

THE NIH RECORD

Still The Second Best Thing About Payday

Cech To Discuss 'Life at the End of the Chromosome'

By Doug Dollemore

Scientists are hot on the trail of an enzyme that has the potential to increase the longevity of normal cells and may provide new tools to attack malignant ones, says Nobel laureate Dr. Thomas R. Cech. The enzyme, called telomerase, synthesizes or extends chromosome endings in germ cells, and may act like a molecular "timer" to regulate how long chromosomes in non-germ cells can continue to function.

Cech will discuss what is known about telomerase and its possible impact on lifespan and health when he delivers the NIH Director's Lecture on Wednesday, Sept. 20 at 3 p.m. in Masur Auditorium, Bldg. 10. His lecture, "Life at the End of the Chromosome: Telomeres and Telomerase," will include a glimpse at emerging findings

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National Medal of Science Winner

Diamond To Give Director's Cultural Lecture, Sept. 18

By Louise Williams

Dr. Jared Diamond, professor, department of physiology, University of California, Los Angeles School of Medicine, will give the NIH Director's Cultural Lecture in Masur Auditorium, Bldg. 10, on Sept. 18 at 3 p.m.

This special Monday lecture is part of the NIH Director's Wednesday Afternoon Lecture series, and is sponsored by NHLBI and the cell biology interest group.



Dr. Jared Diamond

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U.S. Department of Health and Human Services National Institutes of Health

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Peering Into Future

Cancer Prevention Becoming More Exact Science

By Rich McManus

If you thought that by maintaining ideal body weight, exercising, abstaining from tobacco, and eating plenty of fruits and vegetables that you were hewing to the latest wisdom in preventing cancer, think again. While these guidelines still apply,



Dr. Bernard Levin

a new picture of cancer prevention is emerging that is much more particular and personal than the advice of the past: tailored interventions based on an individual's risk of cancer lie ahead, thanks largely to new methods of probing one's genetic makeup, said Dr. Bernard Levin, professor of medicine at the University of Texas M.D. Anderson Cancer Center.

Giving the first annual Advances in Cancer Prevention Lecture—a new capstone to an NCI-sponsored academic course in cancer prevention and control that has been held for the past 15 years—

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Social, Cultural Dimensions of Health Explored

By Susan Persons

The first NIH-wide conference on the role that social and cultural factors play in health and disease was recently held in the Natcher conference center. Organized by the Office of Behavioral and Social Sciences Research and 10 institutes and offices, the conference—Toward Higher Levels of Analysis: Progress and Promise in Research on Social and Cultural Dimensions of Health—drew more than 800 scientists representing multiple disciplines. The 2-day conference featured 34 speakers.

NIH acting director Dr. Ruth Kirschstein opened the conference by expressing the commitment of NIH to understanding social and cultural factors and their importance to health, especially with regard to elimination of health disparities.

"Research on social and cultural factors is a vital part of our efforts to understand health disparities and critical to understanding the etiology of health and illness in general," she said. Deviating from her notes, she commented, "There is more to health and life than the genome. This conference puts the entire activi-

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CECH, CONTINUED FROM PAGE 1

about this unusual enzyme.

To grasp the significance of telomerase, it helps to know a bit about chromosomes. Each human chromosome consists of one long DNA molecule tightly wound around a scaffold made of several proteins. Both ends of the DNA molecule are formed of hundreds of copies of the same short DNA sequence, repeated over and over. These sequences, which are part of chromosome end structures called telomeres, become progressively shorter each time the cell divides. Researchers suspect that this shortening is one of the critical features of cellular aging.



Dr. Thomas R. Cech

Over time, telomeres become so short that the chromosomes they are attached to can no longer duplicate. This, in turn, leads the cell to stop dividing. But cancer cells are somehow able to reactivate telomerase, allowing them to escape mortality and grow in number indefinitely.

Some researchers believe if telomerase can be artificially regulated so that its activity is either activated or blocked, it has the potential to slow aging and, perhaps, slow the growth of cancers. But like many mechanisms in the body, the role of telomerase is probably very complex, Cech says. For now, his team is studying telomerase in ciliated protozoa and yeast to focus on three questions: How does this enzyme work? How and where in the cell is the enzyme assembled? And how do telomere-telomerase interactions control the replication of chromosome ends?

"These simple organisms allow us to manipulate telomerase both in the laboratory and in living cells, yet we have reason to believe that many of our findings will hold true for human telomerase as well," Cech said.

He received the Nobel Prize in chemistry in 1989, shared with Sidney Altman of Yale University, for their independent discoveries of ribozymes, ribonucleic acid (RNA) molecules that not only convey genetic information, but also act as enzymes. He became interested in telomeres and telomerase when researchers Elizabeth Blackburn and Carol Greider determined that telomerase is composed of two subunits. One is made of RNA, which serves as a template for the DNA sequences that comprise the telomeres. The other subunit is a protein that catalyzes the chemical reaction that adds the DNA sequences to the ends of the chromosomes.

Cech earned his doctorate at the University of California, Berkeley, and was a postdoctoral fellow

at the Massachusetts Institute of Technology. In 1978, he joined the faculty of the department of chemistry at the University of Colorado, Boulder. He has received continuous NIH funding for his work since 1978. He was a Howard Hughes Medical Institute investigator from 1988 to 1999. Earlier this year, he was appointed president of that institution. HHMI, a nonprofit medical research organization headquartered in Chevy Chase, employs hundreds of leading biomedical scientists working at the forefronts of biomedical research.

Cech is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. He has received numerous prizes and awards, including the Pfizer Award in Enzyme Chemistry, and the National Medal of Science, which was presented to him by President Clinton at a White House ceremony in 1995. He has received honorary doctorates from Grinnell College, the University of Chicago and the University of Maryland, Baltimore.

