What's In History Office Files?

Have you ever wondered how NIH began? Have you wanted to find out more about the history of the National Cancer Institute, the National Institute of Mental Health, or the original uses of the land that NIH now inhabits? Well, you're in luck. The NIH History Office maintains an extensive collection documenting the history of NIH's institutes and NIH as a whole. The office, located in Bldg. 31, Rm. 5838, holds information from all of the institutes.

SEE HISTORY OFFICE, PAGE 2

NIH Hosts 'Evolution' Preview
By Cynthia Delgado and Alison Davis

If the scientific community did not understand evolution as the critical framework for all of biology, researchers would be stumped to provide an explanation of why HIV drugs become resistant to medicines so alarmingly fast. The deadly HIV virus evolves in minutes to hours, outpacing the evolution of the human species by millions of years.

As this example illustrates, for many life scientists evolution is much more than a historical framework; it is an integral part of our lives today. So what role can scientists play in dispelling myths and communicating facts about evolution to the public?

"The theory of evolution is the one grand idea that explains the differences, similarities.

SEE EVOLUTION, PAGE 4

Answers on Anthrax
Crowd Jams Special Grand Rounds on Bioterror
By Rich McManus

You would have thought that Katie Couric came back to Masur Auditorium by the number of NIH'ers who jammed the hall Oct. 31 for a special edition of Clinical Center Grand Rounds on the topic of bioterrorism; even guest speaker Dr. Anthony Fauci, director of NIAID, admitted afterward he was stunned by the audience's size. But that's because with 17 documented cases of anthrax up to that date, including the death that day of an unusually suspicious case, everyone was passionately interested in what NIH had to make of the emerging public health crisis.

Unlike most Grand Rounds, which on a good day might fill Lipsett Amphitheater for two sober half-hour presentations, this version gave Fauci and NIMH director Dr. Steven Hyman—who addressed the physiology and psychology of terrorism—20 minutes each to roar through the fast-developing story and devoted the last 20 minutes to Q's and A's from a crowd whose scientific literacy might well have proved too lofty for those who

SEE BIOTERRORISM, PAGE 8

Directors Depart from NIMH, NIDA and NIAAA

Several leadership changes will result in new directors for three NIH institutes: the National Institute of Mental Health, whose director is decamping for Harvard; the National Institute on Drug Abuse, whose director has accepted the top job at the American Association for the Advancement of Science; and the National Institute of Alcohol Abuse and Alcoholism, whose director is retiring as the only one who ever led NIAAA.

Dr. Steven Hyman, director of NIMH for the past 5 1/2 years, will return to Harvard University as provost. He will help shape academics and policy at the university, where he once was professor and director of research for the department of psychiatry at Massachusetts General Hospital. He will restart at Harvard on Dec. 10.

"As excited as I am to be returning to Harvard, I feel a deep sense of loss in leaving NIMH," Hyman said. "My sadness in
NIEHS Scientist Adds an Artistic Touch

By Colleen Chandler

Looking around Theodora "Teddy" Devereux's office and lab, one can see science and art intertwined like the brightly colored chromosomes and DNA strands depicted in fused glass artwork on display there.

She is head of NIEHS' molecular toxicology group. She has been a research biologist there for 30 years, focusing on identifying molecular mechanisms of liver and lung carcinogenesis. She studies the varying degrees of susceptibility to lung cancer, searching for data on why this variance exists.

The questions she seeks answers to, and some of the answers as well, are reflected in some of the art that surrounds her. The science and the art are both her handiwork.

It was a church group that initially sparked Devereux's interest in stained glass, which led to her hobby of fused glass. She likes the bright colors and iridescent glass used in fusing, and she likes the fact that things look different when they come out of the kiln than they did going in.

Not only can Devereux spot the art in her science, but she also has a good understanding of the science in her art. Some of her designs are based on what she sees in her microscope, but not all of her pieces have a scientific theme.

The most challenging part of fused glass is getting her ideas down on paper the way they are in her head. Then she begins cutting, smoothing, arranging and gluing the glass before it goes into the kiln, where design becomes reality.

"I think of art as being more abstract, and not exact," she said.

Her pieces look entirely different when they are viewed under low light than when they are backlit, such as those she hangs in her windows. Some elements of the design are only visible under certain lighting conditions.

Unlike stained glass, which uses lots of small pieces, fused glass uses fewer pieces—large and small. They are fused together by baking them at about 1,400 degrees Fahrenheit. The glass must have compatible coefficients of expansion in order for the pieces to fuse properly. Once they are fused, Devereux solders them.

She began working with glass about 12 years ago. Since then, she has completed 25 to 30 pieces, averaging four pieces a year. Some are displayed in a gallery in downtown Durham, N.C., near NIEHS. She has also branched out into collaborative work with other artists to produce yard sculptures and some metal work incorporating glass pieces.

Wednesday Afternoon Lectures

The Wednesday Afternoon Lecture series—held on its namesake day at 3 p.m. in Masur Auditorium, Bldg. 10—features Dr. Nicholas R. Cozzarelli on Dec. 5; he will speak on "Mechanisms of DNA Unlinking and Chromosome Segregation." He is professor, department of molecular and cell biology, University of California, Berkeley.

On Dec. 12, Dr. Wilma K. Olson will discuss "DNA Mechanics and Gene Regulation." She is Mary I. Bunting professor of chemistry and director, Center for Molecular Biophysics and Biophysical Chemistry, Rutgers University.

For more information or for reasonable accommodation, call Hilda Madine, 594-5595.

Forum on Fitness in Workplace, Dec. 7

The staff training in extramural programs (STEP) committee will hold a Workplace Strategies Forum on Friday, Dec. 7 from 1 to 4 p.m. in Bldg. 1, Wilson Hall. Its theme is "Staying Healthy at the National Institutes of (Everyone Else's) Health."

