

Still The Second Best Thing About Payday

'Working Draft' of Human Genome Announced at White House

On June 26, the Human Genome Project public consortium, led by Dr. Francis Collins, director of the National Human Genome Research Institute, marked its place in history and announced that it had achieved a "working draft" of the DNA sequence of the human genome—the genetic blueprint for a human being.

Already, many tens of thousands of genes have been identified from the genome sequence. The sequence information has been continuously, immediately and freely released to the world on GenBank (<http://www.ncbi.nlm.nih.gov/genome/seq/>), maintained by the National Center for Biotechnology Information of the National Library of Medicine. There are no restrictions on its use or redistribution.

SEE **GENOME**, PAGE 2

NIMH Establishes Outreach, Education Program

By Lynn Cave

NIMH director Dr. Steven Hyman recently challenged participants at the first meeting of the new NIMH Constituency Outreach and Education Program to work with the institute to "build a world in which people with mental illness get the right interventions and the right treatment."

Clinical and basic research have led to effective treatments for mental disorders, but these advances are not being sufficiently translated into practice—leaving many people without adequate treatment, Hyman told nearly 100 representatives of state-based mental health organizations and national associations. "We cannot have healthy children able to learn in school and we cannot have a healthy work force unless the widest number of Americans has

SEE **OUTREACH**, PAGE 8

HIGHLIGHTS

1
Work Begins on Child Care Center

Genome Draft Announced

2
NIH Web Site Is Tops

3
Insights Into Aging Offered

5
MARC Program Welcomes Summer Students

12
Extraordinary Communicator Honored



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

August 8, 2000
Vol. LII, No. 16

Ground Broken for Child Care Center

Wearing plastic hardhats and gripping mini-shovels, nine preschoolers from the NIH day care facility in Bldg. 35 helped a similar number of adults break ground recently on the new East Child Care Center, which is being built just east of the Natcher Bldg., near Rockville Pike. Scheduled for completion in April 2001, the 21,000-square-foot center will house some 100 children—about 80 in a pre-kindergarten program, and 20 in kindergarten. The facility will provide a new home for the Parents of Preschoolers, Inc., program in Bldg. 35 for kids ages 2½ to 5½, which will eventually close due to renovation in that building.

"This new home will provide our children with a new, modern, state-of-the-art facility in which to learn and grow," said Dr. Deborah Henken, a program officer at NICHD who represents the NIH day care board; she was leadoff speaker at a brief ceremony. "We are excited to see the construction of this new home get under way."

SEE **GROUNDBREAKING**, PAGE 4



Preschooler Brian Huang takes seriously his groundbreaking duties.

NIH To Study How Genes Affect Response to Medicines

By Alison Davis

Did you know that according to a recent study, 2 million people were hospitalized in one year alone for reactions to properly prescribed medicines? That certain allergy medicines work wonders for some people but not for others? That a normally safe dose of a certain cancer drug can kill a child who has an unusual gene type?

NIH is trying to figure out why people can have such different responses to medicines.

Clearly, what you eat, where you live and work, and what other medications you take can all affect whether you react to—and even what side effects you may experience from—a given drug. But scientists know that another key factor is genetics. Pharmacogenetics is the science of how genes influence your body's response to drugs.

Recently, the National Institute of General Medical Sciences,

SEE **RESPONSE**, PAGE 6

GENOME, CONTINUED FROM PAGE 1

The HGP announcement was launched with a historic White House event involving President Bill Clinton and, via videolink, British Prime Minister Tony Blair. President Clinton congratulated Collins and Dr. Craig Venter of Celera, a private-sector genome company, for their efforts that will "lead to a new era of molecular medicine, an era that will bring new ways to prevent, diagnose, treat and cure disease." The President pledged to continue and accelerate the United States' commitment to helping



On hand at a press conference that followed the White House genome announcement are (from l) Dr. Craig Venter, Celera; Dr. Ari Patrinos, U.S. Department of Energy, and Dr. Francis Collins, director, NHGRI. DOE and NIH are the two federal agencies involved in the Human Genome Project.

translate this blueprint into novel healthcare strategies and therapies, and said that "it is now conceivable that our children's children will know the term cancer only as a constellation of stars."

This major milestone involved two tasks: placing large fragments of DNA in the proper order to cover all of the human chromosomes, and determining the DNA sequence of these fragments. The assembly reported overlapping fragments covering 97 percent of the human genome, of which sequence had already been assembled for approximately 85 percent of the genome.

By the time of the White House announcement, the 16 institutions in the consortium had produced far more sequence data than expected (over 22.1 billion bases of raw sequence data, comprising overlapping fragments totaling 3.9 billion bases and providing 7-fold sequence coverage of the human genome). Production of genome sequence skyrocketed over the past year, with more than 60 percent of the sequence produced in the past 6 months alone. During this time, the consortium has been producing 1,000 bases a second of raw sequence—7 days a week, 24 hours a day. **R**

Male Volunteers Needed

The Behavioral Endocrinology Branch, NIMH, is seeking male volunteers ages 18-45 to participate in a 5-month study of the effects of reproductive hormones on brain and behavior. Volunteers must be free of medical illnesses and not taking any medication on a regular basis. They will complete daily rating forms and be asked to participate in one of several protocols. Payment will be in accordance with the duration of each visit and the type of protocol. For more information, call Linda Simpson-St. Clair, 496-9576. **R**

NIH Web Site Tops List

The NIH home page on the World Wide Web has "the largest unique audience" among government sites according to data compiled by Nielsen/NetRatings and reported in ZDNet, a web magazine devoted to technology issues. The ratings were based on more than 57,000 U.S. home Internet users for June 2000. Ranking just behind NIH were the National Oceanic and Atmospheric Administration, the state of California, the U.S. Postal Service and NASA.

According to ZDNet (www.zdnet.com), a product of Ziff Davis Media Publications, 23 percent of visitors to NOAA's web site are in search of weather reports; 20 percent of those who visit the NIH site conducted a search in the National Library of Medicine files.

