Road Show, Red Dresses Warn Women
By Ann Taubenheim

The Heart Truth, NHLBI’s national awareness campaign for women about heart disease, recently launched two keynote activities for 2006—a Road Show and the Red Dress Collection Fashion Show. The road show started its tour in April and will travel to three communities to provide free heart disease risk factor screenings. In collaboration with the American College of Cardiology and the HHS Office on Women’s Health (OWH), the tour will stop in Pittsburgh, Memphis and Washington, D.C.

Only 13 percent of women consider heart disease to be their own greatest health risk. Yet, 80 percent of midlife women have one or more risk factors for heart disease such as high blood pressure or being overweight.

“We know that there is a disconnect among women as it relates to heart disease and their own personal risk,” said NHLBI director Dr. Elizabeth Nabel. “Therefore, it is critical for
Zerhouni To Speak on Medical Imaging

NIH director Dr. Elias Zerhouni will present the lecture “Medical Imaging: Innovation, Integration and Improvement,” on Monday, May 8 at the University of Washington's Seattle campus. The lecture will be webcast live on ResearchChannel (www.researchchannel.org) from 8 to 9:30 p.m. ET.

The lecture will be broadcast on television and webcast again at various hours May 28, June 1 and June 2. To see where the program will be televised and for additional broadcast times, visit www.researchchannel.org/wheretowatch. The lecture will also be added to the ResearchChannel online video library (www.researchchannel.org/medicalimaging) for on-demand viewing.

ResearchChannel is a nonprofit media and technology organization that connects a global audience with research and academic institutions.

NIH Philharmonia Orchestra Concert, May 13

The NIH Philharmonia Orchestra will present its fourth concert of the season on Saturday, May 13 at 7:30 p.m. at St. Elizabeth Catholic Church in Rockville. The all-Mozart concert is free, but donations are welcome. The church is located on 917 Montrose Rd. between Rockville Pike and I-270. The concert includes: Adagio and Fugue for Strings; Wind Serenade in E flat major; Piano Concerto no. 17. The orchestra is conducted by Dr. Nancia D’Alimonte, an Eastman graduate and musical director of the George Washington University Orchestra. Most members of the orchestra work at NIH. For more information, visit www.NIHPhil.org.

Fauci To Give Leiter Lecture, May 10

NIH director Dr. Anthony Fauci will give the 2006 Joseph Leiter Lecture on Wednesday, May 10 from 1:30 to 3 p.m. in Lister Hill Auditorium, Bldg. 38A. He will discuss “Pandemic Influenza and Other Emerging Infectious Diseases: Public Health Threat and Research Agenda.” A reception follows the talk.

Symposium on Health Communication, May 10

An NCI symposium titled, “Advancing the Science, Extending the Reach, and Improving the Effectiveness of Health Communication,” will be held at the Natcher Conference Center on Wednesday, May 10 from 3 to 5 p.m., followed from 5 to 6 p.m. by more than 20 state-of-the-science interactive demonstrations and exhibits.

Research from the Centers of Excellence in Cancer Communication Research will be presented by their principal investigators.

The goal of the symposium is to illustrate the novelty and scope of the research being conducted by the Centers of Excellence, as well as the potential of cancer communication science to improve health and reduce health disparities. All are welcome to attend. No registration is necessary. For more information contact Dr. Linda Harris at (301) 451-9477 or harrisl@mail.nih.gov.

Help for Your Older Relative

The Work and Family Life Center will hold a seminar titled, “Supporting Your Older Relative: Legal & Financial Considerations,” on Wednesday, May 24 from noon to 1:30 p.m. in Bldg. 50, Rm. 1227/1233. Has an aging parent or relative called upon you yet for help with decision-making about legal and financial issues? Being knowledgeable about such topics can be a tremendous help when that time comes, either for you or a relative. Attend this seminar to be better prepared to give effective support and learn about issues you may face in the future, e.g., how to pay for homecare and medical expenses, how to appeal a Medicare decision, commonly used legal vehicles and how and when to use legal tools.

NCI Offers Breast Cancer DVD/Video

NCI announces the availability of a new educational DVD/video, Moving Beyond Breast Cancer, to help women know what to expect as they finish breast cancer treatment.

Finishing treatment is a much-awaited milestone and most women are eager to put the cancer experience behind them and get back to normal. Yet the period of time just after treatment ends (called the re-entry phase) can be difficult. As the intensity of their treatment experience wanes, women are often caught in a gap between wanting to return to normal, feeling like a different person from the experience and not necessarily having the support to handle the emotions and reactions that may develop after treatment ends.

The 23-minute DVD/video features vignettes of women in different life stages who share their concerns and experiences about body changes, emotions, relationships and new perspectives. Dr. Susan Love, breast cancer surgeon, shares medical insight on common reactions women have after breast cancer treatment in each of these areas.

To obtain a copy, call the Cancer Information Service toll-free at 1-800-4-CANCER (1-800-422-6237) or visit www.cancer.gov.
Infectious disease expert Dr. Michael T. Osterholm will offer his views on influenza pandemic preparation during the first annual John R. LaMontagne Memorial Lecture, to be given Thursday, May 11 at 2 p.m. in Lipsett Amphitheater, Bldg. 10.

During his talk, "Pandemic Influenza: Lessons Learned and Revisited," Osterholm, who is director of the Center for Infectious Disease Research and Policy (CIDRAP) at the University of Minnesota, will examine current challenges in preparing for a potential flu pandemic and the truth about the avian flu threat.

"A pandemic will happen, absolutely. It’s like hurricanes. The big one might not happen this year, next year or even 5 years from now, but it will happen," he says. "What people need to understand is that nothing we do now to prepare will be wasted."