Let's face it, extramural jobs are desk jobs, so you may not get up and walk around as often as you would like, or should. And since you spend so much time at the desk, eye strain and repetitive stress injury are likely if ergonomics are ignored. And the last challenge: how do you eat right when junky temptations abound? The session will feature short talks and question-and-answer sessions with an expert on "fitness in the office," an ergonomics consultant and a nutritionist.
HISTORY OFFICE, CONTINUED FROM PAGE 1

even those that don’t exist anymore. The NIH historian, Dr. Victoria Harden, assisted in establishing the History Office because she recognized the need for preserving the history of the institution. Though not an official archive, the History Office performs many of the roles of a traditional archive including seeking out information from institutes and centers, organizing the records for reference use, and providing access to researchers.

What kinds of material might you find in this collection? There are biography files on key NIH scientists and administrators, files on each institute, general NIH history files, a special collection of materials on the NIH intramural response to AIDS, and files documenting NIH’s 1987 centennial celebration. The collection also holds audio tapes of oral histories with NIH staff, videotapes of selected events, and books on subjects such as the histories of infectious diseases, genetics and public health.

The NIH History Office depends largely on the generosity of NIH employees to pass along items for the collection. For example, the collection of NIH phone books, which have helped researchers locate staff members since 1950, was donated by an employee who had kept his phone book during his entire career. It turns out that no one else preserved them, so the NIH History Office now holds a unique resource.

Many different types of researchers use the collection. Scientists often call about material for a talk on the history of their laboratories. Public affairs officers seek assistance in preparing for institute anniversaries. Administrators ask for material related to speeches or congressional presentations. Other employees want to pin down when their relatives worked at NIH. Currently, the office files are being used by contractors of the National Academy of Sciences for a study and report on the historic and current organization of NIH.

If you would like to use the archival collection or donate records, contact archivist Brooke Fox at 496-6610.

Winter Blues Study Recruits

Do you hibernate in the winter time? If you notice that you feel fatigued and down and that your sleeping and eating habits change in the winter, you may be eligible to participate in a research study on seasonal affective disorder (SAD). Diagnostic assessment and treatment consisting of light therapy, psychotherapy or their combination will be offered. There is no charge for participation in the study. Interested volunteers, 18 or older, are invited to call the Uniformed Services University seasonality treatment study for more information, (301) 295-9718.

FAES Announces Spring Courses

The FAES Graduate School at NIH announces the schedule of courses for the spring semester. The evening classes sponsored by the Foundation for Advanced Education in the Sciences will be given on the NIH campus.

Courses are offered in biochemistry, biology, biotechnology (daytime courses), chemistry, immunology, languages, medicine, microbiology, pharmacology, psychiatry, statistics, toxicology, administration and courses of general interest.

It is often possible to transfer credits earned to other institutions for degree work, and many courses are approved for category 1 credit toward the AMA Physician's Recognition Award.

Classes will begin Jan. 28; mail registration ends Dec. 28 and walk-in registration will be held Jan. 9-15. Tuition is $100 per credit hour, and courses may be taken for credit or audit. Courses that qualify for institute support as training should be cleared with supervisors and administrative officers as soon as possible. Both the vendor's copy of the training form and the FAES registration form must be submitted at the time of registration. Note that FAES cannot access training forms entered in the NIHs system; a signed hard copy (vendors' copy of SF182 form) is needed in order to process registrations for classes.

Spring schedules will be available in the graduate school office in Bldg. 60, Suite 230, the foundation bookstore in Bldg. 10, Rm. B1L101, and the business office in Bldg. 10, Rm. B1C18. To have a schedule sent, call 496-7976 or visit http://www.faes.org.
A Grantee for 22 Years

Hayward Joins NCRR as Associate Director

By Robert J. Schneider, Jr.

A fter more than two decades of performing clinical research supported by NIH grants, Dr. Anthony R. Hayward has come full circle; he has accepted the position of associate director of clinical research at the National Center for Research Resources. He comes to NCRR from the University of Colorado Health Sciences Center, where he has been professor of pediatrics, microbiology, and immunology and associate director of the university's pediatric General Clinical Research Center.

“My laboratory research and training programs have been funded by NIH extramural programs for 22 years,” said. “So, my move to the NCRR comes as a logical progression towards the core of medical research activity in the U.S.”

Hayward will direct several extramural grant programs that support national networks of General Clinical Research Centers, National Gene Vector Laboratories, and new Human Islet Cell Resource Centers, along with clinical research career development programs for physicians and dentists.

Hayward's interest and experience in medicine spans virtually his entire life. “I'd decided on a career in medical research while I was still in high school,” he said. “At medical school, we had two Nobel prize winners amongst our teachers.” Human understanding of host defenses, and how they required different arms of the immune system, was evolving rapidly at the time Hayward finished his first residency; so, he left pathology and moved to pediatrics.

“I spent 8 years at the Institute of Child Health and the Hospital for Sick Children in London. This dedicated research environment gave me the opportunity to share in the recognition of new primary immunodeficiency diseases and to meet pediatricians from the U.S. who were breaking new ground.” In 1976, Hayward spent 18 months on sabbatical in Birmingham, Alabama, where he learned how basic science research could be dovetailed with clinical studies, “It was on this sabbatical that I first cared for a patient in an NIH-supported GCRC.”

Hayward received his medical degree from the University College, London, and a Ph.D. from the University of London. He has received many NIH grants, served on NIH initial review groups, published extensively in many peer-reviewed journals, and received numerous special recognitions and honors.

Among his scientific accomplishments, he first described leukocyte adhesion molecule deficiency as a blood disease; he also first identified a new form of severe combined immunodeficiency in the Navajo Indian population.

“He is an internationally recognized investigator with strong leadership skills,” said Dr. Judith Vaitukaitis, NCRR director. “I anticipate his working closely with the scientific community to better position clinical investigators to take advantage of unprecedented research tools and technologies. This will lead to more effective prevention strategies, diagnostic tools and therapies for many diseases that currently have no effective treatments.”