Occupying the top rung of web popularity can be a function of when the survey is conducted; ZDNet notes that the Internal Revenue Service web site reached a peak of 2.8 million home U.S. visitors in February (more than double NIH's rating for June), then dropped off to 340,000 in May, after tax deadlines had passed. **R**

Meeting on Urologic Oncology Planned

The first meeting to discuss current topics and strategies in urologic oncology, jointly sponsored by the National Cancer Institute's Urologic Oncology Program and the Society of Urologic Oncology, will be held Dec. 2-3 in the Natcher Conference Center. Register online at <http://www.palladianpartners.com/urologiconcology>, or contact Anita Allen, Palladian Partners, Inc., (301) 650-8660, ext. 121. **R**

NIH RECORD

Published biweekly at Bethesda, Md., by the Editorial Operations Branch, Division of Public Information, for the information of employees of the National Institutes of Health, Department of Health and Human Services. The content is reprintable without permission. Pictures may be available on request. Use of funds for printing this periodical has been approved by the director of the Office of Management and Budget through Sept. 30, 2000.

NIH Record Office
Bldg. 31, Rm. 2B03

Phone 496-2125
Fax 402-1485

Web address
<http://www.nih.gov/news/NIH-Record/archives.htm>

Editor
Richard McManus
rm26q@nih.gov

Assistant Editor
Carla Garnett
cg9s@nih.gov

The NIH Record reserves the right to make corrections, changes, or deletions in submitted copy in conformity with the policies of the paper and HHS.

 The Record is recyclable as office white paper.

Microarrays Offer Insight Into Aging, Extended Life Span

By Doug Dollemore

Gene expression microarray technology, a potent tool that is helping clarify what changes occur in cells as they get older, is deepening scientific understanding of how caloric restriction may regulate the aging process in animals, according to Dr. Richard Weindruch, a former National Institute on Aging staff member who delivered the 11th annual Nathan Shock Memorial Lecture in Baltimore recently.

Understanding the cellular and molecular basis of how dietary restriction retards aging in animals may eventually benefit humans, Weindruch said. Scientists may one day develop drugs that safely suppress human appetite over the long term or mimic the beneficial influences of caloric restriction on the body's tissues. These approaches could enable people to continue eating familiar dietary fare, while still reaping the healthful effects of limiting their food consumption.

"We now have, using the microarray approach, an exciting panel of transcriptional markers of the aging process, which will allow us to determine the biological age of tissues. I think this will allow us to see whether an intervention into the aging process has efficacy on a tissue-specific basis," Weindruch told the audience in the Allergy and Asthma Center Auditorium at the Johns Hopkins Bayview Medical Center.

Microarrays, also known as "gene chips," allow researchers to survey the expression of thousands of genes at once, providing an intimate look at the ebb and flow of genetic activity with age. The chips are actually small glass plates containing DNA that has been exposed to messenger RNA (mRNA), a nucleic acid that translates information contained in DNA into proteins. The amount of mRNA that binds to each DNA probe on the chip is an indicator of the activity level of a particular gene.

In his lecture, "Caloric Intake, Oxidative Stress, and Aging," Weindruch, a professor of medicine at the University of Wisconsin at Madison, briefly outlined the history of caloric restriction research, the only intervention that has been shown to increase the maximum lifespan in rodents. He then plunged into his latest work utilizing microarrays.

In these experiments, he and his collaborator Dr. Tomas Prolla profiled the action of 6,347 genes from the gastrocnemius muscles, cerebral cortices and cerebellums of mice that had been on calorie-restricted diets. These mice were allowed to consume a nutrient-dense diet that provided healthful amounts of protein, fat and vitamins and minerals, yet contained about 30 percent fewer calories per week than the diet given to other mice, known as controls, involved in the experiment.

Compared to the control animals, the mRNA extracted from the calorie-restricted mice exhibited numerous differences in activity that might affect critical biological tasks such as cellular response to biologic stress, DNA repair, protein degradation and energy production in brain cells. These observations, published in the Aug. 27, 1999, issue of *Science* (muscle data) and the July 2000 issue of *Nature Genetics* (brain data), support the hypothesis that caloric restriction extends survival and vitality in part by limiting injury of cells by free radicals generated by mitochondria, Weindruch said. Many investigators, including Weindruch, suspect that caloric restriction slows aging by keeping free radical production in check.

"It appears that caloric restriction is changing several aspects of energy metabolism in ways that are not fully understood," he said, "but (by) using gene microarrays we have gotten insight into some of those changes."

Weindruch, who was a health scientist administrator at NIA from 1987 to 1990, has devoted his career to the study of caloric restriction and its effects on the body.

"[Weindruch] has published a number of high visibility papers during his career, particularly in the past year, that have highlighted gerontology in general," said Dr. Donald Ingram, chief of the behavioral neuroscience section in NIA's Laboratory of Neurosciences. "These articles have been done with such clarity and such stimulation of thought that he has really raised the public's awareness of gerontology, and also challenged those of us involved in the study of aging."

Prior to Weindruch's lecture, Drs. Karen McCullough and Craig Caldwell, both of NIA's Laboratory of Biological Chemistry, received Nathan Shock Trainee awards. McCullough was recognized for her talk, "GADD153 sensitizes cells to ER stress by down-regulating bc12 and perturbing the cellular redox state." Caldwell was recognized for his poster, "SAGE analysis of the influence of VHL on gene expression." Each received a \$500 travel award and a plaque. The research competition, held yearly, is sponsored by the Nathan W. and Margaret T. Shock Aging Research Foundation. Dr. Nathan W. Shock, who died in 1989, was the first NIA scientific director and is considered by some to be the father of gerontology. ■



Dr. Richard Weindruch (r) delivered the 11th annual Nathan Shock Memorial Lecture. He is joined here by Dr. George Roth, a senior guest scientist at NIA.