Despite what the media say, however, "we are not all going to die," he adds. "We can’t change the future in terms of when a pandemic will occur, but we can change our level of preparedness and how we prioritize." According to Osterholm, this includes building vaccine reserve capacity and spurring a commitment to develop a universal flu vaccine applicable to a variety of flu strains.

"In 1961, President Kennedy pledged that we go to the moon by the end of that decade, and scientists rose to the challenge," he noted. "We have to have that same level of commitment for the flu vaccine."

In addition to his leadership role in CIDRAP, Osterholm is also associate director of the Department of Homeland Security’s National Center for Food Protection and Defense and a professor in the University of Minnesota’s School of Public Health. From 2001 to 2005, he served as special advisor to then HHS Secretary Tommy Thompson on bioterrorism and public health preparedness issues. Last summer, HHS Secretary Michael Leavitt appointed Osterholm to the new National Science Advisory Board on Biosecurity.

An epidemiologist by training, Osterholm served for 24 years with the Minnesota department of health where he led numerous investigations into infectious disease in child-care settings, the transmission of hepatitis B and HIV infection in health care settings and food-borne illness outbreaks.

The author of more than 300 journal articles, he also wrote the New York Times bestseller Living Terrors: What America Needs to Know to Survive the Coming Bioterrorist Catastrophe. His recent papers on flu pandemic preparation have appeared in Foreign Affairs, the New England Journal of Medicine and Nature. Osterholm is a fellow of both the American College of Epidemiology and the Infectious Diseases Society of America.

The lecture honors Dr. John R. LaMontagne, former NIAID deputy director (1998-2004) whose leadership and accomplishments in fighting emerging and re-emerging infectious diseases earned him international recognition, numerous accolades and widespread admiration.

Asian and Pacific Islander American Heritage Month Observance

Everyone is invited to the 2006 NIH Asian/Pacific Islander American Heritage Month Program. The theme for the 34th anniversary observance is “Progress with Pride and Partnership.” The observance consists of two events, an Ethnic Food Fair and a cultural dance festival.

On Friday, May 19 from 11:30 a.m. to 1:30 p.m., on the Bldg. 31A patio, an Ethnic Food Fair will consist of local Asian restaurants showcasing their foods.

On Friday, May 26 from 5 to 6:30 p.m. in Masur Auditorium, Bldg. 10, the cultural program will feature Chinese, Indian, Korean and Indonesian dances and musical performances. NIAAA director Dr. Ting-Kai Li will present the keynote address. Immediately following the program, a reception will be held in the old Visitor Information Center exhibit gallery; guests can meet the performers and sample Asian foods.
ZOONOSES
CONTINUED FROM PAGE 1

by (among others) the folks in conservation medicine. Conservation medicine, an emerging specialty, integrates three different fields: animal health, human health and ecosystem health. It works to improve all three by using interdisciplinary teams of veterinarians, physicians, ecologists, public health and conservation professionals.

Conservation medicine has arisen in response to unprecedented levels of disease in many species—including humans—and it addresses the environmental causes of health problems.

In his Great Teachers Lecture “Zoonoses: Where the Wild Things Are” on Mar. 8, Dr. Arnold Weinberg, professor of medicine at Harvard Medical School, showed how zoonoses can be triggered and exacerbated by anthropogenic change—war, chemical pollution, global trade, wilderness encroachment and the warming of the earth’s oceans.

To illustrate how animals suffer disease within their own kingdom, Weinberg showed a Gary Larson (“The Far Side”) cartoon: A wolf pack is being exhorted by its leader, who’s scoped out a farmyard enclosure of pigs. “I say we do it!” says alpha wolf. “And trichinosis be damned!”

Trichinosis is a disease caused by eating undercooked pork containing parasitic worms.

“Animals have their own appetites,” Weinberg said. “We are part of a large family that is very diverse.” As in any family, the relationships are complex.

In evidence, he showed a slide of imported discarded tires. Mountains of them piled up in Houston. These lent the Asian tiger mosquito space to breed, hitchhike and eventually cause an outbreak of Eastern equine encephalitis.

The zoonotic scale is huge and its dissemination various. “Of 1,400 known pathogens,” Weinberg said, “around 800 originate in non-human sources, and 200 are competent enough to be involved in human disease.” Disease can spread on three levels—wild, domestic and human. In the wild, disease can loop from deer to tick and back. It can shift from wild to domestic—meadow mice to homes. And it can go from domestic to human, in the classic example of rabies transmission—dog bites man.

Distribution depends on several factors: arthropod vectors and reservoirs; animal and aquatic hosts; migration patterns; global trade; and climatic conditions such as global warming.

Weinberg explained: “Water temperature must be over 20 degrees Centigrade (>70 degrees Fahrenheit) for *Vibrio parahaemolyticus* to reproduce and get into bivalves,” he said. “Diseases that used to be found only in warmer waters are now found in the North Sea and the North Atlantic.” Cape Cod’s oysters are therefore no longer free from this family of bacteria, which causes gastrointestinal disease, skin infections and septicemia.

Other factors include human activities: importing untreated animal hides and skins; travel (especially of the adventurous sort); exotic pets; and bioterror. Mechanisms of transmission include contact, ingestion, inhalation, arthropod vectors (like tick bites) and animal bites.

Weinberg described how he once drank water from a clear-running brook “which had already been used by non-toilet-trained beavers.” *Giardia* (a nasty bug that hits the GI tract) left him reeling.

He explained how, in 1978, Florida raccoons imported to a West Virginia hunting camp caused a major rabies epidemic in raccoons up the east coast, extending to Ohio.

Drawing on his clinical and teaching experience at Massachusetts General Hospital, Weinberg presented several cases in the art of diagnosis. In one, a 55-year-old man discovered a dead rabbit in the road. Its body was still warm, and he brought it home for stew. “The wife served as a control in this case,” said Weinberg. “She said to her husband, ‘Are you crazy?’ and didn’t touch it. He got sick and she didn’t.” The man developed typhoidal tularemia.

