meeting where all the events at NIH were presented so that one could schedule his or her week accordingly. Lab meeting discussions varied throughout the week from sharing experiment results with

SEE **FOREIGN SCIENTISTS**, PAGE 8

The Birdman of Bldg. 22

Red-Tailed Hawk in Residence at NIH

By Belle Waring

The Perimeter Security Fence, a sign of the times, may have its detractors, but there is something ecologically positive about those steely bars—something you might not have noticed.

And that something is underbrush—at least in a 4-acre test plot between the Children's Inn and the new fire station.

As Lynn Mueller, chief of grounds maintenance and landscaping, Office of Research

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nih record

briefs

STEP Forum on Telecommuting, Feb. 23

The staff training in extramural programs (STEP) committee will present a Workplace Strategies forum on the topic, "Telecommuting: Productivity, Efficiency and the Kitchen Sink" on Thursday, Feb. 23 from 8 a.m. to noon in Lister Hill Auditorium, Bldg. 38A.

Telecommuting reduces traffic, pollution, commuting expense and stress. Yet the promise of telecommuting generally remains unfulfilled in our region. Many NIH jobs are conducive to telecommuting. Working away from the office presents unique challenges, for example, setting up hardware and software and staying connected with coworkers and constituents. Supervising workers who are away from the workplace also requires important managerial skills including flexibility, preparation and effective communication. How can we make telecommuting work for NIH and its workforce? This STEP seminar explores the benefits of and barriers to telecommuting at NIH today and in the future.

Conference on Nursing Science

The National Institute of Nursing Research and the Clinical Center nursing and patient care services will hold a conference titled, "Celebrating Nursing Science: The Research-Practice Link" on Friday, June 16. For more information contact Donna Jo McCloskey, (301) 402-1446 or email mccloskd@mail.nih.gov. For conference highlights, registration and call for posters, visit http://ninr.nih.gov/ninr/ and click on "Save the Date."

Learn 'Secrets of Paying for College'

The Work and Family Life Center will hold a seminar titled, "Secrets of Paying for College" on Thursday, Feb. 23 from noon to 1:30 p.m. at 6001 Executive Blvd., Rm. C. Applying for college can be overwhelming to your children—paying for college can be overwhelming to you! There are lots of resources out there—attend this session to learn how to navigate the resources and get tips on paying for a college education. A half hour will be allotted at the end for questions.

Wednesday Afternoon Lectures

The Wednesday Afternoon Lecture series—held on its namesake day at 3 p.m. in Masur Auditorium, Bldg. 10—features Dr. Rena R. Wing on Feb. 15, speaking on "Winning at Losing: The Art and Science of Long-Term Weight Control." She is professor of psychiatry and human behavior, Brown University School of Medicine and director, Weight Control and Diabetes Research Center, Miriam Hospital, Providence, R.I.

On Feb. 22, Dr. Enrique Rodriguez-Boulan will discuss "Epithelial Cell Polarity: Life in Between Two Worlds." He is Dyson professor of cell biology in ophthalmology and director, Margaret Dyson Vision Research Institute, Weill Medical College of Cornell University.

For more information or for reasonable accommodation, call (301) 594-5595.

NIH Sailing Association Open House

The NIH Sailing Association invites everyone to its open house on Thursday, Mar. 2 from 5 to 8 p.m. at the FAES House on the corner of Old Georgetown Rd. and Cedar Ln. Would you like to learn to sail? Can you imagine being part of a group filled with skilled sailing instructors, enthusiasts and boat owners? Membership includes instruction, sailboats for charter, racing, cruises, parties and fun. Admission to the open house is $5 at the door and includes pizza and soda. For more information visit www.recgov.org/sail.

NIH Hosts Black History Month Observance

The annual NIH Black History Month Program will be held on Thursday, Feb. 23 from 1 to 2 p.m. in Lipsett Amphitheater, Bldg. 10. This year's theme is "Celebrating Community: A Tribute to Black Fraternal, Social and Civic Institutions." The keynote speaker will be Roslyn McCallister Brock, vice chair of the NAACP board of directors. Learn strategies to join these organizations in advancing the welfare of blacks in health, economics, education and civil rights.

For reasonable accommodation, call Carlton Coleman at (301) 496-2906. Sign language interpreting services will be provided. For details about the program, call Kay Johnson Graham at (301) 451-0859.

Ski Accident Can't Stand in Way of Peer Review

This year is the 60th anniversary of an NIH invention—independent peer review of research applications. It's a system that depends on thousands of dedicated volunteers from all branches of biomedical research. This is the story of one such volunteer.

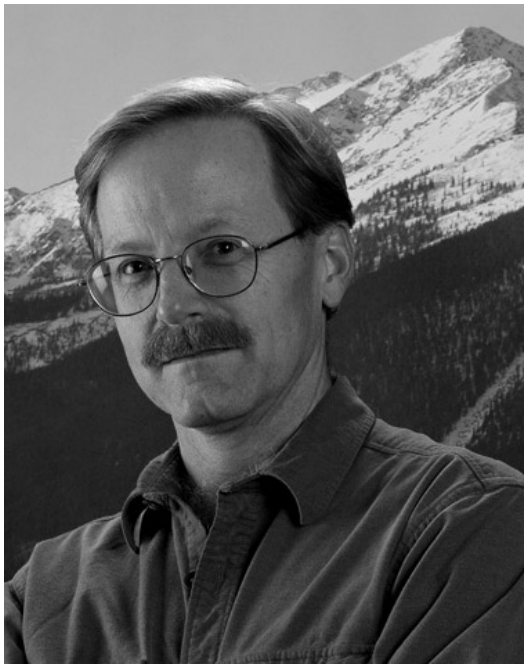
If he hadn't been on crutches, you might almost imagine Dr. Andrew Robertson pulling on his cap, Gary Cooper-style, and saying, "Aw, 'twarnt nothing."