GROUNDBREAKING, CONTINUED FROM PAGE 1

"This is going to be a fantastic project," enthused Tony Clifford, director of the Division of Engineering Services, Office of Research Services. He said the wooded site was particularly well-suited to the needs of the center, which will boast a large outdoor playground. "This will provide an outstanding environment for kids to learn and grow."

Henken had stressed that "employer-sponsored day care is critical to organizations that wish to attract and maintain a high-quality workforce," and said parents' productivity and performance were enhanced by such facilities. Agreeing with her was Steve Ficca, NIH associate director for research services: "Debbie's comments are right on the mark. This marks the beginning of more growth in providing a quality work environment for NIH employees." He said funds have been set aside in NIH's next budget for the design of yet another on-campus child care center, acknowledging that there is "a desperate, compelling need to do this. It's a very important compo-

nent of recruiting top-quality staff, and we're very happy to have gotten this far."

Ficca divulged that the money for building the East Child Care Center has been available since 1998. "Finally, we have broken the inertia and have gained some momentum," he said. "We provide the facilities, but the day care operation is independent—they run the show, and they do a marvelous job."

Henken said the day care board "is very pleased that the need for increased child care spaces is being recognized and is being incorporated into [NIH's] master plan. This groundbreaking today is evidence of how far we've come. We at the NIH should take the lead in setting the example of what child care can and should be."

The new center, designed by architects at McKissack and McKissack and to be built by general contractor Gilford Corp., will go up under the guidance of Dexroy Chisim, architect and project officer in DES' Design, Construction and Alteration Branch. He is also project officer for the new NIH Fire Station, which starts in late fall. Drawings of the child care center show a circular central area, out of which two triangular arms extend, like pie slices. The structure will include four classrooms, administrative space, handicap accessible space, parent and teacher conference areas, kitchen, laundry and utility spaces.

Chisim said construction has already begun, unseen, in neighboring Bldg. 45, whose electrical resources will tie in with the new Child Care Center; safety fencing has also been erected around the site. The fencing has taken away some 180 parking spaces, and rerouted sidewalks and pedestrian pathways east of Natcher. Upon completion of the center, 20 short-term parking spaces will be available for parents to drop off and pick up children. Some additional employee spaces will be temporarily restored, although eventually the area is planned to be landscaped to provide outdoor play space and a garden for the children.—Rich McManus ■



Dr. Deborah Henken, NICHD program officer and NIH day care board representative, speaks at the ceremony.



Adults at the ceremony included (standing, from l) Tony Itteilag, NIH deputy director for management; Sula Katopis, a teacher at the Bldg. 35 day care center; Steve Ficca, NIH associate director for research services; Dr. Deborah Henken, representing the NIH day care board; and Dexroy Chisim, project officer for the East Child Care Center. In the front row are (from l) Dana Bowman, Titas Bera, Brian Huang and Aiman Abdelmouti.

NIH Communicators Lauded by NAGC

The National Association of Government Communicators recognized the quality of several NIH media products at its annual awards program, held recently in Alexandria, Va. The NAGC's national competition has two main categories: Gold Screen Awards, which honor video and audio productions, and Blue Pencil Awards, which reward fine writing.

In the former category, NICHD's "When Stars Read," won first place in the Public Service Program class. Also placing first in the Public Service Announcement/Radio class was "Is Your Memory Playing Tricks on You?," a production of NIA.

In the Blue Pencil segment of the competition, NIMH had a second-place winner in the Conference Materials category with "Science on Our Minds," a set of more than 20 1-page briefing papers on key mental health issues, mental disorders and their treatment, and advances in brain research. NIMH won first place in the Home Page competition for its web site, which garners some 6.5 million hits per month. And completing the trifecta, NIMH earned an honorable mention in the CD-ROM category for its 6-minute computer-animated video, *The Brain's Inner Workings*. Narrated by Leonard Nimoy, this video takes university students to brain functions at the microscopic level.

Winning an honorable mention in the Promotional Campaigns category was "Wise Ears," an effort by NIDCD to combat noise-induced hearing loss.

The NAGC competition draws hundreds of entries each year from communication professionals. ■

NIH Welcomes Summer Undergraduate Students

The NIGMS Minority Access to Research Careers (MARC) Program recently brought together about 150 undergraduate students and several high school, medical and graduate students working at NIH this summer for a welcoming ceremony in their honor.

Dr. Hinda Zlotnik, a program director in the NIGMS Division of Minority Opportunities in Research who was responsible for organizing the event said, "The venue provided the summer students an opportunity to meet one another as well as key NIH directors and staff."

The students were welcomed by Dr. Michael Gottesman, NIH deputy director for intramural research, who described opportunities in the field of



Dr. Michael Gottesman expresses his excitement at having approximately 1,000 undergraduate students working in NIH labs this summer.

biomedical research and encouraged the students to face such intellectual and social challenges as health disparities. "Biology is just the beginning—you have the opportunity to do whatever you want to do in this field," he said. Gottesman also shared with students more practical reasons to get into science careers: "It's fun to work in labs, to collaborate and work

with other scientists, and to travel to scientific meetings to learn what's happening in science." In addition, he noted, "scientists are paid reasonably well."

The acting deputy director of NIH, Dr. Yvonne Maddox, spoke to the students on behalf of NIH acting director Dr. Ruth Kirschstein and herself. She described NIH as "an organization that belongs to the people—the United States and the countries we serve." She encouraged the students to "go outside of the confines and interact with one another—spend time visiting with other outstanding scientists. This is the best biomedical enterprise in the world. Go away from here feeling that you've accomplished something."

The event's keynote speaker was Dr. John Ruffin, NIH associate director for research on minority health. He informed the students of NIH's great expectations for them. "All of the construction that is going on around this campus is for you. Discoveries are not going to happen overnight—they are going to happen because of you—you will take them forward," he said. "We are not a great country unless everybody is involved. Sensitivity is needed to



Keynote speaker Dr. John Ruffin greets a student following the ceremony.

get more young people and minorities involved in science. We all have the responsibility to bring others into science—nurturing happens all along the way. Our being here today is our way of nurturing you and getting more and more of you into biomedical research."