Five NIH’ers Elected AAAS Fellows

The American Association for the Advancement of Science recently elected 288 members as fellows of AAAS; five of the scientists hail from NIH. The individuals will be recognized for their contributions to science at a fellows forum to be held Feb. 16, 2002, during the AAAS annual meeting in Boston.

The new fellows will receive a certificate and a blue and gold rosette pin as a symbol of their distinguished accomplishments.

Honored from NIH were: Dr. Hynda K. Kleinman, chief, cell biology section, Craniofacial Developmental Biology and Regeneration Branch, NIDCR; Dr. Sue Wickner, chief, DNA molecular biology section, Laboratory of Molecular Biology, NCI; Dr. Josephine Briggs, director of NIDDK’s Division of Kidney, Urologic and Hematologic Diseases; Dr. Dan L. Longo, scientific director, NIA; and Dr. Anne Sassaman, director, Division of Extramural Research and Training, NIEHS.

Postpartum Depression Study

The Behavioral Endocrinology Branch, NIMH, is seeking volunteer mothers ages 18-40 who have had one or more past episodes of postpartum depression following a full-term pregnancy, but are not currently depressed. Participants must be free of medical illnesses, medication-free and currently not breastfeeding. Volunteers may be asked to participate in a 6-month protocol investigating the effects of hormones on brain and behavior. All who complete the study will be paid. For more information call Linda Simpson-St. Clair, 496-9576.
EVOLUTION, CONTINUED FROM PAGE 1

ties and relationships of all living things,” said Irene Eckstrand, a geneticist at NIGMS. She introduced a recent preview of a seven-part documentary on the science of evolution co-produced by the WGBH Boston Science Unit and Clear Blue Sky Productions. The series aired nationwide Sept. 24-27; NIGMS and WGBH Boston co-sponsored the Sept. 7 preview, held in Masur Auditorium.

Eckstrand saw the NIH preview as an opportunity for campus scientists to ready themselves for questions from the public about the role of evolution in biology and biomedical research. In spite of the nation’s recent legislative and legal challenges for teaching evolution, Eckstrand said she hopes that the next generation will be well-educated about the science that profoundly affects their lives.

Co-hosting the NIH program were Richard Hutton, executive producer of the Evolution Project, and Joseph Levine, the project’s science editor. Hutton is the producer of other award-winning television programs such as The Brain and The Mind, and the author of nine books, including several on genetics and evolution. Levine is a Harvard graduate, well known for his popular high school and college biology texts.

“Cameras capture the moment,” said Hutton, “but evolution doesn’t happen in a moment.” He laid out some of the many challenges of producing a television series on such a vast topic, pointing out the extreme difficulty of cramming billions of years of life on earth into 8 hours. Hutton described the first episode, “Darwin’s Dangerous Idea,” as containing many dramatic vignettes, with the remainder of the series cast in documentary format. He then led the audience through several 5- to 10-minute film clips from the series that touched on broad themes surrounding the study of evolution, many of which reflect the basis of research carried out at NIH today.

“Darwin’s Dangerous Idea” is a dramatic representation of Charles Darwin’s life, and the opening episode presents the conception of his evolution theory along with his concerns about the theory’s social and professional consequences. A later episode, “The Evolutionary Arms Race,” promises to hit close to home for many researchers working in the public health field, exploring the “survival of the fittest” concept and its relationship to our battle against microorganisms and antibiotic resistance. “Why Sex?” creatively reviews the evolutionary importance of sex and genetic variation. Other film topics include the diversity of life, extinction, the power of the modern mind and the interplay between science and religion.

Levine went on to explain the broader goals of the Evolution Project, which encompasses both the film series and many materials for educators. According to Levine, the overall goal of the project is to heighten public understanding of evolution and its importance to everyone. “Evolution theory is the single best idea anyone has ever had, that unifies and directs all the biological and biomedical sciences,” he added.

Following the preview, a reception was held at the Clinical Center’s Visitor Information Center, sponsored by the Office of Science Education. Audience participants gathered to ask questions and speak with the program hosts.

The Evolution preview was broadcast over the Internet; an archived videocast can be seen at http://videocast.nih.gov/ (in the Past Events section). Free copies of the Evolution Project Teacher’s Guide are available from NIGMS. To obtain a copy, contact Ann Dieffenbach at dieffenb@nigms.nih.gov, or phone 496-7301. More information about the Evolution Project can be found at http://pbs.org/evolution.

Messiah Sing-Along Set, Dec. 2

The fifth annual Messiah Sing-Along will take place on Sunday, Dec. 2 at 3 p.m. at Richard Montgomery High School in Rockville. Presented by the NIH Community Orchestra and the Bethesda Little Theatre, the event will feature the orchestra along with a chorus and soloists. Come prepared to sing your part or just listen and enjoy the music.

Tickets are available at the door and are $10 for adults and $5 for seniors. Children 12 and under are admitted free. As in past years, the concert will benefit NIH charities. For more information, visit http://www.gprep.org/-music/nih or contact Gary Daum at (301) 897-8184 or gldaum@gprep.org.

Healthy Overweight Women Needed

The Uniformed Services University weight management program is looking for healthy nonsmoking overweight women ages 18-55 to participate in a weight management program as part of an ongoing study examining factors affecting weight loss. In addition, applicants should not be pregnant, have problems with thyroid, kidney or heart disease, diabetes or uncontrolled hypertension. Program and materials are provided free. If interested call (301) 295-9664.
NIEHS Aids Cleanup at World Trade Center

NIEHS has awarded nearly $700,000 in grants for exposure assessment, clean-up, outreach and hazardous material worker training at the World Trade Center in New York.

Institute director Dr. Kenneth Olden toured ground zero on Oct. 4 and met with center representatives and worker training program grantees.

Allen Dearry, who runs the NIEHS centers program, said five NIEHS centers are already involved in exposure assessment, study planning and community outreach. Each of those centers received $50,000. Additional funds have been requested to expand their efforts, he said.

