

nih record

Butte Mines Public Databases for Therapeutic Gold

By Rich McManus

In the “olden days,” scientists first had hypotheses, then went out and collected measurements to test their ideas. But in an era when data is pouring in by the zettabyte (1,000 quadrillion), it makes increasing sense to say, “The data’s there already, we just need to ask intelligent questions of it.”

That’s precisely the approach taken by Dr. Atul Butte of Stanford University, who on June 20 dazzled a Wednesday Afternoon Lecture Series audience with at least three characteristics: an entrepreneurial zeal (he has started or consulted for dozens of companies, leading him to quip at the outset, “Therefore you can’t believe a word I say.”); a rapidity of speech that must certainly have been tutored by the Internet’s blazing speed; and an uncanny faith in the cleverness of high school students to make the most ambitious use of the many Everests of data now piling up around the globe.

Butte repeatedly made the point that

SEE BUTTE, PAGE 4



Dr. Atul Butte spoke at NIH on June 20 in the final Wednesday Afternoon Lecture of the season.

NIH Artifacts from All Eras Have Their Own Laboratory Experience

By Michele Lyons

What research complex has a walk-in X-ray room, anaerobic chamber, gigantic freeze drier and “dirty” and “clean” laboratories? Hint: its pastoral setting outside of Washington, D.C., is gently brushed by breezes from the Patuxent River. Wait, it isn’t NIH? Nope, it’s another fine scientific facility, the Maryland Archaeological Conservation Laboratory.

At the MAC Lab, as it’s nicknamed, scientists research and protect more than 7 million artifacts from Maryland’s archeological past. Its federal collections curator, Sara Rivers-Cofield, has been working with the staff of the NIH Stetten Museum to bring the archaeological collections held by the museum in line with current storage practices and to make them available for researchers.

Before a building is constructed on campus, federal regulations require an archaeological survey of the area to be sure there are no

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‘Bring the Purpose to the Surface’

Author Pink Challenges Outmoded Management Model

By Dever Powell

What does science tell us about motivation? What stimulates improved on-the-job performance? External rewards like cash bonuses? Or the intrinsic satisfaction of mastering a challenge?

These questions were at the heart of author Daniel Pink’s June 14 Deputy Director for Management Seminar. The size, diversity and enthusiasm of his audience in Masur Auditorium reaffirmed that the bestselling Pink has engaged many people in the workforce, not just managers. He’s offering a new way of looking at motivation.

A performance award may not be a motivator. “Three motivators for workers today are autonomy, mastery and purpose,” said Pink. He should know: he has spent years studying social science research on human motivation. His latest book *Drive: The Surprising Truth*

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ABOVE • This tree (located near parking lot 41B) and several others lost their tops during a recent severe thunderstorm in the Washington metropolitan area. See story and more photos on p. 12.

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The NIH Record is recyclable as office white paper.



The NIH Record is published biweekly at Bethesda, MD by the Editorial Operations Branch, Office of Communications and Public Liaison, for the information of employees of the National Institutes of Health, Department of Health and Human Services. The content is reprintable without permission. Pictures may be available upon request. Use of funds for printing this periodical has been approved by the director of the Office of Management and Budget through September 30, 2012.

To receive alerts to our latest issue, send an email to listserv@list.nih.gov with the words "Subscribe NIHRECORD" in the message body.

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NIH...Turning Discovery Into Health



briefs

Guidance on Serving Food at Public Events

The Office of Research Services' Community Health Branch (CHB) conducts food safety activities at NIH, including approval and inspection of food offered at short-term public events. A "public event" is any celebration where food is prepared and/or served for sale to the public and is advertised and recognized in the local (NIH) community.

Public events are not your inner-office potluck. Nor is an event held at NIH conference facilities. Those conferences follow policies established by NIH Events Management.

However, all other events offering food and open to the public and/or general NIH population must be pre-approved and inspected prior to opening by the CHB food safety and sanitation officer (FSSO).

Any organization planning an event that will consist of preparing and/or serving food for sale to the public in an area other than an approved food preparation/service area, such as a cafeteria, must contact the FSSO at least 21 days prior to the event. The organization will then be provided an *NIH Temporary Food Service Requirements Guide* and Temporary Food Service Plan. Subsequently, the plan must be completed and returned to the FSSO at least 14 days before the event.

If you're planning a public event serving food at NIH and need more information, contact CHB at (301) 496-2960 or visit www.ors.od.nih.gov/sr/dohs/HealthAndSafety/food/Pages/food_safety.aspx.

Safety Award Accepts Nominations

The Mission First, Safety Always Award, presented by the Office of Research Services' Division of Occupational Health and Safety, showcases NIH personnel who have demonstrated leadership in safety culture and promoted safety in the workplace. Nominations can be submitted at www.ors.od.nih.gov/sr/dohs.

Nominate a colleague who has demonstrated safety leadership. Include such examples as starting and/or leading a successful safety initiative or promoting safety as an important part of your program.

Nominations are open until 11:59 p.m. on Aug. 1. If you have questions, email ORSSafetyDay@mail.nih.gov or send written questions to Bldg. 13, Rm. 3K04, MSC 5760.