But Robertson, 46, was hobbling bravely into a Bethesda motel to chair a Center for Scientific Review study section's peer review of a program project—just a week and a half after the ski patrol carried him off a Colorado mountain with multiple fractures.

He had been showing his two daughters how to ski on Thanksgiving Day when he hit a patch of ice and fell. His ski failed to release and he suffered both a spiral fracture of the major leg bone and a second tibial fracture up near his knee.

At the CSR meeting, "Reviewer Administrator Nuria Assa-Munt was terrific. She met my plane. She helped me keep my leg elevated—it turned purple if I didn't—and she couldn't have been nicer," he said.

In a recent interview, Robertson said he was lucky that his daughters got him immediate care—"though they did see some humor in their instructor breaking his leg"—and because he was treated at a renowned clinic in Vail by Dr. William Sterett, orthopedist and head team physician for the U.S. Olympic Women's Alpine Ski Team.



Dr. Andrew Robertson overcame ski-related injuries to attend his CSR study section's peer review meeting.

"He and the clinic put an emphasis on minimal intervention, so instead of a cast, I got a flexible brace that could bend at the knee. The brace was mostly to protect the leg from further injury." In January he was permitted to remove the brace for good and to stand, slowly putting more and more pressure on the leg. He was scheduled for a sports test in early February—and was hoping to turn in his crutches as well.

Hearing of the incident, CSR director Dr. Toni Scarpa wrote Robertson, "NIH peer review maintains its indispensable role because of the commitment, devotion and sacrifices of colleagues like you."

Robertson has served as a reviewer for nearly 10 years and studied protein structure and function while a faculty member at the University of Iowa for much of that time. Recently, he became chief scientific officer of the nonprofit Keystone Symposia in Colorado. "One of the perks...[is] being in the Rockies so you can ski," he said. He intends to return to the slopes once his medical team allows it. "But nothing fancy."

WILDLIFE

CONTINUED FROM PAGE 1

Red-tailed hawk. Photo courtesy of Greg Vogel, Fermilab

PAGE 1 PHOTO COURTESY OF STEVE PINKER, HARVARD UNIVERSITY

Facilities explains: "At NIH, we have a park-like setting where the grass is mowed, but as some areas are restored to a more natural state, underbrush will grow up attracting a greater variety of songbirds, including many that are ground nesters."

The perimeter fence helps in that restoration, since it bars pedestrian "cut-throughs"—and deer cut-throughs as well—which helps keep underbrush, well, brushy.

And that's not all. Grounds maintenance crews who gathered leaves from the many shade trees on campus dumped these leaves, creating natural forest duff—organic litter on the forest floor—into that restored area. This has created shelter for voles, moles and other critters favored by another natural denizen of NIH—the red-tailed hawk.

"He, or she, has been around here for about 10 years," says Mueller, who has been employed at NIH since 1979. "I was certain that it was a red-tail when I spotted it in our oak tree outside of Bldg. 22. Our guys would see him nail a pigeon right in front of everybody."

The red-tailed hawk (*Buteo jamaicensis*) is known for its eerie, high-pitched cry. If you ever saw *Northern Exposure*, it opened with the sound of its call.

"It's a shriek, really," says Mueller, who, while he modestly denies being an expert, is a long-standing member of the local Audubon Naturalist Society and has informally studied birds since he got his "bird badge" as a Boy Scout. At last count, he had catalogued 48 birds that inhabit the NIH campus.

"By 'inhabit,'" he says, "we mean that they either feed or nest here. That red-tail was out a lot in spring 2004 when the cicadas hatched, but normally they feed on songbirds (pigeons), squirrels and small rodents. And since the squirrel population has recently crashed for unknown reasons, and since we've had to net our building against roosting pigeons, the hawk may have gone over to Rock Creek for mice and voles."

That could be changing, though. The hawk was spotted one recent morning, perched atop Bldg. 45, shrieking away, and for what? Looking for his mate, or just a snack?

One employee reported that she's seen him fly past her window in Bldg. 31. "I thought it was a plane landing," she says.

With a wingspan of 48 inches, the bird is truly plane-like. The mature red-tailed hawk also has a short, hooked bill, strong claws, a white breast and a ruddy tail. Youngsters are less colorful.

"They have binocular vision, too," says Mueller, who thinks the hawk's eye may perceive light wavelengths in mouse urine as "a glow they can see even through the grassy tunnels."

He's also engaged in an ongoing project to plant native species of fruit and nut trees, helpful in attracting squirrels and songbirds, which are part of the hawk's diet. Although he's not all about the predator—Mueller is a big squirrel fan, too.

"They're little comics," he says. "They have all day to figure out how to defeat a bird feeder."