"Our role at NIEHS is to coordinate and integrate that effort to provide assistance in this tragedy," Dearry said.

Environmental Toxicology Program Director Chris Portier initiated an effort to collect dust samples to ensure the samples would be available for studies on the long-term effects. Some of those samples were collected within 24 hours of the terrorists' attacks on Sept. 11. Dearry said the centers have also obtained samples from the personal air monitors used by rescue workers. The samples are in various stages of analyses, he said.

Epidemiologic studies are being developed to focus primarily on the long-term effects of exposure for clean-up and rescue workers. Pending availability of funds, Dearry said, those studies could be expanded to include other groups such as children, pregnant women and people who work in the area.

Dearry said the centers are also coordinating outreach activities and are putting together lists of experts who can address health-related concerns of the people affected.

Of the grants already approved, the International Association of Firefighters received $100,000 for emergency hazmat training. The International Union of Operating Engineers also received $100,000. The group provided a hazmat team to remove debris, and is providing industrial hygiene sampling equipment, self-contained breathing apparatus, protective suits and respirators.

The University of Medicine and Dentistry of New Jersey, which operates a hazardous material worker training program, received $80,000. The Center to Protect Worker Rights, the health and safety arm of the AFL-CIO, received $84,046, and the Laborers Union and Associated General Contractors received $80,000 to offset costs associated with their recovery and evidence-collection efforts.

AAMC Honors Two from NIH

NIH acting director Dr. Ruth Kirschstein and NIH associate director for research on women's health Dr. Vivian Pinn were honored at the Association of American Medical Colleges' "Women in Medicine 25th Anniversary Awards" ceremony on Nov. 4. They were among seven winners of the History Maker award.

Pinn is the only director the NIH Office of Research on Women's Health has ever known; she took charge in 1991 and has remained here since. Kirschstein is wrapping up her second year as acting NIH director, and was deputy director for 6 years prior to that.

Both women were celebrated in a poem commemorating women in science that appeared in the award brochure's final pages. Written by Janet Bickel and opening, "Let us now praise fabulous foremothers," the poem includes the lines, "We look to Blackwell and Rebecca Lee/Cady Stanton, Susan B., Mary Putnam Jacob/And glorious in diversity—Steinem, Friedan, Angelou/Jocelyn Elders, Vivian Pinn/Kirschstein, Healy, Conley/These torchbearers got burned, some third degree..." The poem, written for a symposium at Stanford University in March 2000, appeared in the Journal of Women's Health & Gender-Based Medicine.

Dr. Michael Schaefer recently joined the Center for Scientific Review as a scientific review administrator. He will coordinate the review of fellowship applications for the genetic sciences integrated review group this fall before assuming responsibility for the SSS-Y study section. The section evaluates applications for Small Business Innovation Research grants in the areas of genetics, genomics and nucleic acid technology. Schaefer received an M.S. in botany from Iowa State University and a Ph.D. in biochemistry and biophysics from Texas A&M University. His research there focused on light-regulated expression of photosynthesis genes in cyanobacteria, which were the predecessors of higher plant chloroplasts. He continued this research at the Carnegie Institution of Washington in Stanford, Calif., where he received an NIH postdoctoral fellowship. Two years later, he moved to the University of Missouri in Kansas City. He was an assistant professor before becoming an associate professor in its division of molecular biology and biochemistry. Continuing work on cyanobacteria, he identified new molecular components, including a novel DNA-binding protein involved in environmental control of photosynthesis gene expression.
leaving is tempered by the recognition that NIMH has an incredibly strong cohort of leaders and staff who share high standards, a deep knowledge of science, and a firm commitment to our public health mission. We have accomplished more together than many could have imagined.”

After nearly 8 years as the director of NIDA, Dr. Alan I. Leshner will leave at the end of this month to become chief executive officer of the AAAS and publisher of its journal, Science.

He says his new position at the world’s largest general scientific organization will give him the opportunity to bring science closer to the American public.

“I am proud to have been involved in bettering prevention and treatment practice and influencing public understanding of drug abuse and addiction and resultant policies,” he said. “I look forward to expanding the public’s appreciation for all aspects of science.”

After 15 years at the helm of NIAAA, Gordis is retiring as director. He arrived in 1986 when the institute was a component of the former Alcohol, Drug Abuse, and Mental Health Administration. He supervised the institute’s transformation into a comprehensive research institute and its integration into NIH, and sought throughout his tenure to ensure that the institute’s research programs reflected the highest standards in the biomedical and behavioral research communities.

Hyman came to NIMH in April 1996. He is credited with initiating major changes in the institute’s research portfolio, now considered state of the art in the scientific and mental health communities.

“My goal for NIMH was to make sure that it joined the mainstream of biomedical and behavioral research,” Hyman said. “Working with a very talented staff, I believe we have become leaders in such critically important areas as the genetics of complex disorders, translation of basic neuroscience and behavioral science into clinical research, and conducting clinical trials that are increasing the relevance of research to real patients in real world settings.”

Dr. Alan Leshner leaves NIH to become chief executive officer at the AAAS, which publishes Science magazine.

Hyman said he is also proud of the leadership role NIMH has played in protecting vulnerable individuals who have volunteered for clinical research, advancing research and treatment of mental disorders in children, and increasing the part played by consumers, families, and front-line providers in priority-setting and activities of the institute.

During his tenure, Hyman also directed an NIH research program in molecular neurobiology to study how the neurotransmitter dopamine regulates gene expression in neurons in the brain. He returns to Harvard where he studied, taught and directed several programs including the Interfaculty Initiative on Mind/Brain/Behavior before coming to NIMH.

While at the NIDA helm, Leshner focused its resources on reducing the health and social consequences of drug abuse and addiction throughout the United States. His leadership led to advances in the understanding of the effects of addictive substances on the brain and advancements in medications development to treat addictions.