Following the ceremony, students were encouraged to ask questions and meet each other and the speakers. Natalia Purcell Servena, an undergraduate student from the University of Puerto Rico working at NIDCD, said that the event "permitted good interactions with NIH staff who can really help us in achieving our goals. The speakers clearly identified what our goals should be this summer—to prepare for careers in research and to take advantage of the cultural interactions the field of science has to offer."

This year's event marks the second annual NIH-wide summer undergraduate student welcoming ceremony hosted by the MARC program.—Danielle Wittenberg



Dr. Yvonne Maddox (second from r) takes the opportunity to meet with students after her remarks.

Free Outdoor Film Festival Returns

The 2000 Outdoor Film Festival, presented by Cable TV Montgomery and the NIH charities, will be held Friday, Aug. 18 through Sunday, Aug. 27 on the grounds between Metro and Bldg. 16. The movies, in order, are: *Crocodile Dundee*, *Goldfinger*, *My Fair Lady*, *The Wizard of Oz*, *Rear Window*, *Mission Impossible*, *Rain Man*, *Casablanca*, *Grease*, and *City Slickers*. Visit www.filmfestnih.org or call (301) 816-6958 for updates and more information. Bring a blanket or lawn chair. No chairs are provided. Alcohol and smoking are prohibited. Volunteers are needed. Call Karen or Ivana at 496-6061 if you would like to help.



Dr. James M. Musser has been named chief of the newly established Laboratory of Human Bacterial Pathogenesis at NIAID's Rocky Mountain Laboratory facility in Montana. Prior to his appointment, he was a professor of pathology and director of the Institute for the Study of Human Bacterial Pathogenesis at Baylor College of Medicine in Houston. His research focuses on the molecular basis of host-pathogen interactions in group A Streptococcus and Mycobacterium tuberculosis. The author of numerous scientific journal articles and book chapters, Musser was recently recognized by the American Society for Investigative Pathology with the Warner-Lambert/Parke-Davis Award.

RESPONSE, CONTINUED FROM PAGE 1

along with six other NIH components, announced funding of a new research program, the "Pharmacogenetics Research Network," to attack the problem.

The network, a web of nine teams of scientists across America, will collectively study how genes affect people's responses to a range of different medicines including antidepressants, asthma drugs and chemotherapy treatments. A news release providing digests of each team's research projects is posted at <http://www.nigms.nih.gov/news/releases/pharmacogenetics.html>.

At the heart of the network is a shared information library, called "PharmGKB," into which network researchers will deposit results they collect. Contents of the library will be accessible to all scientists, with the goal of forging new links between gene variation and drug response.

Initially PharmGKB will house mostly gene variations of research volunteers who have had a particular response to a certain medicine. Privacy will be tightly guarded by the gatekeeper of the data repository—none of the gene information will be linked to any information that might identify individual people.

Dr. Rochelle Long, a pharmacologist at NIGMS who spearheaded the pharmacogenetics research effort, hopes that over time PharmGKB will itself pose new questions to the scientific community.

"We're hoping that this research network will catalyze the whole field of pharmacogenetics, helping researchers move forward in their quest to understand and predict how people react so differently to treatments of a wide array of diseases," said Long. "The timing is right."

To help people understand the topic of pharmacogenetics, NIGMS has produced an educational brochure, *Medicines for YOU*. The publication is free, and is available in English or Spanish. Call 496-7301 to obtain a copy, or visit <http://www.nigms.nih.gov/funding/medforyou.html>. ■

Pharmacology Course Offered by CC

The Principles of Clinical Pharmacology course, sponsored by the Clinical Center, will begin Sept. 7. It meets Thursdays from 6:30 to about 8 p.m. in Lipsett Amphitheater, Bldg. 10, and runs through Apr. 26, 2001. Topics include pharmacokinetics, drug metabolism and transport, assessment of drug effects, drug therapy in special populations, and drug discovery and development. Faculty includes Dr. Carl Peck of Georgetown University's Center for Drug Development Science, Dr. Jerry Collins of the Food and Drug Administration, and the CC's Dr. Arthur J. Atkinson, Jr., who is also the course director. Registration is free and open to all. For more information, including the registration form, visit <http://www.cc.nih.gov/cc/principles/> or call 435-6618. ■



At the annual NIGMS awards ceremony recently, institute director Dr. Marvin Cassman (c) recognized two employees with the NIH Award of Merit. Lowell Matthews (l), a computer specialist in the Information Resources Management Branch, was cited for his contributions in designing, implementing and maintaining the institute's computing environment. Alison Davis (r), a science writer in the Office of Communications and Public Liaison, was cited for her contributions to the institute's public information program and for her exceptional efforts in support of the NIGMS pharmacogenetics initiative. The NIH Award of Merit is the highest honor that can be granted by an IC director.

Adventures in Science Available

Every child loves adventure, but most parents would prefer their kids to study hard and get a good education. In NIH's Adventure In Science (AIS) program, children can satisfy their own wishes and their parents' as well.

In this Saturday morning program, children ages 8 through 11 learn by doing. To learn about an internal combustion engine they disassemble a lawn mower to see the parts. To learn about electricity they build circuits from components in a kit. To learn about the circulatory system they take each other's blood pressure, listen to their heartbeats and study the structure of a cow's heart.

The AIS site at NIH will soon begin its eighth year of teaching the fun of science to children. The program runs on Saturdays from October through March and is taught by volunteers from NIH and the surrounding community. A registration fee of \$75 is used to buy class supplies.

Parents are also asked to participate in any way they can such as teaching or assisting in a class, purchasing supplies budgeted by the program or managing the AIS library.