The lecture is an NIH Wednesday Afternoon Lecture Series event, hosted by the National Institute on Aging. For more information or accommodation, call Hilda Madine, 594-5595. ■

Alzheimer's Study Recruits

The National Institute of Neurological Disorders and Stroke seeks adults 50-89 for a research study to test an experimental treatment drug for Alzheimer's disease (AD). Participants should have a diagnosis of AD but be otherwise healthy. A companion must be available to help monitor the participant's progress in the study. Call 1-800-411-1222. ■

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Attention Female Computer Users

Do you experience work-related pain, numbness, or tingling in your fingers, hands or wrists? Have you been diagnosed with carpal tunnel syndrome? Are you a female between the ages of 21 and 50 who is currently working full time? If so, you are invited to participate in a study of job stress and carpal tunnel syndrome that can help you learn more about your problem. This study includes a \$100 payment and receipt of ergonomic and job stress self-help workbooks. For more information call (301) 295-9660.

Oldstone To Deliver Dyer Lecture, Sept. 13

By Karen Leighty

Dr. Michael B.A. Oldstone will deliver the Sept. 13 Dyer Lecture, titled "How Viruses Suppress the Immune System: Molecular and Cellular Mechanisms and Consequences," at 3 p.m. in Masur Auditorium, Bldg. 10. Oldstone, who has made seminal contributions to this field, serves as professor and director of the viral-immunobiology laboratory at the Scripps Research Institute.

Oldstone's early work showed that the host could make an immune response to a persistent viral infection. That immune response, he went on to find, causes tissue damage and disease. These original observations, made first with lymphocytic choriomeningitis virus, now have been extended to several other disease-causing viruses.

Building on this work, he demonstrated that immune responses to viruses can recognize amino acid sequences similar to those found in host cell proteins, a phenomenon known as molecular mimicry. Under certain circumstances, these antiviral immune responses result in disease.

He also discovered that persistent viral infections can cause disease by changing the differentiation or "luxury" functions of cells without destroying them. Such changes tip the balance of homeostasis and can cause disease in the nervous and endocrine systems, among others. Oldstone also was one of the first to show mechanistically how viruses can suppress immunologic surveillance.

In his most recent studies, he successfully isolated and identified the host cell receptors used by certain persistent viruses to enter cells. Such viruses have evolved a selective pressure to abort antiviral immune T-cell responses, thus allowing their persistence.

The fruits of such work have resulted in his election to the Institute of Medicine of the National Academy of Sciences. He has received numerous awards, including the J. Allyn Taylor International Prize in Medicine for his work in virus-host interactions; the Biomedical Science Award from the Karolinska Institute in Sweden, for contributions in autoimmunity and the concept of molecular mimicry; the Abraham Flexner Award for Contributions in Biomedical Research; the Rous-Whipple Award for Research Excellence in Investigative Pathology; and the Cotzias Award for Research Excellence in Nervous System Disease.

This lecture is an NIH Director's Wednesday



Dr. Michael B.A. Oldstone

Afternoon Lecture Series event. No registration is required. The audience is invited to a reception following the talk. For more information or special accommodation, call Hilda Madine at 594-5595. ■

NINDS Grantee Wins 'Genius' Award

NINDS grantee Dr. Gina G. Turrigiano, an assistant professor in the department of biology and the Center for Complex Systems at Brandeis University, recently won a fellowship from the John D. and Catherine T. MacArthur Foundation.

Each year the foundation awards unrestricted, 5-year fellowships—informally called the MacArthur "genius" awards—to talented individuals who show extraordinary originality and dedication in their creative pursuits, and a marked capacity for self-direction. Turrigiano was one of 25 people who received the \$500,000 fellowships this year.

The purpose of the fellowship program is to enable recipients to exercise their own creativity for the benefit of society at large.

Individuals of all ages and from all fields are selected. The fellowships are considered unique because they offer 5 years of "no strings attached" support. Recipients have the flexibility to pursue their work without having to report back to the foundation. Individuals cannot apply for the fellowships, they must be nominated.

Nominees are reviewed for their achievements; however, according to the foundation, the fellowships are not rewards for past accomplishments, but rather are investments in the recipients' potential to effect positive change.

Turrigiano has furthered scientific understanding of how brain cells modify their activity in response to changing conditions. Using such research techniques as cell culture, electrophysiology and computational modeling, she identified the mechanisms that individual neurons use to maintain their function within an optimal range. She discovered that neurons can maintain their activity level even when the number and strength of the inputs they receive are constantly changing. Her studies have led to a new approach to understanding normal and abnormal brain processes.

Turrigiano received her bachelor of arts degree from Reed College in 1984, and her Ph.D. from the University of California, San Diego, in 1990. ■



Dr. Gina G. Turrigiano

Women with Fibromyalgia Needed

NIDCR researchers invite women 18-45 diagnosed with fibromyalgia to take part in a new study. They want to test effects of exercise on fibromyalgia symptoms and see if exercise improves patients' response to stress. The 10-month study takes place in Bethesda. There is no charge for taking part. For more information, call 1-800-411-1222.

DIAMOND, CONTINUED FROM PAGE 1

Diamond's topic is, "Why Did Human History Unfold Differently on Different Continents for the Last 13,000 Years?" It's a topic he researched to write his Pulitzer Prize-winning 1998 book, *Guns, Germs and Steel: The Fates of Human Societies*. In the book, he argues that the answers to the question have to do with diverse environments, rather than peoples' IQs. In particular, he points to the easy spread of agriculture through Eurasia and the availability of large mammals to be domesticated. He traces the historical consequences of the environmental differences, which led to the decimation of peoples in the Americas by European colonizers. Within a few centuries of contact, he notes, about 95 percent of the native populations of North and South America had vanished, mostly by infection from germs brought by the invaders.

Diamond's career has spanned more fields than there are continents. Though his formal training was in physiology and membrane biophysics, he has also pursued interests in evolutionary biology, ecology and history. His career has taken him from investigations of biological membranes to studies of speciation among birds in a New Guinea rainforest to the creation of practical measures to protect biodiversity.

Key scientific contributions have included: an elucidation of how water transport across epithelial cell layers is coupled to active solute transport; a formulation of the differences between tight and leaky epithelia; discernment of the physical principles by which biological membranes discriminate among related nonelectrolytes and related ions; identification of how intestinal nutrient transporters are regulated by dietary substrate levels and intake rates; insights into how human physiological capacities are shaped by natural selection; the discovery of the long-lost Golden-fronted Bowerbird; identification of factors that make some animal populations more vulnerable to extinction than others; and studies of the paradoxical evolution of human genetic diseases such as Tay-Sachs and diabetes.

