

nih record



ABOVE • Running club gets back in step. See story, p. 6.

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Deciphering the Genetic Code

Symposium Recounts Nobel Laureate Nirenberg's Triumphal Studies

By Rich McManus

The official occasion was the American Chemical Society's designation of Dr. Marshall Nirenberg's Nobel Prize-winning achievement of cracking the genetic code as a National Historic Chemical Landmark. But the day-long symposium held in Nirenberg's honor Nov. 12 in Masur Auditorium was more a warm recognition by many colleagues that science's top prize could not have gone to a nicer guy, or to one whose work opened any wider the floodgates of downstream scientific consequence.

Perhaps the highest encomium in a day filled with them was offered by another Nobel laureate, Dr. Philip A. Sharp of MIT,



Dr. Marshall Nirenberg (r) and NIH deputy director for intramural research Dr. Michael Gottesman flank the plaque designating NIH as a National Historic Chemical Landmark.

SEE NIRENBERG, PAGE 8

Gutmacher to NICHD

Green Named NHGRI Director

NIH director Dr. Francis Collins has named Dr. Eric D. Green as the new leader of the National Human Genome Research Institute. For the past 7 years, Green has been NHGRI's scientific director.

"Dr. Green is the perfect choice to be NHGRI director," said Collins. "He grew up professionally with the genome era and has been on the cutting edge of genomics research for more than two decades. As NHGRI scientific director, Dr. Green has overseen spectacular growth and diversification of the institute's intramural research program."

Collins led NHGRI from April 1993 until August 2008. This is the first time an institute director has risen to lead the entire NIH and picked his own successor.

Upon Collins's departure, Dr. Alan E. Gutmacher, former NHGRI deputy director, stepped in to serve as NHGRI's acting director. Gutmacher was recently named acting direc-

SEE GREEN, PAGE 4

What Kind of Country Are We Going to Be?

Suarez, Molina Speak on Hispanics, Health, Hope

By Belle Waring

With a bracing assessment of the nation's health inequities and a plan for action, journalist Ray Suarez and physiologist Dr. Patricia Molina recently visited NIH as part of Hispanic Heritage Month.

Suarez is the Public Broadcasting Service's senior correspondent to *The News Hour with Jim Lehrer*; Molina chairs the department of physiology at Louisiana State University Health Sciences Center in New Orleans and serves as executive vice-chair for the National Hispanic Science Network. Their back-to-back talks, sponsored by the NIH Office of Equal Opportunity and Diversity Manage-



PBS correspondent Ray Suarez recently spoke at NIH.

SEE HISPANIC HERITAGE, PAGE 10



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briefs

NHLBI Cookbook Available at R&W

The National Heart, Lung, and Blood Institute, in coordination with the R&W stores, is now offering its new heart healthy cookbook *Keep the Beat Recipes: Deliciously Healthy Dinners*.

The cookbook features 75 simple and delicious recipes influenced by Asian, Latino, Mediterranean and American cuisine that are good for your heart and taste great too. More than two-thirds of the recipes were created for NHLBI by Culinary Institute of America-trained chef/instructor David Kamen and a James Beard Foundation award-winning registered dietitian with guidance from an NHLBI nutrition educator and registered dietitian. The recipes are limited in saturated fat, trans fat, cholesterol and sodium as well as moderate in calories. The recipes use lean cuts of meat, poultry without the skin, fish, beans, whole grains, fruits, vegetables, small amounts of vegetable oil and lots of herbs and spices for flavor.

The cookbooks are \$5 each and can also be purchased through a new *Keep the Beat: Deliciously Healthy Eating* web site. The site also features all of the recipes in the cookbook, which are downloadable for free, a searchable database, healthy shopping and cooking tips, an online community, videos and information for the media. Log on at <http://hin.nhlbi.nih.gov/healthyeating> for more information.

NIAAA Launches Webzine

NIAAA recently launched its first-ever "webzine." The *NIAAA Spectrum* features engaging articles, short news updates and colorful graphics. *Spectrum* will be published three times annually and will present information on NIAAA and highlights from the alcohol research field for a wide range of audiences.

"I'm excited about the *Spectrum* as a new way to reach members of the public with important messages about alcohol and their health, and also as a way to engage researchers whose primary interest may not be the study of alcohol or its effects on our society. Because alcohol is enjoyed by many—and sometimes also abused—it's an issue that can impact many of the health sciences," said NIAAA acting director Dr. Kenneth Warren.

In addition to feature stories and news from the field, each *Spectrum* will feature a "charticle"—a way of visualizing data and statistics in place of a full article—as well as a photo essay and an

interview with a prominent alcohol researcher or NIAAA staff member.

The *NIAAA Spectrum* can be found online at www.spectrum.niaaa.nih.gov.

NIH CFC Reaches Campaign Halfway Mark

For over 40 years, NIH has contributed to those in need by supporting the Combined Federal Campaign. Last year, NIH raised \$2.474 million for the CFC, which was an all-time record. This year's goal is \$2.2 million, and just before Thanksgiving we topped \$1.1 million, surpassing the halfway mark. Reaching this point means NIH's spirit of community and generosity continues to be strong even during challenging times. But there is still far to go.

This has been a difficult year for many; charities are trying to meet increasing demands for their services while their own budgets are shrinking. Your help is needed now more than ever. One of the great features of the CFC is that you, the donor, are able to designate which charity receives your contribution. It is your opportunity to help NIH reach our goal while you support a cause that has personal meaning for you.

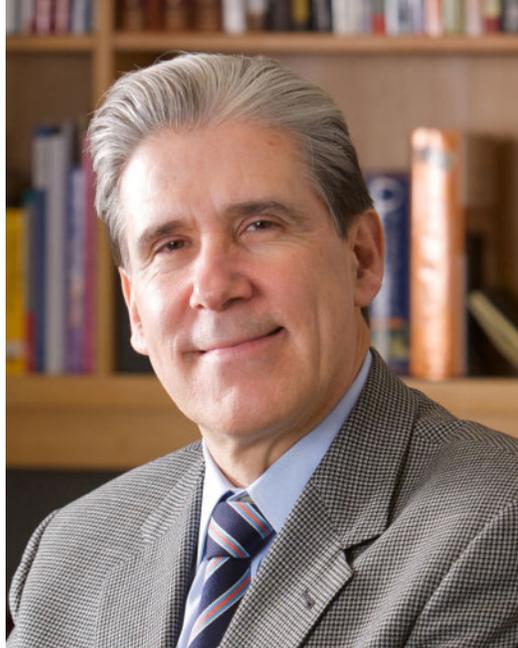
If you haven't yet made your pledge, consider giving now. Every little bit helps and if you pledge just \$1 per pay period or you make a one-time pledge of \$26 or more by cash or check and turn in your pledge form to your keyworker before noon on Dec. 15, your name will be entered into the annual NIH CFC R&W drawing. There are many great prizes to be had—look for details on the R&W flyer coming to a desk near you.

Your generosity truly makes a difference. To learn more about upcoming events and how you can support the NIH CFC, visit <http://cfc.nih.gov>.



NIH Charities Receive Gift

The NIH Charities are the beneficiaries of a recent gift from the NIH Community Orchestra (NIHCO) and the Samuel Gompers-Benjamin Franklin Lodge #45, Free and Accepted Masons of the District of Columbia. Shown above at the check presentation are (from l) Jonathan Binstock (SGBF Lodge), Randy Schools, NIH R&W president, Harold Seifried (NIHCO), Gary Daum (NIHCO) and Steve Soroka (NIHCO and SGBF Lodge).