NSF Director Suresh To Speak, July 25

Dr. Subra Suresh, director of the National Science Foundation, will present an NIH Director's Special Summer WALs lecture on Wednesday, July 25, 3-4 p.m. in Masur Auditorium, Bldg. 10. His talk is titled "Study of Human Diseases at the Intersections of Physical Sciences, Engineering and Biology."



Suresh leads programs and initiatives intended to keep the U.S. at the forefront of science and engineering. Since assuming this role in October 2010, he has established several new initiatives including INSPIRE (Integrative NSF Support Promoting Interdisciplinary Research and Education), PEER (Partnerships for Enhanced Engagement in Research, in collaboration with USAID), the NSF Career-Life Balance Initiative and the NSF Innovation Corps.

Suresh is on leave from his position as dean of the School of Engineering and the Vannevar Bush professor of engineering at the Massachusetts Institute of Technology. His research at MIT focuses on understanding the mechanical properties of engineered and biological materials at the nano-scale. His more recent work has looked at how these properties influence disease development. Of note, he discovered that malaria-infected red blood cells are biomechanically different than healthy ones—they are up to 100 times stiffer, have a much greater tendency to clump together and lose their ability to vibrate. This work towards understanding malaria could lead to improved treatments.

Willett Set to Address Diet, Cancer, July 25

Dr. Walter Willett, chair of the department of nutrition at Harvard School of Public Health, will give the 2012 Annual Advances in Cancer Prevention Lecture on Wednesday, July 25, 3-4 p.m. in Lister Hill Auditorium, Bldg. 38A. His topic is "Diet & Cancer: The Fourth Paradigm."



Over the past 30 years, Willett has been at the forefront of nutrition research and contributed significantly to elucidating the role of diet in disease development. He pioneered modern dietary research by refining questionnaires and other methodologies, which have been proven accurate and accepted as viable assessment tools. He uses current data to challenge established dietary conceptions and better understand the link between diet and disease.

Willett has published over 1,500 articles, primarily on lifestyle risk factors for heart disease and cancer, and has written the textbook *Nutritional Epidemiology* published by Oxford University Press.

U.S., India To Collaborate in Diabetes Research

On June 12, Health and Human Services Secretary Kathleen Sebelius and India's Health and Family Welfare Minister Ghulam Nabi Azad signed a joint statement to begin a formal research relationship between NIH and the Indian Council of Medical Research to accelerate efforts to better understand the mechanisms underlying diabetes and to identify innovative solutions to prevent and treat the disease.

About 26 million Americans have diabetes; in India, the burden may be at least twice that. Both countries share this public health problem and both countries already conduct substantial research, including examining lifestyle interventions and metformin to prevent diabetes. The joint statement provides greater opportunities for collaborative projects ranging from research to identify genes for diabetes to bettering public health efforts to manage and treat diabetes.

"Both the United States and India have a vested interest in improving our understanding of and treatment for diabetes and in finding economical ways to do both," said Dr. Griffin Rodgers, director of the National Institute of Diabetes and Digestive and Kidney Diseases, which will lead the U.S. role in the collaboration. "Initiating this research relationship will enable both countries to share expertise and engage each



HHS Secretary Kathleen Sebelius (c) and India's Ghulam Nabi Azad (second from r), minister of health and family welfare, recently signed a joint statement on collaboration on diabetes research. They were witnessed by NIDDK director Dr. Griffin Rodgers (l), Dr. V.M. Katoch (second from l), secretary of India's department of health research and director-general, Indian Council of Medical Research, and Krishna Tirath (r), India's minister of state for women and child development. The signing took place at the Hubert H. Humphrey Bldg. in Washington, D.C.

PHOTO: CHRIS SMITH/HHS

other in research to lessen the burden of diabetes—in the U.S., India and around the world."

One potential area of collaboration may be in studying why people of South Asian origin develop diabetes at a lower body mass index and waist circumference than people of other ethnic origins—a question of interest to both India and the U.S., with its large South Asian population. A first step in partnering will be a scientific meeting. 



Stokes' Portrait To Hang in Namesake Bldg.

Former Rep. Louis Stokes (D-OH), the namesake of Bldg. 50, returned to campus on June 20 to be photographed for a portrait that will soon hang in the lobby of the Louis Stokes Laboratories Bldg., next to the dedication plaque. The Foundation for the NIH raised funds for the portrait and commissioned a photographer of prominent African Americans, Joseph Daniel Clipper, to do the job. These photos of the sitting were taken by Frank Kutlak, who was project manager for Bldg. 50's construction. The laboratory building was dedicated in Stokes' honor on June 14, 2001. He served 30 years in Congress (1968-1998), during which he championed biomedical research that improved the lives of all Americans, particularly minorities.

BUTTE

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smart teens, unafraid of scrounging about the Internet backyard in which they grew up, can out-research the tenured classes, and he has the data to prove it: five high school interns who have passed through his Stanford lab have placed in the top 300 in such prestigious science contests as those sponsored by Intel, Westinghouse and Siemens.

“We are in the middle of a data deluge,” he said. “We already have the measurements in many fields...we have so much data that the new magic is in figuring out ‘What’s the cool question I want to ask of this data?’ That’s 99 percent of the work in my lab now.”