He increased public awareness of addiction as a brain disease and was instrumental in organizing town meetings throughout the U.S. to educate the public about the latest research.

Other public outreach efforts included briefings with the entertainment industry and creation of the PRISM Awards for accurate depiction of drugs, alcohol and tobacco in movies and television products, development of science education materials for use in classrooms, and a public service announcement campaign entitled “Keep Your Body Healthy, Don’t Use Drugs.”

Leshner also implemented a plan to use scientific activities to improve the quality of drug abuse treatment nationwide. In 1999, he announced the formation of the National Drug Abuse Treatment Clinical Trials Network to ensure that new behavioral and pharmacological therapies for drug abuse are rapidly transferred from research facilities to a wide range of community-based treatment programs with broadly diverse patient populations.

Before becoming NIDA’s director, Leshner, a neuroscientist and psychologist, had been deputy director and acting director of NIMH. He has also
worked at the National Science Foundation, where he held a variety of senior positions focusing on basic research in the biological, behavioral and social sciences, and on science education.

Earlier, he was on the faculty at Bucknell University and held appointments at the Postgraduate Medical School in Budapest, Hungary, the Wisconsin Regional Primate Research Center and as a Fulbright scholar in Israel.

Gordis trained in internal medicine, and spent a year in the laboratory of Drs. Solomon Berson and Nobel laureate Rosalyn Yalow during his residency at Mount Sinai Hospital in New York City, and subsequently 10 years in the laboratory of Dr. Vincent P. Dole at New York's Rockefeller University. Prior to coming to NIAAA, he was professor of clinical medicine at Mount Sinai School of Medicine and a staff member of the Elmhurst Hospital in Elmhurst, N.Y. There, he founded and directed the hospital's alcoholism program from 1971 until his appointment at NIAAA.

When Gordis entered the alcohol field, it lacked the tradition of science that is accepted—and expected—in other areas of medicine. “There were many slogans,” he says, “but little science. We did the best we could, but while some of our patients got better, many did not.” It is this appreciation of the need for science in understanding alcohol problems that brought him to NIAAA.

Gordis' commitment to science as a means of understanding both the biological and behavioral antecedents of alcohol problems led to many major scientific achievements. The National Longitudinal Epidemiological Survey, a ground-breaking survey to measure drinking levels and patterns of consumption, also, for the first time, assessed alcohol use disorders based on widely used diagnostic criteria.

In genetic science, the Collaborative Project on the Genetics of Alcoholism (COGA), now in its 14th year, is a multi-site study using state-of-the-art tools to study families with a strong history of alcohol use problems. COGA investigators have identified several “hot spots,” or locations on chromosomes where the genes for alcoholism may be.

Most recently, Gordis initiated a major new research program to evaluate the effects of combination pharmac- and behavioral therapy for alcohol problems, and a basic science initiative integrating various neuroscience disciplines in the study of alcoholism. According to Gordis, “the history of medicine is replete with examples of how studying the abnormal teaches us about the normal. I believe that we are going to learn a lot about human genetics, brain circuitry and many other facets of human health by studying alcohol. This will improve, no doubt, medicine not just for alcoholics but for all.”

### Mouse Model Created for Dental Defect

Scientists at the National Institute of Dental and Craniofacial Research have created an animal model for amelogenesis imperfecta, a dental defect that results in abnormally formed tooth enamel. The model will allow scientists to study how the disorder develops as well as to clarify the enamel-forming process.

Dr. Ashok Kulkarni and colleagues genetically engineered mice by deleting, or knocking out, the gene responsible for producing amelogenin, the most abundant protein in enamel. As early as two weeks of age, the knockout mice had teeth with chalky white discoloration and an abnormally thin layer of enamel. Detailed evaluation revealed that the enamel structure was atypical. The scientists published their findings in the *Journal of Biological Chemistry*.

“This is the first animal model in which a tooth-specific gene has been knocked out,” said the study’s lead author Kulkarni, from the NIDCR functional genomics unit and gene targeting facility. “We think the mouse model will be useful for studying the functions of amelogenin in enamel formation as well as for developing therapies for amelogenesis imperfecta.”

Amelogenesis imperfecta occurs in approximately 1 in 14,000 individuals in the U.S. It results in malformed, thin enamel that may render teeth susceptible to damage and decay. Dental enamel is the outermost layer of the teeth and is the hardest substance in the body. It is composed of a protein framework—made up mostly of amelogenin—on which minerals such as calcium are deposited.

NIH acting deputy director Dr. Yvonne T. Maddox was among 65 federal employees and one of only three in HHS to receive the 2001 Presidential Rank Award for Distinguished Executives at a recent ceremony at Constitution Hall. Winners are nominated by their agency heads, evaluated by boards of private citizens and approved by the President. The evaluation criteria focus on producing results. Maddox, who also serves as NICHD deputy director, was cited for providing “leadership to a large and diverse program that supports research on maternal and child health, the population sciences, and medical rehabilitation. Through her vision and effective management of resources, major advances in the health of mothers and children have been realized.” There are two categories of awards: distinguished executives and meritorious executives. Distinguished executives receive a lump sum payment of 35 percent of their base pay, a gold pin and a framed certificate signed by the President. Only 1 percent of career Senior Executive Service members may receive the award. The Meritorious Executive Award is given for long-term accomplishments. Maddox received the meritorious executive honor in 1999.
tuned in to the event via live broadcast on cable television's C-SPAN network.

"Unfortunately, [the anthrax outbreak] is turning out to be quite an historic event with regard to public health in our nation," Fauci began, but cautioned, "This is no surprise. There is a long history of bioterrorism in the United States and other nations dating back to the 1980s," including the well-publicized cases of tampered-with Tylenol on store shelves in 1982. He said the good news is that NIH "had programs in place long before the threats became real."

Confining himself to the medical and public health aspects of bioterror, Fauci said the major threats are from smallpox, anthrax, plague and botulism, though there are a host of other possible agents. "With anthrax, the problem is that very few physicians ever saw it before in clinical practice, though everyone who goes to medical school learns all about it," he said. "Rapidly, we're becoming the world's experts."