Dr. Julio Frenk of Harvard School of Public Health will deliver the 2009 Barmes Lecture.

Frenk To Deliver 2009 Barmes Global Health Lecture

Dr. Julio Frenk, dean of Harvard School of Public Health, will deliver the 2009 David E. Barmes Global Health Lecture on Tuesday, Dec. 15 at 11:30 a.m. in Masur Auditorium, Bldg. 10. Frenk will discuss "Globalization and Health: The Role of Knowledge in an Interdependent World."

A leading authority on global health, Frenk became dean of the faculty and T&G Angelopoulos professor of public health and international development at Harvard in January 2009. He previously served as Mexico's minister of health from 2000 to 2006. During his tenure he introduced a program of comprehensive national health insurance, known as *Seguro Popular*, which expanded access to health care for tens of millions of previously uninsured Mexicans.

He also was the founding director-general of the National Institute of Public Health in Mexico, one of the leading institutions of health education and research in the developing world. In 1998, he joined the World Health Organization as executive director in charge of evidence and information for policy, WHO's first-ever unit explicitly charged with developing a scientific foundation for health policy to achieve better outcomes.

Most recently, Frenk served as a senior fellow in the global health program of the Bill & Melinda Gates Foundation and as president of the Carso Health Institute in Mexico City. He holds a medical degree from the National Autonomous University of Mexico as well as three advanced degrees from the University of Michigan: a master's degree in public health, a master's degree in sociology and a doctorate in medical organization and sociology.

In 2008, he received the Clinton Global Citizen Award for changing "the way practitioners and policy makers across the world think about health."

NIDCR and the Fogarty International Center jointly host the annual Barmes Lecture, which honors the late David E. Barmes, a special expert for international health at NIDCR. Prior to joining NIDCR, he served in senior management positions related to oral health, health promotion and non-communicable diseases at WHO.

The lecture is free and open to the public. A reception will follow, hosted by the Friends of the NIDCR. The event also will be videocast at <http://videocast.nih.gov/>.

Sign language interpreters will be provided. Individuals who need reasonable accommodation to participate should contact Jody Dove, (301) 594-7558 and/or the Federal Relay (1-800-877-8339). ●

Shurin Assumes Role of Acting NHLBI Director

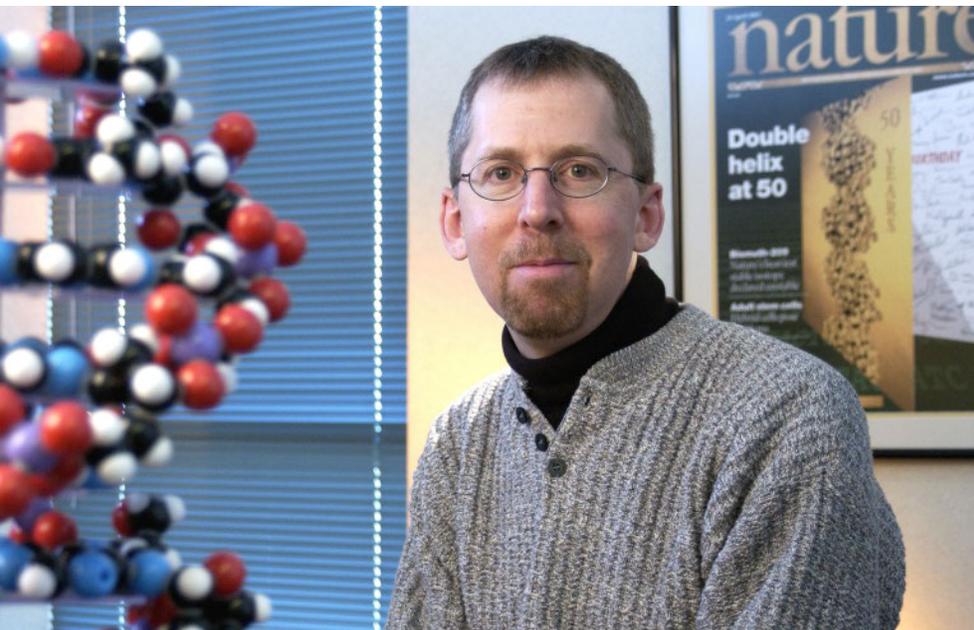
Dr. Susan Shurin assumed the role of acting director of the National Heart, Lung, and Blood Institute on Dec. 1. She follows Dr. Elizabeth Nabel, who resigned as NHLBI director to serve as president and CEO of Brigham and Women's / Faulkner Hospitals in Boston.

"Dr. Shurin's extensive experience in managing large research programs, particularly clinical programs, her research expertise and her familiarity with and within the institute all will serve her and the organization well as she guides the NHLBI through this period of transition," wrote NIH director Dr. Francis Collins in a Nov. 20 announcement to staff.

Shurin joined NHLBI as deputy director in February 2006, coming from Case Western Reserve University in Cleveland. She was involved in multiple intramural and extramural activities and was responsible for oversight of the institute's clinical research portfolio. While serving as deputy director in October 2009, Shurin also assumed the role of acting director of the National Institute of Child Health and Human Development. That post has now been taken by Dr. Alan Guttmacher.

Before joining NHLBI, Shurin was professor of pediatrics and oncology at Case Western Reserve; director of pediatric hematology-oncology at Rainbow Babies and Children's Hospital; director of pediatric oncology at the Case Comprehensive Cancer Center; and vice president and secretary of the Corporation at Case Western Reserve University.





GREEN

CONTINUED FROM PAGE 1

Above:

Dr. Eric Green has risen from scientific director of NHGRI to director of the institute.

tor of the National Institute of Child Health and Human Development. Until replacements are chosen, Green will serve as NHGRI's acting deputy director and acting scientific director in addition to his duties as NHGRI director.

"I'm deeply honored to be selected as the NHGRI director at a time when the field has myriad exciting opportunities to advance numerous areas of biomedicine and to revolutionize medical care," said Green, who assumed the post Dec. 1. "I'm also very fortunate to be given the opportunity to lead NHGRI while its previous director leads all of NIH—and in an administration that has tremendous support and appreciation for scientific research."

Since the early 1990s, Green's research program has been at the forefront of efforts to map, sequence and understand complex genomes. His work included significant, start-to-finish involvement in the Human Genome Project. More recently, he established a program in comparative genomics that involves the generation and analyses of sequences from targeted genomic regions in evolutionarily diverse species. The resulting data have provided new insights about vertebrate genome organization and evolution and revealed how conserved sequences can be used to identify important functional elements in the genome.

Besides basic genomics research, his laboratory also investigates genetic contributions to human illness. His group has identified several

human disease-related genes, including those implicated in certain forms of hereditary deafness, vascular disease and inherited peripheral neuropathy. Most recently, Green has led a number of efforts that utilize contemporary strategies for large-scale DNA sequencing to study genomic variations among humans, especially those contributing to common diseases. He is also involved in an NIH-based consortium that aims to understand the microbial communities that exist on human skin and how they contribute to health and disease.

