

THE NIH RECORD

Still The Second Best Thing About Payday

Women's Health Time Capsule Buried on Campus

The third annual celebration of National Women's Health Week, May 12-18, was punctuated on May 14 when the HHS Office on Women's Health (OWH) dedicated a



Reporter Helen Thomas

Women's Health Time Capsule and buried it on the grounds of Lawton Chiles International House, known familiarly on campus as Stone House. The capsule,

which contains more than 60 items that have had an impact on women's health in the past century, will be unearthed in 2100.

Guest speaker at a tea given in conjunction with the dedication was Helen Thomas, a

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NIDDK's Hennighausen Wins von Humboldt Award

By Anna Maria Gillis

The award came out of the blue. NIDDK's Dr. Lothar Hennighausen had no idea he was a candidate. He didn't even know the man who nominated him for an Alexander von Humboldt Research Award. But thanks to Dr. Axel Ullrich, a researcher at the Max Planck Institute for Biochemistry in Martinsried, Hennighausen is off to Germany for a sabbatical beginning in July.

Ullrich, who will be Hennighausen's host, nominated the chief of NIDDK's Laboratory of Genetics and Physiology for the award last year. Sponsored by Germany's Alexander von Humboldt Foundation, the awards recognize approximately 150

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Learning the Lingo

New Lessons in How Brain Acquires Language Offered at Seminar

By Jennifer Wenger

Why is it that a 3-year-old child can be fluent in Portuguese, French, English, Chinese, Hungarian, or any one of the world's 6,800 languages, but a 38-year-old American with 4 years of Spanish under his belt can barely ask for directions—en Español—to the corner drugstore?

The answer to that paradox probably has less to do with the age of the person learning the language and more to do with their actual learning experience, said Dr. Patricia Kuhl, the William P. and Ruth Gerberding professor at the University of Washington and codirector of the university's

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Babies can "babble" using rhythmic hand motions. (Photo: Jeffrey de Belle)

NIH's Senior Scientist Has No Plans To Retire

By Susan Marsiglia

Dr. Ichiji Tasaki is a busy man. He begins his day with a 2-mile walk from his home in Bethesda to his lab at NICHD. He works 7 days a week, publishing an average of two scientific articles a year in respected peer-reviewed journals. Such a fast pace would be impressive for anyone. It is especially so for NIH's most senior scientist. At 91 years old, Tasaki has been conducting groundbreaking research for twice as long as some of his colleagues have been alive.

Born in Japan in 1910, he attended medical school at the urging of his mother and received his M.D. in 1938. However, instead of practicing

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Dr. Ichiji Tasaki and his wife Nobuko

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foreign scholars each year for their accomplishments. The award, which is given in all disciplines of science, engineering and humanities, is named for the 18th-century German naturalist and explorer.

Hennighausen says it is "an honor to be singled out by Ullrich," an expert on breast cancer, who led the group at Genentech that developed Herceptin, the first recombinant drug to combat breast cancer.

Ullrich also cloned the human insulin gene and the insulin receptor, and he made pioneering studies on the way different molecular signaling pathways "talk" to each other.

These areas interest Hennighausen, who, with his colleagues, determined key signaling pathways that control mammary gland formation. Mam-

mary tissue, which is relatively new in evolutionary terms, gets its cue to take shape from a signaling pathway called Jak2-Stat5 that is activated by the hormone prolactin. It is one of the many variants of Jak-Stat pathways that rely on the interaction of Jak and Stat proteins to activate genes. Jak2 is a tyrosine kinase, an enzyme that adds phosphates to the amino acid tyrosine in other proteins. In the case of Stat5 molecules, once they are phosphorylated by Jak-2 and paired with another phosphorylated Stat5 protein, they travel to the nucleus to activate genetic programs that cause milk-secreting cells in the mammary gland to grow and differentiate.

Understanding the signaling pathways that drive mammary tissue changes "provides a unique opportunity to develop molecular interventions and prevention for breast cancer," says Hennighausen.

Given that he'll be free to study whatever he wants, Hennighausen has decided to tackle something ambitious. "I want to design small molecules that will disrupt the Jak-Stat pathway."

To activate the genes governing mammary tissue production, "you need a dimer of Stat5," adds Hennighausen, who wants the small molecule he creates to prevent such pairings. He hopes that collaboration with Ullrich, who has formed a company that makes tyrosine kinase inhibitors, will give him a good start.

However, the goal of this exercise is not only to make a therapeutic drug. If it is successful, it also might make research requiring mouse models easier and far less expensive. It can take years and cost tens of thousands of dollars to create mice that lack a gene to make a particular protein. "Ideally, we would like to use pharmacogenetics to inactivate

proteins," says Hennighausen. If a pharmacological approach worked, scientists "could simulate a knockout, but not go through the creation of a traditional gene knockout mouse."

Hennighausen acknowledges that "it's risky to fool around with new ideas," and sometimes the day-to-day demands of administering a lab make it hard to find the time. He's looking forward to a year where he can try a different focus. "It's good to learn something new and be a student again." ■



NIDDK's Dr. Lothar Hennighausen leaves next month for a sabbatical in Germany.