Another case involved an epidemic in war-torn Kosovo; patients presented with fever, pharyngitis, cervical adenitis and suppurating nodes. “This is as an example of how the pathogen was probably on the wild-animal level,” he explained, “and rodent-contaminated food and water allowed it to enter the domestic plane; then human disease followed.” Once rodents were controlled, the epidemic disappeared.

Each case resonated with his theme: “Conservation medicine is an idea whose time has come, and none too soon,” he said. “Earth is the only planet—that we know of—that supports life. We should do everything in our power to preserve it. We want to keep people healthy, and also protect the diversity of all life.”

Harvard Medical School’s Dr. Arnold Weinberg showed how zoonoses can be triggered by anthropogenic change.
Cancer Survivor Excels at Winter Sport
By Marcia Doniger

Can you imagine the work involved in preparing for the 2006 Winter Games? Just ask Josh Sundquist, who spent many of his waking moments doing just that. “I spent all my money many times over, not to mention endless hours in the gym and on the slopes, drinking protein shakes and booking flights to obscure ski resorts, all the while figuring out how to be a student and an athlete at the same time.”

Sundquist, a senior at the College of William and Mary in Williamsburg, Va., saw his efforts pay off when he was selected as a member of an elite group of Olympians representing the United States. Like a number of other American athletes, he was on his way to Turin, Italy, to compete in the “granddaddy” of amateur sports as a member of the U.S. Paralympic Team.

This year, the IX Paralympic Games were held Mar. 10-19 in Turin, 2 weeks after the Winter Olympics. Sundquist competed in two Alpine skiing events for men—slalom and giant slalom.

Sundquist, who lives each day “going for the gold,” is not a newcomer to grueling tasks. He faced his most challenging life event on July 6, 1994, at age 9, when he was diagnosed with Ewing’s sarcoma, a rare form of bone cancer. Given a 50 percent chance to live, he underwent two rounds of chemotherapy and ultimately the loss of a leg. But instead of stopping him, the event seemed to set him in motion.

“Josh is one of the most courageous, hard-driving individuals I’ve ever met,” said Larry Chloupek, an NCI employee who also lost his leg to cancer at an early age. Chloupek, who overcame seemingly insurmountable odds in his battle for survival, credits a wonderful family who encouraged and propelled him academically and in athletics. Two special teachers were also instrumental in shaping his optimistic outlook and providing needed incentive. “They taught me never to give up,” Chloupek recalled. “Josh carries that same mentality.”

Sundquist spent summers as a camper and counselor at Camp Fantastic, an NIH-affiliated residential camp held every August for children with cancer. It was there he met Chloupek, who has directed the camp’s program for young adults since 1989. “[Josh] attended several of our ski weekends, which led to his passion for the sport,” said Dave Smith, executive director of Special Love, Inc., which runs the camp.

Both men possessing a passion for competitive sports, Sundquist and Chloupek formed a natural bond, “realizing that in spite of physical limitations,” as Chloupek said, success is individualized. “In the long run, it is measured not by what one accomplishes on the slopes, but in life itself.”

One of Sundquist’s most rewarding activities is speaking to middle and high school students. He was 12 when he gave his first motivational talk. “It’s all part of giving back,” noted the ski enthusiast, who fully appreciates being given a second chance at life.

Sundquist did not earn a medal in Turin during March, however, he believes that the Paralympics will inspire the next generation of athletes.

“Life is tough...life is beautiful,” he explains. “I’ve learned to live it to the fullest.”
**RED DRESSES**
CONTINUED FROM PAGE 1

**Right:**
Modeling one of the designer Red Dresses at Fashion Week in New York is singer Kelly Rowland of the now-disbanded group Destiny's Child.

NHLBI and our partners to be in communities that are at high risk of heart disease to help women better understand their own personal risk and empower them to take action for heart health.”

NIH’ers are encouraged to visit the Heart Truth Road Show at Union Station on May 12-14, which is Mother’s Day weekend and the kick-off of the OWH National Women’s Health Week. The exhibit will highlight the national symbol for women and heart disease awareness—the Red Dress. Accompanying the free screenings and educational materials will be a display of six designer dresses from the Red Dress Collection Fashion Shows, held each February in New York City at Olympus Fashion Week.

Visit www.hearttruth.gov for more information about the Road Show stop in Washington, D.C., including exhibit hours.

**Travel Contract Migrates to HHS**

The contract governing staff travel will transition from the NIH Travel Management Center into the HHS Master TMC effective May 15.

HHS has established a single TMC contract with Omega World Travel that is overseen by the Program Support Center. The HHS contract will continue to provide the NIH community with transportation and travel-related services, including airfare, train, bus, lodging and rental car services for federal travelers.

Marisa Sheelor will remain the primary point of contact for all NIH staff travel requirements. All travel-related complaints, compliments and inquiries should continue to be forwarded to her for processing with PSC.

The current methods for requesting travel reservations will remain in place. Staff travelers will still be able to submit a travel request form using the www.nihtravel.com web site.

Shortly after the May transition, NIH will deploy GetThere, a new self-serve, online travel booking system available for domestic travel reservations only. This tool will reduce the TMC service fees and allow travel planners and travelers the opportunity to view various costs for airlines, hotels and rental cars and book the reservations.

Effective May 15, all NIH staff travel will use the Centralized Call Center in Jacksonville, N.C. The following toll-free NIH number, fax number and email address will be available for travel reservations made with Omega World Travel: 800-419-2312; 866-657-0070; nihmd@owt.net.

Conference planning will not be available under the HHS Master TMC contract. All such services will be administered through the HHS Events Management Services Contract mechanism.