Registration for the 2000-2001 year has started. Interested parents can receive enrollment forms by calling the Montgomery Cooperative Extension office, (301) 590-9638, extension 0. Volunteers interested in teaching can call Dr. Edward Max, (301) 827-1806. ■

Kunos Named NIAAA Scientific Director

Dr. George Kunos has been named scientific director of the National Institute on Alcohol Abuse and Alcoholism. He originally joined the NIAAA intramural program in 1987 as chief of the Laboratory of Physiologic and Pharmacologic Studies and subsequently became head of the section on pharmacology. He rejoins the institute from the Medical College of Virginia, where he held the position of chairman, department of pharmacology and toxicology and was an NIAAA grantee.

Highlights of his research accomplishments are discovery of the mechanism of inverse regulation of alpha-adrenergic and beta-adrenergic receptors and development of the first radio-labeled affinity probe for alpha-adrenergic receptors. This probe was used to document the molecular mass of alpha-adrenergic receptors in the liver. Kunos was the first scientist to describe the role of beta-endorphin in actions of centrally active antihypertensive agents such as clonidine and alpha-methyl dopa.



Dr. George Kunos

He also provided the first evidence that the effects of alcohol on the neural circuits that control blood pressure and heart rate are mediated by GABA receptors in the brain stem and that endogenous cannabinoid receptors play an important role in cardiovascular regulation. His laboratory demonstrated that the hepatotoxic effects of alcohol are due, in part, to inhibition of IL-6 signaling and that the Raf/MAP kinase cascade is involved in regenerating rat hepatocytes.

Kunos has published more than 105 articles in leading journals and has trained 24 postdoctoral fellows and 9 graduate students who themselves now occupy respected positions. He is internationally recognized as a leading scientist and has received numerous honors and awards.

Kunos plans to diversify the intramural program by initiating new lines of research to better understand the biology of alcohol abuse and alcoholism. The new initiatives are expected to generate more interactive research among scientists within NIAAA and at other NIH institutes. They include the establishment of a facility to develop novel transgenic/knockout animal models, as well as research groups working in the areas of protein structural biology, behavioral science and liver biology. Kunos also plans to recruit a leader for NIAAA's clinical program and enhance opportunities for intramural postdoctoral fellows. ■

Douglas To Direct VRC Strategic Planning

Dr. Gordon Douglas has joined the Dale and Betty Bumpers Vaccine Research Center as director of strategic planning. He will guide research strategies for potential HIV vaccine candidates. He will also be involved in collaborations among the VRC, academia and the pharmaceutical and biotechnology industries that will foster and facilitate HIV vaccine development efforts, and will advise on research efforts at NIH in other infectious diseases and cancer.

Douglas is an expert in vaccine research and infectious diseases. His accomplishments were recognized in February, when he was awarded the Maxwell Finland Award for Scientific Achievement by the National Foundation for Infectious Diseases. This award recognizes scientists who have made outstanding contributions to the understanding of infectious diseases or public health.

"Gordon Douglas has an unparalleled record of achievement and experience in vaccine development. He began his career as a scientist at NIH, and it is fitting that he should return here to public service having served in major leadership roles for academic medicine and the pharmaceutical industry," said Dr. Gary Nabel, VRC director. "We are most fortunate that he has agreed to devote his energies to the mission of the VRC of developing vaccines for HIV and other infectious diseases. His experience and vision will be invaluable to our efforts."

Douglas comes to the VRC from Merck & Co., Inc., which he joined in 1990 as senior vice president for medical and scientific affairs. He served as president of Merck Vaccines from 1991 to 1999, and took a short retirement before accepting his new post at the VRC. In addition to his distinguished career at Merck, Douglas has held many academic and clinical positions. He was professor of medicine and head of the infectious disease unit at the University of Rochester School of Medicine; professor and chairman of the department of medicine and chief of the division of general internal medicine at Cornell University Medical College; and physician-in-chief at New York Hospital. He is a member of several professional societies including the Institute of Medicine, the Infectious Diseases Society of America (president 1991-1992) and the Association of American Physicians. He coauthored the *Principles and Practice of Infectious Diseases* in 1980 and was awarded the R.R. Hawkins Award from the Association of American Publishers for "most outstanding professional and scholarly book." Douglas has served on the board of directors for the International AIDS Vaccine Initiative since 1994 and the National Foundation for Infectious Diseases since 1992. He is also a reviewer for journals including the *New England Journal of Medicine*, *Annals of Internal Medicine* and *Clinical Infectious Diseases*. ■



Dr. Gordon Douglas

Teens, Moms Needed for Study

An NIH study of teens and families is recruiting 13-year-olds and their mothers. Participants will spend 3-4 hours at NIH. Involves questionnaires and interviews only, not physical testing. Confidentiality is guaranteed, and participants will earn \$100. If interested, contact Dr. Marie Suizzo, 496-6432. ■

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.

OUTREACH, CONTINUED FROM PAGE 1

access to appropriate interventions.”

The institute created the Constituency Outreach and Education Program to focus the energy of advocacy groups on merging science with service. A key element of the new program is a coalition of outreach partners, one from every state, being assembled by NIMH. The partners will conduct mental health communications programs for the public and health professionals through media relations, statewide coalition-building, and outreach to minorities and special populations such as youth and the elderly. Currently, there are 18 partners, and NIMH is actively recruiting organizations from the remaining states. Another component of the program is the NIMH Education Network—national organizations representing mental health, medical, business and education-related groups, many of which have state or regional affiliates that have the potential to link with the partners.

“We have the data we need to make sure that we are going to make a difference for people with mental illnesses,” said Hyman. He noted that the outreach partners and education network members, by being informed about the latest research, will be better equipped to carry out their initiatives with health care providers, policymakers and others at the national, state and local levels.

In addition to Hyman’s charge to become agents for change to improve the quality of mental health treatment throughout the nation, meeting participants also heard a series of presentations to help them bring science-based messages to their constituencies.