“The entire Framingham Heart Study is now online. You can download 14,000 peoples’ genotypes. You can download 10 or 20 years worth of data...Sitting in there might be the next big diagnostic for disease that [researchers] just haven’t thought about looking at yet.”

Butte is an unabashed fan of NIH, especially its data repositories at the National Center for Biotechnology Information. “Without NCBI, my research career would not exist,” he said. He is also an alumnus of the summer program here—he was a summer student in DCRT (now CIT) in 1991—and lived on campus at the Cloister from 1993 to 1994 as a participant in the HHMI-NIH Research Scholars Program. He now holds 5 NIH grants and participates on 11 others, from 9 institutes/centers.

“Data-driven science is the next big scientific revolution,” he declared, displaying a prop—a 96-well Affymetrix microarray that can perform such feats as sequencing genomes. But even that chip is already 15 years old, harkening to an era when complete human genomes bore billion-dollar price tags. Butte says we’re now looking at a \$33 genome, and more likely free genetic sequencing done by companies to whom it will be worth more to have the data than to bother charging people to get it.

“It’s amazing how much data we have on the Internet,” he enthused, “just from this one high-throughput modality.”

Butte reported that, in the U.S. repository alone, there are 761,000 publicly available microarrays, and another 213,000 in global repositories. “Suffice it to say, it’s growing like crazy. Soon there will be 1 million publicly avail-

able microarrays—that’s up from zero in 2002.” The number is now doubling every 2 to 3 years, and is actually just slowing down to the rate of Moore’s Law; it had been tripling for years, Butte said.

A high school science fair entrant can now download more than 31,000 samples of breast cancer data, representing more than 1,000 independent experiments on breast cancer, Butte noted, “and it’s almost as easy as downloading a song on iTunes...That’s more samples than any one researcher will ever have in their lab, and the same is true for hundreds of diseases.”

Butte sees his role as empowering the next generation of scientists with the best questions to ask of that data.

“The entire Framingham Heart Study is now online,” he said. “You can download 14,000 peoples’ genotypes. You can download 10 or 20 years worth of data...Sitting in there might be the next big diagnostic for disease that [researchers] just haven’t thought about looking at yet.”

When Butte’s lab set out to discover and validate a potential serum marker for acute myelogenous leukemia, they could have done old science—put up posters and flyers around the medical center asking for serum and plasma, and fill out lengthy forms—or hit the easy button, Google.

They chose the latter and found a company, ConversantBio, offering exactly what they needed, at a cost of \$55 per patient. “So we bought them all, and we validate our markers this way...I love biobanks and biorepositories,” he said.

Validation methods are increasingly commoditized, Butte said, by companies with names like AssayDepot.com. “These companies are competing [for scientists’] business. It’s easier than [shopping at] Amazon.com.”

Butte’s team is effectively outsourcing experiments. Often, the data comes so cheaply that he can answer quality concerns simply by ordering the same experiment to be done by two different companies, then comparing. He insists that three of the four steps in the translational research pipeline are now commoditized. However, “nobody’s ever going to outsource asking good questions. That will never go out of style. That’s all we do in my lab, in fact. You can buy all the rest.”

Butte’s home-run example of his signature informatics approach involved a review of 130 experiments focusing on 3 species and 4 tissues, looking for a common element in type 2 diabetes, a

global health problem (an estimated one-third of all children born in the U.S. since 2000 will get it). “We still need new therapies for it and we still don’t know how you get it,” he said.

To their surprise, they found a pair of genes associated with low blood sugar that could become therapeutic targets.

“Sitting in public databases are many findings like this,” he enthused. “The kids call it ‘crowd-sourcing’ to ask the Internet to help with your project. We could call this ‘retroactive crowd-sourcing,’ getting help from scientists from the work they’ve already done.”

Butte decried the notion that “if it’s free, and it’s on the Internet, it must be valueless. Especially at a site like NCBI, this just isn’t true.”

He sees the fields of environmental studies and epidemiology as especially ripe for an informatics approach. If one wants to consider the environmental causes of disease, no fruit hangs lower than NHANES (the National Health and Nutrition Examination Survey, a program of studies designed to assess the health and nutritional status of adults and children in the United States). Butte practically salivated, “All that data publicly available for you to do the kind of science you want to do with it...”

Butte also thinks we’re on the verge of EWAS—environment-wide association studies—that would be like GWAS genetic surveys. Since whole-patient genomes are on the near horizon (“It will be faster than Jiffy Lube,” he predicted. “By the end of the decade it will cost about \$33—you’d pay more than that to park in Bethesda.”), the new challenge for medicine will be “how can I compensate for my genome? The environment will be the new prescription for the physician.”

Butte thinks “risk-o-grams” will become available, combining the contributions of both nature and nurture to one’s likelihood of falling ill. “But we have not yet found the gene for compliance in medicine,” he joked.

In an era when undergraduate students have 69 complete freely available human genomes to interrogate over on CompleteGenomics.com, “we can either get with the program,” Butte concluded, “or just be scared of this.”

The entire talk can be viewed at <http://video-cast.nih.gov/summary.asp?Live=10529>. 