For more information about the HHS Master TMC contract, contact Sheelor at (301) 451-9299.
Drug addiction is a disease of the brain, according to Dr. Nora Volkow, director of the National Institute of Drug Abuse. Volkow delivered the fifth annual Spirit Lecture on Mar. 20 at NIEHS. The annual event honors “women sustaining the American spirit.” Volkow’s presentation aimed at changing the way people think about drug abuse, to ensure they understand that they are dealing with a medical disease, not a lack of will.

Chronic exposure to drugs creates changes in the brain that cause addiction, which, by definition, a person has no control over, she said. While vulnerability to drug addiction is partially genetically determined, exposure at certain stages—such as adolescence—is much more harmful than exposure at other stages. Drug abuse, Volkow said, is a developmental disease that often begins in adolescence, and sometimes in late childhood. In adolescents’ developing brains, the target areas for drugs of abuse are significantly larger than in adults, while the areas that inhibit emotion or suppress impulses are not fully developed in youngsters, she said.

It is important to recognize that the earlier someone begins taking drugs, the more severe the resulting addiction will likely be, she explained. Volkow also said environmental factors such as the availability of drugs, family support, poverty and crime all play a role in either protecting people from or putting them at risk for drug abuse.

She said animal studies have shown that if you stress an animal, it is more likely to take drugs. Therefore, Volkow noted, applying stressors is akin to stimulating drug abuse. A primate study conducted by Wake Forest University researchers showed that dominant animals within the social structure had more dopamine receptors, are less likely to experience stress and are less susceptible to drug addiction. By contrast, subordinate animals had fewer receptors and were more vulnerable to addiction. While human social structures are more complex—individuals can be dominant in some areas of their life while being subordinate in others—the social environment and related stress clearly emerge as important factors in addiction, Volkow said.

She said addressing the problem of addiction requires an approach that considers social factors, behavioral factors, neuronal circuits, protein expression and the genome. Only then can targeted interventions be created to protect people at greater risk for drug addiction, she noted.

A physician and psychiatrist, Volkow was appointed director of NIDA in 2003. She pioneered the use of brain imaging to investigate toxic effects of drugs.

Before joining NIDA, Volkow was a professor in the department of psychiatry and was associate dean of the medical school at the State University of New York, Stony Brook. She is a member of the National Academy of Sciences’ Institute of Medicine.
Dr. James Kinsella found that implanting stents coated with the chemotherapy drug significantly reduces re-clogging of arteries. The invention, which went on the U.S. market in 2004, has been a medical marvel for the more than half a million Americans each year who now can avoid heart bypass surgery by having the stent placed instead. It was also the top commercially successful intramural invention for fiscal year 2005, based on royalty income.

OTT has dozens of similar success stories about brainstorms-turned-breakthroughs by NIH inventors—ideas that may never have reached nearly as many people without going through the patenting/licensing process that OTT oversees.

“There are more than 200 products on the market that include NIH technologies,” says OTT deputy director Dr. Bonny Harbinger. “Employees should be extremely proud of what’s coming out of here.”

**Medical Research—Spreading the Results**

In addition to garnering millions of dollars in royalties—which are split between inventors and the institute or center where the invention was made active—there’s also another economic reason for NIH to shout its commercial success from the rooftops: NIH inventions boost the nation’s return on its investment in medical research. In an era of flat budgets, that’s news everyone wants to share. NIH director Dr. Elias Zerhouni made that case Apr. 6 to Congress at the House appropriations hearing. Showing the stent and a few other successful NIH inventions, he pointed out the broad health dividends the American public receives compared to the relatively small amount it spends per capita on medical research. Innovations that started with NIH ideas are a crucial part of the bottom line.

“NIH’s intramural inventions generated about $100 million in royalties last year, which is much larger than other science-oriented federal agencies such as NASA,” notes OTT director Dr. Mark Rohrbaugh. In fact, NIH’s OTT accounts for more than half of all royalties for all federal laboratories, due in part to the nature of the research conducted here. The world’s hunger for more effective, easier and faster therapies, medical procedures and methods to diagnose ailments only grows stronger every year. Also, much of NIH’s royalty income is generated by biological material licenses that are aimed more at research than clinical/medical use in patients, points out Laurie Arrants of the NINDS Office of Technology Transfer.

With an 80-person staff, including contractors, OTT currently manages more than 1,500 active licenses for NIH and the Food and Drug Administration. By law, inventions that emerge from NIH labs belong to the federal government. Successful commercial products that license and incorporate NIH discoveries bring in royalty income that the originating IC can pump back into its research program to pay tech transfer costs and continue work on other projects. The inventor as well can earn up to $150,000 per year in royalty payments.

So if patenting a concept is that beneficial to public health, the public’s balance sheet, the NIH research enterprise as well as its scientists, why are some researchers reluctant to enter the arena?

“Probably one of the strongest factors influencing the investigators is both in volume and length of time it can take to go through the initial paperwork and the review process of fil-
“Asking an inventor to participate in the patent and licensing process is very labor intensive,” agrees NHLBI Technology Transfer and Development Director Lili Portilla, who has been involved in tech transfer since 1989. She remembers when most TDCs did tech development only part-time, in addition to their regular jobs. “Now the process and the profession have become very sophisticated,” she says.

Still, old perceptions about the difficulty of the process may also cause would-be inventors moments of pause. OTT began handling technology in 1989 and the learning curve seemed steep.

“Navigating the realm of technology transfer takes time and effort away from science,” acknowledges Donald Bortner, NIA administrative officer and TDC. “It requires persistence in overcoming barriers to commercialization and tolerance working under a complex set of laws and rules. The early years of technology transfer presented challenges associated with less experience. Some scientists remain apprehensive about devoting too much time to commercializing discoveries at the expense of missed scientific opportunities and fewer publications. NIH’s experienced cadre of technology licensing transfer attorneys and specialists, coupled with better contract support with law firms, enhances the likelihood of success by providing more support for scientists.”