Anthrax is caused by Bacillus anthracis, a rodlike gram-positive bacteria that, fortunately, does not transmit from person to person; rather, one has to come in contact with its spores, which Fauci called "the real bad guys in all of this."

Determined entirely by its portal of entry, anthrax infection can be either cutaneous, inhalation (or pulmonary), or in rare cases, gastrointestinal. "It was thought that it would require some 10,000 spores of 1 to 5 microns in size to reach the alveolar macrophages in the lungs and produce infection," Fauci reported. "That was all textbook stuff until this happened."

The cutaneous form of infection is "progressive but controllable," Fauci said; the mortality rate for this form is 20 percent without antibiotic treatment. Of the inhalation form, he said the minimal amount of spores needed to produce infection "is open to debate. One or two won't do it, but 50,000 will. Somewhere in between is the right number." Inhalation anthrax is "close to 100 percent fatal if not treated," he said, and secondary infections such as meningitis are common.

The first vaccine against anthrax was produced in 1970, and required six doses taken over 18 months, Fauci noted. "It might still be useful if administered post-exposure," he said. As it was produced primarily for the armed forces, "the Department of Defense essentially owns all of it."

The next generation of vaccines will use recombinant technology; a version called recombinant protective antigen (rPA) is currently being developed. Fauci saluted two recent papers in Nature that report specifically how the bacteria harms the body. "We should be proud of the research that NIH and its grantees are doing."

Regarding smallpox, Fauci said, "We are a victim of our own successes in public health": the disease was virtually wiped out in 1977 via a worldwide eradication program; the last reported case was from that year in Somalia. Routine vaccinations against smallpox ended in the U.S. in 1972. It was thought that only two laboratories, one in the U.S. and the other in Russia, had stores of smallpox under careful guard. But Fauci reported, "It is highly likely that Russia made large amounts of smallpox virus, and the question becomes, 'Did it get into other hands?'"

He said the government is adopting a vaccine approach to smallpox on immediate, intermediate and long-term bases. At the moment, the federal government owns 15 million doses of vaccine. NIAID has begun a "dilutional study" to determine if those doses can be fractionalized by one-fifth and one-tenth and still yield a "take rate" of immunity that would result in potential dosages for 75 million to 150 million people. "Seventy-five million doses are potentially available for January, when the study ends," Fauci said.

A new and better vaccine for some 300 million people is in the works for the end of 2002, he reported. But he warned that smallpox vaccines "are not without toxicity. It is unusual, but it can be severe."

Of NIH's role in late October's climate of "extraordinary havoc," Fauci said, "We'll have to do what we do best, which is provide the scientific basis for whatever public health efforts ensue...Our role is substantial. We cannot rush the science, but we can accelerate the translation." He concluded by citing a useful web site on bioterrorism, www.bt.cdc.gov.

NIMH's Hyman talked about the emotion of fear, and how the brain processes it; fear is fundamentally a survival function, giving organisms a way of appraising the relevance of potential threats in the environment. The cliche of "freezing like a deer in headlights" began as a survival instinct; predators who use motion to hunt prey are unlikely to detect an immobile object. "But this became a less adaptive strategy after the invention of the automobile," said Hyman, in one of his trademark dry quips.

Fear's immediate sequel is fight or flight, as many learned in Psychology 101. The next stage, if all goes well, is vigilance and coping. "The goal of terror," Hyman explained, "is to undercut one's coping mechanism and to keep us in fight-or-flight. Terror exploits two aspects of the human brain," he continued. "It takes advantage of the stress we feel in novel and uncontrolled situations. And it exploits our normal empathy with others—we identify with the relatively small number of victims, and are not very good at doing a dispassionate risk analysis."
He said, "Fear is contagious, unlike anthrax...what we have to do as a nation is learn what is happening, and learn coping strategies that reassert our level of control over circumstances. We don't normally do risk-analysis in our day to day lives. The key is to deal with real risks, not imagined risks."

Hyman said that sending anthrax via mail to the media "guaranteed emotional contagion." He then spoke about those most severely affected by terrorism, those who develop post-traumatic stress disorder (PTSD). Because traumatic experience literally "rewires the brain so that synapses are physically altered," extreme stress can lead to illnesses such as PTSD, which is characterized by intrusive reliving of the trauma, and hyperarousal. He urged that people use their social networks and get back as quickly as possible to normal routines. He also counseled against permitting children to be excessively exposed to repetitions of the horror on the nightly news. Lastly, he advised, "Don't communicate fear to your kids through your own behavior. Try to increase the time you spend with family and friends."

During the question session, which ran to a half-hour, the audience learned that PTSD can develop within several days, not the month predicted by textbooks, said Hyman; his data came from a study following the Oklahoma City federal building bombing in 1995. Fauci ended up giving a mini-symposium on diagnosing infectious diseases— including what triggers his "index of suspicion"—as he answered questions on when it is appropriate to prescribe antibiotics. "It is important to continually consider the risk versus the benefit in clinical decisions such as these," he said.

Asked whether it was good policy for the FBI to put the nation on high alert over an unspecified threat, Hyman answered, "I don't think anyone knows whether it's a good idea or a bad idea. It's one of those cases where you're damned if you do, and damned if you don't." Someone else asked him if NIMH had any psychological insight into the minds that could perpetrate this kind of terror, and Hyman observed: "I really can't speculate about the motives of terrorists. NIMH has not studied terrorists as part of its public health mission."

Since many in the audience were old enough to have been vaccinated against smallpox prior to the end of that practice in 1972, Fauci was asked if they still might harbor some immunity. "After 10 years, you don't have significant immunity—that's the standard wisdom," he answered. "But I think it's better to have been vaccinated than not to have been. I can't believe it won't help in some way." Later, in response to a similar query, he said people have varying degrees of immunity post-inoculation. "We all live under the bell-shaped curve," he concluded.