Diamond also has been praised for his ability to communicate important scientific issues to the public. He is a regular contributor to both *Nature* and *Discover*, as well as to other popular science magazines.

Earlier this year, his many diverse achievements earned him the National Medal of Science. The medal has been bestowed on only 374 U.S. scientists and engineers since its creation by Congress in 1959.

One year before the medal's creation, Diamond graduated from Harvard, with a B.A. *summa cum laude* in biochemical sciences. Three years later, he earned a Ph.D. in physiology from Cambridge University in England. After a National Science Foundation postdoctoral fellowship, spent partly in

Germany at the Max Planck Institute and partly at Cambridge, he returned to Harvard, taking a position in the medical school's biophysical laboratory. In 1966, he joined UCLA Medical School.

Through the years, he also has served as a research associate at the American Museum of Natural History in New York City and with the Los Angeles County Museum of Natural History. Since 1993, he has been director of the World Wildlife Fund. He was a founding member of the board of governors of the Society for Conservation Biology and belongs to the Los Angeles Zoo's animal management advisory committee.

He also is a member of the National Academy of Sciences, the American Philosophical Society and the American Academy of Arts and Sciences.

His long list of honors includes being a fellow of the MacArthur Foundation and of the American Ornithologists Union, and receiving a Burr Award from the National Geographic Society, a Bowditch Prize from the American Physiological Society and a Distinguished Achievement Award from the American Gastroenterological Association.

Diamond has produced 7 books, 2 monographs, and 557 articles. His books include *The Third Chimpanzee*, a prize-winning look at the evolution of uniquely human traits and their possible effect on the future, and *Why Is Sex Fun? The Evolution of Human Sexuality*.

So, for those who wonder why the world ended up as it has, come to the talk and be prepared for a 13,000-year spin through time. You may discover why NIH is in Bethesda, instead of the Australian outback, where there's plenty of parking.

Physicians can earn continuing education credit by attending. For more information about the lecture, contact Hilda Madine at 594-5595. ■

STRIDE 2001 Now Recruiting

The Office of Human Resource Management's Human Resource Development Division announces the 2001 STRIDE Program, a 3-year program designed to provide employees with an opportunity for career change and advancement and help NIH meet staffing needs. STRIDE's aim is to provide a combination of on-the-job training, academic courses and selected short-term courses to prepare individuals for placement in targeted professional positions.

To be eligible, you must be employed at NIH under a career or career-conditional appointment for at least 1 year. Applications are being accepted for targeted STRIDE intern positions; for more detailed information about applying, visit <http://trainingcenter.od.nih.gov/stride.htm>. Application packages are due by Sept. 15. ■



Dr. Harriet Ganson has joined NIDCR as the new planning officer and chief of the Planning, Evaluation, and Legislation Branch of the institute's Office of Science Policy and Analysis. She will also serve as the NIDCR legislative analyst and congressional liaison. Prior to joining NIDCR, Ganson was with the General Accounting Office, where she was assistant director, health, education and human services division and general government division. She has over 20 years of public policy research and evaluation experience and has taught courses on research methods and sociology. Ganson earned her M.A. and Ph.D. in sociology from Ohio State University, where she also received an M.S. in family and child development.

NIH Holds Fire Safety Awareness Day

On Tuesday, Sept. 12, NIH will mark Fire Safety Awareness Day with displays and demonstrations in front of Bldg. 1, 10 a.m.-2 p.m., sponsored by the NIH Emergency Management Branch, Division of Public Safety. In the United States, some 6,000 people perish in fires each year and 100,000 more are injured. Property losses from fires are estimated at over \$10 billion annually. Education and awareness are the best defenses.

This year's theme is "Fire Prevention Is Everybody's Business." The risks of fire are real, both in the home and at work; everyone needs to be vigilant to identify and correct potential fire hazards immediately. Most fires can be prevented.

At this year's event, DPS staff will present an array of fire detection and suppression devices; fire, rescue and hazardous materials response vehicles and emergency equipment; severe weather and fire safety brochures; and crime prevention, employee transportation and police displays. On hand will be specially trained dogs and their handlers from NIH and the Federal Emergency Management Agency to demonstrate bomb detection, drug detection and search & rescue techniques. Also scheduled to attend are staff from the Montgomery County bomb squad and the Maryland State Fire Marshal's office. There will be a residential sprinkler demonstration trailer and a fire safety house, which is used to show children how to react in fire emergencies.

Drawings for such prizes as fire extinguishers, smoke detectors, carbon monoxide detectors, home fire escape ladders, gift certificates and tickets to local sporting events will occur during the day.

The winner of the Year 2001 Fire Safety Awareness Day slogan contest will be announced. The winning slogan and the winner's name will be featured on next year's posters. The 2000 winner is Dr. Vivian Batuyong of Union City, CA, who submitted her winning entry via the EMB web site. Her name and slogan are on this year's poster.

O'Brien's Pit Barbecue and Ben and Jerry's Home-made Ice Cream will provide food from 11 a.m. to 1 p.m. The inclement weather date is Thursday, Sept. 14. Call EMB, 496-1985, for more information. **R**

Mascola Named VRC Deputy Director

Dr. John Mascola has joined the Vaccine Research Center as deputy director. His distinguished career in infectious disease and retrovirus research has provided important information about HIV, specifically in the areas of antibody-mediated protection from HIV and mucosal HIV transmission, said VRC director Dr. Gary Nabel. Mascola has been an active participant on the NIAID AIDS research review committee, NIAID AIDS immunology study section, and NIH vaccine study section.



Dr. John Mascola

"John Mascola has been a major contributor to HIV vaccine development through his studies on neutralizing antibodies. His thoughtful, scholarly work on their role in neutralization *in vitro* and in non-human primate models has led to a better understanding of protective immunity," added Nabel.

Mascola will oversee the biosafety level-3 facility in its basic and applied research activities, and promote programs that meet the VRC's scientific objectives. He will also represent the VRC at NIH planning and advisory meetings, and at national and international conferences and workshops.