However, the process is not for every scientist, nor should it be, says Dr. Robert Balaban, chief of NHLBI’s Laboratory of Cardiac Energetics. His research group invented an imaging technique that is among the top 20 royalty generators for 2005. Success didn’t happen overnight, he says, and not without a lot of hard work.

“I believe the NIH process has improved greatly from when we did our original filing many years ago,” he recalls. “Frankly, our original experience was quite painful. Over the last several years the applications we have filed have been much easier and more streamlined. We have enjoyed working with some very skilled contract lawyers and advisors in putting together sensible packages. Some of this is likely due to our own experiences in this process.”

The NIH mission to get the benefits of medical research delivered to the public it serves is paramount, Balaban stresses, and a scientist should do a lot of soul-searching before beginning tech transfer procedures.

“The patent experience has really not changed my research agenda, nor do I believe it should,” he explains. “We completed what I thought we could contribute to the field more than 8 years ago and rather than ‘milk’ more applications for this technology, my lab has moved on to many other topics using the unique NIH resource. Though I believe the patent process is critical for the translation and commercialization of technology, as well as recouping some of the research costs, I do not believe that NIH research should be guided by the pursuit of intellectual property alone. When an opportunity arises where protecting an invention can enhance the public investment, this should be done and it is a very important aspect of the translation of basic research to clinical or practical application.”

OTT chief Rohrbaugh agrees completely. “We’re always working to find the right balance,” he concludes. “We try to find ways to stimulate tech transfer without inhibiting further research and development.”

NIH director Dr. Elias Zerhouni took a handful of homegrown inventions—including the stent (top, l) and the HIV-AIDS test kit (top, r)—with him to Capitol Hill to demonstrate the public’s return on its investment in NIH.

After Your ‘Eureka’ Moment

The first step to commercializing an invention is sharing your idea with your IC tech transfer component, Rohrbaugh said. Each IC has a tech transfer staff that initiates the process by working with the investigators to claim and report inventions. Technology development coordinators (TDCs) for each IC are listed online at the OTT web site. The IC’s tech development staff does an initial review of the idea before an employee invention report is passed along to OTT staff, who determine patentability and work with the inventor and the TDC to file for a patent. In essence, OTT and TDCs work together to help investigators protect the invention and otherwise navigate the paperwork. “It takes this teamwork of inventors, ICs and OTT to successfully begin commercialization with a strong patent strategy,” Arrants says.
If ever a career reflected all the potential in the life of an NIH scientist, it was Dr. Allen M. Spiegel’s. During 33 years of service, first as a fellow and clinical associate and finally as director of NIDDK, he never ceased being fascinated with the institution and its people, nor they with him.

"Aside from my family, NIH has been the most important thing in my life," Spiegel says. "I’ve had fantastic colleagues at every level, and I leave with mixed emotions, knowing I’ll miss close friends and colleagues at NIH."

He left in March to become dean-designate of Albert Einstein College of Medicine of Yeshiva University in New York, where he will pursue his interests in fostering translational research and in medical education.

NIH director Dr. Elias Zerhouni tapped Spiegel for critical trans-NIH initiatives during his tenure as NIDDK director, and he will be sorely missed, according to the NIH head. "Allen Spiegel does whatever he does with grace, insight and an analytical mind. He has the highest degree of intellectual rigor and integrity of anyone I’ve met," Zerhouni told the crowd of colleagues gathered for Spiegel’s recent farewell reception.

A replay of the events and mentors of Spiegel’s scientific life reveals circles overlapping circles. When he assumes the deanship at Einstein, he will be completing a circle begun in 1962, when, as a junior at Yeshiva University High School for Boys, he fell in love with research during an Einstein summer program funded by the National Science Foundation. A second circle of influence began when, as a student at Columbia, Spiegel was mentored at NYU’s medical school by researcher Mark Bitensky, who had just come to New York from an NIH lab.

"I was completely hooked on biochemical studies by then," Spiegel remembers. While a Harvard medical student, he published his first paper in 1969 in *Endocrinology*, on the efficacy of fragments of the hormone glucagon in stimulating formation of the second messenger cyclic AMP. The journal’s associate editor then was Dr. Gerald Aurbach, an NIH scientist known for his seminal work on the role of cyclic AMP in the mechanism of action of parathyroid hormone (PTH).

After finishing his internship and residency at Massachusetts General Hospital, Spiegel interviewed for 2 days at NIH. Aurbach, "one of NIH’s luminaries," says Spiegel, was a physician-investigator steeped in basic science who never lost sight of research’s relationship to clinical medicine. Aurbach’s Metabolic Diseases Branch (MDB) seemed a “perfect match” to Spiegel, and the basic research-clinical medicine alliance became a hallmark of Spiegel’s career.

By day, he saw patients suffering from excess or deficient hormones on 8 West in the Clinical Center. By night, he worked with cyclic AMP assays in the MDB. "It was extraordinary to be a fellow at NIH in those days," Spiegel recalls. "You were working with giants—it’s not a cliché at all—Gerry Aurbach, Phil Gorden, Marty Rodbell, Mort Lipsett, Jesse Roth."

"Allen was a total pleasure, so quick and bright. It was a mutual education to work with him," says Gorden, who preceded Spiegel as director of NIDDK. Spiegel came to NIH intending to leave in 2 years. "He was a super talented clinical associate," adds Gorden. "Fortunately, he decided to stay."

Spiegel’s investigative career showed no less talent. He followed Aurbach’s lead in parathyroid hormone studies and work done by Nobelist Martin Rodbell, who identified G proteins at the cell membrane level. G proteins are key molecules controlling transmission of information from outside to inside a cell. Increases or decreases in this signaling cause hormone overproduction or resistance.