Members of the NIH and Suburban Hospital/Johns Hopkins University innovation team are shown with HHS Secretary Kathleen Sebelius at the HHSinnovates ceremony on Mar. 30. Included are (from l) James Anderson, David Zhang, Laura Lee, Chandra Kola, Ivor D’Souza, Cindy Notobartolo, Bill Corr (deputy secretary HHS), Sebelius, Wei Ma, Voula McDonough, Robert Rothstein, Donna Sassenick, Steven Phillips and Dwight Clarke.

HHSinnovates: Vote for the Best Innovations

Between now and Aug. 3, you can vote for the best ideas in round 5 of the HHSinnovates awards competition. Innovations from across HHS, including NIH, that improve the way we do business have been submitted and are now in the semi-final round of the competition. Based on votes cast by the HHS community, six innovations will be presented to Secretary Kathleen Sebelius, who will select the top three for recognition at an awards ceremony in September.

In the previous round of HHSinnovates, your votes helped a team from NIH win the competition. The Patient Tracking and Locating System team and other finalists from across HHS were honored at an awards ceremony hosted by Sebelius on Mar. 30 and received a \$2,500 cash prize.

To help hospitals manage high volumes of incoming patients in disaster situations, the National Library of Medicine, the Clinical Center, Suburban Hospital/Johns Hopkins Medicine and Walter Reed National Military Medical Center worked together to develop and test a Patient Tracking and Locating System that can be made available to hospitals nationwide. The system empowers hospital emergency management staff with real-time information about incoming patient counts, severity status and location, ensuring that key staff have the information necessary to make timely decisions crucial to patient care.

You can cast your vote by clicking on the “Vote HHSinnovates” button at <http://employees.nih.gov>.

Pioglitazone Severe Asthma Clinical Trial

Patients with severe asthma may be eligible to participate in a study at the Clinical Center. The purpose of this study is to determine if a widely used agent for diabetes can improve asthma. Eligible patients will receive a comprehensive evaluation. There is no cost for participating in the study. For more information, contact our research coordinator, toll free, at 1-877-NIH-LUNG (1-877-644-5864), ext. 2 or via email at LungStudy@nhlbi.nih.gov. You may also contact the NIH Patient Recruitment and Public Liaison Office via TTY 1-866-411-1010.

Do You Have Asthma?

Participate in a study at NIH. Call 1-800-411-1222 (TTY 1-866-411-1010). Se habla español. Compensation will be provided.



MAC LAB
CONTINUED FROM PAGE 1

Above, l:
Pieces of earthenware await conservation in the clean lab. They will get numbered, catalogued and described.

Above, r:
Sara Rivers-Cofield is the curator of federal collections at the MAC Lab.

significant cultural remains on the site. Digs on the NIH campus have turned up signs of more than 3,000 years of human occupation, from projectile points made by Native Americans who camped and hunted here, to pieces of plates and equipment used by 19th century farmers, to car keys lost by a surely distraught late-20th century NIH employee. After a dig is finished, boxes of materials and their documentation go to the NIH Stetten Museum.

A move to a new storage facility enabled better access by museum staff to the archeological collection. In the course of inventorying the few dozen boxes, they contacted Phillip Neuberg, NIH historic preservation officer responsible for ensuring NIH's compliance with the National Historic Preservation Act, to learn more about the digs.

During their discussions, the museum and Neuberg decided to contact the MAC Lab for professional archaeological advice. Rivers-Cofield surveyed the collection and identified boxes that needed re-housing because of their age. NIH's Office of Research Facilities funded the project, which took about 4 months to complete.

The MAC Lab is where state-of-the-art science and history meet in an extremely physical encounter. The artifacts that NIH sent to the MAC Lab took many of the same laboratory stops that other artifacts dug up from around the state take on their journey to being properly conserved and documented.

The MAC laboratories are not just spacious, they are big enough to handle objects such as

cannons, screw piles and segments of ships. Cranes are required to move some items.

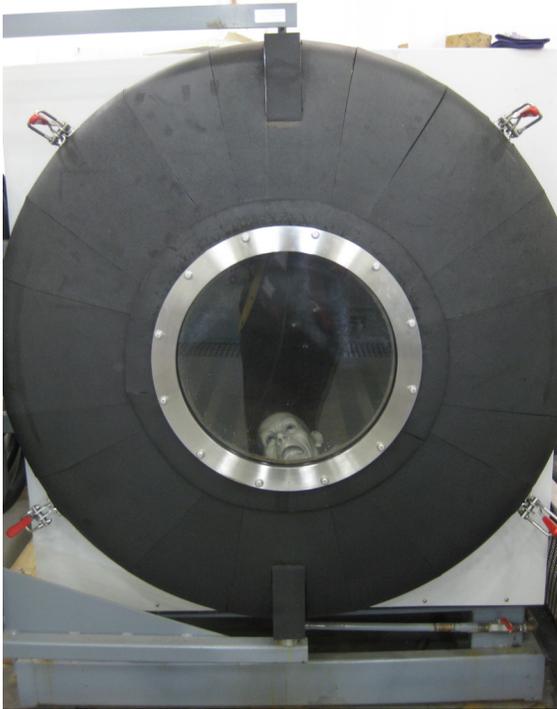
A walk-in X-ray room for metal and composite objects helps conservators assess deterioration levels and identify objects. For example, what seems like a lump of rock really encases a filigreed piece of an 18th century fireplace screen. An anaerobic room pulls the oxygen out of the air to kill insects and other organisms that can eat an organic artifact.