Meanwhile, he's created projects to reduce pesticide use yet control insects by establishing songbird nest boxes on the NIH and NIHAC campuses and specialized nesting sites for bluebirds and kestrels at NIHAC, NIH's Poolesville facility.

So why should NIH scientists, many of whom don't study things that are bigger than a cell, be interested in a raptor, a bird of prey? Well, for one thing, the hawk is a good neighbor. It helps us humans by keeping down the rodent population—always a plus.

The hawk's perception may also resonate with a certain kind of scientific inquiry.

The Oneidas, one of the six nations that make up the Iroquois (Haudenosaunee) Confederacy, have studied hawk and eagle hunting technique. When a hawk sees a mouse, he dives directly for it, as opposed to an eagle, who sees the whole pattern and detects movement within it. Is there some correspondence here with the scientific mind, in its tenacity, its focus and its creative leaps?

For sure, the hawk is beautiful and strange, soaring high above the ground, where it can spot a mouse at a hundred feet, or locking talons (like holding hands) with another hawk in a mid-air courtship dance.

Spring's coming. Be on the lookout, and listen for that eerie cry.

For more information about the red-tailed hawk, contact the Department of the Interior, U.S. Geological Survey, Patuxent Wildlife Research Center, Patuxent Bird Identification InfoCenter at http://www.mbr-pwrc.usgs.gov/Infocenter/infocenter.html/.

science

Can MicroRNAs Make Memories?

You don't hear the term "junk DNA" much anymore, and for good reason. Now we know that stretches of the genome that don't code for proteins can affect how genes are read in many different ways. A new study in *Nature* suggests that an RNA molecule made from such a stretch may play an important role in learning and memory.

The RNA molecule in question is a microRNA (miRNA). MiRNAs are small stretches of RNA, 18 to 25 nucleotides long, that regulate gene expression by binding to regions on target messenger RNAs (mRNAs) with complementary sequences. Once they bind, they either bring about the mRNA's cleavage or inhibit the cell's ability to "translate" it—that is, to read it and make protein based on its sequence.

Biochemical and genetic studies have revealed important functions for miRNAs in many areas of cell function, including differentiation, apoptosis and metabolism. A team of researchers at Children's Hospital Boston, supported by grants from NINDS and NICHD among others, set out to see whether miRNAs might play a role in regulating how nerve cells in the brain connect and communicate.

Nerve cells communicate through points of contact called synapses. By creating, strengthening and weakening these connections, nerve cells lay the networks for learning and memory. Since some mRNAs in nerve cells seem to be transported to sites near synapses, the researchers reasoned that local regulation of these transported mRNAs by miRNAs might play a key role in synapse development.

The researchers identified a miRNA called miR-134 that concentrates near synapses in dendrites—the branch-like nerve cell extensions that receive signals from other nerve cells. Using rat cells in culture, they discovered that miR-134 can reduce the size of dendritic spines, the specialized sites on dendrites at the receiving ends of synapses.

To figure out how miR-134 affects dendritic spines, the team searched mRNAs for potential miR-134 binding sites. This led them to a protein called Limk1, which controls dendritic spine development. MiR-134 inhibits translation of the Limk1 mRNA. It can thus regulate spine size by affecting how much Limk1 protein the dendrites can make.

The researchers then found that exposing nerve cells to brain-derived neurotrophic factor (BDNF), which stimulates mRNA translation at synapses, relieves miR-134's inhibition of Limk1 translation. So to put this whole picture together, the researchers hypothesize that, in cells, miR-134 might bind to Limk1 mRNA to keep it in a dormant state while it is being transported out to synaptic sites. At synapses, BDNF can prompt dendritic spine development where it's needed by selectively stimulating mRNA translation.

The authors found several additional mRNAs that may be targets for miR-134, so they suspect it might regulate a whole set of genes involved in synapse formation and development. There are likely other miRNAs that are involved as well. The researchers speculate that miRNAs may even act locally at individual synapses to form and refine connections. That could potentially explain at the cellular level how organisms learn and respond to their environment.

The next challenge is to identify all the miRNAs in dendrites and all their target mRNAs. The ultimate goal will be to find out how they all work together to selectively create, strengthen and weaken the connections between synapses.—**Harrison Wein**

KING PROGRAM

CONTINUED FROM PAGE 1

Right:
Guest speaker Carson (l) visits with attendees following the MLK program in Masur Auditorium.

PHOTOS: ERNIE BRANSON

Then came the bracing follow-up: "If not for the actions of Rosa Parks, Dr. King would've been a wonderful minister at the Dexter Avenue Baptist Church, but we wouldn't be talking about him today. And without Coretta Scott King, there would be no King holiday, no King papers nor King Institute."

Carson, professor of history at Stanford University, was tapped by Mrs. King to edit Dr. King's papers. He now directs the project and the recently established King Institute, which is raising an endowment to ensure that the project's efforts continue in perpetuity.

"King didn't do it alone," Carson reminded his listeners, recalling how the civil rights movement's genesis in the Montgomery bus boycott had been planned by women such as Parks, a long-time NAACP worker and secretary of its local chapter. Her refusal to give up her seat was not spontaneous, but rather a well-orchestrated tactic leading to a test case challenging transit segregation. "And then the women decided they needed a leader—that is, a man," he noted wryly—implying that, in the 1950s, any woman, however capable, would have been rejected for such a powerful role.