One panel described NIMH’s new, large-scale clinical trials being carried out at multiple sites throughout the country. These studies will require the enrollment of more than 10,000 people in the next 5 years, and outreach partners were encouraged to help recruit participants. Experts on mental disorders in youth provided research findings on attention deficit hyperactivity disorder and other childhood disorders and on suicide risk in teenagers. Another talk integrated basic and clinical research findings on post-traumatic stress disorder, giving a clear picture of the latest understanding of the development, diagnosis and treatment of this common anxiety disorder.

A major focus of the Constituency Outreach and Education Program is eliminating racial and cultural disparities in mental health care. NIMH devoted much of the second day of the meeting to providing partners with information about how they can work to inform minority communities about current evidence-based treatment interventions. Partners shared resources, successes and challenges with each other in breakout groups devoted to communicating with African Americans, Hispanics and Latinos, and Native Americans.

Members left the meeting with fresh ideas for implementing communications programs. New activities are already burgeoning. After returning from the meeting, Beth Hudnall Stamm, an outreach partner from Idaho, emailed to say, “We met with the directors of the Community Health Centers here, and they were thrilled at the mental health information available through the program. We are planning on working with the Idaho Primary Care Association using AmeriCorps volunteers to further our link with primary care.”

Education network member Nancy Dube from the National Association of School Nurses commented, “I hope these dialogs and networking can continue.” She reflected the feelings of other meeting participants, who, excited by the opportunities to work together, asked NIMH to facilitate continued networking by setting up an electronic mailing list for sharing ideas and developing collaborations. In addition, NIMH will convene members biennially.

The next annual meeting of the program is slated for next April and will assemble the current partners as well as those selected from the current recruitment effort. More information on the program is located at www.outreach.nimh.nih.gov. ■



Dr. John Bennett (l), head of the clinical mycology section of the Laboratory of Clinical Investigation, NIAID, was awarded the Lucille Georg medal at the recent meeting of the International Society for Human and Animal Mycology in Buenos Aires, Argentina. The Georg medal is the highest award given in medical mycology, and is accompanied by a \$1,500 prize and a bronze medal.

Renewal of NIH Parking Permits

NIH General Parking Permits for campus employees whose last names begin with O, P, Q and R will expire on the last day of August 2000. In order to obtain a new permit, an employee must visit the NIH Parking Office in Bldg. 31, Rm. B3B04. Hours are 7:30 a.m. to 4 p.m., Monday through Friday. Remember to bring a valid NIH identification card, driver’s license and vehicle registration certificate. For more information, call 496-6851. ■

NINDS's Kupferberg Retires After 30 Years

By Shannon E. Garnett

Dr. Harvey J. Kupferberg, who served for many years as chief of NINDS's preclinical pharmacology section, retired on June 14 after 30 years of government service.

"I leave with a great sense of accomplishment," said Kupferberg. "I finished what I wanted to do. I can see my footprints on the sands of life. I cannot ask for more."

For years, Kupferberg played an essential role in the NINDS Antiepileptic Drug Development (ADD) program, which funds academic and industrial scientists in the United States, Europe and other parts of the world who conduct preclinical studies and clinical trials of promising new drugs for the treatment of epilepsy.



Dr. Harvey Kupferberg

The program—founded in the early 1970's by the late Dr. J. Kiffin Penry, a pioneer in the field of epilepsy research and former chief of the NINDS Epilepsy Branch, and Dr. Roger Porter, former deputy director, NINDS—supports drug screening that significantly shortens industry's time for

developing new antiepileptic drugs. The program consists of two major components—preclinical and clinical. Potential therapeutic agents are screened by the program and then evaluated in clinical trials.

Kupferberg developed the preclinical part of the program. In addition to screening the compounds for their potential as therapeutic agents, the preclinical pharmacology section was also responsible for preclinical toxicology, metabolism and mechanism-of-action studies. All of these data are essential for drug development.

Since the program began, NINDS has screened more than 23,000 compounds for their potential in treating seizures. More than 25 of those compounds have reached clinical development status. "NINDS has played a part in every new therapeutic agent now available to the epilepsy community," said Kupferberg. "I believe that no other government program can match our success."

Kupferberg earned his bachelor of science degree in chemistry from the University of California at Los Angeles in 1955. He earned his doctorate of pharmacy degree from the University of Southern California in 1959, and his Ph.D. in pharmacology from the University of California at San Francisco in 1962.

He first came to NIH in 1963 as a postdoctoral staff fellow. In 1965, he left for a life in academia at the University of Minnesota, first as an instructor and then as assistant professor in the pharmacology department.

In 1971, he returned to NIH, joining NINDS as a pharmacologist in the Epilepsy Branch of the institute's extramural Division of Convulsive, Developmental and Neuromuscular Disorders. He became chief of the preclinical pharmacology section in 1982.

Throughout his career, Kupferberg has received many accolades and honors including an Award of Merit for outstanding contributions in pharmacologic development of antiepileptic drugs from the International League Against Epilepsy in 1988, and the first American Epilepsy Society Service Award for his outstanding contributions in the field of epilepsy in 1994. Most recently he was honored at the NINDS Curing Epilepsy Conference, held in March at the Natcher Center, in recognition of his many years of service leading the ADD program.

"We now enter a new era of drug development. The direction Dr. Fischbach is embarking on is a long and difficult one," said Kupferberg. "I will miss being a part of the new direction that has been initiated for our institute. I hope those who follow me will find the same excitement and fulfillment that I have had during my stay at NINDS."

In retirement, Kupferberg plans to stay in the area with his wife, who is chief of the speech pathology section in the Clinical Center's rehabilitation medicine department, and his daughter and grandsons. He also plans to consult on other drug development projects and to pursue his passions for photography and worldwide travel. And, from time to time during the next year, he will be at NIH serving as a special NINDS volunteer, helping with transitions in the ADD program. ■

Fire Prevention Slogans Sought

The Emergency Management Branch, Division of Public Safety, is now accepting slogans for NIH's observance of National Fire Prevention Week. If you win the contest, open to everyone except members of EMB and their immediate family, your idea appears on next year's commemorative posters at NIH, along with your name. Entries will be judged on originality and creativity. You can enter as often as you like, and entries should be snappy one-liners about fire prevention. Be sure to print or type your slogan on a sheet of white paper. If you submit multiple candidates, rank them in order of preference. Entries are due by Sept. 1. Send or fax entries to the fire prevention section (attention: J.P. McCabe), Bldg. 15G, Rm. 2. Fax number is 402-2059. For more information call 496-0487.