He currently holds two positions in the division of retrovirology at Walter Reed Army Institute of Research, including head of the department of HIV prevention research and assistant head of the department of HIV vaccine development. He also held concurrent appointments of associate professor of medicine at the Uniformed Services University of the Health Sciences and research physician at the Naval Medical Research Institute.

Mascola is a fellow of the American College of Physicians, and a member of the Infectious Diseases Society of America and the American Association for the Advancement of Science. **R**

¡Salud! To Your Health

Hispanic Heritage Celebration To Stress 'Bridging the Gap in Health Disparities'

NIH will host a Hispanic Heritage Celebration, "Bridging the Gap in Health Disparities," on Friday, Sept. 15 in Masur Auditorium, Bldg. 10 from 9 a.m. to 12:30 p.m. Speakers include Dr. Ruth Kirschstein, acting NIH director, who will give the welcome; Sonia Mora, coordinator of the Latino Health Initiative, Montgomery County department of health and human services, who will present an update on county services to Hispanics; Dr. Raul Garcia of Boston College, whose talk is titled "Does Oral Health Matter?"; Dr. Jose Szapocznik of the University of Miami, who will discuss "Prevention and Treatment of Troubled Youth"; and Dr. Luis Zayas of Fordham University, who will present "Hispanic Mental Health: Research Findings and Future Directions." A reception will be held in the Visitor Information Center from 12:30 to 1 p.m. Exhibits will be available for viewing at the VIC from 9 a.m. to 1 p.m. For more information, contact Raymond Mejia, ray@helix.nih.gov, 496-9972.

CANCER PREVENTION, CONTINUED FROM PAGE 1

Levin outlined a quantitative risk assessment method that takes into account specific tissue markers, epidemiological evidence, and genetic susceptibility markers that will allow clinicians to fine-tune treatments to individual profiles.

A standing-room-only crowd in Lister Hill Auditorium heard Levin bring into focus what NCI director Dr. Richard Klausner described as newly blurring

margins between cancer treatment and detection; elements of both are embodied in the new science of prevention. But first Levin explained what's at stake: If you could eliminate all cancers completely with some new miracle compound, economic savings would be \$46.5 trillion, according to economists at a Lasker Foundation symposium. If science could cure just one percent of all cancers, the savings would still be \$500 billion, he noted.

As a model of an ideal prevention tool, Levin chose the hepatitis B vaccine. Introduced in Taiwan in 1985, it dramatically lowered incidence of the disease in that country. "Would that we had a vaccine against tobacco," he mused, showing slides projecting 450,000 tobacco-related deaths in the United States in 2000, and 3 million deaths worldwide.

He lamented the pervasive influence of tobacco in American life, quoting former FDA commissioner Dr. David Kessler's admonition that "tobacco is a pediatric disease." Levin said there is "an ominous increase in smoking" among ethnic minorities in 12th grade in Texas. "Moderate to substantial nicotine dependence was found in a majority of 850 teenagers sampled in Houston and Austin," he reported.

Gadgets as cumbersome as hand-held computers, programmed to schedule one's allowable smokes (in gradually decreasing increments), represent effective technology, Levin said. Descending to a smaller scale, he described the DRD2 A1 allele associated with heightened substance abuse and susceptibility to tobacco addiction as a valuable marker. Genes can help predict who will have trouble quitting smoking, and link that difficult effort to increased risk of alcohol abuse, substance abuse and depression.

Levin foresees, in the near future, 35 mm "blood slides" containing a single spot of blood that technology can sample perhaps 100 times over a period of many years and still get valuable genetic data. "You could store slides for an entire nation in a room this size," he said. Barcodes on the slide

would identify whose DNA was stored there, and the process of sampling individual cards would be automated.

"Genetic ID cards are very much around the corner," he predicted.

He lauded NCI's launch of the Early Detection Research Network, a prevention effort based on molecular changes in tissue, and expects chemoprevention—the use of chemicals to reverse, suppress or prevent the carcinogenic process—to be effective. "There is a long period when screening and chemoprevention could make a difference in a variety of common epithelial cancers," he said.

In colon cancer, for example, there is a period of some 10 to 20 years when cells transform from normal to invasive. The enzyme cyclooxygenase-2 (COX-2) is elevated throughout this entire process, he said, and there is currently a promising trial showing that inhibition of this enzyme results in significant reduction of both tumor burden and size. "Overexpression of COX-2 is linked to several other premalignant conditions," he explained.

NCI is about to start a 12-year trial that will enroll some 32,400 men to investigate risk of prostate cancer. "It begins late this year, and will be the largest phase 3 trial ever undertaken," he said.

"The public is becoming very aware of cancer risk," he continued. "Web sites to evaluate your personal risk are proliferating (he showed a Harvard site entitled "What Is Your Risk?"), and the media are driving great interest in this subject (slides of Katie Couric, who lost her husband to colon cancer, on the cover of *Time* and *McCall's*, were shown). A new public hunger for screening is giving medicine a great challenge, he said.

He decried the rise of managed care, with its emphasis on cost-saving and impersonal doctor-patient relationships, as antithetical to a model proposed by the Institute of Medicine calling for "sustained partnerships" between patients and their physicians, particularly as data collection over time becomes more crucial.

Levin concluded his talk on an upbeat note for an audience composed, in part, of students aspiring to effective careers in cancer prevention: there are 14 cancer prevention academic programs, including his home institution, offering advanced training in this field.

During a brief question period preceding a reception for Levin, he returned to the devastation wrought by tobacco use in the U.S. "We don't seem to have the will to bring tobacco under control, despite the fact that it is the leading cause of cancer mortality, lung disease and heart disease. It would take a tremendous upheaval in the political and cultural process to turn things around—the forces are not yet powerful enough...There are no easy answers here." ■



Levin (l) accepts the first annual Advances in Cancer Prevention Lecture plaque from NCI director Dr. Richard Klausner.