---

**Tuan Named Chief of NIAMS Branch**

**Dr. Rocky S. Tuan**, former director of the orthopaedic research laboratory at Thomas Jefferson University, Philadelphia, recently joined the National Institute of Arthritis and Musculoskeletal and Skin Diseases as chief of its new Cartilage Biology and Orthopaedics Branch. He will develop a multidisciplinary research program that focuses on skeletal biology, cartilage diseases such as osteoarthritis, and orthopaedics, fields in which he has extensive and widely recognized expertise.

"He is internationally renowned for his pioneering work in deciphering the cellular mechanisms regulating cartilage development," said Dr. Peter Lipsky, NIAMS scientific director. "His research accomplishments span multiple disciplines, including developmental biology, cell and molecular biology, biochemistry and the emerging area of tissue engineering."

Musculoskeletal problems are some of the most chronic, costly and debilitating diseases that affect public health, and they compromise daily life for millions of Americans. Many skeletal diseases are currently not treatable. The cartilage biology and orthopaedics program will target the basic biology of musculoskeletal diseases and the application of tissue engineering technologies to create a national resource in this critical and underserved area of research.

"Medical research in this area currently lags behind some other disciplines, and the NIH has an opportunity to make a significant difference in this field," said Lipsky. "Having a scientist of Dr. Tuan's experience and caliber will allow the NIH to address this important area of public health need. The basic cartilage biology, osteoarthritis and orthopaedic research programs that Dr. Tuan will create and implement will be a vital component of a larger trans-NIH Center of Musculoskeletal Medicine."

Tuan received his doctorate in 1977 from Rockefeller University. He served as a research fellow and then an instructor in medicine at Harvard Medical School. From 1980 to 1988, he was an assistant and then associate professor in the department of biology at the University of Pennsylvania. Since 1988, he has served as professor in the department of orthopaedic surgery and department of biochemistry and molecular biology at Thomas Jefferson University. In addition to being named director of the orthopaedic research laboratory in 1988, he became chairman of the department of orthopaedic surgery in 1996, and, in 1998, director of the cell tissue and engineering Ph.D. program (the first of its kind in the nation) at the university.

Tuan has authored numerous papers and is a member of editorial, advisory and review boards of the leading journals in his fields, including the *Journal of Arthroplasty*, *Clinical Orthopaedics and Related Research*, *Molecular Biotechnology, Biology of the Cell* and the *Journal of Orthopaedic Research*. He was a former study section chair and member of the advisory and oversight committee of NIH's Center for Scientific Review.

---

**PTSD Study Recruits**

An outpatient study of post-traumatic stress disorder (PTSD) and medication is attempting to find out if a combination of medications can rapidly improve PTSD symptoms. Study participation includes thorough mental health assessment and research medication. Needed are medically healthy individuals over age 18. For information call 1-866-MAP-NIMH.
NIAAA Staff Mourn Long-Time Colleague Latteri

Benedict "Dick" J. Latteri, acting deputy director, Division of Intramural Clinical and Biological Research, NIAAA, died of a heart attack on Aug. 7. He had a long and distinguished federal career in administrative and program management, with many years of service at NIAAA and NIMH.

Born in 1942 in the Bronx, Latteri entered Fordham University there in 1960. In what was perhaps an early portent of the path his career would take, Latteri received in 1963 a 10-week National Science Foundation fellowship to serve as a research assistant on a project at the University of North Carolina to study the drinking habits of North Carolina residents.

After receiving his B.A. in sociology (with a minor in philosophy) from Fordham, Latteri moved with his wife, Patricia, to the Washington area. He entered government service in March 1965 as an administrative assistant in NCI’s Grants and Research Contracts Operations Branch. In May 1967, he joined the NIMH extramural program in the Division of Special Mental Health Programs and within 3 years became administrative officer for the program. There, Latteri became involved in 1970 with what would eventually become NIAAA, a part of the Alcohol, Drug Abuse and Mental Health Administration.

In June 1976, he was promoted to administrative officer, Division of Extramural Research Programs, NIMH. Latteri served only briefly before he was appointed to serve as administrative officer for the President's Commission on Mental Health established by former President Jimmy Carter in February 1977. He served for the life of the commission, a little over a year, then was appointed to serve as administrative officer for NIMH. Latteri's role was to advise and to provide assistance to the commission.

In 1979, Latteri was appointed chief of administration for NIMH and subsequently named acting chief for the division, a post he served in from 1979 to 1980. Latteri moved with his wife, Patricia, to North Carolina to study the drinking habits of North Carolina residents.

In 1984, he joined NIAAA as special assistant to the director, DICBR, and in 1985, he was appointed NIAAA acting deputy director, a post he held at the time of his death.

NIAAA scientific director Dr. George Kunos said, "Dick's untimely death represents an irreplaceable loss for our intramural research program and to me, personally. I consider Dick to be a role model for government employees in executive positions. Dick had an unparalleled, deep understanding of the complex processes behind a successful research program, which was coupled with human wisdom, dedication to his work and pride in the achievements of the people whose success greatly depended on his hard work and effectiveness. Coupled to this was a caring person who was unwilling to take credit for his achievements and was perfectly content to work behind the scenes to make things work for the rest of us. He will be sorely missed."

Latteri is survived by his wife, his daughter Claudia Litman, son Christopher, and three grandchildren; and by his parents, brother and other extended family members.

A memorial symposium is planned for early next year. Contributions in Latteri's memory may be sent to the American Heart Association, P.O. Box 17025, Baltimore, MD 21297-0191.

DICBR acting deputy director, a post he held at the time of his death.

NIAAA scientific director Dr. George Kunos said, "Dick's untimely death represents an irreplaceable loss for our intramural research program and to me, personally. I consider Dick to be a role model for government employees in executive positions. Dick had an unparalleled, deep understanding of the complex processes behind a successful research program, which was coupled with human wisdom, dedication to his work and pride in the achievements of the people whose success greatly depended on his hard work and effectiveness. Coupled to this was a caring person who was unwilling to take credit for his achievements and was perfectly content to work behind the scenes to make things work for the rest of us. He will be sorely missed."