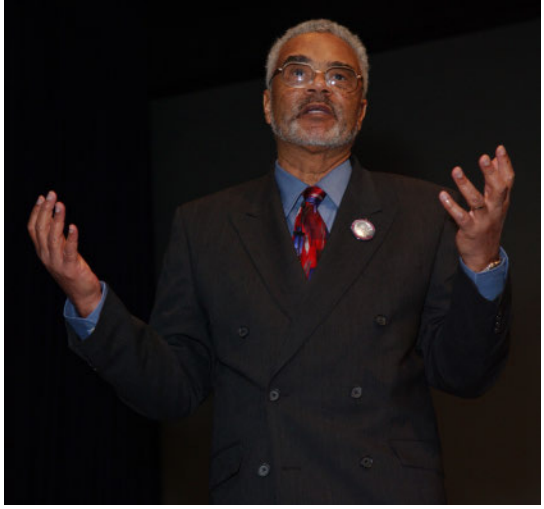
The audience nodded and murmured in assent as Carson sketched out an argument that differed somewhat from the "Great Man" theory of history. In focusing on community struggle, he credited the women who spearheaded and maintained the movement.

And who also benefited from that struggle. "Women don't always recognize that the 1964 Civil Rights Act affected more non-black people—that is, women of other races—than blacks," the professor stated.

Indeed, there in evidence was Dr. Ruth Kirschstein, senior advisor to the NIH director, whose introductory remarks recalled her medical school days at Tulane in then-segregated New Orleans. In solidarity with blacks forced to sit behind buses' color barriers, she never sat down on a city bus during her years as a student there.

"My classmates thought I was crazy," she quipped, "but it made me turn to a course that I have followed here in Bethesda for the last 50 years."

As director of the National Institute of General Medical Sciences from 1974 to 1993, Kirschstein was the first woman institute director at NIH. As prelude to the keynote address, her opening remarks traced how affirmative action advanced the standing of blacks and women at NIH as it established its EEO program, the Office of Research on Women's Health, the Office of Research on Minority Health and the National Center on Minority Health and Health Disparities.



Stanford's Carson makes a point during his lecture.

Meanwhile, in accompaniment, a slide show ran scenes from King's life. It was a poignant reminder of how young and audacious he was—at 26, as the new minister in the city of Montgomery, and with no experience in civil rights leadership, he began his "Call to Conscience."

Even so, Carson asserted, King was not only a civil rights reformer. "It was not just about riding in the front of the bus," he said, "but about being part of anti-colonial struggles in Africa and Asia." He noted that King went to the Ghanaian independence ceremony as the personal guest of Kwame Nkrumah, first president of modern Ghana and one of the most influential Pan-Africanists of the 20th century.

Carson then urged listeners to investigate for themselves how colonialism, Jim Crow and apartheid were vanquished. His hint: "Young people," he said, "were crucial.

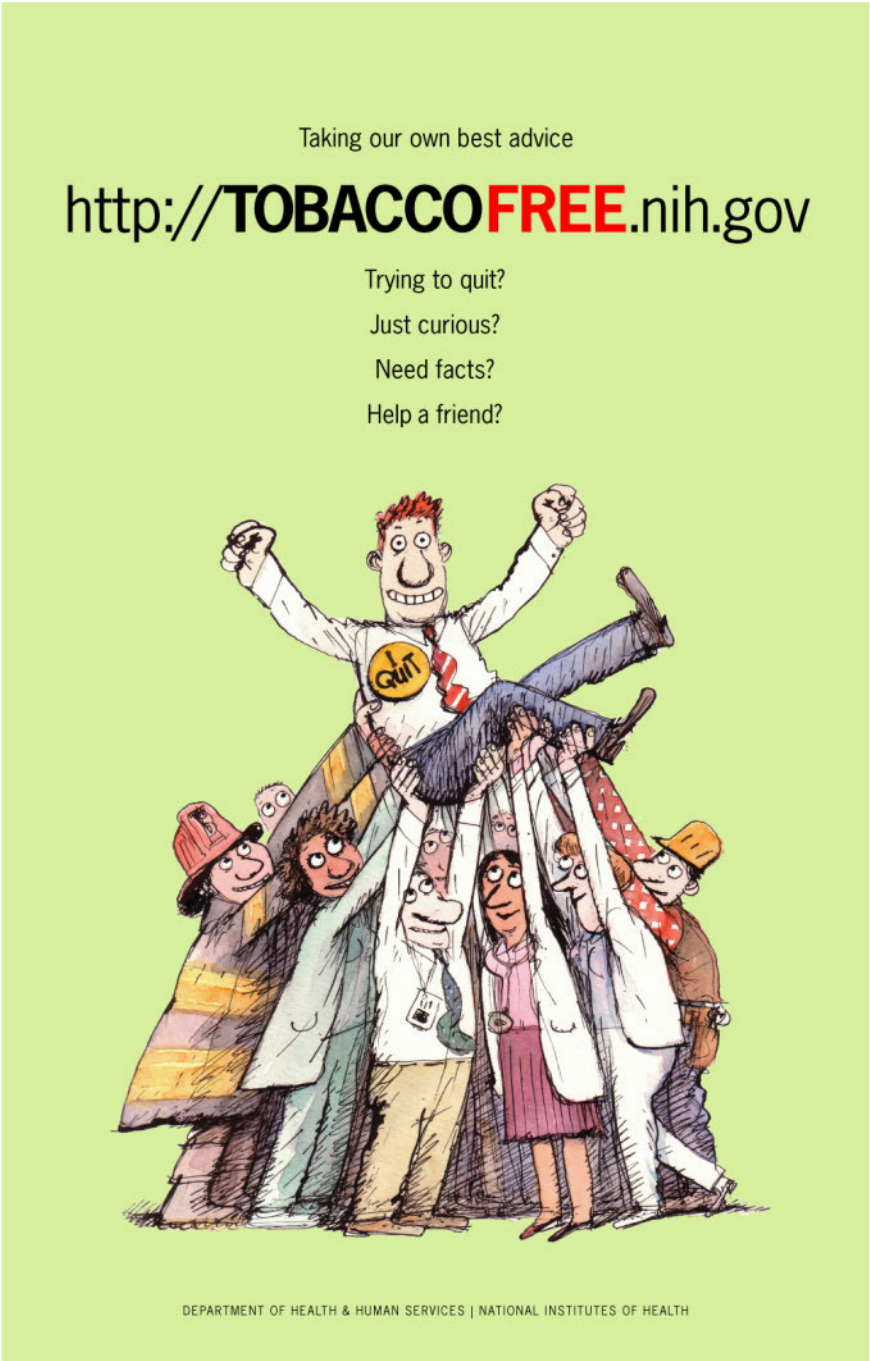
"The Birmingham movement was a children's crusade because King was already in prison," he said. "The uprising in Soweto, South Africa, was launched by teenagers; Nelson Mandela was in prison."