"The Human Genome Project was a tremendous success and the research vision the NHGRI laid out at its completion in 2003 identified the key next steps to capitalize on the new knowledge about the human genome," Green said. "We are now reaping the bounty of that investment, gaining unprecedented insights about how the genome works in health and illness. My job will be to push the application of genomics into all areas of biomedical research and find effective ways to encourage a wide range of researchers to translate genomic discoveries into medical advances."

Green's past contributions to the NIH research community include founding and directing the NIH Intramural Sequencing Center, establishing the NHGRI Social and Behavioral Research Branch, creating the NIH Center for Research on Genomics and Global Health and helping to launch innovative clinical programs such as the NIH Undiagnosed Diseases Program.

An author or co-author of more than 240 scientific papers, Green is a founding editor of *Genome Research* and co-editor of the *Annual Review of Genomics and Human Genetics*. He was inducted into the American Society for Clinical Investigation in 2002 and into the American Association of Physicians in 2007. He is married, has two children and lives in Bethesda. 🌐



Joe Balintfy of NIH's News Media Branch gets ready to record a segment for the NIH Research Radio Podcast, which recently produced its 100th episode.

Research Radio Podcast Reaches 100th Episode

Jan. 1, 2010, will mark the 100th milestone episode of the NIH Research Radio Podcast. The program, produced by the NIH Radio News Service, provides news about NIH research and discoveries as well as information on causes, treatments and cures for disease.

Launched in March 2006, Research Radio Podcast was one of the first social media tools offered on the NIH web site. The concept was originated by Bill Schmalfeldt, former News Media Branch production manager in OD's Office of Communications and Public Liaison (OCPL). He came up with the idea after observing large numbers of Metro commuters listening to iPods.

"I did some research and learned that medical-themed podcasts were quite popular—and I went to Calvin Jackson [News Media Branch chief] with the idea," said Schmalfeldt, who now works at the Clinical Center. "In early 2006, I went to a podcasting training session and before you know it, we had our own podcast on the web."

"Many people weren't familiar with podcasting when we initially launched the program," said Joe Balintfy, OCPL public affairs specialist. "In just a few years we've witnessed substantial changes in technology. Social media efforts like podcasting have increasingly become a key way to communicate to the public."

Podcast subscribers receive biweekly audio broadcasts after downloading podcast applications like iTunes, Juice and Doppler. Each

episode typically includes three 2- to 5-minute news reports. Past podcasts have featured information about the H1N1 flu vaccine, skin cancer awareness and type 2 diabetes in teens. Often, NIH institute directors are interviewed, for example NIDA's Dr. Nora Volkow and NIAID's Dr. Anthony Fauci, as well as prominent scientists such as NIAAA's Dr. Mark Willenbring and NIA's Dr. Jack Guralnik.

Since its debut, the Research Radio Podcast site has shown steady increases in visits, receiving 6,000 downloads per installment. The site consistently ranks in the top 20 in the "Science and Medicine" category on iTunes.

To commemorate the 100th episode, NIH will change the opening theme music and modify the program's format to include an introductory "news brief" section. Balintfy adds that future topics such as breast cancer, diabetes, heart disease plus discoveries from genetic studies and clinical trials will continue to be covered in an easy to understand and easily accessible format.

To subscribe to the NIH Research Radio Podcast, visit www.nih.gov/news/radio/nihpodcast.htm. — **Jilliene Mitchell** 📍



Grady Speaks on 'Technology, Genetics And the Future'

At a recent conference of the Council for the Advancement of Nursing Science (CANS) held in downtown Washington, D.C., NINR director Dr. Patricia Grady gave a talk titled "Technology, Genetics and the Future." She discussed the ways innovative research into genetics and the integration of technological advances in the health sciences are shaping the future of nursing science.

She noted that health care research will increasingly require interdisciplinary teams. "As we look toward the future in science, we see a landscape that includes greater collaboration in health research endeavors. Collaborative teams of scientists are increasingly a hallmark of 21st century research and offer the greatest possibility of tackling the complex nature of our current health challenges."

Also during the CANS conference, NINR held a pre- and postdoctoral research poster and networking session, attracting over 40 presenters. Dr. Yujing Liu, chief of the NINR Office of Review, gave an overview of the enhanced peer review process at NIH.



The Joy of De Feet
**'Health's Angels' Club Is Back Up
 And Running**

By Valerie Lambros

After more than a decade of dormancy, the NIH Health's Angels are flying again.

Every Tuesday around lunch, you may see a pack of panting, sweaty runners whisk by on the sidewalk, cruise past the Clinical Center or buzz by Bethesda traffic on a loop around the NIH exterior.

This club for running enthusiasts includes people of all athletic levels, fitness goals and motivations. Some come for the camaraderie, some for the health benefits and some for the sheer pleasure of perspiration.

"Everyone does it for a different reason and that's more than okay," said Dr. David Kosub, a member of the Strategic Planning and Evaluation Branch at NIAID who's resurrecting the club.

This year, interested in seeing if others on campus shared his passion for the sport, he asked around about starting a running club, only to find that there already was one, the Health's Angels. It just hadn't been active for many years.

"I learned of this history and decided to revive it," he said. "We'll keep the same name—it's clever and catchy."

However, he and the club will be changing the logo and official name slightly. Years ago, it was known as a "jogging club," not a running club. When the group started back in 1975, "jogging" was commonly used to describe the activity. The club's logo, featuring a racing rabbit circled with the club's name, will be altered to reflect the change.

There are several people on campus who were involved in the club in its early heyday. Jerry Moore, who works as NIH regulations officer in the Division of Management Support, OD, is one. A teenager during the Kennedy administration, he recalls how the fitness walks of his youth evolved for him into the running craze of the late 1960s and early 1970s. Being a member of the club seemed a natural thing to do.

"The club helped a lot on campus in inspiring a lot of the people to come out and run during the day," he said. "It became a group of friends you could do something with. People who might never have inter-

acted with each other on the campus really bonded with each other as a result of their shared passion for running and their association with the club."

Moore recalls how events of the era framed the founding of Health's Angels 34 years ago.

In 1966, *Runner's World* magazine was started, and in 1972, American runner Frank Shorter won the gold medal in the marathon at the Summer Olympics. He won the silver in the same event in 1976. In 1977, the bestseller *The Complete Book of Running* by James F. Fixx appeared, revolutionizing the world of personal exercise.

The book "became sort of a bible for many novice runners like me across the country," said Moore.

That enthusiasm for the sport, often thought of as a predominantly solitary pursuit, turned the act of running into a group activity for many NIH'ers. Dr. Phil Snoy, who works in veterinary medicine at FDA, remembers the solidarity of the club as being a way to encourage people to get out and get moving during the workday.

"I liked running at noon because it got me out of my chair," he said. It also had another positive effect. "Some of my best ideas have come when I'm running."

Snoy, who still runs on his own, but not nearly as much as he did during the club's early years, says running remains a good way to brainstorm.

"Especially if I don't use an MP3 player, when it's just you and the road," he said. "I get some great ideas when I'm running."

However nice it is to know that the club enjoys a rich tradition on campus, history is not the reason why Kosub decided to revive the Angels. For him, it's really about building a community of support for those who participate in a sport that is so grueling at times that outsiders could remark that runners aren't so much committed as *should be* committed.

"You kind of have to be a little crazy to be a runner," Kosub said. "It's a pretty torturous act and every runner is different, but we're all crazy on some level."