Dr. Charles Peterson has been named director of the Division of Blood Diseases and Resources (DBDR), NHLBI. Since joining NHLBI in 1998, he has served as director of DBDR's Blood Diseases Program. In that capacity he has overseen the development of a thalassemia clinical research network as well as a clinical research network in blood and marrow transplantation.



Peterson received his medical degree in 1969 from Columbia College of Physicians and Surgeons in New York. He has been awarded 5 patents dealing with methods for glucose, lipid and alcohol measurement. A member of the American Society of Hematology, he has published 157 peer-reviewed papers, which have included extensive work in hemoglobinopathies. In addition, he has published more than 190 reviews, chapters and editorials and has edited more than 20 monographs. He succeeds Dr. Barbara Alving, who was appointed deputy director, NHLBI.

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The Record is recyclable as office white paper.

NHLBI Hosts National Cardiovascular Health Conference

By Louise Williams

Challenge and partnership. Those were the key themes at a recent 3-day national conference of health care professionals that sought new ways to reverse the U.S. epidemic of cardiovascular disease.

As one speaker said: "This meeting isn't meant to be just a status report. We're not just saying, look, there's the mountain, we're asking you to climb it."

NHLBI director Dr. Claude Lenfant described the conference as "a crucial link between the knowledge we have gained about the prevention and treatment of cardiovascular disease and actually putting that knowledge into practice in communities."

Called "Cardiovascular Health for All: Meeting the Challenge of Healthy People 2010," the conference drew about 1,300 health care professionals to the Marriott Wardman Park Hotel in Washington, D.C. But many more participated via 150 satellite downlink sites in 41 states, the District and Canada, or watched the plenary and other sessions online on videocast.

The conference itself illustrated the partnership theme: It was sponsored by NHLBI in collaboration with the American Heart Association and the HHS Office of Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, Centers for Medicare and Medicaid Services, and Health Resources and Services Administration. Further, the opening session included a signing by the groups' representatives of a memorandum of understanding to work collaboratively to help achieve the federal Healthy People 2010 objectives for heart disease and stroke.

As HHS assistant secretary for health Dr. Eve Slater told the gathering, the task of achieving the HP 2010 goals was a shared responsibility and represents the only way research advances would be translated into improved cardiovascular health for communities everywhere.

The HP 2010 objectives provided the conference's framework. The four plenary sessions were each devoted to a main cardiovascular goal, with another covering health disparities. Sixty-two breakout sessions then covered the objectives in more depth.

The need for action was underscored in the conference's keynote address, given by futurist J. Ian Morrison, chairman of the Health Futures Forum. He warned the assemblage that changes in the health care industry will probably increase the number of uninsured Americans. At the same time, he said, an aging population is driving up the already high demand for cardiovascular disease care. He urged participants to "redefine health care," including an expanded use of the Internet to give consumers more access to health information, doctors and community health resources.

Other presentations included new data on women

and heart attack. Dr. Jean McSweeney of the University of Arkansas for Medical Sciences studied nearly 650 women and found that warning signs can develop up to 2 years before a heart attack. The early warning signs include fatigue, shortness of breath, disturbed sleep, indigestion and anxiety.

Another speaker, Dr. Joseph Ornato of Virginia Commonwealth University, outlined a novel approach to get more Americans to seek the fast treatment necessary for a heart attack.

Research has shown that patient delay is the main reason Americans don't benefit from the latest life-saving heart attack therapies. Patients often delay out of fear of causing a scene. With Ornato's approach, paramedics would respond to an emergency call by arriving quietly, rather than in a siren-blasting ambulance. The paramedics would administer a 15-minute test and, if a heart attack is occurring, summon an ambulance. Otherwise, the patient would remain at home but wear an automatic external defibrillator until able to be checked by his or her regular doctor.

But speakers didn't do all the work. Meeting organizers challenged each participant to "think outside your own box," as conference chair Dr. Lynn Smaha of the Guthrie Clinic Ltd. and past president of the American Heart Association put it. The conference provided many opportunities for sharing ideas through grand round and roundtable sessions, as well as posters.

And, to be sure participants didn't just talk heart health, but also lived it, the conference hosted such activities as a "Heart-Stirring Extravaganza" and a "Fun Run."

The conference closed with a "talk show" about ways to improve the cardiovascular health of oneself and one's community. Former Washington ABC-TV news anchor, now a media consultant, Paul Berry moderated a panel consisting of Jack Valenti, Motion Picture Association of America president and CEO; Irene Pollin, chairperson of Sister to Sister; Aracely Rosales of Rosales Communications; and Peter Cribb, program director for the Child and Adolescent Trial for Cardiovascular Health at the Center for Health Promotion and Prevention Research in Texas.

The conference's main sessions can be viewed online at videocast.nih.gov or through a special post-conference web page, which will be at www.cvh2002.net. ■



"Talk show" participants discuss ways to improve peoples' cardiovascular health. They include (from l) Jack Valenti, Irene Pollin, Aracely Rosales, Peter Cribb and Paul Berry.



Conference participants share ideas at one of the many small group sessions.