Latteri is survived by his wife, his daughter Claudia Litman, son Christopher, and three grandchildren; and by his parents, brother and other extended family members.

A memorial symposium is planned for early next year. Contributions in Latteri's memory may be sent to the American Heart Association, P.O. Box 17025, Baltimore, MD 21297-0191.

CRIS Education Sessions Offered

The implementation of a clinical research information system (CRIS) at the Clinical Center will affect the work lives of intramural staff involved in patient care and biomedical research. The following sessions are targeted for all interested persons including physicians, nurses, technicians and IT specialists who work with the current medical information system (MIS). The sessions will present real-life examples of similar system installations. Sessions will be presented from 1:30 to 3 p.m. in Lipsittt Amphitheater, Bldg. 10.

Monday, Dec. 3 - Managing Data for Clinical Care Delivery and Research: How to Get More Bang for Your Buck? Topics include Research & Clinical Database, Privacy & Security, Standards & Terminologies

Monday, Jan. 7 - Process Improvements and Organizational Changes: Technology as Push or Pull? Topics include Leading Change, Case Study-Reductions of Medical Errors

Thursday, Feb. 7 - System Implementation: Lessons Learned But Not Forgotten. Topics include Clinician Acceptance & Changing Clinical Practice, Implementation - The Good, The Bad & The Ugly

Monday, Mar. 11 - System Benefits: Technology Value - What's in It for Me? Topics include Incentives, Risks & Benefits, Clinical & Process Outcomes

CME credit available. For reasonable accommodation, call the CC department of clinical research informatics, 594-DCRI.
CIT Adds Web-based Customer Support

Now you can take advantage of the Center for Information Technology's new online service and have expert IT help at your fingertips 24 hours a day. When it's after hours and you need IT customer support, you no longer have a place to go for answers. Maybe you want to change your password, or you have a question about your Parachute account, or you want to know how to change your desktop telephone service. In the past you had to wait until the next business day to get help. Not anymore. CIT's Technical Assistance and Support Center (TASC) has developed a new self-help service that users can access any time, even after hours.

The new customer support online service not only provides answers to basic IT questions, but it also displays up-to-the-minute IT news and frequently asked questions. If none of these options provides the solution you need, you may submit an electronic “help” request ticket. (Customers can also submit tickets via the web interface when TASC is open.) TASC will respond to all electronic requests the next business day. The new site even lets you review the status of your existing service calls online. So bookmark the address, http://support.cit.nih.gov.

Also, CIT's new emergency after-hours live telephone support service debuted on Nov. 1. The new service will be staffed from 6 p.m. to 7 a.m. and is intended for emergencies and problem reports only. A call to the TASC help-line extension, GCOT (or 301-594-6248 off campus) will give users the option of leaving a voice message for non-emergency issues, or speaking with the on-call technician. If you leave a message, TASC will contact you on the next business day. Remember, TASC will be closed for Christmas and New Year’s Day and will not offer live support on those days.

The TASC Help Desk is open from 7 a.m. to 6 p.m., Monday through Friday, but the hours of operation will change during the holidays.

**TASC Holiday Schedule**
- 12/24 - Christmas Eve - 7 a.m. to 2 p.m.
- 12/31 - New Year’s Eve - 7 a.m. to 2 p.m.
- 12/26-28 - Christmas Week - 8 a.m. to 4:30 p.m.

The Help Desk resumes its regular schedule on Wednesday, Jan. 2. You can also visit the new support website above for TASC holiday hours.

---

**WFLC’s ‘Phases’ Series Tackles Stress During the Holiday Season**

The Work and Family Life Center’s “Faces and Phases of Life” seminar series continues with sessions on how to manage stress. Preregister for any session by calling the WFLC, 435-1619. For more information, visit the web site at http://wflc.od.nih.gov. Sign-language interpretation is provided, unless otherwise indicated.

December features Keeping Yourself Together: A 3-Part Stress Management Series presented by the Employee Assistance Program.

**HRDD Class Offerings**

The Human Resource Development Division 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 496-6211 or visit http://LearningSource.od.nih.gov.

- **Basic Time & Attendance Using ITAS** 12/4
- **NIH Retirement Seminar - CSRS** 12/3, 4, 5
- **Communications & Negotiation for Women in Science** 12/4&5 or 12/4&6
- **Budget Formulation** 12/11, 12
- **Buying From Businesses on the Open Market** 12/6
- **Consolidated Purchasing Through Contracts** 12/3
- **Federal Supply Schedules** 12/4

**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.

- **Using Microsoft SQL 2000** 12/3
- **Data Warehouse Query: Research Contracts & Grants** 12/3
- **Fundamentals of Unix** 12/3-5
- **Creating Presentations with PowerPoint 2001 for the Mac** 12/4
- **SAS Programming Fundamentals I** 12/4-5
- **Simplified Differential Equations for Cases of Radial Symmetry** 12/6
- **NIH Biowulf - a Supercluster for Scientific Applications** 12/6
- **Data Warehouse Query: Human Resources** 12/6
- **Introduction to FrontPage 2000** 12/7
- **Security Auditor’s Research Assistant (SARA) Basics** 12/7
- **LAN Concepts** 12/7
- **SAS Programming Fundamentals II** 12/10-11
- **Data Warehouse Query: Budget & Finance** 12/11
- **WIG - World Wide Web Interest Group** 12/11
- **Optimal Analysis of Kinetics Data** 12/12
- **Introduction to Cascading Style Sheets** 12/12
- **Data Warehouse Query: Advanced Query and Reporting Workshop** 12/12
- **Outlook 2000 Tips and Tricks** 12/12
- **Introduction to Java Programming** 12/12, 14