From this international perspective, Carson urged his audience to action by quoting one of King's sermons given the year before he was assassinated: "If you take a stand for that which is right, you will never go alone."

So now, asked the professor, what entrenched social evils in the world are young people of the twenty-first century going to fight? "Are they going to eliminate poverty? Will health care be distributed only to those who have money?"

Speaking to his audience at NIH, those dedicated to "medicine for the public," he couldn't have asked for a better reception.

For more information on Dr. Martin Luther King, Jr., including plans for a national memorial, visit the HHS University web site at http://learning.hhs.gov/ and see "Timeline: Life of Dr. Martin Luther King, Jr."



Seen This Poster Yet?

NIH recently launched its tobacco-free campaign with this poster by artist Richard Thompson, whose cartoons are featured in the Washington Post. *For more information about the NIH effort to promote better air quality and health in the workplace, see the web site http://tobaccofree.nih.gov.*

FOREIGN SCIENTISTS

CONTINUED FROM PAGE 1

Right:
Members of the Division of International Services include (front row, from l) Candelario Zapata, director; Radames Mendoza, Brian Daly, Michelle DeNamur, Vivian Weaver. At rear are (from l) Amy Powers, Filiz Wallace, Michelle Mejia, Linda Kiefer, Melba Rojas and Stephanie Hartsock.

our peers to journal meetings where relevant research topics were reviewed."

Fridman returned to his native country after studying at NINDS. When he left NIH in 1992, he was awarded a Global Health Research Initiative Program Grant for New Foreign Investigators, which helps NIH-trained researchers make a smooth transition back to their country. Today he is head of the neurorehabilitation section at the Institute for Neurological Research in Argentina.

A Bow or a Handshake?

Candelario Zapata, director of the Division of International Services, ORS, and his colleagues help visiting scientists adapt to life in the United States. Every foreign researcher on campus passes through the division to obtain clearance to work at NIH. The division provides scientists with information on basic necessities such as housing, driving, opening a bank account—no easy chore since their ability to speak and comprehend English is often rudimentary. The division offers a range of information to help newcomers and their family members adjust to life in a foreign land. For instance, in order to show an awareness of cultural sensitivity, "we allow the newcomer to show us if a bow or a handshake is appropriate," says Zapata.

His office finds few idle moments since NIH currently has 2,774 foreign scientists from 99 countries. The largest foreign contingent—more than 400 investigators—hails from the People's Republic of China, followed by Japan with more than 300 researchers. On the other side of the spectrum are more than two dozen countries represented by only 1 scientist, including Algeria, Iceland, Kazakhstan and Zimbabwe.

While the National Cancer Institute employs most foreign scientists, with more than 700 active researchers alone, visitors from abroad are currently working in 23 other institutes and centers. From the day they arrive on campus, their mission is to produce and publish quality research so that when they return to their native countries, they can share their accumulated knowledge with colleagues. In some cases, however, these scientists have a dual purpose—they are also working to obtain U.S. permanent residence (i.e., get their "green cards"). "They put every ounce of energy into learning the language and publishing, so they can become U.S. citizens, if so desired," says Zapata.

Getting to Know You: Life in the Lab

In Hye Lee of the molecular biology section, Cardiovascular Branch, NHLBI, arrived from Seoul, Korea, last fall. Prior to her employment, she attended meetings in the U.S. to learn state-of-the-art procedures in her field. While at a conference in Tucson in 2002, she met Dr. Sue Goo Rhee, who arranged for her to work in his lab for 1½ months, studying phospholipase C using automated magnetic cell sorting. Fortunately, this led Lee to her current appointment under the supervision of Dr. Toren Finkel, where she studies reactive oxygen species and aging.