An entire room is devoted to washing objects. Large vats surrounded by a foot-wide grated moat fill another room; they are used to soak objects such as ships, to stabilize them.

After an organic object—for example, something made of wood or leather—is cleaned, it gets soaked in polyethylene glycol to keep it



A tobacco pipe stem made from kaolin clay, also found on campus, was manufactured in England and shipped to America during the Colonial period.



The freeze drier, where artifacts are treated to keep their shape; the zombie mask resides in the drier when it's not being used.

from drying up and shrinking out of shape. After it's soaked, it goes into a large freeze drier where the liquid is transformed into a gas and the object dries but keeps its natural shape.

Once treated and cleaned, the artifact goes to the finishing laboratory, or conservation clean room, where earthenware jars are reassembled like intricate jigsaw puzzles and metal artifacts are treated with tannic acid and coated with B72 (sort of an archival clear nail polish) to protect them from contaminants.

Another laboratory holds scores of animal skeletons, a reference collection that can answer many questions: is a bone of human origin (if so, there are many legal issues to consider)? What were people eating? What time of year was the site occupied? What animals were common?



This Selby Bay projectile point was found on the NIH campus. Named for the settlement around the South River in Maryland, this artifact dates to about 700-900 A.D.



The jigsaw puzzle of a Native American storage vessel found in Montgomery County

The NIH artifacts ended their MAC Lab journey in the research room, where they were identified, labeled by technicians with incredibly tiny handwriting, checked against the catalog and put in archival containers. In the research room, drawers held collections of similar artifacts so that researchers could compare them and their use over time. Other collections included bags of brick fragments waiting to be counted and weighed so that they could be sampled. Most of the brick gets discarded—you can't keep it all.

What objects the MAC Lab does keep are stored in boxes on rolling metal shelves, if the artifact is small enough, or on pallets on the floor, if they are large like a 19th century steamship paddle wheel. This is also where federal collections that are stored under contract with MAC Lab are kept.

The NIH artifacts were returned to the Stetten Museum, however. All of these collections will be entered into the museum's database, with Rivers-Cofield's professional advice, so that researchers can use the web to locate them. Links between MAC Lab and other Maryland history web sites will make the collection better known to archaeologists—and to the person who lost the keys to that Mercury. 🔑

PINK

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About What Motivates Us addresses the changing science of work.

Pink summarized studies spanning the past four decades. Carrots and sticks—rewards and punishments—are effective only for repetitive, routine mechanical tasks, he said. This model, which Pink calls Motivation 2.0, worked well enough for workers in the industrial era, the 19th and early 20th centuries. But for jobs involving cognitive skills that require more complex judgment, discernment and creativity, the extrinsic motivators, including bonus-

“We need to take the word ‘management’ off its pedestal. It’s really a technology of the 1850s. Management, as originally conceived, was designed to get workers to comply, not to be engaged.”

es, often had zero effect. In fact, Motivation 2.0 even at times hindered productivity.

What’s needed now—and study after study shows this—is a different paradigm. The first step: a revision of management.

“We need to take the word ‘management’ off its pedestal,” Pink said. “It’s really a technology of the 1850s. Management, as originally conceived, was designed to get workers to comply, not to be engaged.”

Folks today doing right-brained work—the kind that takes independent, creative thinking—can actually be damaged by extrinsic rewards and punishments.

This doesn’t mean that people will work for free or won’t cash their paychecks. The payment and benefit structure has to be equitable: “It’s all about fairness.”

Assuming that fair ground rules are in place, rewards do not necessarily stimulate motivation. One thing’s for sure, says Pink: “Human beings are not engaged or motivated by being controlled.”

According to Pink, it is taking too long for managers to catch on to this.

“When I ask people to describe the best boss they ever had, I don’t get ‘controlling.’ Over and over again you hear that the best bosses set high standards and grant autonomy.”

Pink’s lectures are like the best teacher you ever had. He called on folks in the audience, asked—and remembered—names, bantered and the



DDM guest speaker Daniel Pink is offering a new way of looking at motivation.

PHOTO: GINNY ROTH

large crowd clearly enjoyed it.

If two-thirds of NIH workers are not in scientific roles but rather in administrative or support roles—a good portion of the work repetitive by nature—will Pink’s model really work here?

He has the studies to prove that it could. Once people understand what they need to do, and feel that they are being treated fairly, they should have autonomy in how they perform their duties. “Most managers focus on the ‘how-we-do-something,’” he said. “They give short shrift to the ‘why.’”

NIH’s mission—seeking knowledge about living systems and applying that to human health—was never part of a conventional business model, anyway. The “why” is something NIH employees at all levels understand. But reinforcing the why can be a performance enhancer.

“Bring the purpose to the surface,” Pink said. “And you have a pretty damn important ‘why’ at NIH.”

Pink ended the session by taking audience questions. NIH’ers can watch the whole lecture online at <http://videocast.nih.gov/> under Past Events. 📺

milestones

Siegel Named NIAMS Clinical Director

Following a nationwide search, NIAMS has announced the appointment of Dr. Richard Siegel as clinical director. He will oversee clinical and translational research within the NIAMS Intramural Research Program and supervise clinical staff assigned to investigators performing clinical and translational research, the NIH Rheumatology Fellowship Training Program and the NIAMS Community Health Center.