TIME CAPSULE, CONTINUED FROM PAGE 1

legend among journalists, who served for 57 years as a correspondent and the first woman White House bureau chief. She was the first woman officer of the White House Correspondents Association and the first woman officer of the National Press Club. For nearly 40 years, she covered presidential news briefings, from the presidencies of John F. Kennedy to Bill Clinton. She published her memoirs in 1999:

PHOTOS: ERNIE BRANSON

Front Row at the White House—My Life and Times.

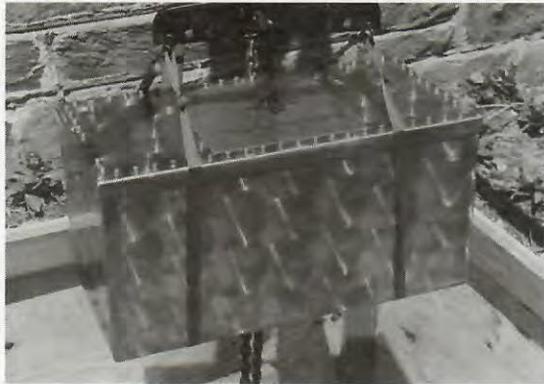
Event planners included representatives from NIH's Office of Research on Women's Health, the Health Resources and Services Administration Office of Women's Health, the Substance Abuse and Mental Health Services Administration, and the Food and Drug Admin-

istration. They first unveiled the time capsule on Dec. 3, 2001, at an OWH 10th anniversary celebration.

Placed into the time capsule were items from a number of categories: body image and health; diagnoses and treatment; legislation and policy; health education/communications; preventive health; quality of life; social and cultural factors (including a music CD and a Barbie doll).

Before its planned 98-year interment, the time capsule was displayed at various locations around the country, including Dallas, San Francisco, Pittsburgh, Smith College,

Mt. Holyoke College and the Northeast Missouri Health Council in Kirksville, MO.



Metal time capsule is lowered into special burial chamber at Stone House.



A special marker (above) in the Stone House garden commemorates the burial site, which is to be exhumed in 2100. At right, kids from the NIH preschool entertained at an afternoon tea.

**Five Members Join NIAMS Council**

The National Institute of Arthritis and Musculoskeletal and Skin Diseases advisory council recently added five new members.

Vicki Kalabokes is president and chief executive officer of the National Alopecia Areata Foundation in San Rafael, Calif. She coordinates medical research at over 40 university centers worldwide and serves as a member of the NIH Council of Public Representatives.

Dr. Cato T. Laurencin is the Helen I. Moorehead distinguished professor of chemical engineering at Drexel University and clinical professor of orthopaedic surgery at the Medical College of Pennsylvania Hahnemann School of Medicine. He also serves as director of the Center for Advanced Biomaterials and Tissue Engineering at Drexel, where his research involves overseas development of new polymer systems for biomedical purposes as well as tissue engineering and drug delivery.

Dr. Richard T. Moxley III is director of the Neuro-muscular Disease Center, associate chair of the



NIAMS director Dr. Steven Katz (third from l) and deputy director Dr. Steven Hausman (r) welcome new council members (from l) Dr. Richard T. Moxley, Dr. Francesco Ramirez, Dr. Cato T. Laurencin, Vicki Kalabokes and Mary Elizabeth Repogle.

department of neurology, and a professor of pediatrics and neurology at the University of Rochester School of Medicine. He is currently studying muscle wasting and weakness in the muscular dystrophies, and has a special interest in the myotonic dystrophies and Duchenne dystrophy.

Dr. Francesco Ramirez is currently the Dr. Amy and James Elster professor of molecular biology at the department of pharmacology and biological chemistry, as well as the dean for research and vice president of Mt. Sinai School of Medicine at New York University. He will soon be leaving to take a new job as chief scientific officer for special surgery at Weill Medical College of Cornell University.

Mary Elizabeth Repogle is vice chairman of the Oklahoma Arthritis Network, a statewide coalition of nearly 200 organizations, businesses and individuals working to bring about the state's Arthritis Action Plan. ■



The National Day of Prayer was celebrated at NIH this year on May 2, on the lawn in front of Bldg. 1. Guest speaker Pastor Kevin Williams addressed the annual nondenominational gathering to pray for the nation and our leaders. Some 80 employees participated in the observance. The ceremony was sponsored by the Noontime Christian Fellowship, which welcomes all to its meetings every Tuesday at 11:45 a.m. in the second-floor classroom of Bldg. 21.

NIH Director's Awards Ceremony

Everyone is invited to the 2002 NIH Director's Award Ceremony, which will be held Wednesday, June 19 at 1:30 p.m. in the Natcher main auditorium. Recipients of the NIH Director's Award will be recognized, along with recipients of the NIH Director's Award for Mentoring, and the Commissioned Corps Distinguished Service Medal, Meritorious Service Medal and Outstanding Service Medal. Seating is on a first-come, first-served basis. Sign language interpreters will be provided. Individuals with disabilities who need reasonable accommodation to participate in the event should contact their IC award coordinator.