Lee's day begins early with experiments in her Bldg. 10 laboratory before she heads over to the Fitness Center in Bldg. 31 to work out. Her average work week consists of approximately 60 hours—including the time she spends in the lab during the weekend. Meanwhile, her interest in

other languages and cultures, socializing with American, Korean or other foreign colleagues and visiting local relatives has helped mitigate the absence of her immediate family. She is adjusting well and taking advantage of opportunities afforded at NIH. Lee would like to remain in the U.S. and widen her professional opportunities. "While at the NIH, I very much enjoy working on new and interesting projects and talking to others about their scientific results."

For most foreign scientists, the challenge of being a stranger in a strange land is daunting, but ultimately rewarding. According to Fridman, "The NIH experience opened my career. I can summarize my time at the NIH as the most important experience in my career."

Top 10 Countries of Origin for Visiting Scientists
(as of Jan. 5, 2006)

People's Republic of China	423
Japan	342
Korea	283
India	259
Italy	142
Canada	121
France	120
Germany	109
Russia	103
United Kingdom	97

Top Five Institutes Employing Foreign Scientists
(as of Jan. 5, 2006)

NCI	714
NIAID	306
NIDDK	260
NICHD	256
NHLBI	170

NCI's Patel Retires After 28 Years

Dr. A.R. "Joe" Patel retired in January with 28 years of service at the National Cancer Institute. He spent most of his career working in the extramural epidemiology research program, where he is known especially for his early stewardship of research on diet, nutrition and cancer and on minorities and cancer.

In 1977, with a doctorate in pharmaceutical chemistry, Patel joined NCI to manage contracts for testing chemical agents for carcinogenicity and a carcinogen standards repository. Soon thereafter he became responsible for developing the extramural diet, nutrition and cancer research program, including animal and human studies. He wrote the institute's first Request for Proposals for contracts to study natural inhibitors of carcinogenesis, predating the establishment of NCI's large-scale cancer chemoprevention research program.

In the early 1980s, he jumpstarted investigation of diet and cancer by writing a Request for Applications to encourage research grants in dietary assessment methods. "At this time, diet and nutrition were only starting to be appreciated as possible determinants of cancer. The RFA was central to the advancements that have been made in the field of nutritional epidemiology," said Dr. Walter Willett of Harvard University, who is internationally renowned for his research on diet and nutrition and was one of Patel's grantees for more than 20 years.

"The development of validated dietary assessment methods through the NCI funding had a major benefit not only for cancer research but many other fields as well," said Willett. "For example, as a result of leads provided by dietary assessments, vitamin A supplementation is now part of standard care for patients with visual impairment due to retinitis. Trans fatty acids have been identified as an important contributor to coronary heart disease and are rapidly being removed from the food supply. B-vitamin supplements are part of standard care for pregnant women in Africa who are infected with HIV. None of this would have happened without the methodological developments encouraged by Dr. Patel."

Patel followed the initial RFA by writing two others to stimulate development of biochemical markers of human exposure to carcinogens and of cancer susceptibility for use in epidemiologic studies.

In the early 1990s, his focus turned to encouraging extramural investigators to launch epidemiologic studies on U.S. ethnic and minority populations and cancer, an achievement Patel views as his most important. With expansion of this research portfolio, he began promoting the establishment of cohort studies so that long-term prospective studies, particularly on diet and cancer causation in diverse populations, would be possible.

He leaves a range of cohort studies for which he was program director that includes populations of U.S. African Americans, Latinos, Native Americans, Native Hawaiians, Japanese, Filipinos, Chinese and Caucasians. Some cohort studies have wide name recognition, such as the Nurses' Health Study, Health Professionals Follow-Up Study, Black Women's Health Study and California Teachers Study.

Patel also is pleased to have written an RFA in the early 1980s on study of involuntary exposure to tobacco smoke and cancer risk. The findings from these studies indicated an association, caught the attention of regulatory agencies and paved the way for measures to curb smoking in public places and educate the public about the dangers of second-hand smoke, he said.

He retired from the Epidemiology and Genetics Research Program of NCI's Division of Cancer Control and Population Sciences. With his newfound time, Patel will work part-time as a tax consultant and financial advisor.

training

NIH Training Center Classes

The Training Center supports the development of NIH human resources through consultation and provides training, career development programs and other services designed to enhance organizational performance. For more information call (301) 496-6211 or visit http://LearningSource.od.nih.gov.

Simplified Acquisitions Refresher	2/14
Cultural Diversity at NIH	3/6
Writing Statements of Work	3/7
Introduction to NIH Property Management	3/16

Computer Training Spring Term Now in Session

The CIT Training Program's spring term of computer classes is now open for registration. With well over 120 different topics, more than 25 of them new, there is something for everyone who uses a computer in their NIH experience. Classes, as always, are available free of charge to NIH staff.

Do you want to take your knowledge of Windows XP, Filemaker or Firefox to the next level? Are you concerned about PC security or identity theft? Would a refresher course on XML help your team create a more efficient web page? If so, these topics and many others are part of the new offerings: Filemaker Development Group; Firefox: Now That's One Cool Browser; Identity Theft: What You Need to Know; Hands-On PC Upgrading and Home Security; and Beginning XML.