Spiegel quickly became a leader in defining subtypes of G proteins and their role in pediatric diseases, says NIDDK colleague Bill Simonds. His first memory of Spiegel was seeing him poring over a tray of Western blots in Bldg. 36. Simonds notes that Spiegel cloned human Ga-alpha cDNA while collaborating with Nobelist Marshall Nirenberg. Fascinating stuff, but for Spiegel, bench discoveries always led to the bedside. "He had a real gift for bringing together clinical and basic science," says Simonds.
His penchant for encyclopedic knowledge and the ability to apply it creatively probably guaranteed that administrative duties would not diminish Spiegel’s role as scientific investigator. “Allen is a multi-dimensional person,” says Gorden. “He very quickly gained the respect of NIDDK intramural scientists and others at NIH.” Colleagues found him an accessible leader who had not only intellect but also a sense of fairness and honesty they appreciated.

In addition to functioning as scientific director, Spiegel remained chief of the Metabolic Diseases Branch from 1993, and helped create a trans-NIH collaboration that identified the tumor suppressor gene for multiple endocrine neoplasia, type 1 (MEN1). “He played a central role in mobilizing clinical researchers to gather tumors and patient DNA to go after the gene,” says Simonds. “He was like a general, marshaling forces.” Spiegel recalls this success as “very satisfying,” perhaps on more than one count. Marx says Spiegel saw MEN1 as a paradigm for excess secretion of PTH, harkening back to Aurbach’s protocols. It was icing on the cake that the NIH team beat out a European consortium to find the gene.

In 1999, Spiegel scored another kind of coup when he recruited Allen Kirk and Dave Harlan to study islet and kidney transplantation in NIDDK’s new Transplantation and Autoimmunity Branch. “I learned that one could accomplish as much or more by encouraging others as by being solely focused in the lab,” he remembers.

Later that year, NIH director Dr. Harold Varmus appointed Spiegel director of NIDDK, and his outlook shifted to the beta cell, and broadened to include NIDDK’s many constituencies, from children with type 1 diabetes to the country’s lawmakers. “It’s very poignant,” he says, “to field questions about diabetes from children as young as two and half. You see the optimism and realize we need to go further.” At the other end, he notes, is the chance to explain the importance of scientific research and its power to members of Congress, which many colleagues feel he has done brilliantly. “He’s among the very best,” says Dr. Richard Hodes, director of the National Institute on Aging, “not only on the scientific level, but in management. He has real vision, and it transcended NIDDK.”

Zerhouni apparently thought so, too. With obesity spiraling out of control in the U.S., he tapped Spiegel to co-chair the NIH task force on obesity in 2003. Spiegel, with NHLBI director Dr. Claude Lenfant, developed a strategic plan for NIH obesity research in a little over a year. Zerhouni further gave Spiegel a key role in helping develop one of the NIH Roadmap initiatives, and relied on his expertise as a member of the NIH stem cell task force.

Now Spiegel’s career circles back to Einstein and New York. “It’s an extraordinary opportunity to invigorate the medical school and its programs, and Einstein’s community, the Bronx, represents the whole spectrum of disease and health,” he adds.

Spiegel believes that 21st century research requires an interdisciplinary approach including the computational, the quantitative and rigorous basic science with an understanding of biological systems. “Translation of basic science to systems knowledge must be applied to human health, for individual patients, but also in populations. There’s a critical role for the NIH and other groups in this.”

Spiegel served NIDDK as director for the past 6 years. He becomes dean of Albert Einstein College of Medicine on June 1.
Blood Bank’s Carter Dies Suddenly

Charles S. “Charley” Carter Jr., 52, a 24-year veteran of the department of transfusion medicine in the Clinical Center, died of a heart attack Mar. 27 at home.

“Charley Carter was a big man by almost any measure, and he cast a giant shadow,” said DTM chief Dr. Harvey Klein. “He was a wizard in the laboratory where he had an uncanny ability to commune with cells in culture and to solve the most vexing laboratory instrument problem.”

Born in Olney, he attended Rockville High School and went on to earn a B.S. degree in microbiology at the University of Maryland. In 1978, he volunteered as a summer technician in the National Institute of Dental Research, which ignited an enduring interest in medical research. The following year he joined NIDR as an entry-level technician in the laboratory of Dr. J.J. Oppenheim. There he learned rigorous laboratory technique and a love of cell biology and clinical investigation.

In 1982, Carter joined DTM, where he later met his future wife, Laura, who was training as a specialist in medical technology.

“Charley was one of the original members of a small R&D team known as the Special Services Laboratory, which evolved over two decades into the cell processing section,” said Klein. “Charley helped to build this laboratory into a central resource for NIH intramural investigators and one of the world’s leading facilities for preparing novel biologics for clinical trials.”

In 1990, Carter was part of a team that prepared the first therapeutic gene-corrected cells that were used to treat a child with severe combined immune deficiency disease, a feat that landed his picture on the November 1991 cover of U.S. News and World Report. “Charley’s special genius lay in devising innovative methods for preparing novel cellular components suitable for clinical trials protocols, everything from engineered stem cell grafts to dendritic cells and pancreatic islet cells,” Klein recalled. “Most of these skills were self-taught, although he learned from and improved upon the work of numerous colleagues at NIH, in academia and in industry. They invariably became lifelong friends and debate opponents.”

Carter was a passionate fan of the Washington Redskins, the Baltimore Orioles and any University of Maryland athletic team; he died while watching the Maryland women’s basketball team compete in the NCAA tournament. He was also a volunteer coach and played on a number of local softball teams.