“Dr. Siegel is an internationally recognized clinician-scientist with a unique combination of skills in rheumatology, immunology and genetics,” said NIAMS director Dr. Stephen Katz. “In addition to his rigorous scientific background, he brings to this position a demonstrated ability to lead and inspire.”

Siegel has served as acting NIAMS clinical director since October 2010. In addition, he is chief of the NIAMS Autoimmunity Branch and head of the immunoregulation section—positions he will continue to hold in his new role. His current research focuses on the biology of the tumor necrosis factor family of cytokines and the contributions of these cytokines and their receptors to the pathogenesis of autoimmune and inflammatory diseases.

“I am delighted that Dr. Siegel has accepted this position,” said NIAMS scientific director Dr. John O’Shea. “Richard is an amazing scientist, a committed clinician and a wonderful NIH citizen. I am looking forward to his leadership.”

Siegel obtained his M.D. and Ph.D. from the University of Pennsylvania in 1993, and trained in internal medicine and rheumatology at the Hospital of the University of Pennsylvania. He came to the National Institute of Allergy and Infectious Diseases as a postdoctoral fellow in 1996, and to NIAMS as a tenure-track investigator in 2001. He was tenured in 2009.

Until 2011, Siegel administered the NIH M.D./Ph.D. Partnership Training Program, which he co-founded in 2006 with Dr. Michael Lenardo of NIAID. To date, the program has sponsored more than 60 M.D./Ph.D. students to pursue their dissertation research in the NIH Intramural Research Program. This work was recognized with an NIH Director’s Award in 2008.

Siegel was elected to the American Society of Clinical Investigation in 2007, and was awarded the Young Investigator Award by the International Cytokine Society in 2008. He was recently elected to the Association of American Physicians in recognition of his leadership role in medical research.

Knebel Appointed NINR Deputy Director

Dr. Ann Knebel recently joined the National Institute of Nursing Research as deputy director.

“Dr. Knebel brings a wealth of research, administrative, clinical and public health expertise to NINR,” said NINR director Dr. Patricia Grady. “We’re excited she is re-joining the NIH community.”

Prior to her role as deputy director of the Office of Preparedness Planning, Office of the Assistant Secretary for Preparedness and Response (ASPR), Knebel served as a NINR program director in the Office of Extramural Programs and as a program analyst in the NINR Office of Science Policy and Public Liaison. During her tenure at NINR, she also served as the first chair of the trans-HHS end-of-life research interest group. She began her NIH career as a pulmonary clinical nurse specialist at the Clinical Center, where she conducted research on illness severity, quality-of-life and the influence of oxygen therapy on functional ability in individuals with alpha-1 antitrypsin deficiency.

At ASPR, Knebel applied her scientific expertise to shape and guide the emerging scientific fields of disaster preparedness and preparedness for mass gatherings. She has been instrumental in U.S. preparedness planning and surge capacity initiatives as well as federal public health and medical response and recovery planning. During her tenure at ASPR, she helped the Greek Ministry of Health prepare for the 2004 Summer Olympics and served a 9-month detail with the New York City Office of Emergency Management to develop bioterrorism plans. As an expert consultant for international preparedness planning she has worked on the World Health Organization-sponsored advisory group on mass gathering preparedness.

Knebel has received numerous awards and honors including Public Health Service Outstanding Service Medals, the Office of the Chief Nurse Faye G. Abdellah Publication Award, the Hasselmeyer Award for Research Initiatives and the Clinical Center Distinguished Nurse Award. In 2008, she was one of the first recipients of the Hubert H. Humphrey Award for Service to America. The American Thoracic Society has twice awarded her the Marilyn Hansen Meritorious Nursing Research Award. She is a fellow of the American Academy of Nursing.

Knebel received her baccalaureate degree in nursing in 1981 and a master of nursing science degree in 1985 from the University of Evansville, Ind. She completed a doctorate of nursing science at the University of California, San Francisco in 1990.





Dr. William Riley is the new chief of the Science of Research and Technology Branch in the Behavioral Research Program in NCI's Division of Cancer Control and Population Sciences.

Riley Named to NCI Behavioral Research Post

Dr. William Riley has been named chief of the Science of Research and Technology Branch (SRTB) in the Behavioral Research Program within NCI's Division of Cancer Control and Population Sciences (DCCPS). He will provide leadership in behavioral science methodologies, analytics and approaches; theory development and application; and the application of technological advances to health behavior measurement and intervention.

Riley's research is in the application of new technologies, particularly mobile and wireless technologies, in behavioral measurement and intervention and the potential of these technologies to assess and intervene adaptively in the context of the behavior, and with broad reach and scalability.

"Bill's experience and expertise fits well within SRTB's mission in the development and application of innovative research approaches, theories, methods, measures, analytic tools and technologies to advance social and behavioral science in the context of cancer prevention and control," said Dr. Robert Croyle, DCCPS director. "His contributions to measurement science are impressive, including his recent work on the Patient-Reported Outcomes Measurement Information System (PROMIS)."