Statisticians also have quite a few new and existing options this term. They include: SAS Data Step Programming Efficiencies; S-PLUS Introduction and Command Line Programming; SPSS: Basics, ANOVA and Regression; Statistical Analysis with R.

Scientific seminars make up 40 percent of CIT's courses. Since most employees' time is limited, most science courses are designed to deliver valuable information in less than a day. Some courses are demonstrations with Q&A. Most offer a hands-on lab component as well. Options this spring include: Mouse Genome Informatics Workshop; MATLAB for Scientists; NCBI's Entrez Quick Start; ProSight FISMA Application Module; Bioinformatics Introduction; GeneSpring—a series of courses beginning with an introduction; Surface Based Analysis with Caret, PALS and SumsDB.

CIT can offer classes free of charge to the NIH community because 80 percent of its instructors are volunteers, including many NIH'ers. We all benefit when practitioners are able to teach their colleagues, and most classes can be tailored to the NIH environment. In some cases, a person is already training coworkers and it can be easy to expand the class NIH-wide.

The CIT Training staff provides classroom setup, duplication of handouts and support in formulating classes. CIT is always looking for new topics that would benefit NIH, so if there's anything you would like to teach, call the number below.

You can obtain full course information, register for spring term classes, join the CIT Training mailing list and check out your transcript or current application status at http://training.cit.nih.gov. If you have questions about the program, phone (301) 594-6248 or email CITTraining@mail.nih.gov.

Steven Awarded Medal By Czech University

Dr. Alasdair Steven, chief of the Laboratory of Structural Biology Research, NIAMS, was recently awarded the Medal of the 1st Faculty of Medicine by the Institute of Cellular Biology and Pathology of the Czech Republic's Charles University. Steven was recognized for his contributions to basic biomedical research; for his support of Czech science and for enhancing the international image of the Charles University faculty. The university's tradition of faculty medals is centuries old, and the medal is the university's highest honor. The list of awardees is short, numbering only 106 in the 20th century.

volunteers

Diabetes and Kidney Disease?

Do you have diabetes type 1 or type 2 and kidney disease? If so, take part in an NIH study. Call 1-866-444-2214 (TTY 1-866-411-1010). Refer to study 05-DK-0113.

Metabolic Study for African Americans

Healthy volunteers are needed for a study that is investigating the relationship of obesity to resting energy expenditure (REE) and fatty acid flux in healthy African Americans, ages 18 to 49 years. The study involves a 2-week period (excluding weekends) of outpatient visits to the Clinical Center for breakfast, weight measurement and to pick up meals. All meals will be provided during the study. Participation involves blood draws and metabolic testing. The last 2 days will require a 2-night inpatient stay. Compensation provided. Call (301) 402-7119 for information. Refer to protocol 04-DK-0061.

Study Needs Volunteers

NIH is currently enrolling families in which an adult or child has one of the following: rheumatoid arthritis/juvenile rheumatoid arthritis or systemic lupus erythematosus or systemic sclerosis or myositis within 4 years of diagnosis. The study consists of a blood draw, urine collection and survey completion. Participants must have a sibling of the same gender within 4 years of age and be from the same parents. Compensation is provided. Call 1-866-444-2214, (TTY 1-866-411-1010). Refer to study 03-E-0099.

Healthy Women Needed

The Behavioral Endocrinology Branch, NIMH, is seeking female volunteers ages 18-55 to participate in studies of the effects of menstrual cycle hormones on brain and behavior. Volunteers must have regular menstrual cycles with no changes in mood in relationship to menses, be free of medical illnesses and not taking any hormones or medication on a regular basis. Payment will be in accordance with the duration of each visit and the type of protocol. For more information, call Linda Simpson-St. Clair, (301) 496-9576 (TTY 1-866-411-1010).

Study of Uterine Fibroids

Call NIH at 1-866-444-2214 (TTY 1-866-411-1010) for information on a treatment study of uterine fibroids.

Child Development Study

Korean-American families with a healthy first-born baby less than 6 months old are needed for an NICHD study. This is not a medical study, but a study of how babies grow and learn. Participation involves 3 brief visits with mother and baby at home. All information collected for this study is strictly confidential. You do not have to be 100 percent Korean nor be a U.S. citizen to participate. You will receive a Toys R Us gift certificate for participating, and a summary of the results of the study. Call Jennie Kim at (301) 496-7306.

Panic Disorder Treatment Study

The anxiety disorders research lab at American University seeks individuals who experience panic attacks to participate in a 7-week psychotherapy treatment study. Participants must be 18 or older and have experienced panic symptoms for more than 1 month. The initial assessment to determine qualification may take 1-3 hours. Qualified volunteers may be eligible for compensation. For more information call (202) 885-1729.

NLM's MedlinePlus Wins World Honor

MedlinePlus, NLM's consumer health web site, is one of two U.S. winners of the 2005 World Summit Award. The award is part of the program of the World Summit on the Information Society, a United Nations effort organized by the International Telecommunication Union, the UN Industrial Development Organization, the UN information and communication technologies task force and UNESCO.

Forty products representing best practice examples received the award at a presentation in Tunis, Tunisia, last November. The products were selected in a five-stage process from over 20,000 candidates from 168 countries. The selection of the best products in the world included national evaluations, a grand jury review of over 750 nominations and a 6-day judging process.