'Ounce of Prevention'

ISSOs Provide Computer Security at NIH

What would you do if you accidentally opened an email containing a virus? Would you know who in your IC to contact for help that could save you a lot of time and trouble and prevent the spread of the virus to your friends and colleagues? That helpful IC contact person is your local information systems security officer (ISSO). Every IC at NIH has an ISSO; you can find yours by visiting <http://irm.cit.nih.gov/security/scroster.html>.

The ISSOs form a critical first line of defense against viruses and other computer security threats by identifying and implementing standardized electronic security policies and information at NIH. They collaborate across the ICs about the confidentiality, availability and integrity of NIH electronic information resources. They discuss and present solutions relating to IT security issues, they recommend corrective procedures and they offer expert advice to other NIH working groups who formulate information security guidance documents and policies. Furthermore, the ISSOs are the official points of contact when calling in the NIH incident response team (IRT)—the IRT gets involved whenever NIH has a major IT security problem.

The ISSOs quietly provide a valuable resource to the electronic security of the entire NIH community. Your IC's ISSO: Is knowledgeable about security policies and procedures; works with CIT on security issues and incidents; implements NIH security policies and systems security awareness programs; promotes awareness of IT security issues, among other duties.

Get to know your local ISSO before the next PC virus strikes. They may be able to provide you with that "ounce of prevention" before you need the "pound of cure." If you're interested in learning more about the ISSO working group, drop by one of its meetings, which are open to all staff, any 3rd Friday of the month. For more information, visit its web site at: <http://irm.cit.nih.gov/security/>.—Kevin Haney and Cheryl Seaman ■

Tae Kwon Do Beginner's Class

The NIH Tae Kwon Do Club is offering a beginner's class for adults and mature teens starting Monday, Sept. 11. The class will meet in the Malone Center (Bldg. 31C, B4 level, next to the NIH Fitness Center) for 1 hour on Mondays, 6-7 p.m., 1 hour on Wednesdays, 6-7 p.m., and 1 hour on Saturdays, 10:30-11:30 a.m., and continue for 2 or 3 months until participants can be integrated into the regular club training. Dues \$40 (3 months), \$30 uniform. Interested persons are welcome to watch regular training sessions. For information call Andrew Schwartz, 402-5197 or visit the club web site at <http://www.recgov.org/r&cw/nihtaekwondo.html>. ■

Strong Turnout for NIH IntraMall 2000

More than 2,000 people turned out for the NIH IntraMall tent show on July 12 in a parking lot outside the Clinical Center. BioSpace.com hosted the event, demonstrating the new and improved NIH IntraMall, the leading electronic catalog and ordering system on campus. The event was held to showcase new vendors, user features and the automated purchase card reconciliation module to be deployed later this summer.

"I was very impressed by the turnout and interest expressed by so many people," said Jim Marx of the Office of Procurement Management. MaryAnn Guerra, principal investigator of the IntraMall CRADA, noted, "The success of this event clearly shows the growing momentum for the IntraMall program under the guidance of our new partner, Biospace.com, and NIH leadership commitment." According to Susanne Schneider of BioSpace.com, "We expected about 1,000 people and were pleasantly surprised by the turnout. In addition to 800 lunches, we brought in another 90



BioSpace.com hosted the July 12 IntraMall tent show, which demonstrated the new and improved electronic catalog and ordering system.



More than 2,000 people attended the recent tent show.

pizzas and extra sandwiches and drinks to feed the overflow crowd."

About 30 vendors exhibited at the show, including VWR, Sigma-Aldrich, Life Technologies and Invitrogen. The BPA/IMPAC cardholder group also had a booth and signed up new cardholders. Exhibitors expressed satisfaction with the quantity and quality of attendees. One exhibitor from Greiner America observed, "I've been covering the NIH since the 1970's, and this was the best NIH show I've been to in terms of lead generation."

The IntraMall now features more than 1 million lab, computer and office supply products. To sign up for training or learn more about the program, call 888-NIH MALL or Jeff Weiner at 496-7058. ■

Help for New Moms

Returning to work after a having new baby can be difficult, especially for women who choose to breastfeed. In September 1998, NIH started a 2-year pilot program to help nursing mothers make this transition more easily. The NIH Lactation Program has been so successful that in October 2000 it will become a permanent Work and Family Life Center program. Services include: prenatal breastfeeding education classes at various campus locations, phone support while on maternity leave, advice during the first critical weeks, return-to-work consultation, and onsite lactation rooms in buildings 10, 31, 45, 49, Rockledge II, the Neuroscience Research Center, and in a temporary location in the EPN-EPS complex. For more information about the NIH Lactation Program, visit <http://lactation.od.nih.gov>.

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ties of the NIH—biomedical, behavioral, and social science—into context.”

Explaining in more detail why NIH needs and wants social science research, former OBSSR director Dr. Norman B. Anderson observed: “Understanding health from multiple levels of analysis, including the social/environmental, behavioral/psychological, organ systems, cellular and molecular—is absolutely necessary to accelerate advances in health. When I first came to direct the OBSSR 5 years ago, the leaders at NIH did not fully understand behavioral and social science research and how it related to the overall mission of NIH. The social sciences are central—not peripheral—to NIH’s mission, and hence, the historical significance of this conference...Our time has come.

“Although the ultimate goal is to ensure that NIH funds ample research at all levels of analysis, the purpose of this conference is to highlight research at the social and cultural level. This field is very complex and we must continue to have strong

discipline-specific research. However, some of us also need to become ‘translators,’ and develop cross-disciplinary models and theories that will yield a more comprehensive understanding of health outcomes,” Anderson said.

The first day of the conference focused on understanding social and cultural constructs and processes operating at multiple levels including the interpersonal, neighborhood and community. The second day addressed the social and cultural factors and processes in prevention and treatment, as well as health services, global health, and health justice and ethical issues. A report containing the research recommendations from the conference will be available for comment on the OBSSR web site in Fall 2000. The entire conference can be viewed via the Internet at <http://www1.od.nih.gov/obssr/events/conference.html> under the “Past Events” section. To obtain a copy of the conference program and research abstracts for each presentation, call Maria Smith at (301) 315-9000 ext. 511. ■

Shein Retires from NIGMS

Linda Shein recently retired from the National Institute of General Medical Sciences after more than 14 years of government service, all of which were spent at the institute. At the time of her retirement, she was lead secretary of the Division of Cell Biology and Biophysics.