That's okay by Leora Comis, who works in rehabilitation therapy in the Clinical Center and showed up for the first meeting of the new club. Not only is she doing it for the bone health benefits, but also for the perks that are harder to measure.

"I do this for my emotional well-being," she said, moments after finishing a noonday run. "This lets me meet people and helps me get away from my desk." 🐇

Above:
A handful of Health's Angels start a midday run around campus.

Below:
The historic Health's Angels logo

Bottom:
The Health's Angels Running Club meets every Tuesday at noon at the flagpole in front of Bldg. 1. All are welcome.

PHOTOS: VALERIE LAMBROS





PHOTO: BILL BRANSON

From 'Ugly Laws' to the ADA Pimentel Speaks on Disability, Activism, Attitudes

By Belle Waring

Why is Dr. Richard Pimentel smiling?

He survived a rough childhood and a tour in Vietnam. He survived a suicide mission, a rocket attack and traumatic hearing loss. He survived coming home to America, requesting educational funding under the G.I. Bill, then getting denied because he was “deaf.”

Now a disability management expert, writer, comedian and the inspiration for the Hollywood film *Music Within*, Pimentel not only survived, he prevailed and helped change the way folks with disabilities get treated at work, in restaurants and in court. He recently spoke at the 26th annual awards program as part of NIH Disability Employment Awareness Month, sponsored by the Office of Equal Opportunity and Diversity Management.

“If you think about how people with disabilities are treated today,” he told the audience in Wilson Hall, “it seems almost unbelievable that in 1970 we lived in a disability apartheid.”

That was the year Pimentel finally got funding for college in Portland, Ore. His involvement with the disability movement started there, grounded in the era’s activism and its philosophical roots. He’s also got a deep strain of gallows humor—the hard-won weapon of the underdog—which wakes the audience up.

“If they didn’t want me to commit civil disobedience,” he asked the audience, “then why did they make me read Thoreau?”

A 19th-century American writer and a fierce opponent of slavery, Thoreau argued for the right and duty to follow your conscience; if that means breaking an unjust law, so be it.

“I didn’t go to Vietnam to fight for people I didn’t care about, to come home and find that the people I did care about were having their rights taken away,” Pimentel said.

Here’s the defining moment. Imagine two guys hanging out in a pancake house: one is Pimentel, the other is his friend Art.

“Art was the smartest person I have ever known in the whole world,” said Pimentel.

Now, Art has a \$10 bill, so he’s buying. He also has cerebral palsy and he’s in a wheelchair. The disease has affected his coordination and speech, but not his cognition.

Then the waitress comes over.

“She says the cruelest, meanest, vilest thing,” said Pimentel. “She says to Art, ‘You are the most disgusting thing I’ve ever seen in my life and I won’t serve you. People like you should die at birth.’”

“So Art turns to me and says, ‘Richard, why is she talking to you that way?’”

Art was willing to go to jail. Pimentel wasn’t. The two friends started to argue in earnest. The waitress called the police.

Both men were arrested, tried and found guilty under the so-called “ugly laws.” Several states then had openly discriminatory statutes dating from the mid-19th century, the era of “Barnum & Bailey’s freak show.”

“No unsightly person shall be out upon the public thoroughfare,” Pimentel said, quoting from memory.

Sentenced to time served, they both went right back out there.

“We did this 34 more times,” Pimentel said. “We mobilized all our friends and veterans and we made them arrest us. Why? Because we read Thoreau. Who else read Thoreau? Gandhi. And who read Gandhi? Martin Luther King. We knew we were worthy to drink from that same stream.

“We changed one little law that wouldn’t let Art in the pancake house. It took over 20 years before the Americans with Disabilities Act passed, which a lot of politicians and powerful lawyers helped write. But the ADA was started by people like Art, who just wanted to have breakfast,” he said.

The ADA, passed in 1990 and last amended in 2008, is a comprehensive civil rights law for people with disabilities. It is enforced by the Department of Justice.

Pimentel is now with Richard Milt Wright and Associates, which focuses on disability management, job creation and employment resources. He described traumatic brain injury as the “injury du jour” of the wars in Iraq and Afghanistan; many returning servicemembers are affected.

“I’ve been able to work with some of the best agencies, the best people, in the federal government,” he said, “and this is what I’ve learned.

“One: There’s nothing wrong with people with disabilities, just something wrong with how we react to them...I went into this field wanting to heal people. I ended up healing my own attitudes.

“Two: Never let your personal prejudice be mistaken for professional expertise... Don’t project your own dreams on people with disabilities.”

And three, Pimentel concluded, “The most important skill for people with disabilities is the ability to make people comfortable enough so they no longer see what you have; they see what you are.”

The Disability Employment Awareness Month program also recognized that for the last 5 years, NIH has led HHS in hiring students under the Workforce Recruitment Program for College Students with Disabilities. NIH Disability Employment Program Manager Carlton Coleman thanked NIH leadership, including deputy director Dr. Raynard Kington, for their support, then presented awards to 18 supervisors for their “full participation.”



NIRENBERG

CONTINUED FROM PAGE 1

Above: Nirenberg had reunions with many former colleagues, including his former postdoc Dr. C. Thomas Caskey (r), now with the University of Texas Health Science Center, Houston.

PHOTOS: BILL BRANSON

who with genuine emotion wondered “how exciting it must have been [for Nirenberg] to stand there and know that you have cracked the code, and that there’s only one code, and it will be the code universal for all of time...I envy Marshall being able to stand up there and give that talk...it must have been a tremendous day.” Like many others, Sharp also observed that Nirenberg “is a remarkably encouraging and friendly person.”

Nirenberg first came to NIH in 1957 and was awarded the Nobel Prize in physiology or medicine in 1968, along with two other scientists. He was NIH’s first intramural Nobel laureate (there have since been four others) and, according to NIH deputy director for intramural research Dr. Michael Gottesman, represents “the very best of what the Intramural Research Program offers: high-risk, high-impact research supported by stable and steady funding...Marshall is an NIH’er tried and true...We are profoundly grateful that you have chosen to spend your research career at NIH.”

Nearly a dozen well-known scientists participated in the symposium titled “Genes to Proteins: Decoding Genetic Information.” Their presentations included both the personal (Gottesman recalled the day his teenage daughter and a friend encountered Nirenberg on a street in Bethesda and went away stunned that they had just met someone whose work was featured in their biology textbook) and the scientifically detailed (in addition to Sharp, distinguished speakers included NHLBI’s Drs. Keji Zhao and Robert Balaban, NCI’s Dr. Dolph Hatfield and NIH alumni Dr. Philip Leder and Dr. J. Craig Venter).

The celebration’s chair and first speaker Dr. Alan Schechter, a longtime NIDDK scientist, noted that “as large a place as NIH is, it is strongly affected by the personalities of a small group of people.” He called Nirenberg “a beacon, both scientifically and philosophically, for the Intramural Research Program” and a model of collaborative science. “He is one of our giants,” said Schechter, adding that the Office of NIH History has recently revamped its Nirenberg exhibit and plans to relocate it in the Clinical Center’s south lobby.

NIDDK director Dr. Griffin Rodgers described Nirenberg as “reticent by nature, but resolute in his scientific ideas,” and noted that Nirenberg started NIH’s first laboratory of molecular biology. To Rodgers, Nirenberg’s scientific biography shows “the importance of supporting brilliance in our midst, which requires an open mind and an open heart.”