MedlinePlus received its award in the e-health category. The only other U.S. winner was the National Anthropological Archives, Smithsonian Institution, in the e-culture category. Dr. Joan R. Challinor, a member of the U.S. National Commission on Libraries and Information Science from 1994-2005 and commission chair from 2003-2004, accepted the award on behalf of NLM. She said, "What we try to do is to put out understandable information so that patients and their families can learn about whatever disease or health initiative they want to... Two million people from 200 countries a day log onto MedlinePlus."

"Receiving this award was a significant honor," says Eve-Marie Lacroix, chief of the Public Services Division, the area that produces MedlinePlus. "It is a tribute to the excellence that we strive to maintain in producing a web site that consumers can use to find answers to their health questions. But we couldn't do it without the outstanding information that all NIH institutes and centers produce for the public."

'Pathway to Independence' Awards

New Grants Seek More Scientists Early in Their Careers

By Carla Garnett

In tight research-budget times, universities often reinvest in the tried-and-true, instead of taking chances on the bold-and-new. Such decisions give veteran scientists a huge advantage over fledgling investigators in the competition for resources. Hoping to help even the playing field a bit, NIH director Dr. Elias Zerhouni launched the "Pathway to Independence" Awards on Jan. 27. The new PI program is a unique grant mechanism designed to help make new postdoctoral scientists more attractive to academic research institutions that offer long-term commitments of scientific resources and funding.

"There's no doubt that we must invest in new scientists today as we see a very fast-expanding array of possible avenues of exploration in multiple methodologies and fields of research," said Zerhouni, announcing the grants. "If we expect to meet tomorrow's challenge, the most important thing we need to do is to maintain the momentum in creation of human capital for doing this research in the future."

As incoming NIH director in 2002, Zerhouni asked his advisory committee to the director to investigate what he saw as growing—and troubling—trends: an older age of scientists receiving their first independent awards, a lower percentage of investigators less than 35 years old (compared to 40 years ago), and increasing difficulty for new researchers who have no support to get funded early in their careers. If allowed to continue, Zerhouni explained, these tendencies would undoubtedly shortchange the research community of numerous novel ideas and innovations.

The PI grants will serve as a way to cut the apron strings between dependence and independence sooner. Under the new program, postdocs can move more quickly from working under the auspices—and grant funds—of seasoned scientists to working as principal investigators on their own.

In this first year of the program, NIH will issue between 150 and 200 grants, starting in the fall. A similar number of awards will be given out each year through 2011. NIH plans to devote nearly $400 million to the PI grants from 2006 to 2011. In the first couple of years of the grant, PI awardees would work in a mentored phase I to finish their supervised research projects, publish the results and job-hunt for an independent research post. By having a guaranteed NIH PI grant in hand, the awardees will be more likely to attract tenure-track offers from academic research institutions. During years 3 to 5 of the PI grant (phase II), the awardees would accept a permanent research position—an assistant professorship or equivalent, for example—to set up their own research program and win a traditional NIH funding award, an R01 investigator-initiated grant.

"What we've designed and built is basically a bridge," said Zerhouni, speaking from experience as a former new investigator. "This is a unique opportunity to allow highly promising postdoctoral scientists to receive both mentored and independent research support from the same award. We're committing to a 'K99/R00 award,' which is the last step from a dependent career to the first step in an independent career. More importantly, we want to make sure that whatever institution recruits them commits the necessary resources to do that innovative research, whether it's space, access to research resources or other support."

[This program] indicates our commitment to making sure that no matter what happens, talented people with new ideas—which are the core of our success—are supported, and that in the face of budget adjustments we do not jeopardize the seeds of the future.

Another unique aspect of the grant is that it travels with the recipient. Phases I and II do not have to be done at the same place. In addition, the PI program is designed to identify the best and the brightest scientists in the world working at U.S. institutions. International postdocs qualify as long as they have visas allowing them to work at a U.S. institution and they secure a tenure post at a U.S. facility.

"What's also important is that the award be portable, freeing scientist[s] to negotiate at the best institution where they find the ability to conduct their research," Zerhouni said. "Hopefully this will allow innovation and encourage these new investigators to take chances and risks in new areas of research, and then compete in the R01 pool."

NIH will not divert resources from its R01 program to fund its new PI award efforts, Zerhouni said. Other NIH efforts by individual ICs to ease the way for new investigators to gain their independence faster will also continue. A percentage of the budget of each institute and center will fund the new program. Awardees can receive up to $90,000 in each of the first 2 years, and between $175,000 and $250,000 in the 3-year independent phase.

"What we're really looking for is an institutional commitment to the career of the scientists," Zerhouni stressed, "and that the scientists do not have a dead-end job, but a real possibility of both the resources to conduct their research and institutional commitment to be successful in the long run.

"This is only one piece of a larger effort that we've undertaken to support new scientists," he concluded, noting that he has asked that special attention be given by IC councils to new investigators, and that the NIH Office of Extramural Research has launched a pilot program to shorten review time of grant applications by new investigators. "[This program] indicates our commitment to making sure that no matter what happens, talented people with new ideas—which are the core of our success—are supported, and that in the face of budget adjustments we do not jeopardize the seeds of the future. We must support them all the way."