Riley completed his bachelor of science degree in psychology and sociology from James Madison University and his master of science and doctorate in clinical psychology from Florida State University. Before his current NCI appointment, he was a health scientist administrator and deputy director in the Division of AIDS and Health Behavior Research at the National Institute of Mental Health and a program director at the National Heart, Lung, and Blood Institute. He also serves as a professorial lecturer in the School of Public Health at George Washington University.

NIH Communication Products Awarded

The National Association of Government Communicators (NAGC) recently announced winners of its Blue Pencil and Gold Screen Awards, which recognize "superior government communication products and those who produce them." Winners from the NIH community are listed below.

NAGC is a national not-for-profit professional network of federal, state and local government employees who disseminate information within and outside government. Its members are editors, writers, graphic artists, video professionals, broadcasters, photographers, information specialists and agency spokespersons.

- Podcast, 1st place, NIH Research Radio Podcast,

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Sigmoidoscopies Decrease Colon Cancer Deaths

Screening using sigmoidoscopy helps prevent colorectal cancer and reduce deaths from the disease, a new study reports.



Coffee Drinkers Have Lower Risk of Death

Older adults who drink coffee may have a lower risk of death than those who don't drink coffee, according to a new analysis. The finding adds to evidence that coffee drinking may have health benefits.



Clues to Alzheimer's Disease

Researchers may have discovered a mechanism behind the largest known genetic risk factor for late-onset Alzheimer's

NIH Research Matters won 2nd place for electronic publications in a recent NAGC competition.

OD Office of Communications and Public Liaison, Joe Balintfy, Wally Akinso, Craig Fritz

- External Newsletter, 2nd place, *NIH News in Health*, OD Office of Communications and Public Liaison, Dr. Harrison Wein, Vicki Contie, Alan Defibaugh, Belle Waring, Bonnie Tabasko

- Electronic Publication, 2nd place, *NIH Research Matters*, OD Office of Communications and Public Liaison, Dr. Harrison Wein., Vicki Contie, Sara R. Cohen, Ruth Lefcoe

- Blog, 2nd place, The Sara Bellum Blog, National Institute on Drug Abuse, Jennifer Elcano, Carol Krause

- Most Improved Publication, 2nd place, *New Year, Old Myths, New Fatalities*, National Institute on Alcohol Abuse and Alcoholism, Fred Donodeo, Izzy Pinto

- Graphic Design, 2nd place, *Depression and College Students*, National Institute of Mental Health, Christine Kaucher, Kelly Reed, Susan Jar-molowski, Terry Kelly

- Brochures/Booklet, Award of Excellence, *Depression and Other Illnesses*, National Institute of Mental Health, Karin Lee, Christine Kaucher, Kate Egan, Terry Kelly.

NLM's Kotzin Retires

Sheldon Kotzin, associate director for library operations at the National Library of Medicine, retired on June 29 after more than 43 years of service.

He earned a master of library science degree from Indiana University in 1968 and, following graduation, came to NLM as a library associate. He subsequently served as head of the catalog maintenance unit in the Technical Services Division, head of the collection access section (then



loan and stack) in the Public Services Division, and coordinator of the National Network of Libraries of Medicine (then the Regional Medical Library Network).

Kotzin became chief of the Bibliographic Services Division in 1981 and was appointed associate director for library operations in 2006. Since 1998, he has served as executive editor of Medline and administrator of the literature selection technical review committee, the body that reviews and recommends journals for indexing in Medline. He also served as NLM's representative to the International Committee of Medical Journal Editors, a group of 14 clinical journal editors who establish standards for submission of journal articles and comment on ethical principles related to publication in biomedical journals.

The Medical Library Association elected him a fellow in 2007. Kotzin will miss his many colleagues at NIH, but looks forward to spending time traveling with his wife of nearly 44 years, Loretta, and spending time with his 4 grandchildren.

LRP Director Hernandez Dies

Dr. Milton J. Hernandez, director of the NIH Loan Repayment Programs, passed away on June 14 after an 18-month battle with pancreatic cancer.

"Milton was an extraordinary man, friend and NIH colleague," said Dr. Sally Rockey, NIH deputy director for extramural research.

"He was one of the most NIH-savvy people around, having served in myriad positions here," she continued. "His always cheerful and thoughtful approach was one to emulate and he was admired by those who worked with him. This is a huge loss for NIH. Milton will be deeply missed."

Hernandez received a Ph.D. in zoology from Texas A&M University and started his career as a professor at M.S. Hershey Medical Center and Howard University College of Medicine. He joined NIH in 1988 and worked with the National Heart, Lung, and Blood Institute before joining the National Institute of Allergy and Infectious Diseases. He spent 18 years at NIAID as director of the Office of Science Training and Manpower Development and later, the Office of Special Populations and Research Training.

Here's how he once described his career:

"I came to NIH from academia because I was interested in science administration. After a year of training, my first real job was with NHLBI, administering a program in blood substitutes and transfusion medicine.

"Since my heart was really in training, I took a position with NIAID. At NIAID, I was in charge of training grants, fellowships, career development awards and diversity programs. In later years, I was also involved in administering the loan repayment programs. I acquired a great grasp of training issues at the national level as well as the LRPs' tremendous benefits for young biomedical scientists with large educational debts."