Dr. Elizabeth Nabel, NHLBI director, called Nirenberg, who has spent 47 years in the Intramural Research Program, “a true scientific hero...he knows how to pick the right problem and how to solve it, and also how to choose the right team.” Two of his collaborators, Drs. Joseph Goldstein and Alfred Gilman, themselves became Nobel laureates, she noted.

Nirenberg “is boundlessly enthusiastic about new approaches,” Nabel added. “His rigor, intensity, intellect and pure joy have made him an NHLBI gold standard in how we judge excellence. He was and is someone you can always get behind...he’s a terrific guy, a terrific researcher, a terrific friend and a terrific colleague.”

Appearing via videotape because he was unable to attend in person, NIH director Dr. Francis Collins recounted Nirenberg’s initial misgivings about embarking on a mission to crack the code,



The celebration’s chair and first speaker Dr. Alan Schechter, a longtime NIDDK scientist, called Nirenberg “a beacon, both scientifically and philosophically, for the Intramural Research Program.”



Nobel laureate and MIT professor Dr. Philip A. Sharp wondered how triumphant Nirenberg must have felt once he uncovered the genetic code “universal for all of time.”

which one of Nirenberg’s colleagues had warned was “suicidal.” Nirenberg decided his urge to explore outweighed his fear of failure and forged ahead. Said Collins, “We all know that Marshall’s wish to explore turned into a revelation about biology that is almost unmatched in terms of its consequences for our understanding of life.” Labeling Nirenberg “not only a scientist’s scientist, but also a mentor’s mentor,” Collins also cited Nirenberg’s prescience in anticipating the potential harm of misusing genetic science; a 1967 *Science* editorial by Nirenberg cautioned that society, not science, must determine how much tinkering with humankind’s own cell lines is acceptable.

One of Nirenberg’s former postdocs-made-good, Dr. C. Thomas Caskey, who is now director and CEO of the Brown Foundation Institute of Molecular Medicine for the Prevention of Human Diseases at the University of Texas Health Science Center at Houston, called Nirenberg a brilliant innovator. “Marshall selected really tough and important questions, but the tools were not yet there to achieve his vision,” said Caskey, who then enumerated three key innovations: *in vitro* assays for protein synthesis, the tools to determine sequence and specificity and the discovery of genetic start/stop signals, or punctuation.

“No technology existed for these three steps,” said Caskey. “It was great fun to participate in it.”

Nirenberg, who is chief of NHLBI’s Laboratory of Biochemical Genetics, made his own scientific creed known in an ACS interview last summer: “I thought if I’m going to work this hard, I might just as well have fun and by fun I mean I wanted to explore an important problem and I wanted to discover things.”

At the symposium, he thanked the many scientists at NIH, both senior investigators, trainees and even visiting scientists, who had

helped him, circa 1961-1966, elucidate the genetic code—you would have thought from his generous remarks that he did virtually nothing himself. Many returned for the event and Nirenberg gave them medallions in recognition of their work.

At a reception after the symposium, an NHLBI staffer overheard Nirenberg recalling wisdom passed down to him from his mother: “When I was about 6 or 7 playing on the living room floor with building blocks, I built something. I said to my mother, ‘Look what I created!’ She replied, ‘What is it?’ ‘I don’t know. What does it look like to you?’ She said, ‘That’s not the way to create. You have to know what you want to create before you build it.’ I’ve never forgotten that.”

The symposium concluded with presentation of the National Historic Chemical Landmark plaque by Dr. Thomas Lane, president of the American Chemical Society. The day’s proceedings are available for viewing at <http://videocast.nih.gov>. 

NIH ‘Green Teams’ Recycle

NCI’s Green Team partnered with NIDDK’s Green Team on Nov. 16 to celebrate America Recycles Day. They collected eyeglasses, sneakers, cell phones, VHS tapes, compact discs and batteries (estimated at over 250 pounds) at seven sites, both on and off campus. In the photo above, NIDDK’s Alex Maltsev recycles batteries while Sylvester Jackson (l) and Richard Ransom of NIDDK man the collection tables. Below, Romi Sawhney (l) of NCI and the Clinical Center’s Nicole Martino help Jackson collect materials.



HISPANIC HERITAGE

CONTINUED FROM PAGE 1

Right:

LSU's Dr. Patricia Molina serves as executive vice-chair of the National Hispanic Science Network.

PHOTOS: BILL BRANSON

ment and the Hispanic employment committee, filled Wilson Hall.

"This has been an incredible time watching America's demographics," said Suarez, "figuring out what kind of country we're going to be in 2020...and beyond."

At 15 percent of the nation's total population, Hispanics are currently the largest U.S. minority. In part because of high levels of immigration from Latin America, by 2042 the U.S. will be a "majority-minority country"—that is, U.S. minorities combined will outnumber the non-Hispanic single-race white population.

"Latinos, foreign-born and native-born, will make up a third of the population of the United States by 2050," Suarez said. Meanwhile, in our "national yelling match" over health care, "we're telling 'covered' citizens about the way the other half lives, and what that means for the rest of the country."

Latinos, Suarez said, are linked by both predisposition and lifestyle to hypertension, diabetes and heart disease. They also tend to work in low-wage jobs without insurance or collective bargaining agreements. Meanwhile, they vote less, register to vote less and contribute to campaigns less than other groups do.

Such conditions cascade into poor health outcomes. For example, Latinas have cervical cancer rates three times higher than that of other Americans.

Self-care and healthy lifestyles have their merits but can't compensate for being "underfunded, underdoctored and underclinic'ed," said Suarez. When Latinos eventually do receive treatment, it proves lengthier, more costly and less effective.

America's stake in this problem is real, Suarez insisted, and we can't pretend it's not. We hear "a steady stream of invective aimed at immigrants," he said. "Yet the Social Security checks of many of you will be funded by the payroll taxes of an increasingly Latino workforce...We can't separate out Latino statistics as something separate from the American whole.

"You beat the odds," he told the audience, "but too few of us are graduating high school. Some years the numbers of Latinos who receive Ph.D.s in the hard sciences can be counted on your fingers and toes. It's disastrous.

"The needs are enormous," he concluded, "but



until there's the political will and a much greater appreciation for the role Latinos are going to play in the next version of American society... we will not get where we need to be."

Dovetailing with the issue of needs, Molina brought a message of hope.

Hispanics are indeed severely underrepresented in the health care work force and scientific research—as are all minorities. For example, Molina said, in 2005 less than 13 percent of medical school graduates and less than 9 percent of nurses came from minority groups (combined). Along with the pipeline/workforce problem and issues of access, minority groups also tend to suffer from diseases such as diabetes at disproportionate rates.

"If you speak Spanish," said Molina, "you may get a perfect [patient intake] history, but is that it? Is that the only reason why it's important to have a diverse workforce?"

"Studies show," she continued, "that the approach, the perspectives, the solutions we can achieve with a heterogeneous group will be superior to a homogeneous group...Yes, a heterogeneous group has more conflict, but it's more creative, more productive and yields higher quality ideas."

A diverse team extends networks, increases access and should also increase capacity.

"This is not a novel idea," she said. "Remember *Star Trek*?" Molina showed a slide of the ship's crew members to appreciative audience laughter. "Well, they contributed diverse stuff," she said. "So is NIH one of those spaceships float-

ing lost in space? No, NIH recognizes it must recruit the most talented researchers from all groups.”