“Linda combined outstanding organizational skills with a heart of gold to make her the core of the Division of Cell Biology and Biophysics. Her impact was felt by everyone, from members of the support staff to some of the world’s most distinguished scientists,” said Dr. James Cassatt, director of the division. “We will all miss her and wish her well in her new endeavors.”

Shein joined NIGMS in 1985 as a clerk-typist in the Biophysics and Physiological Sciences (BPS) Program Branch (now the Division of Cell Biology and Biophysics) after having spent 15 years at home raising her children and then 12 years substitute teaching. “As my children flew the coop for college, I realized I needed steady work, including some of the benefits that a permanent job would give me,” she said. “However, I couldn’t type, so my hardest task was in front of me.” She spent 7 weeks practicing her typing and finally passed the entrance typing test, which, at the time, was required to get a clerical job at NIH.



Linda Shein

After spending more than a year as a clerk-typist, Shein became a grants assistant to Dr. Marvin Cassman, NIGMS’ current director, who was then director of the BPS Program Branch. “The rest,” Shein said, “is history. When Dr. Cassman was appointed deputy director of the institute, I was inherited by the new branch director, Jim Cassatt.”

While at NIGMS, Shein served on numerous committees, including the Natcher Bldg. construction and renovation committees, the office procedures handbook committee, the training committee, the new employee orientation committee, and the holiday party and picnic planning committees. “You name it, I think I have done it,” she said.

Shein says she will miss the interactions with the people she has come to care for greatly. “The people here are a rare breed—truly wonderful to work with. It’s fascinating to watch how their minds work,” she said.

Shein, who says she’s ready to enjoy her family, travel, and “read anything my heart desires,” has decided to take what she considers to be the best part of her job with her—meeting planning. She is going to help coordinate meetings as an independent contractor. “It will be a welcome challenge, and I won’t feel like I’ve left completely.”—Danielle Wittenberg ■

Volunteers for Diabetic Study

The Cardiology Branch, NHLBI, is recruiting persons with non-insulin dependent diabetes for a 2-day outpatient study. Volunteers should be otherwise healthy. Participants will be paid. Call 496-8739 for more information. ■

NIDDK's Collins Retires from an Unplanned Life

By Anna Maria Gillis

"There's nothing in my life I would have done differently," says Dr. Regina Collins. "If I had planned more, I might have made more mistakes or taken a wrong road."

Collins, a Franciscan nun who has also been a nurse, teacher and scientist, recently retired from NIDDK's Metabolic Diseases Branch. She calls her NIH stint "a marvelous experience. I came on sabbatical and stayed 15 years." In 1985, at age 60, Collins was head of the biology department at Briar Cliff College, in Sioux City, Iowa. Her department instructed nursing students in two local hospitals, but when the hospitals cut enrollments, Collins feared she might have to lay off teachers with families. Instead, she took temporary leave, applying for work in the lab of Dr. Allen Spiegel, now NIDDK director. "I never thought I'd hear from the



New retiree Dr. Regina Collins (c) joins a few of her well wishers, including (from l) Gina Barnes, Dr. Allen Spiegel, Charles Woodard and Dr. Sunita Agarwal.

great NIH," Collins remembers. Spiegel's group works on G protein-mediated signal transduction, counting among its accomplishments the codiscovery of the gene for multiple endocrine

neoplasia, type 1 (MEN1). Collins went to work on tissue and cell culture, where she "so excelled that we hired her full-time," says Spiegel. Much of Collins' work centered on growing fibroblasts from biopsy material, nurturing neuronal and other fastidious cells and doing transfections. As the cell provider, she played a critical role in the success of experiments, says former colleague Dr. Paul Goldsmith, who admires her deft touch with finicky lines. "Tissue culture is a zero-fault business. You contaminate a culture and it's gone."

Her colleagues found her easygoing, but she abhorred sloppiness in conducting experiments. "It's not a standard every scientist lives up to," says Dr. Theresa Jones.

Collins' exactitude, learned from years in nursing, meant that her colleagues had to wait if she didn't think cells were up to snuff. "Why won't she give me those cells?" Dr. Sunita Agarwal says she sometimes wondered. "But she would not part with her cells until she knew they were perfect." She had

"a feeling for how to treat cells," adds Jones. "There's a lot of art to cell culture."

The lab benefited from Collins' dedication. When some cells arrived from a Texas collaborator just before Easter, she stayed at the bench to prepare them. "I spent most of Holy Week in the lab when I normally would have been in church," Collins laughs. "We were working on MEN1, and we were pushing to get an experiment started."

Collins learned her art at Jackson Labs in Maine and at the Crippled Children's Hospital in Phoenix, where she went after completing a master's at Notre Dame in Indiana. She had followed her Notre Dame mentor, Dr. Charles Wolf, to Arizona State University in Tempe, to do her Ph.D. in genetics. Working out of the hospital, Collins studied congenital disorders. "I traveled all over the Indian reservations, working with people with spina bifida, hip dysplasias and other problems," said Collins.

Collins loved the work, especially when she saw the successes doctors had when they got to children early. But then, she has liked all of her jobs, each of which she took to fill a need. "When I went into the (Franciscan) Order in 1946, I planned on teaching," she said. But when her order began building hospitals, "We needed nurses. I'm always game to try." From 1955 until 1963, Collins worked in pediatrics, surgery and the recovery room and directed nursing services at Xavier Hospital in Dubuque, Iowa.

She ended up at Briar Cliff because she could be both campus nurse and a teacher, said Collins, and then went for a doctorate when a credentialing body suggested that the college needed more Ph.D.s. on the faculty.

Summers took her farther afield as a nurse. "I've worked in Harlan County, the poorest area of Appalachia, where we had to climb into the hills to take care of people. I've also worked way down the Delmarva Peninsula with migrant workers. We'd run clinics until 2 or 3 in the morning so that everyone could be taken care of," says Collins, who can't recommend volunteering enough.