While Hernandez led LRP for only 3 years, he will have a lasting impact; his accomplishments include creating the LRP Ambassador Network and implementing several policy changes that streamline operations and allow ICs to increase the number of awards they support.

Hernandez was proud of his two children, Diego, an instructor at the University of Maryland, and Andrea, an attorney in New York City. Hernandez, a fourth generation Texan raised in San Antonio and Mexico City, was known for his authentic Mexican cooking. In fact, food critic Craig Claiborne once dined with Hernandez and his family and published Hernandez's recipes for chili, rice and sauces in the *New York Times*. Hernandez and his children visited Mexico City just weeks before his death. Upon his return, he shared pictures, including those of friends and classmates he had not seen in over 50 years.



NIDA's Shippenberg Mourned

Dr. Toni Shippenberg died June 25 after a long illness. "Toni was both a distinguished scientist and a pillar of the NIDA IRP community, having devoted two decades of her life to pursuing neuroscience addiction research on behalf of NIDA's mission. She was seen as an influential leader—both nationally and internationally—in the opiate and psychostimulant research areas and was one of the crown jewels of the IRP," said NIDA scientific director Dr. Antonello Bonci.

Shippenberg received her B.S. in neuroscience from Colgate University in 1979 and earned a Ph.D. in pharmacology in 1985 from Baylor College of Medicine. She did postdoctoral work at the Max Planck Institute of Psychiatry in Martinsried, Germany, where she spent 7 years in the field of neuropharmacology. She later became chief of the institute's drug abuse research unit in Munich.

In 1992, she joined NIDA's Preclinical Pharmacology Laboratory as a senior staff fellow and obtained tenure in 2001 as a senior investigator and chief of the integrative neuroscience section of the Behavioral Neuroscience Research Branch. In 2010, she became chief of the newly created Integrative Neuroscience Research Branch before formally stepping down from that position earlier this year due to illness.

Shippenberg served as reviewing editor for the *Journal of Neuroscience* and was on the editorial boards of *Neuropsychopharmacology* and *Molecular and Cellular Pharmacology*. She also held appointments of adjunct associate professor at the University of Maryland Medical School and research associate professor at Georgetown University Medical Center.

Shippenberg received numerous awards over the years including the NIDA/NIH Women Scientist Achievement Award in 2009 and the NIDA Director's Scientific Merit Award in 1994, 1995 and 1998. In 2005, she won an NIH Outstanding Mentor of the Year Award.

"Toni's positive energy, sense of humor and warm personality will be missed as much as her science," said Bonci. 🕯

'Derecho' Causes Significant Damage To Main Campus

PHOTOS: CARLA GARNETT, FRANK KUTLAK, PAM PHILLIPS

The summer storm that raged through the Washington metropolitan area on June 29 caused significant damage to NIH's Bethesda campus landscape. Meteorologists have deemed the weather system a *derecho* (Spanish for straight line) because it contained high winds and rain traveling in a virtual straight line eastward from northern Illinois through Ohio, West Virginia, Virginia, Maryland and D.C. to the Atlantic coast. The combination of powerful winds (estimated between 70-80 mph) and intense rain—in a pattern unusual for this area—did a number on the region, leaving millions without electricity in record-setting heat and humidity.

"Friday night's wind and rain storm was much worse than the damage from 2003 Hurricane Isabel," said NIH landscape architect Lynn Mueller of ORF. "As of [July 2] we have 10 large trees down with another 6 with broken or hanging tops. In addition, we have about 50 large limbs on the ground along with thousands of smaller branches.

"Our Montgomery County Champion black willow near the National Library of Medicine lost a large branch but will survive," he continued. "Three of the largest trees on the ground fell from neighboring residential property. The PNRC contractor trailers suffered damage from a white pine that fell on the roof. No other serious [property] damage—other than the perimeter security fence at the PNRC trailers and the property line fence—has been reported to me.

"All sidewalks and parking lots were opened over the weekend," he continued. "It will take a couple of weeks to thoroughly inspect the mature trees for visible hazardous cracks and remove dangerous broken limbs hanging in the canopy. The tree maintenance contractor was in [June 30] and is chipping up the wood for future mulch. As of [July 3], they have hauled out more than 400 cubic yards of wood chips and have over 200 cubic yards piled up in Lot 41B. Nothing will be wasted. It may be a few weeks before all the debris is removed."

Power outages associated with the storm temporarily closed a number of NIH leased facilities in Montgomery County, including Rockledge I and Twinbrook III. The NIH Animal Center in Poolesville also lost electricity and was operating on emergency backup power. NIHAC also had many fallen trees and limbs and sustained roof damage.



Above, the derecho felled this tree limb in the side yard of a residence on North Dr.



Above, two views of a construction trailer along the perimeter fence at Old Georgetown Rd. that was struck by a white pine during the storm. At right, a look inside the trailer shows damage to its ceiling.

Below, several other trees fell or lost large limbs during the storm, including one at parking lot 41B near the Fitness Center trailer (l) and another near the firehouse and Bldg. 63 (r).



Areas outside the NIH fence weren't spared either, as the image below shows a sizable branch down along NIH property near Battery Ln.