By enhancing the training environment, she noted, we balance and broaden our perspectives in setting research priorities and improve subject recruitment from diverse backgrounds into clinical research protocols.

Molina laid out her action plan. First, recruit students and foster their development with mentoring plans. This will lead to more students and faculty from Hispanic and other underrepresented minority groups. How? By using transdisciplinary teams such as the National Hispanic Science Network on Drug Abuse.

With over 300 members, she said, this network aims to foster the next generation of Hispanic scientists in drug abuse, especially in the realm of translational research. The NHSN strategic plan includes an evidence-based guide for health care providers and an annual national conference, summer training institute and multiple mentoring activities.

Outreach is essential, she said. The three key aspects are to recruit and mentor, because “students from minority populations have to be mentored”; to develop leadership skills in these students—“they’re not just peons”; and to provide strong role models.

“We have succeeded when we have infiltrated this very elite society,” she said. “When a student comes up to you and says, ‘I want to be like you,’ it’s worth every hour spent. So pass it on.”



Joe Cox, transportation services project officer, ORS, recently received the 2009 Employee Transportation Champion Award from the Association for Commuter Transportation.

Transhare Subsidy Rises, NIH Expert Cox Wins Award

NIH'ers who commute by public transportation are getting a break.

“The allowable maximum subsidy for each NIH Transhare participant is now up to \$230 a month,” says Joe Cox, project officer in the Division of Amenities and Transportation Services, ORS. The subsidy used to be \$120.

The increase to Transhare, a federal subsidy for public transportation riders, was authorized by the 2009 economic stimulus package.

Cox works closely with state and local transportation systems, fields questions from NIH'ers and talks with commuter groups like the NIH Bicycle Commuter Club. Part of his job is explaining how Transhare works.

Created in 1993, Transhare is a fringe benefit for all qualified federal employees in the Washington metropolitan area. Designed as an incentive to get folks on public transportation—vanpool, Metrorail, MARC train, VRE rail or public bus—Transhare is not an intrinsic feature of any transit system, yet it must dovetail with them.

NIH has around 5,000 Transhare participants, and up to 6,500 in summer.

Cox also represents NIH in the Association for Commuter Transportation (ACT), whose mission is to reduce traffic congestion, conserve energy and improve air quality. At its annual conference, held recently in Washington, D.C., Cox won the 2009 Employee Transportation Champion Award.

“It was a total shock to me,” he says. “I didn’t think I had a shot; I hadn’t even prepared a speech.”

He continued, “People came in from all over—New Zealand, Australia—all with ideas on global warming and how to increase public transportation ridership.”

As much of a surprise as the honor was, it makes sense: “NIH has led in Car Free Day [participation] and we’ve won 3 years in a row in Bike to Work Day,” Cox noted. “And each year our numbers keep growing. These are major accomplishments in this area, where large agencies like DOD [Department of Defense], if they wanted to win, they could pull it off.

“I was very proud that NIH was selected for this ACT award,” he continues. “Our policies help the environment and they help the wallet. It’s an award for our whole division. It’s not mine, really. I can only do good things because I have good bosses. It’s a feather in the cap of NIH.”—Belle Waring

Right:

Historian and author Dr. Nancy Tomes recently visited NIH to give the second annual James Cassedy memorial lecture in Lister Hill Auditorium.

No Magic Bullet

Historian Tomes Tracks History of Consumer Health Info

By Belle Waring

How do you find a good doctor?

When Zagat recently partnered with WellPoint to offer their patients a guide to physicians, it struck a nerve.

WellPoint, the largest licensee of Blue Cross Blue Shield, has millions of members nationwide and a portfolio in the billions of dollars. Zagat publishes guides to restaurants, hotels and other recreation.

The assumption that we should choose doctors the way we choose bistros is problematic, says Dr. Nancy Tomes of the State University of New York, Stony Brook.

A historian and author of *Impatient Consumers: Consumer Culture and the Making of Modern American Medicine*, Tomes recently visited NIH to give the second annual James Cassedy memorial lecture in Lister Hill Auditorium. Her talk, "The Information Rx," was sponsored by NLM's History of Medicine Division.

"Choosing a physician is not like choosing an automobile," Tomes said. "It's not something you can reduce to a report card."

Zagat's doctor reviews let patients rate physicians on a 30-point scale for trust, communication, availability and office environment.

Quality of care isn't measured.

"This raises the question," Tomes said, "of what constitutes good information."

She tracked an ongoing battle over who controls the metrics and access to information such as quality assessment, therapeutic issues, costs and technology.

The ancestors of consumer health guides predate the Internet, she said.

Medical school "report cards" in the late 19th century were compiled and offered to experts, not patients or students. But the turn of the century's Progressive era yielded the Pure Food and Drug Act and other reforms to advance consumer safety.

Tomes described how, during the Great Depression, when making wise choices became crucial, the first peer-to-peer buyers' guides appeared. These in turn yielded what became a mainstay of popular consumption, the journal *Consumer Reports*.



"It's hard to imagine," she said, "that these early consumer organizations were portrayed as fronts for the Communist Party and were subject to red-baiting."

Nineteen-sixties activism brought "sheer faith in more democratic decision-making," and by 1971, Ralph Nader's group, Public Citizen, had become expert in "critical information-gathering," Tomes said.

When Nader's group published a Prince George's County directory of physicians willing to provide unmarried women with contraception, the Federal Trade Commission took note.

So did the American Medical Association, whose code of ethics banned physician advertising.

In a 1982 lawsuit, the court ruled against the AMA.

"Ironically," said Tomes, "consumer requests for more information led to more advertising."

The 1980s saw several trends merge: post-Watergate levels of media accountability; massive databases of programs like Medicaid; the computer revolution; and the rise of managed care.

After the Health Care Financing Administration began compiling data on hospital mortality rates, the *New York Times* prepared to file a Freedom of Information Act lawsuit to force its release to the public. Advised by its legal counsel that the suit would undoubtedly succeed, HCFA made the information available.

Tomes called this revolutionary.

"And this often gets left out [of the discussion]," she continued. "There was a parallel rise of market research and health care advertising [formerly] constrained by the medical profession, which considered it unseemly."

As advertising championed consumer rights, "the for-profit hospital chains spent heavily on marketing," said Tomes, "forcing the nonprofits to do the same and to spin and buff the public image of the institutions."

Then came the '90s with mass-media consumer guides to hospitals and "Best Doctors."

"Bad Doctors' are harder to publish," she said.

“There are long battles about resistance to publish malpractice claims.”

There are indeed national practitioner data banks with such cases, but these are exempted from release under the Freedom of Information Act, she added.

“No consumers [including journalists] can use this information,” said Tomes, “only institutions.” Although Public Citizen challenged this finding in court, “the public’s right to know was crushed.” But Public Citizen did win a seat on the oversight board of the National Practitioner Board and began to publish its own list of problematic practitioners.

The Internet accelerated many of these trends. Yet “the deluge hasn’t produced results,” Tomes noted, “and patient choice is still for the affluent.”

The middle-class educated consumer, in spite of access to information, finds medical rankings and ratings hard to use, while “quality measures don’t always address what matters to them”—such as complementary and alternative medicine.

As for the information explosion’s impact on the behavior of institutions and providers, it’s tough to measure because of what Tomes calls “gaming strategies.”