Dr. Angela Ruffin has been appointed head, National Network of Libraries of Medicine Office, in the library operations division of the National Library of Medicine. She has 10 years of successful experience coordinating outreach programs for the NN/LM office, starting with the first round of Grateful Med outreach projects in 1990. For the past several years, she has also played a key role in NLM's Partners in Information Access for Public Health Professionals initiative. Prior to joining the NLM staff, Ruffin taught at several schools of library and information science and served as media coordinator for the Durham (N.C.) City Schools.

NIA's Andres Receives Renold Award For Diabetes Research

NIA's Dr. Reubin Andres received the American Diabetes Association's 2000 Albert Renold Award on June 12.

Chief of the metabolism section in the Laboratory of Clinical Investigation, Andres received the award for his outstanding achievement in the training of diabetes research scientists and the facilitation of diabetes research. He received the award, established in honor of renowned diabetologist Prof. Albert Renold (1923-1988), in San Antonio not far from Dallas, his hometown.

"It is a source of great pleasure for me that so many of the investigators who came to me at an early stage of their careers have gone on to highly successful careers of their own," said Andres, noting that the incoming ADA President Robert Sherwin is an alumnus of his laboratory.



Dr. Reubin Andres

Andres blazed the trail for other diabetes researchers with his invention of the glucose insulin clamp, which revolutionized knowledge of tissue sensitivity to insulin. The elegant technique, for which he won the 1993 Rank Prize for Nutrition at the Royal Society in London, solved the decades-long problem of quantifying insulin sensitivity and insulin secretion in human beings. Andres, who is also a professor of medicine at Johns Hopkins University, cites his clamp and his seven grandchildren as his two proudest achievements.

An expert in obesity and diabetes, Andres views himself as "infamous" for suggesting in the 1980's that a modest weight gain from early adult years to middle age might not be inappropriate. Since 1962, he has conducted research on general metabolic changes with age, especially in glucose and insulin metabolism for the Baltimore Longitudinal Study on Aging.

Andres also is influencing the youngest members of the research community as he mentors summer interns such as Shawn Rose, a native of Pembroke Pines, Fla. Rose, who received an NIA Intramural Research Training Award, credits Andres with his increasing interest in aging and obesity research.

"From a selfish standpoint, it's extremely enjoyable to be associated with these young people," Andres said. "It's not at all a one-way street. It is enormously stimulating for me."—Jeannine Mjoseth 

Tips on Preventing Childhood Sports Injuries

It's one of a parent's typical worries. The phone rings at work. "Ms. Ramirez? Your son Raoul was injured during football practice. His knee may be badly hurt."

Childhood sports injuries like Raoul's may be inevitable, but there are some things a parent can do to help prevent them:

- Enroll your child in organized sports through schools, community clubs and recreation areas where there may be adults who are certified athletic trainers (ATC). An ATC is also trained in the prevention, recognition and immediate care of athletic injuries.

- Make sure your child uses the proper protective gear for a particular sport. This may lessen the chances of being injured.

- Warmup exercises, such as stretching and light jogging, can help minimize the chance of muscle strain or other soft tissue injury during sports. Warmup exercises make the body's tissues warmer and more flexible.

- Cooling down exercises loosen the body's muscles that have tightened during exercise. Make warmups and cool downs part of your child's routine before and after sports participation.

If your child receives a soft tissue injury, commonly known as a sprain or a strain, or a bone injury, the best immediate treatment is easy to remember. "RICE" (rest, ice, compression and elevation) the injury. Get professional treatment if any injury is severe. A severe injury means having an obvious dislocation of the bone or joint, prolonged swelling or pain.

Heat-related illnesses are another type of sports injury requiring close monitoring. Children perspire less than adults and need a higher core body temperature to trigger sweating.

Also, don't forget to have children wear sunscreen and a hat to reduce the chance of sunburn. Sun protection may also decrease the chances of malignant melanoma—a potentially deadly skin cancer—or other skin cancers that can occur later in life. It is also very important that your child has access to water or a sports drink to stay properly hydrated while playing.

Even though Raoul got hurt, his involvement in sports is important. Exercise may reduce his chances of obesity, which is becoming more common in children. It may also lessen his risk of diabetes, a disease that is sometimes associated with a lack of exercise and poor eating habits. Sports also help children build social skills and provides them with a general sense of well-being.—Janet Howard



HRDD Training Tips

The Human Resource Development Division, OHRM, will offer the courses below. Hands-on, self-study, personal computer training courses are available through the HRDD's User Resource Center at no cost to NIH employees. For details, visit HRDD online at <http://trainingcenter.od.nih.gov/> or call 496-6211.

Administrative Skills

Creating and Maintaining Filing Systems	8/24
The Professional Office Manager II	9/12
Planning for Career Advancement for Support Staff	9/12

Administrative Systems

IMPACT System for HR Staff (a.m. and p.m. sessions)	8/9
Travel for NIH Travelers (a.m. and p.m. sessions)	8/28
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

Intermediate FileMaker Pro 4.0	8/23
Windows Intermediate: Customizing Your System	8/23
Intermediate MS Access 97 (Office 97)	8/23
Advanced MS PowerPoint 98 (Office 98)	8/24
Advanced Corel WordPerfect 8.0	8/29
Advanced MS Word 97 (Office 97)	8/30
Introduction to MS PowerPoint 97 (Office 97)	9/6
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

Financial and Procurement Management

Professional Service Orders (a.m. and p.m. sessions)	8/23
Price Reasonableness in Simplified Acquisitions	9/6

Human Resource Management

Qualifications Analysis	8/24
KSA Methodology	8/30
Basic Position Classification	9/18

Management, Supervision & Professional Development

Creating Distinctive Customer Service	8/29
Managing the Federal Employee	9/6
Successful Management at NIH	9/6
Advanced Supervision: Beyond the Basics	9/18

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>.