Carter authored or co-authored more than 75 original publications. He also trained and educated a generation of technologists, scientists and regulators in good laboratory practices. He received numerous performance awards as well as the Clinical Center Director’s Award and the NIH Director’s Award.

He is survived by his wife Laura, daughter Katelyn, brothers Earl and John, and his mother Marjorie.

Freshman NIH Scientist Is Profiled For BET

Dr. Tshaka Cunningham, a health disparities postdoctoral fellow working at NCI, will be profiled by Black Entertainment Television for an upcoming episode of its news show, The Chop Up. A Silver Spring native, Cunningham has been conducting research in Dr. Jay Berzofsky’s Vaccine Branch laboratory since February, when he returned from a 1-year immunology fellowship at the Pasteur Institute in France. The postdoc is no stranger to NIH or NCI. His grandmother, Alfreda DeGraff-Simmons, spent more than 30 years conducting small cell lung cancer research for an NCI study at Navy. Several other relatives have also made careers here. Cunningham, a graduate of Princeton and Rockefeller universities, did his Ph.D. work on two aspects of HIV infection—species-specific restriction factors and cellular import of the virus. He says his interest in medical science was inspired in part by his grandmother’s career, but also as a result of a couple of cancer deaths in his family. He hopes his interview with BET will “help other minority students look at research as a viable career and demystify the process.” A weekly 60 Minutes-style news magazine, The Chop Up dissects current issues and events in a conversational tone aimed at young people. Cunningham’s episode is scheduled to air sometime in May.
May 2006 Is Healthy Vision Month

Each May, the National Eye Institute sponsors Healthy Vision Month (HVM), a national eye health observance devoted to promoting the vision objectives in Healthy People 2010. This year, the month is dedicated to increasing awareness among employers and employees about the importance of workplace eye safety. Its theme is, “Eye Safety at Work Is Everyone’s Business.”

Each day, about 2,000 U.S. workers receive medical treatment for work-related eye injuries. Workplace eye injury is a leading cause of eye trauma, vision loss, disability and blindness and can interfere with a person’s ability to perform his or her job and carry out normal activities. The combination of removing or minimizing eye safety hazards and wearing proper eye safety protection can prevent many eye injuries.

This year’s HVM provides information and materials in both English and Spanish that can be used to implement programs and worksite awareness activities. These are designed to educate employers and employees about the importance of reducing eye injuries by understanding vision hazards and by wearing appropriate, properly fitted protective eyewear.

“Personal eye protection such as safety glasses with side shields, goggles, face shields, welding helmets and full-face respirators can protect workers from common hazards,” said NEI director Dr. Paul Sieving. Common workplace hazards include flying fragments, large chips, hot sparks, optical radiation, splashes from molten metals, objects, particles and glare. “The risk of eye injury and the need for preventive measures depend on the job and the conditions in the workplace,” Sieving explained.

Also sponsoring the observance are the National Institute for Occupational Safety and Health and the National Safety Council, in collaboration with the American Association of Occupational Health Nurses, Inc. For more information visit www.healthyvision2010.org/hvm.

ORF Adds More Eco-Friendly Pest Control to NIH

The Office of Research Facilities continues to add wildlife to the campus. Ed Pfister (top), environmental compliance officer, ORF Division of Environmental Protection, releases masses of wood frog and spotted salamander eggs into a shallow stormwater holding pond off Wilson Drive at East Drive along the newly restored campus creek. Lynn Mueller (bottom), chief of grounds maintenance and landscaping, ORF Division of Property Management, releases 17 adult American toads along with their eggs into the pond. These amphibians, long absent from the NIH landscape, will add to the diversity of campus wildlife. The amphibians and their future offspring will control insect pests attracted to the pond, eliminating the need for chemical intervention.
### NIAID Seminar on Cluster Computing

A course on “Cluster Computing for Bioinformatics: How to use simple web entry forms on the NIAID Bioinformatics Portal for protein modeling and phylogenetic analysis” will be offered Tuesday, May 9 from 10 to 11:30 a.m. in Bldg. 50, Rm. 6334.

The seminar will introduce scientists to the NIAID Bioinformatics Portal; a set of simple entry forms for the most popular bioinformatics applications. Cluster manager Jai-wei Gan will start the seminar with an introduction followed by live demonstrations. Protein modeling specialist Dr. Darrell Hurt will conduct the hands-on exercise. For more information and to register, email shahsheetal@mail.nih.gov.

### Parenting Festival Set, May 10

The fourth annual NIH Parenting Festival will be held Wednesday, May 10 from 11 a.m. to 2 p.m. in the first floor conference area of Bldg. 50. As in past years, there will be representatives from many institutes who will share information about NIH science having to do with children and families. NIH support services for health, travel, finance, benefits and work life will also participate. There will be activities, prizes and free resources for all employees. The event is sponsored by the NIH Child Care Board, the NIH Work/Life Center and the ORS Division of Employee Services. For more information call (301) 402-8180 or email savaresm@mail.nih.gov.

### Symposium on Genomics of Critical Illness, Injury

The fourth symposium on the “Functional Genomics of Critical Illness and Injury—Surviving Stress: From Organ Systems to Molecules,” will be held Nov. 13-14 at the Natcher conference center, sponsored by NIGMS and the Clinical Center’s critical care medicine department. There will be five scientific sessions. Abstracts are due by Sept. 8. For more information and to register, visit www.strategicresults.com/fg4.