"Being a nun, I was able to do so much that I would not have been able to do if I'd had a family," she said. She did her work—whether it was taking a migrant worker's blood pressure or helping in the analysis of the MEN1 gene—because "nothing makes me happier than if I can help someone." In retirement, she expects to do the same at her order's Mother House in Dubuque. She says the sisters there would want her company on doctor's visits. "I can help them understand what the doctors are telling them. Plus, there's never a lack of opportunity for volunteering." ■



Marie Monsees was recently named director of the new Office of Planning, Evaluation and Communications at the Center for Information Technology. She originally joined NIH in 1993 as director of the Division of Information Resources Management Oversight and Clearance in the then newly formed Office of Information Resources Management, Office of the Director, NIH. In 1997, she became program manager of the NIH Information Technology Acquisition and Assessment Center, providing streamlined IT acquisition services to NIH and serving as a resource to a government-wide clientele. Under her direction, the NITAAC program was recognized for its innovation, service and contributions to procurement reform and was awarded, in 1999, Vice President Gore's Hammer Award.

African American Volunteers Needed

The Heart Disease Risk Factors in African Americans Study is investigating the relationship of obesity to heart disease risk factors in healthy, nondiabetic African American men and women ages 18-50 who are normal weight, overweight or obese. New participants are needed. Specifically, the study is looking at risk factors for triglyceride concentration and the triglyceride-related risk factors of unhealthy cholesterol, good cholesterol and body fat distribution. There will be a series of four outpatient visits to the Clinical Center. Participants will have body fat analyses, an electrocardiogram, blood tests including cholesterol profiles, an oral glucose tolerance test and an intravenous glucose tolerance test. If interested, call 402-7119 for more information. All subjects will be compensated for their participation.

NIAMS Grants Officer Nichols Retires

Elvis showed up. So did a singing institute deputy director and a chorus formed just for the occasion. In June, Sally Nichols, 55, chief of the NIAMS Grants Management Branch, retired to the strains of "I Can't Help Falling in Love With You," after more than 35 years of federal service.

Nichols began her federal career in 1962, 5 days after graduating from Wheaton High School, as a GS-3 clerk-stenographer at the Department of Labor. In 1964, she went to the Department of Commerce. She joined NIH in 1967, as a secretary in NIDR. By 1975, she was working in the former NIAMDD as secretary to institute director Dr. G. Donald Whedon.

The Bethesda chapter of the International Association of Administrative Professionals (IAAP) named Nichols "Secretary of the Year" in 1971. She chaired the NIH secretaries task force in the late 1970's, was a member of the NIH Toastmasters Club, and has maintained her affiliation with the IAAP to this day. In 1975, she earned the rating of certified professional secretary and began visiting other government agencies and area high schools as a spokesperson for IAAP.

The grants management community first welcomed Nichols when she became a grants management specialist in NIADDK in 1981; in 1987 she became one of the first grants managers at the newly formed NIAMS. She left NIH in 1988 to work at the University of Maryland, Baltimore, but after just 1 year returned to NIH as grants management officer of NINR. NIAMS named Nichols its chief GMO in 1995, and she held this position until her retirement. A point of pride for Nichols is that she progressed to the GS-15 level without a college degree.

At her retirement party, held at the Naval Officers Club in Bethesda, many of her former supervisors and colleagues, including former NIH deputy director Dr. Thomas Malone, joined current NIH staff in honoring her and wishing her well.

"She was the most competent person I have ever met, even in the private sector," said NIAMS director emeritus Dr. Lawrence E. Shulman. "Sally exemplified the opportunity for personal growth at NIH by the way she has escalated her career."

Whedon, who retired in 1982, traveled from Florida to attend the event. He said, "I hate to bow, but after meeting Sally, I was soon aware that I was dealing with a special, superior person."

NIAMS director Dr. Stephen Katz lauded "Nichols' deep professional commitment to NIAMS programs." NIAMS deputy director Dr. Steve



Sally Nichols

Hausman, who has known and worked with Nichols for nearly 25 years, rewrote the words to arias and folk songs and entertained Nichols and the crowd by singing them.

"I will miss my wonderful staff," said Nichols. "My husband retired in 1982 and has been wanting me to retire, too, for a long time. My daughter, Betsy Linn, now lives in Massachusetts. We have just moved to a new home, so there are lots of changes right now. I hope to do more work with the Tidewater chapter of the IAAP in the Easton community." Others are certain she will begin her third career and won't stay retired for long.—Janet Howard ■

Roederer Directs Flow Cytometry at VRC

Dr. Mario Roederer has been named director of the flow cytometry core laboratory at the Vaccine Research Center. He is an expert in using flow cytometry to identify lymphocyte subsets and determine their role in the pathogenesis of human disease. He has made important discoveries about the ability of different T cell subsets to support HIV infection, and has reported key differences in these cells that determine their role in the progression of HIV.

"Mario has made important contributions to understanding the pathogenesis of HIV infection through careful studies of lymphocyte subsets. His expertise in human immunology and flow cytometry will provide a sound foundation for understanding immune responses to vaccines in humans and animal models," said Dr. Gary Nabel, VRC director.

Roederer will also continue his research into the function of the human immune system during disease. His research will focus on four primary areas: isolation and functional characterization of T cell subsets, the role of these subsets in supporting HIV infection, molecular and cellular biology of antigen-specific immunity, and immune responses at mucosal surfaces. Information obtained from these studies will be essential for evaluating potential HIV treatment and prevention strategies, especially HIV vaccines.

Roederer received his Ph.D. in biological sciences from Carnegie Mellon University and conducted postdoctoral research in immunology at Stanford University. He comes to the VRC from the University of California, San Francisco, where he was an adjunct associate professor in the department of stomatology. ■



Dr. Mario Roederer



HRDD Training Tips

The Human Resource Development Division, OHRM, offers the following courses. For more information about these and other HRDD offerings, visit the web site at <http://trainingcenter.od.nih.gov/> or call 496-6211.