Witness a 2005 *Annals of Medicine* report citing cardiologists who avoided treating critically ill patients because the doctors feared it would affect their scorecards.

“Better information sources,” said Tomes, “have not turned out to be the magic bullet to correct the dysfunctional health care system.”

Pushed and pulled by health services research, health care marketing, consumer movements and full-spectrum journalism, the public may in fact need what she called “a trusted intermediary...who has no direct financial payoff.”

An audience member noted that the current explosion of information coincides with widespread medical illiteracy.

Information doesn’t cure everything, Tomes said. In fact, Zagat doctor guides reveal “a reified model of decision-making of a minority... of what ‘normal’ people can do, while others struggle.

“There’s an inequity there that doesn’t get enough attention,” she said. 🗨️

Depression, Links to Other Disorders Discussed

By Marsha Love

Depression is not only a significant public health concern, it is also linked to many other diseases. The interaction of depression with other diseases was recently discussed at ORWH’s Women’s Health Seminar Series, “Sex and Gender Research: the Interaction of Depression with Other Diseases.” Several current and former NIMH grantees participated in the discussions.

NIMH grantee Dr. Jill Goldstein of Brigham and Women’s Hospital discussed sex differences that are pervasive in depression.

“The higher incidence of major depressive disorder in women is initiated during sexual differentiation in the brain,” she explained. “Fetal development, puberty, pregnancy and menopause are all windows of opportunity in which to study the differences seen clinically in rates of major depression and mood disorder.”

There is a similarity of developmental risk factors during the second and third trimesters of pregnancy for depression and cardiovascular disease, she continued. These factors include small gestational age, low birth weight, pre-eclampsia and prenatal exposure of the mother to famine.

“Sex differences exist in every tissue of the body,” she concluded. “Disruption in the amygdala, hippocampus, hypothalamus and white matter lead to the sex differences seen in depression, mood disorders, endocrine dysfunction and heart rate.”

Osteoporosis is also a major public health problem costing billions of dollars and affecting millions of individuals each year. However, its relationship to depression is still largely unrecognized. NIDDK investigator and former NIMH collaborator Dr. Giovanni Cizza presented data showing that chronic stress and depression result in significant bone loss, particularly in the hip.

“We found that one in five premenopausal women with major depressive disorder exhibited low bone mineral density in the hip area,” Cizza noted. “Depressed premenopausal patients exhibited the equivalent of one year of bone loss seen in post-menopausal patients.”

Cancer is another health concern in which depression can play a role in the course of treatment. While 10 to 30 percent of people with cancer are found to be depressed, the rates of depression vary with age of onset of cancer, type of cancer and stage of treatment. Dr. Mary Jane Massie of Memorial Sloan-Kettering Cancer Center presented data showing that at diagnosis a third of patients said they were depressed, 15 percent said they were depressed at 1 year after diagnosis and 45 percent after recurrence.

Dr. Viola Vaccarino of Emory School of Medicine focused on the social and behavioral determinants of cardiovascular disease in women. Depression is more prevalent in heart patients than in the general population, especially in young women with acute heart disease. “The links between depression and cardiovascular disease may be more important for women,” she said. “Obviously, interventions must be tailored to women’s stressors. However, treating both depression and CVD is controversial. No study has shown that treating both conditions results in improved CVD and this is disappointing.”



feedback

Have a question about some aspect of working at NIH? You can post anonymous queries at www.nih.gov/nihrecord/index.htm (click on the Feedback icon) and we'll try to provide answers.

Feedback: In walking from the Clinical Center to the Children's Inn with a child, I passed a smoker who was sitting on the stairs that lead away from the front of the Clinical Center. She had an employee badge on and was talking on a cell phone while smoking a cigarette. I had no choice but to pass her with my child, and asked her to stop smoking since it isn't allowed on campus. She was not very nice about it and did not stop smoking. I looked down on the stairs and noticed cigarette butts everywhere from others before her who had obviously used this convenient place to smoke. I am wondering if anyone at NIH has any concern about this continued smoking and exposure of children who

are staying at the Children's Inn to second-hand smoke as they walk back and forth to appointments. From what I can tell, there is no enforcement of the policy. How depressing that a place concerned with health, and with a "smoke-free campus" policy, does not even provide a smoke-free environment for sick children.

Response from the Clinical Center and the Office of Research Services: On the 1-year anniversary of the NIH taking its own best advice by becoming tobacco-free, the Clinical Center reminded everyone who works within their facility of the important role each individual plays in compliance with this policy.

When the policy is violated, we first and foremost harm our patients. But it is not just about compliance, it is the right thing to do because: smokers can reap the health benefits of quitting, smokers who quit help eliminate exposures to second-hand smoke and all of us are representatives of NIH. To see people smoking on campus creates the wrong impression.

In addition to the reminder, steps have been taken to clean up the areas in question and to provide for regular monitoring of the areas to ensure that they do not become unsightly.

Feedback: My concern has to do with quality of employee fitness facilities on the NIH campus. NIH-funded research helped to establish the link between obesity and rising health care costs. One would think NIH would strive to be a model for promoting employee fitness yet our fitness facilities have not been upgraded in decades. The center on the B4 level of Bldg. 31 is much appreciated by those who use it but it's cramped and unappealing due to its small size and location in a sub-basement. The T-39 trailer has windows but it's an aging, creaking temporary structure that has seen better days. The gymnasium in Bldg. 10 was recently closed. As a leader in fostering a healthier nation, should not NIH be a leader in fostering fitness on its main campus?

Response: The Office of Research Services and the Office of Research Facilities are currently reviewing the fitness and wellness facility situation at NIH. There has been much emphasis placed on a healthier federal workforce in current and past administrations and both ORS and ORF support these initiatives. To work towards that goal, it is imperative that NIH does all that it can to try and increase wellness and fitness opportunities for employees, while acknowledging that this is not the core mission.

The reality is that we are significantly handicapped by lack of available space (and, unfortunately, funds) to significantly increase the size of our fitness centers on campus or build new permanent fitness facilities. Nevertheless, ORS is working with ORF to identify workable interim solutions that will enhance the fitness programs on the Bethesda campus until a longer-term solution can be put in place. For example, we are studying the potential of an outdoor sport court that would provide opportunities for accommodating a number of recreational activities.

Furthermore, we are working towards establishing overall wellness and fitness policies that, in the future, we hope will increase funding opportunities and lead to expanded services and even partnering with and assisting the research community.

Smokers can reap many health benefits by quitting. NIH'ers who quit help eliminate exposure to second-hand smoke and, by not smoking, reinforce the message that NIH is a tobacco-free campus.

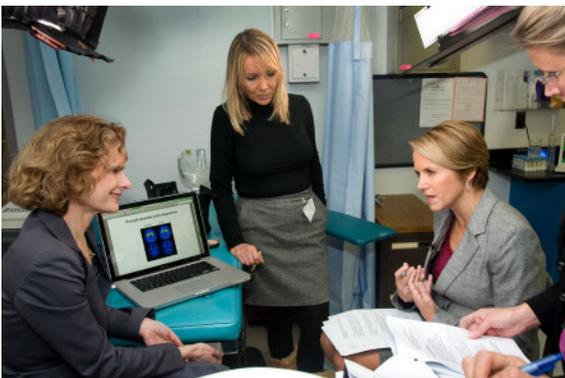


Smokers can reap many health benefits by quitting. NIH'ers who quit help eliminate exposure to second-hand smoke and, by not smoking, reinforce the message that NIH is a tobacco-free campus.

milestones

60 Minutes Interviews NIDA's Volkow

On Nov. 17, NIDA director Dr. Nora Volkow (l) was interviewed by CBS's Katie Couric (r) for an upcoming 60 Minutes segment on cognition enhancing drugs.