Hands-On Unix System Security Administration	8/10
Hands-On PC Hardware	8/10
Creating Presentations with PowerPoint 2000	8/11
Genetics Computer Group (GCG) Sequence Analysis	8/14-16
Avoiding Pitfalls in Statistical Analysis	8/15
Unix Systems Administration Concepts	8/16
Seeking Information on the Web	8/16
Using FileMaker Pro on the Web	8/16
Data Warehouse <i>Analyze</i> : Budget & Finance	8/16
Active Server Pages Workshop	8/17
Windows 2000 Professional	8/17
Creating Presentations with PowerPoint 2000	8/18
Advanced Cold Fusion - Using Databases to Create Web Pages	8/22
Data Warehouse <i>Query</i> : Procurement & Market Requisitions	8/22
BRMUG - Macintosh Users Group	8/22
Introduction to Visual Basic	8/22-25
Data Warehouse <i>Query</i> : Advanced Query and Reporting Workshop	8/23
Advanced Presentations with PowerPoint 2000	8/23
Fundamentals of Unix	8/23-25

Technical Consulting, Development Web Site

The Human Resource Development Division has launched a new web site to promote its efforts in the area of technology-based training. HRDD can provide specialized expertise to help organizations improve employee and organizational performance through technology-based learning, performance support systems and training management systems. Contracting with HRDD staff gives you many advantages over obtaining an outside contractor: HRDD is knowledgeable about NIH, its mission, and its organization; and is already at NIH, enabling quick response. For more information, visit <http://trainingcenter.od.nih.gov/tcd> or call Kathy Hardin, 496-5025. ■

Recent Retiree Virginia Holcomb Dies

Virginia Holcomb, 60, of Montgomery Village, Md., died of cancer July 14 at the National Naval Medical Center hospital in Bethesda. Born Dec. 5, 1939, in Bartlesville, Okla., she had lived in Montgomery Village since 1974. She and her husband had retired from NIH in February 2000. Mrs. Holcomb had spent 20 years as a medical technologist in the clinical pathology department at the Clinical Center. She is survived by her husband William of Montgomery Village, two children, Craig of Bethesda and Eric of Baltimore. A memorial service was held July 19 with burial the next day at Gate of Heaven cemetery on Georgia Ave.

Frederick Festival Connects Science, Health

NCI's Frederick Cancer Research and Development Center and the U.S. Army Medical Research and Materiel Command at Ft. Detrick recently hosted the fourth annual Spring Research Festival held under a tent on the Ft. Detrick parade grounds.



Meeting and greeting at the exhibit of scientific equipment.

Thousands of visitors, including both scientists and the public, were drawn to myriad displays, presentations and exhibits during the 2-day event.

At the center of the tent, more than 180 poster presentations on current research being conducted at NCI-FCRDC and Ft. Detrick were exhibited.

At the far end of the tent, a large scientific instrumentation exposition consisting of 150 exhibitors displayed the latest in biomedical research equipment and supplies. At the tent's entrance, 72 booths and a mobile health van provided tips, advice and

information on cancer, AIDS and other diseases, as well as offering free services such as health screenings, body fat analysis, and health risk appraisals. Each morning, 15-minute oral presentations by eight postdoctoral fellows were given in the conference center. On the first afternoon, four scientists from USAMRIID also presented a public video/lecture on emerging infectious diseases. On the second afternoon, seven scientists described what's new



Students Bryan Haines and Bridget O'Laughlin were among 18 presenters selected to receive a framed certificate and a cash award, courtesy of the Technical Sales Association, for their outstanding posters at the 2000 Spring Research Festival.

in core services. A 4-hour career fair also was offered to festival attendees at the NCI-FCRDC café in Bldg. 549. Next year, the Spring Research Festival will once again be on the Wednesday and Thursday of Armed Forces Week at Ft. Detrick. So mark your calendar now: May 16-17, 2001, for the fifth annual Ft. Detrick/NCI-FCRDC Spring Research Festival. **R**



One of more than 180 posters at the festival draws attention.

Krulwich Communicates Extraordinarily

More than 550 people filled Masur Auditorium recently for the launch of the Extraordinary Communicators Lecture Series and Award, sponsored by the National Cancer Institute. The series, dedicated to the memory of Eleanor Nealon, was created to honor outstanding communicators who have advanced the science of communication or the communication of science through their professional or personal experiences. ABC News Special Correspondent Robert Krulwich, who regularly appears on *Nightline* and *Good Morning America*, was the inaugural awardee.

Attendees experienced firsthand the creativity and insight that



NCI director Dr. Richard Klausner (r) presents Robert Krulwich with the first Extraordinary Communicators Award.

Krulwich incorporates into his news stories to help audiences grasp often technical scientific topics. "The idea is to make concepts that seem a little remote, and

a little hard to get, totally comprehensible to an ordinary person," said Krulwich. He captivated the NIH audience as he described how a virus enters a cell, how cancer cells divide, and how various cancer therapies act on a cell. Using balloons, pillows and even an ice pick, Krulwich demonstrated how he attempts to give his audience a "hook."

"I work as hard as I possibly can to give you something to remember visually so that you can attach a thought to it...It's about giving you some hook that will help you remember the words attached.

"You have a hit when someone remembers something you said. It is the best thing."

The audience was also shown a moving segment that Krulwich recently produced: the story of Porter Colley, a woman diagnosed with neurofibromatosis who goes to Harvard Medical School every year to share her personal experiences with students. By the end of the class and the piece, the medical school students were lining up to give her hugs and to offer their support and comfort. The segment evidently touched the NIH audience, too.

The lecture is available through NIH's videocast system at <http://videocast.nih.gov/PastEvents.asp>. **R**