Dr. Mark A. Klebanoff, director of the Division of Epidemiology, Statistics, and Prevention Research, NICHD, was inducted into the Johns Hopkins Society of Scholars on May 22. The society, established in 1967 by university trustees, honors distinguished former post-doctoral fellows of the

university. Klebanoff received his M.D. from Johns Hopkins and an M.P.H. from its School of Hygiene and Public Health. His research interests focus on the epidemiology of pregnancy complications, particularly preterm birth and reduced fetal growth.

FAES Announces Concert Schedule

The Foundation for Advanced Education in the Sciences has announced the performers and dates in the 2002-2003 season of its Chamber Music Series. This is the series' 35th year, and there is a venue change. Formerly held in Masur Auditorium, the concerts will now be held at the Landon School's Mondzac Performing Arts Center. With the exception of the Jan. 20 concert, all performances will be Sundays at 4 p.m.

- Oct. 6, Chamber Orchestra of Philadelphia with Ignat Solzhenitsyn, conductor and pianist
- Oct. 20, Auryn Quartet with David Soyer, cello
- Nov. 3, Prazak Quartet
- Nov. 17, Peter Serkin, piano
- Jan. 12, 2003, Viktoria Mullova, violin, Charles Abramovic, piano
- Jan. 20, Radu Lupu, piano (Monday, 8 p.m.)
- Feb. 2, Richard Goode, piano
- Feb. 23, Wolfgang Holzmair, baritone, Russell Ryan, piano
- Mar. 2, Winner, Borciani Quartet competition
- Mar. 23, Trio Fontenay

Tickets for individual concerts may be purchased 2 weeks before the performance, or on the day of the concert. Cost is \$25 for adults; \$10 for students and fellows. For more information call 496-7976 or visit www.faes.org.

Men Needed for Prostate Study

Healthy black men age 50 and older and other healthy men age 55 and older are needed for the largest-ever prostate cancer prevention study. NCI's Selenium and Vitamin E Cancer Prevention Trial, or SELECT, will determine if these two dietary supplements can protect against prostate cancer, the most common form of cancer, after skin cancer, in men.

Two earlier studies suggested that these supplements may prevent prostate cancer, but this cancer was not the focus of the studies. SELECT is the first to look at the role of these supplements specifically for preventing prostate cancer.

Upon enrollment, men will be assigned by chance to one of four groups. One group will take 200 micrograms of selenium daily plus an inactive capsule, or placebo, that looks like vitamin E. Another group will take 400 milligrams of vitamin E daily along with a placebo that looks like selenium. A third group will take both selenium and vitamin E. And a final group will be given two placebos.

Local sites are George Washington University, Howard University, Annapolis's Anne Arundel Medical Center, Johns Hopkins University and the Washington, D.C., VA Medical Center. For more information call 1-800-4-CANCER.

Chamber Players To Perform, June 16

The Rock Creek Chamber Players will perform on Sunday, June 16 at 3 p.m. in the 14th floor assembly hall, Bldg. 10. The program will include Telemann's viola concerto in G major, his *Gulliver Suite* for two violins, two etudes and a nocturne for solo piano by Chopin, and Brahms' piano trio in C major. For more information about this free public concert, sponsored by the Clinical Center's recreation therapy section, call (202) 337-8710.

LANGUAGE ACQUISITION, CONTINUED FROM PAGE 1

Center for Mind, Brain, and Learning. Kuhl was one of three esteemed researchers on language and learning to take part in a symposium titled "Neural and Behavioral Aspects of Early Language Development." The third in a series of symposia on language and the brain, it took place Apr. 25 in Lipsett Amphitheater. Other speakers were Dr. Helen J. Neville of the University of Oregon, and Dr. Laura-Ann Petitto of Dartmouth College.

According to Kuhl, who has advised both Presidents Clinton and Bush on the topic of early cognitive development, a confluence of factors allows children to master their native tongue with remarkable ease and efficiency.

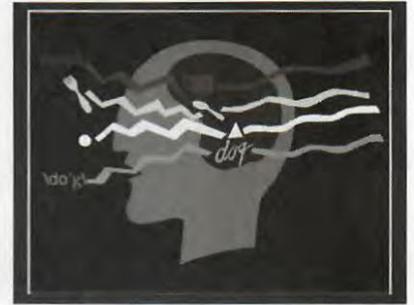
She explained that before a baby utters her first slobbery syllable, she has been hard at work mentally calculating the statistical nuances of her parents' language. Not only are babies capable of deciphering sounds, she said, but they also can map how the individual sounds are combined, how syllables are stressed, and what the intonation qualities are—"all by the time they celebrate their first birthday."

Seeking to pinpoint the period in a child's life when one language takes over another, Kuhl studied how Japanese and American babies perceive sounds. She discovered that both American and Japanese babies were able to differentiate equally well between the sounds *ra* and *la* at the ages of 6 to 8 months. However, by the time they were 10 to 12 months old, the American babies became more adept at distinguishing between the two sounds, while the Japanese babies had grown steadily worse. Likewise, American babies who at 6 months were able to distinguish between sounds commonly used in Mandarin Chinese had lost their ability by the time they were 10 to 12 months of age. But American babies exposed to Chinese for a total of 5 hours when they were 9 months old performed up to par with their Chinese counterparts.