The interview took place at Brookhaven National Laboratory, where Volkow conducts her brain imaging research. It will air in the near future, although a date has not yet been determined.

NIDDK Retiree Ziffer Mourned

Dr. Herman Ziffer, an NIDDK scientist who retired in 2002, died Nov. 6 after a long illness.

A native of New York City, he graduated from City College of New York in 1951 with a bachelor of science degree, then attended the University of Indiana where he obtained his master's degree in 1953. In 1955, he was awarded a Ph. D. from the University of Oregon where he worked with Prof. Leroy Klemm on the synthesis of polycyclic aromatics.

In 1955, he joined the National Aniline division of Allied Chemical Corp. where he worked until April 1958, when he joined Dr. Ulrich Weiss at NIH's National Institute of Metabolic Diseases. Here he began work on spectroscopy, particularly optical rotatory dispersion and circular dichroism as applied to various aspects of asymmetry. During this period, in now-classic studies, a new type of asymmetry, arising from skewed dienes, was discovered by Ziffer and his collaborators.

Ziffer worked independently at NIDDK until he retired in 2002 for reasons of ill health. He published on photochemistry, asymmetric synthesis, enzymatic synthesis and modifications, neurotoxins and anti-malarial drugs including synthetic modifications of artemisinin. He supervised a synthesis of both enantiomers of a poison frog alkaloid of the pumiliotoxin class. A few of his many collaborators included Drs. John Daly, Donald Jerina, Daniel Klaymann, Sanford Markey, Herman Yeh and investigators at Walter Reed Army Medical Center and the World Health Organization.

"He will be remembered and missed by many at NIH, who recall his wide range of interests in organic chemistry and many aspects of biochemistry, knowledge he was always willing to share and particularly his kindness to his many postdoctoral fellows and his continuing interest in their careers," said Dr. Thomas Spande of NIDDK. "Most of all, Herman will be remembered for a generous readiness to offer critical, informed opinions on most topics, not always chemical."

He is survived by his wife Kathy, three children, Michelle Swotinsky of Sudbury, Mass., Barbara Campbell of Charlotte, N.C., and David Ziffer of Clarksburg, Md., and seven grandchildren.

volunteers

The phone numbers for more information about the studies below are 1-866-444-2214 (TTY 1-866-411-1010) unless otherwise noted.

Type 2 Diabetes Study

NIH is conducting a type 2 diabetes study for adolescents ages 12-25. Your child may be eligible to participate in a clinical research study that will test whether a short period of treatment with insulin and a medication called diazoxide can improve the ability of the pancreas to make insulin. Your child must be diagnosed with type 2 diabetes and not be currently receiving insulin injections or taking weight-loss drugs. Compensation is provided. Refer to study 07-DK-0115.

Pathogenesis of Physical Induced Urticarial Syndromes

Do you get hives when exposed to cold, heat, applied pressure or other conditions? Call for information about study 09-I-0126.

Pain in the Neck?

If you are a healthy individual over 21 years of age or experiencing neck pain for 3 months or less, you may be eligible to participate in a neck pain study and receive a comprehensive cervical musculoskeletal examination. This is not a treatment study. Email neckpainstudy@gmail.com or call (301) 451-7514 during office hours.

Yoga Is Researcher's Lab Assistant

By Valerie Lambros

It might seem illogical that someone who wakes up at 4 every morning would have seemingly boundless stores of energy, but that's exactly the case for Dr. Alfia Khaibullina, who conducts research on Batten disease in the department of anesthesiology and surgical services at the Clinical Center. She gets this energy from doing yoga, something she credits with not only spurring her on during the day, but also saving her life.

Khaibullina is a child of the former Soviet Union and grew up in the now-independent republic of Kazakhstan, a country the size of western Europe that shares borders with Russia, China and many of the other former Soviet territories.

"After *Borat*, everyone knows the name," she said, referring to the popular film by the same title.

In Kazakhstan, the communist society encouraged her to go to school and achieve high goals, but discouraged her from thinking independently.

"There was no real freedom of speech," she said. "And you could not go abroad, not only because you couldn't afford it, but you would not get permission."

While in Kazakhstan, she pursued an interest in physiology, even going so far as to prepare to defend her Ph.D. dissertation. But when the Soviet Union fell, it took with it the funding needed to support the committees who heard academic defenses. After years of study and countless hours spent in classes and labs, Khaibullina was out of luck.

Within a few years, she and her husband and their son moved in 1994 to New York City so her husband could pursue a Fulbright fellowship in economics at Columbia University.

"I couldn't speak any English, but that was okay because we lived in Spanish Harlem and no one could speak English there either," she joked.

Not willing to let a language barrier stand in her way, Khaibullina started volunteering at the New York State Psychiatric Institute and was eventually hired as a staff member. This experience would renew her love of medical science and spark a desire to understand the complexities of the human mind.

She applied to George Washington Universi-



Dr. Alfia Khaibullina of the Clinical Center credits the practice of yoga with restoring her vitality and focus. "I'm in the best shape of my life," she says.

PHOTOS: VALERIE LAMBROS

ty, was accepted into the neuroscience Ph.D. program and the family moved to the Washington area so Khaibullina could resume her studies. Though this was a time of great optimism and progress for her, she soon found herself battling with her own body.

"Because my English was not very good, I was stressed and I gained weight," she said. "I was fat and out of shape. I had exercise-induced asthma and I had trouble going up the stairs. At 36, I could barely move. That was a big wake-up call for me."

This is when she discovered yoga, the athletic discipline she first heard of in her youth but was discouraged from practicing by Soviet doctrine.

"I was always a little curious, but it was prohibited in a way by the Soviet Union," she said. "They said it was an evil ideology."

So in 2000, free from the restrictions of her once-oppressed homeland, Khaibullina began stretching and breathing and relaxing and all the other things that go along with the ancient meditative practice. She started losing weight. Her asthma went away.

"It kind of saved my life," she said.

She liked the results and after 5 years of practice, she decided to apply for yoga instructor training. She currently teaches twice a week at a studio in Arlington, Va., but once taught informal classes at NIH on Friday afternoons. She also gets up well before dawn 6 days a week to work on her own, highly rigorous form of yoga that burns up to 600 calories a session.

"It's very strenuous, but it's an addiction," she said. "Once in a while you think it would be nice to sleep in, but when I do that I feel old."

Not only does her knowledge of anatomy and biology help her teach yoga to others, the mental discipline required in yoga helps her focus when she's faced with tedious or repetitive tasks in the lab.

"It gives me that energy," she said. "Sometimes you have to sit in front of the computer all day, and sometimes you're in the lab. When you have 384 well plates you have to work with, it's tedious, but you can't mess up or it ruins your experiment. Without yoga it would be hard to concentrate."

At a vivacious 47, Khaibullina is defying and redefining any notions about women in their middle years and is a poster child for taking up yoga regardless of physical condition or age.

"I'm in the best shape of my life," she says. 🙏