Administrative Skills

The Professional Office Manager II	9/12
Planning for Career Advancement for Support Staff	9/12

Administrative Systems

Fellowship Payment System	9/21, 22
Basic Time and Attendance Using ITAS	9/18

Communication Skills

Speaking on the Job Part 1: Improving Voice Quality	9/12
Speed Reading	9/13

Computer Application and Concepts

Introduction to Web Page Design - HTML	9/7
Adobe PageMaker Type Design	9/11
Advanced MS Access 97 (Office 97)	9/13
Introduction to Windows	9/13
Advanced FileMaker Pro	9/13
Advanced MS Excel 98 (Office 98)	9/14
Introduction to the Internet	9/14
Intermediate Internet	9/14

Human Resource Management

Basic Position Classification	9/18
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Management, Supervision & Professional Development

Advanced Supervision: Beyond the Basics	9/18
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CIT Computer Classes

All courses are on the NIH campus and are given without charge. For more information call 594-6248 or consult the training program's home page at <http://training.cit.nih.gov>.

WIG - World Wide Web Interest Group	9/12
Sequence Alignment & Modeling System, a Tutorial	9/12
Introduction to HTML	9/12
Fundamentals of Unix	9/12-14
NIH Enterprise Directory (NED): Administrative Officer and Technician Training	9/13

Scottish Dancing Season Starts

The Scottish Country Dance Society of Washington, D.C., announces the beginning of its fall season in September. Classes are held Monday nights in Bldg. T-39 on the NIH campus. Beginners are welcome; you do not need to be Scottish nor do you need to bring a partner. Scottish Country Dancing is a fun and challenging activity that combines Celtic music with interesting dance formations. For more information, contact Betty Lee Barnes, (202) 966-3595 or Blaine Peet, (301) 942-2831. ■

Barke Retires from NIGMS

Ina Barke recently retired from the National Institute of General Medical Sciences after more than 10 years of government service, all of which was spent at NIGMS. At the time of her retirement, Barke was a secretary in the Division of Extramural Activities.

Dr. Norka Ruiz Bravo, NIGMS associate director for extramural activities, described Barke as a "very able individual. She has the ability to stay on top of the details, and her abilities to think through, organize and coordinate multiple activities are outstanding," she said. "Best of all," she added, "Ina combines these qualities with a sharp sense of humor."

Barke joined NIGMS in 1989 as a secretary in the Office of the Director after rearing three children and working in various positions including selling supervisor at a women's clothing store, customer relations manager at a small novelty manufacturer and regional director of a nonprofit women's volunteer organization. "I wanted a position with less stress, and I wanted the security and benefits of the government," Barke said.

While at NIGMS, she helped create an online office procedures handbook and an advisory council web site. She served on several NIH committees to promote equality in the workplace, including the equal employment opportunity advisory committee and the advisory committee for employees with disabilities; she was one of the employees responsible for the installation of the automatic doors on Bldg. 31. In addition, Barke was the recipient of more than 20 special act or service awards.

"Ina has tremendous patience and a wealth of knowledge on how to get things done that will be greatly missed," said Dr. Michael Martin, former NIGMS associate director for extramural activities who worked with Barke for 7 years before transferring to the Center for Scientific Review in 1999. "She was a pleasure to work with."

Barke, who described her "main career" as "raising three wonderful children," said she enjoyed working with different people and personalities at NIH. "I will miss the many acquaintances I have made over the years," she said. Her plans for the future include being a grandmother, attending college, and traveling, possibly becoming an independent travel consultant. "My biggest plan for the future," she added, "is my upcoming marriage—the wedding date is to be announced!"—Danielle

Wittenberg ■

Healthy Married Men, Women Needed

The Pediatrics and Developmental Neuropsychiatry Branch, NIMH, seeks men ages 56-73 and women ages 51-59, to participate in an fMRI study on the visual processing of faces. Participants must be right-handed and currently married. Volunteers should have no history of medical or psychiatric disorders, and should not be taking prescription medications, with the exception of hormone replacement therapy (estrogen and/or progesterone), thyroid medication and/or medications for high blood pressure (diuretics or ACE inhibitors). Volunteers must have normal vision or wear contacts. Participation requires a 2-hour screening interview, a followup visit and a 3-hour visit for fMRI scan. Participants will be paid. For more information about this study, call Christen Deveney or Tara Harrison at 496-8381. ■



Ina Barke

ORMH Hosts Visits by More Than 200 Members of National Youth Groups

More than 200 young people from all over the country visited NIH's campus this summer under the auspices of the National African American Youth Initiative, the National Hispanic Youth Initiative



Mae Walton (r), program director of the National African American Youth Initiative (NAAAYI), joins several students for lunch in the Visitor Information Center.

and the National Native American Youth Initiative. The visits—which included guided lab tours, lunch and an address by an NIH researcher, administrator or science policy official—were organized by Dr. Lorrita Watson of NIH's Office of Research on Minority Health and Levon Parker of NINDS's

Summer Program in the Neurosciences, and Barbara James and Janita Coen, both of NHLBI. One of the initiatives' main goals is to enhance minority youth awareness of national health and scientific research, public policy, and the role and impact of the federal government in health policy development. Nearly all NIH institutes and centers contribute funds to make these programs possible. ORMH is the primary host while the students are on campus.



Young scholars from the National Native American Youth Initiative (NNAYI) gather for a photo at NIH.



Dora Castaneda (r) of the NIH Undergraduate Scholarship Program showed National Hispanic Youth Initiative (NHHYI) scholars around an NIH lab and introduced them to several research tools.



The NHHYI brought two groups of approximately 50 each to visit on July 24 and Aug. 7; they were sponsored by the Interamerican College of Physicians and Surgeons. Castaneda (third from r) gave a lab tour; Dr. Arlyn Garcia-Perez, assistant director of NIH's Office of Intramural Research, and Dr. Juan Rivera, NIAMS senior investigator, briefed the youngsters about NIH.



Above, NAAAYI members visited NIH on June 26. Paul Rochon (c) of the NIH Undergraduate Scholarship Program met with the students during lunch; Dr. Robert S. Balaban, NHLBI scientific director for laboratory research, gave a brief talk during the visit. At left, NAAAYI scholars visited an NIH lab on June 19; while on campus, they and their mentors participated in a panel discussion about the numerous career opportunities at NIH and in medical research in general.