Kuhl said that "motherese," the high-pitched, sing-songy voice that most adults naturally lapse into when addressing a baby, also makes it easier for the baby to learn a language because the sounds are greatly exaggerated. Currently, she is studying whether learning two languages at once can slow a baby's progress because of interference between the conflicting frameworks.

How well an individual learns a language may also be affected by the brain itself, according to Neville, professor of psychology and neuroscience and director of the University of Oregon's Brain Development Lab and Center for Cognitive Neuroscience. For years, she has investigated whether certain

The next symposium in the series on language and the brain, scheduled for Sept. 19, will focus on language and aging.



biological factors can limit how a brain goes about learning language, as well as how experience can influence which parts of the brain are devoted to the task.

In studying how the brain acquires language, Neville distinguishes between semantics, which is the meaning behind each noun, verb, adjective, and adverb that enriches a person's vocabulary, and syntax, which is the logical placement of words in a sentence that follows the rules of grammar.

Not only are babies capable of deciphering sounds, but they also can map how the individual sounds are combined, how syllables are stressed, and what the intonation qualities are—"all by the time they celebrate their first birthday."

Using noninvasive brain imaging techniques such as event-related brain potential and magnetic resonance imaging, Neville studies the sections of the brain that are most active when early and late learners of English and American Sign Language (ASL) detect inaccuracies in semantics or syntax in the two languages. ASL possesses all of the same elements of spoken language, but uses vision and movement to communicate as opposed to sounds and words.

Although the left hemisphere has long been known to be the primary hub of language activity in the brain, Neville has discovered that both hemispheres can play a role in certain situations.

For example, early users of ASL, whether deaf or hearing, employ both the left and right hemispheres when reading ASL, whereas late ASL-users rely solely on the left hemisphere. Neville suggests that the right hemisphere helps analyze the shape, motion and location of words in a signed sentence, known as its spatial syntax, however there are time limits on when a person can recruit it for this purpose.

Neville also noted that early users of English, as opposed to deaf individuals and other late learners, demonstrate a lopsided degree of activity favoring the left side of the brain when reading English, a trait that is largely driven by the acquisition of

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grammatical understanding. Consequently, grammatical development depends on the age at which a language is learned—namely, the earlier, the better—while semantics can be learned and developed throughout a person's life.

But what mechanism do children use to acquire language, and is it the same for hearing and deaf children?

To answer this question, Petitto, professor and director of Dartmouth's Cognitive Neuroscience Laboratory for Language and Child Development, studied deaf children who were exposed to ASL and hearing children exposed to speech. She discovered that both groups attained the same language milestones within days of one another: saying or signing their first word at 12 months, two-word sentences at 18 months, and so on. Even bilingual children who learned both ASL and English achieved both milestones according to the same timetable.

Furthermore, Petitto noted that the mechanism used by both deaf and hearing children in acquiring language is rhythmic oscillation, or what most people refer to as babbling. When a hearing baby babbles, he is uttering shortened phonetic units in repetitive and meaningless ways. Petitto has discovered that deaf babies also produce repetitive and meaningless babble—silently—using their hands. Comparing hearing children born to deaf parents who use only sign language to communicate with hearing children born to hearing parents, Petitto found that the children born to deaf parents used a variety of rhythmic hand motions very different from, and in addition to, the typical hand movements that the babies born to hearing parents made.

Petitto contends that not only is the mechanism the same for hearing and deaf babies, but it arises from the same tissue in the brain. Using positron emission tomography, a brain imaging technique, her laboratory has found that regions of the brain previously thought to be reserved for the processing of speech and sound, such as the superior temporal gyrus, were still functional in deaf people. She proposes that brain tissue involved in acquiring language is not so much dedicated to the processing of speech and sound but to more abstract activities that help us pattern the language we use, be it spoken or signed.

The next symposium in the series, scheduled for Sept. 19, will focus on language and aging. The speakers will be Dr. Susan Kemper, University of Kansas; Dr. Loraine Obler, City University of New York; and Dr. Sandra Weintraub, Northwestern University. For more information, contact Dr. Judith Cooper, 496-5061.

The Apr. 25 seminar was sponsored by NIDCD, NICHD, NIMH, NINDS, NIA and the Office of Behavioral and Social Sciences Research. ■

FAES Announces Spring Courses

The FAES Graduate School at NIH announces the schedule of courses for the fall 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, imaging sciences, 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 Sept. 17; mail registration ends Aug. 30 and walk-in registration will be held Sept. 3-10. 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 NIHTS system; a signed hard copy (vendors' copy of SF182 form) is needed in order to process registrations for classes.