### CIT Computer Classes

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<tr>
<td>Excel Advanced Topics - PivotTables</td>
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<tr>
<td>Introduction to Descriptive &amp; Inferential Statistics</td>
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<td>Identity Theft: What You Need to Know</td>
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<td>New Features of VirusScan 8.0</td>
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<td>Sciware - On Demand Scientific Applications for Windows, Mac, UNIX and Linux Systems</td>
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<td>Introduction to Flash MX 2004</td>
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<td>NCBI’s Identification and Correlation of Disease Genes to Phenotypes</td>
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<td>Microsoft’s New Development Tool - Visual Studio 2005</td>
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<td>MATLAB Fundamentals and Programming Techniques</td>
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<td>Security Auditor’s Research Assistant (SARA) Basics</td>
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### NIH Training Center Classes

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

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<tr>
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<td>Scientific and Technical Writing</td>
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<td>Federal Supply Schedules</td>
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<td>Consolidated Purchasing Through Contracts</td>
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<td>Buying from Business on the Open Market</td>
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<td>Writing &amp; Managing Executive Correspondence at NIH</td>
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<td>Travel for Administrative Officers/Approving Officials</td>
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<td>Financial Management for NIH Employees</td>
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### NIEHS’s Stokes Honored By Toxicology Society

Public Health Service Capt. William Stokes, director of the Interagency Center for the Evaluation of Alternative Toxicological Methods, was honored at the 2006 annual Society of Toxicology meeting Mar. 5-9 in San Diego. He received the Enhancement of Animal Welfare Award for his contributions to the “marked reduction in the use of experimental animals for research.” Stokes, PHS chief veterinarian, heads an interagency coordinating committee based at NIEHS that looks at ways to reduce the number of animals used in research.
Healthy Volunteers Needed

Eye doctors at NIH are conducting a study on the lens of the eye using a new device co-developed with NASA (study 06-EI-0117). Healthy volunteers age 21 or younger are invited for an eye exam. Compensation is provided. Call Cheryl Perry at (301) 435-1833 or Dr. Manuel Datiles at (301) 594-7052.

Asthma Study Recruits

An asthma study at NIH is recruiting children ages 5 to 17. The study will determine the usefulness of a new procedure for evaluating asthma in children. All study-related tests will be provided at no cost. Compensation is provided. Call 1-866-444-2214 (TTY 1-866-411-1010). Refer to study 04-I-0126.

Study Needs Volunteers

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

Healthy Adults Sought

NIH invites healthy volunteers to participate in a clinical study on mood and anxiety disorders. Healthy adults between ages 20-50 are asked to call 1-866-444-2214 or TTY 1-866-411-1010. All study-related tests or medicines are provided at no cost. Participants will be compensated. Refer to study 04-M-0270.

Are You a Woman Who Has BeenDepressed?

NIMH is looking for female volunteers to participate in a study that examines the role of hormones in depression. Participants should have experienced depression in the past but not be currently depressed, be between ages 18-45, be medically healthy and not be taking any medications, including birth control pills. Study includes thorough evaluations and compensation. For more information call Linda Simpson-St. Clair, (301) 496-9576 (TTY 1-866-411-1010).

Diabetes and Kidney Disease?

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

Can Chocolate Help Your Health?

The National Center for Complementary and Alternative Medicine seeks volunteers to participate in a 6-week study evaluating the effect of dark chocolate on blood pressure and the blood's glucose and insulin levels. Participants will help researchers learn more about chocolate's impact on hypertension and diabetes. Participants will be asked to take dark chocolate and a placebo (inactive treatment). To participate, you must be: persons with hypertension (high blood pressure) who can be safely taken off anti-hypertensive medications; age 60 to 65; not taking other medications or nutritional supplements for any illnesses besides hypertension. Compensation and dark chocolate will be provided. For more information, call (301) 496-3244.

SIDS Prevention, Public Trust Get Boost In Cincinnati

NICHD joined with the Sudden Infant Death Network of Ohio and the Ohio department of health in Cincinnati recently to sponsor the first annual “SIDS Risk Reduction Sunday.” Pastors throughout the state informed their congregants about how they can reduce sudden infant death syndrome risk by placing infants on their backs to sleep, placing infants to sleep on a firm mattress and keeping all soft toys and loose bedding out of the sleep area. NICHD deputy director Dr. Yvonne Maddox (r), who also cochairs NIH’s Public Trust Initiative, spoke at area events promoting SIDS Sunday activities. She emphasized the importance of people participating in clinical studies as full partners in the medical research enterprise. In addition, she noted, NIH is committed to developing more collaborations with community organizations and other groups who can help build trust in medical research, particularly among underrepresented populations. With Maddox are (from l) Barbara Lattur, executive director, Sudden Infant Death Network of Ohio; Congresswoman Jean Schmidt (R-OH); Stacy Scott, Sudden Infant Death Network of Ohio; and Rhonda Haynes, documentary filmmaker and director of Bringin’ in Da Spirit, an inspirational documentary about the history of African-American nurse-midwives. The film premiered at the National Underground Railroad Freedom Center in Cincinnati.
R&W Treats Kids, Families To Circus for Ninth Year

For the 9th year, the NIH Recreation and Welfare Association provided Premier Night for a select audience at the Ringling Bros. & Barnum and Bailey Circus at the Verizon Center downtown. “This year’s outreach program with R&W, Feld Entertainment, Washington Sports Entertainment and Easter Seals was a success,” said Randy Schools, president of R&W. “This year we had over 10,000 attend, and with this program we have been able to give away, in the 9 years of programming, over 50,000 tickets. Not only was NIH our guest, but we were also able to treat Bethesda Cares, Camp Fantastic, the National Home for Children and Families, Easter Seals, area Boys and Girls Clubs, St. Ann’s Home, the Police Pal program and Children’s Hospital. It was a great event.” In photo at top, Ringmaster Tyron McFarlan kibitzes with (from l) Emgherber Hernandez Linzares, Sobeida Manzanero and her son Danny. In the middle at left is clown Nari (Nari Tomassetti); at middle right is clown Jessi Wonderfool (Jessica Hoffschilt). Below, clown Granpa (Alan Ware) entertains a guest.

PHOTOS: ERNIE BRANSON