Catalogs are 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 catalog sent, call 496-7976 or visit <http://www.faes.org>. ■



Acting NIGMS director Dr. Judith Greenberg (r) recently welcomed two new members to the National Advisory General Medical Sciences Council: Dr. Ira Herskowitz (c) is codirector of the program in human genetics in the School of Medicine at the University of California, San Francisco, where he is

also a professor in the department of biochemistry and biophysics. His research interests include the control of gene expression in yeast, cell signaling, cell morphogenesis and growth control, and pharmacogenetics. Dr. Laura Weiss Roberts is an associate professor and vice chair for administration in the department of psychiatry at the University of New Mexico School of Medicine. She recently founded and is the director of the University of New Mexico Health Sciences Center Institute for Ethics. Since 1996, she has served as director of the empirical ethics group, a multidisciplinary research team focusing on ethical issues in clinical care and research with special populations.

SENIOR SCIENTIST, CONTINUED FROM PAGE 1

ing medicine, he decided to pursue his first love: biophysics. While in Japan, he studied vertebrate nerve fibers and discovered the insulating function of the myelin sheath, a material that speeds the conduction of nerve impulses. He also was the first to show that electrical impulses traveling along myelinated nerve cells actually “jump” between the breaks in the myelin wrapping, called nodes of Ranvier. His description of this process, termed saltatory conduction, is prominent in every biology textbook. The discoveries also provided the foundation for a better understanding of diseases such as multiple sclerosis, in which myelin is lost or damaged.



When asked how long he intends to work, Tasaki said “I will continue to work until my wife says she cannot work. If she can work until she is 100 years old, then I will keep working too.”

After World War II, Tasaki’s research took him to England and to Switzerland, where he further studied the properties of nerve fibers. In 1951, he came to the United States to work at Washington University in St. Louis. While there, Tasaki and his colleagues demonstrated how vibrations that occur in the cochlea in response to sound are translated into electrical signals that the brain can interpret. This effort led to the development of the field of audiology, indirectly providing the basis for diagnosing and treating many hearing disorders.

Tasaki began his NIH career in 1953, at NINDS, then called the National Institute of Neurological Disorders and Blindness. Later, when NIMH separated from that institute, he moved with the new institute, where he was a lab chief for 22 years. He is currently on detail to NICHD. Since coming to NIH, Tasaki has been studying the physical and chemical processes that occur in nerve membranes.

According to Dr. Peter Basser, one of Tasaki’s colleagues at NICHD’s Laboratory of Integrative and Medical Biophysics, Tasaki is “one of the great neurophysiologists of the past century—and of this century too.” He is also fiercely committed to research, building his own lab instruments for use in his experiments and working tirelessly in his quest to understand how nerves work. In fact, when his NICHD lab was recently renovated, he not only switched his place of work, but switched his focus as well. He halted his lab work and moved to a nearby office to investigate the mathematical theory behind his findings.

Tasaki’s wife, Nobuko, realized early in their relationship that if she ever wanted to see her husband, she was going to have to work with him. For the past 60 years, she has acted as his lab assistant and partner, working with him in the

NICHD lab 7 days a week, 52 weeks a year. Tasaki jokingly calls her his “supervisor.” The couple has two sons: the oldest is a retired physics professor living in Tsukaba, Japan, and the youngest is an engineer who works at NASA. Although he occasionally hits the golf course in order to unwind, Tasaki does not see retirement in his immediate future. His dedication appears to run in the family. His mother, a music teacher and calligrapher in Japan, lived until the age of 108 and was active until the last days of her life. When asked how long he intends to work, Tasaki said, “I will continue to work until my wife says she cannot work. If she can work until she is 100 years old, then I will keep working too.” ■

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>.

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Interacting with Difficult Employees	6/18
Speaking On the Job Part I: Improving Voice Quality	6/19, 20
Customer Service in a Changing World	6/20
Effective Memory Development	6/20
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Dr. Ahmed M. Elkashef, chief, Clinical Medical Branch, Division of Treatment Research and Development, National Institute on Drug Abuse, has received the Physician Researcher of the Year Award from the Commissioned Corps. He was honored for his accomplishments in clinical trials research and administration. In a little more than 2 years at NIDA, he has fashioned both clinical pharmacology sites and a

clinical trials group in the continental United States and Hawaii capable of performing studies of potential pharmacotherapies for the treatment of cocaine and methamphetamine dependence. He has also provided technical assistance to Thailand in its efforts to deal with an epidemic of methamphetamine abuse and addiction, and in setting up clinical sites to participate with the U.S. methamphetamine clinical trials group.

CSR's Monsees Retires After 24 Years at NIH

By Don Luckett

"I was always a cynic," said Dr. David Monsees. But something happened during his 24 years at NIH. He became a believer. "NIH has been good to me," he said, as he retired from the Center for Scientific Review. "I found my niche." He was the scientific review administrator for the epidemiology and disease control study section 2.

In many respects, Monsees' cynicism was a productive force in his career. It deepened his early interest in science. While in a summer research program for high school students at the Jackson Laboratory in Bar Harbor, Maine, he conducted a genetic study that produced unexpected data. "I immediately started worrying about investigator bias," he said. Once he started, it was hard to stop. "You begin to question what is really real, and then you see different parallel realities for the same behaviors and actions."

Monsees' interest in social surveys grew at the University of Chicago, where he earned a B.A. in psychology in 1964 and M.A. and Ph.D. degrees in sociology in 1967 and 1970. His dissertation focused on husband and wife communication on family planning in an impoverished Columbian village.

He then went to the University of Florida in Gainesville, where he was an assistant professor of sociology. In 1974, he accepted a similar position at Catholic University in Washington, D.C. Monsees became further fascinated at how the interpretation of scientific data can be influenced by the philosophical approach of the investigator. "Any set of data when sufficiently badgered can be beaten into submission," he quoted Dr. Roland Tharp, who critiqued early sociological studies of marital satisfaction.

In 1975, Monsees became the director of data utilization for a company under contract to the National Institute of Drug Abuse and the National Institute on Alcohol Abuse and Alcoholism. He freelanced with NCI, reviewing research methods of cancer control contracts. A year later, he went to the Mountain States Tumor Institute in Boise, Idaho. As director of research there, he conducted studies funded by NCI on psychosocial rehabilitation of cancer patients.

Monsees began to focus more on statistics and survey research methods. In 1978, he joined NCI as program director for statistical and evaluation



Dr. David Monsees

projects in the Training Rehabilitation and Continuing Care Branch, and then for the Behavioral Medicine Branch, where he directed the early smoking cessation and hospice projects.

In 1980, he began a 6-year tenure in the Scientific Review Program at NICHD, before moving to NHLBI. After a brief term as executive secretary of NHLBI's advisory council, he became the SRA for the institute's clinical trials review committee. In 1996, he joined the NIH Office of Management Assessment, where he investigated allegations that grant funds were misused.

In 1998, he joined CSR. He explained that the years coordinating peer reviews have been his most satisfying. "If you've got a good, tough, fair review that nobody can shoot holes in...you've got a chance to really make a difference." He also enjoyed the independence he had as an SRA and the personal relationships he developed.

Monsees found additional satisfaction serving as a member of the STEP committee from 1985 to 1989, when he directed a module on creative problem solving. He also served on the NIH oversight board for day care and helped revise use agreements for the NIH day care centers.

At his retirement lunch, it was evident that many enjoyed working with him. Past and present coworkers stood and spoke up: "I feel like I've known you forever," though it had only been a few months. "Many SRAs will never be forgotten, but David will be remembered with pleasure." "You made all our lives richer." A similar thing happened when his reviewers feted him at a retirement dinner.

Monsees now plans to devote more time to his passion for archaeology. He is taking a course this summer on magnetometry, which will allow him to image archaeological sites using magnetic waves. He has already received requests for assistance from archaeologists in Italy, Turkey and Romania as well as in New York and Texas.

When he talked about his plans to enjoy life, he encouraged his coworkers not to wait for retirement. "Enjoy what you do," he said. "And if you're not enjoying what you do—life is short—think of something else." ■

Blood Samples Needed

An NIH study is recruiting healthy African-American, Taiwanese and Japanese adults to donate 1 teaspoon of blood. The samples will be used to test for a platelet membrane glycoprotein (CD36) that is absent from the platelets of a small percentage of individuals from these populations. To be eligible you must be 18 or older. Compensation will be provided. Those interested should contact D.J. McCloskey, 496-5150. ■

Late Day Eaters and Meal Skippers

Women who eat most of their food in the late afternoon and evening most days of the week are sought for a study on metabolism and eating. Nonsmoking, premenopausal female volunteers without major medical problems (normal weight and overweight, ages 18 and older) are sought for a study on eating and metabolism. Participation requires: keeping a 1-week eating diary and 2 visits (a total of 4-6 hours) including a sub-maximal exercise test, assessment of body composition and metabolic rate. Participants will receive \$50, a group lecture on eating and weight management and feedback on their food-intake, body composition and metabolic rate. For more information call Teresa Hughes at the Uniformed Services University of the Health Sciences, (301) 295-1498.

CSR's Jeanne Ketley Retires

By Don Luckett

Lights flashed, sirens wailed as a fire engine pulled in front of the Rockledge II Bldg. The message for Dr. Jeanne Ketley was clear: Be careful what you wish for when you have friends at the Center for Scientific Review. The fire truck took her in a blaze of glory to her retirement lunch at a

Rockville restaurant. It was a fitting tribute to her spirited, 28-

year career in the government. She was chief of the cardiovascular science initial review group at CSR.

A rush of adrenaline also characterized her early academic career. Ketley worked in Dr. Robert Holley's lab at Cornell University when he conducted his Nobel Prize-winning research. "Working with Robert Holley was a truly exciting experience," she said. "He was the first to determine the nucleotide sequence of a nucleic acid." Nucleotides form the building blocks of life: DNA and RNA.

Holley sequenced the 78 nucleotides of a transfer RNA, alanine t-RNA. Ketley remembers him fiddling with an elastic tape filled with letters representing the nucleotide sequence he determined. Arranging the tape according to the known complementary sequence of these nucleotides, he deduced the cloverleaf secondary structure of t-RNA. After completing studies that helped verify this discovery in 1967, Ketley received an M.S. degree in biochemistry.

She then went to Johns Hopkins University and studied the mechanism of enzyme action. Ketley advanced with a goal-oriented approach. Timing was critical, since she was 8 months pregnant when she defended her dissertation. In 1973, she received her Ph.D. in biochemistry and gave birth to her son.

A fellowship brought her to the National Institute of Dental Research, where she studied the structure of collagen in developing muscle. In 1974, she became a staff fellow at the National Institute of Arthritis, Metabolism and Digestive Diseases (now the National Institute of Diabetes and Digestive and Kidney Diseases). There, she characterized the binding and catalytic properties of liver enzymes: homogeneous glutathione S-transferases. Four years later, she became a senior staff fellow at the National Institute on Aging, studying the regulatory effects of hormones on smooth muscle enzymes.

With an eye on becoming an NIH administrator, she went to the Food and Drug Administration in 1977. She was a review chemist in its Bureau of



Dr. Jeanne Ketley



A fire truck transported Ketley in a blaze of glory to her retirement lunch.

Foods, evaluating drug residue data submitted in applications for new animal drugs. Two years later, she returned to NIH and settled at the Division of Research Grants (now CSR). She oversaw the physical biochemistry study section. Six years later, she was named chief of the special review section. In 1989, she became chief of the physiological sciences review section. After a brief term as chief of the clinical sciences review section, she became chief of the cardiovascular sciences IRG in 1995. She also served as scientific review administrator of its pharmacology study section.

Ketley received seven Public Health Service awards, including NIH and CSR Directors' awards. She was honored for excellence in managing many responsibilities and tackling special projects. For instance, she helped develop policies with the DRG clinical research study group and helped create the PHS Consultant File for identifying reviewers.

CSR director Dr. Ellie Ehrenfeld praised Ketley for "her astute common sense and no-nonsense leadership. CSR, NIH and the cardiovascular sciences research community will be sorry to lose her."

A key part of Ketley's success as a leader has been her disarming smile. "I'm a positive person," she explained. "You cannot expect everything to work extremely well. You should take joy in the fact that some things do work well...[and] keep focused on why you are here." She was also an effective leader because she enjoyed working where she did. At her retirement lunch, she described three joys she found at CSR: being part of the human side of science and seeing individual scientists succeed, listening to science being evaluated and discussed, and working with a diverse and fascinating group of individuals.

Now that her wish to ride a fire engine has come true, what will she wish for next? Ketley plans to start her own business and hopes to help her son's dance group apply for grants. She also hopes to ease her partner's teaching burden so they can vacation and enjoy her retirement together. Ketley has not wasted any time getting started. She took a spring-break cruise to the Caribbean the day after her retirement. ■

Workshop on Dynamic Presentations

HRDD is launching the second in the series of workshops for women in science, "Giving Dynamic Presentations." This is a 1-day session designed to equip scientists with specific methods for capturing and holding audience attention and speaking with confidence, poise and enthusiasm. Participants will learn through videotaped presentations, technique review and individual coaching. The workshop will be held Monday, June 17, with a half-hour individual coaching session on June 19. For more information, call HRDD at 496-6211 or visit <http://learningsource.od.nih.gov/>. ■

Asian/Pacific Islander American Heritage Program Marks 30th Year



Korean drummers entertain during the picnic luncheon.



PHOTOS: BILL BRANSON

A member of the Indian Pushpanjali Dance School poses at left. At right, the program also featured dancers from the Hua Sha Chinese Dance Center.



At left, employees try their hand at flower-arranging. A Kikuyuki Dancer performs at right.



Linda Fang, a storyteller, spins a tale from her repertoire of traditional favorites.



Chinese dancers perform for the musical program, which was held at lunchtime rather than evening hours this year.



Event coordinators include (from l) Shuko Yoshikami, Victor Fung and Ed Sunderland.



Ever a popular feature during the annual observance, the outdoor luncheon allowed attendees to sample cuisines from several Asian and Pacific Island countries, including the Philippines, China, Japan, Korea, India and Thailand.



Terrific weather, exotic food, intriguing craftmaking and outstanding entertainment combined to make this year's 2-day Asian festival a rousing—and crowded—success.

Minority Program Participants Honored

Two participants in NIGMS minority programs were among the recent recipients of awards presented by the National Science Foundation.

Dr. Erich D. Jarvis received the 2002 Alan T. Waterman Award, which recognizes a U.S. scientist who is at the forefront of science or engineering. It is NSF's highest honor for a young researcher.

Jarvis participated in NIGMS' Minority Biomedical Research Support and Minority Access to Research Careers (MARC) programs as an undergraduate student at the City University of New York, Hunter College, where he received a bachelor's degree in biology and mathematics in 1988. He went on to become a MARC predoctoral fellow at the Rockefeller University, where he received a Ph.D. in molecular neurobiology and animal behavior in 1995. Following postdoctoral work at Rockefeller, he became an assistant professor in the department of neurobiology at Duke University Medical Center. His research, which is currently supported by NIMH, focuses on the



Duke University scientist Dr. Erich D. Jarvis received the Waterman Award from NSF during a ceremony in Washington, D.C., on May 7.

neurobiology of vocal communication in songbirds, with an emphasis on the molecular pathways involved in the perception and production of learned vocalizations.

The Society for Advancement of Chicanos and Native Americans in Science (SACNAS) received the 2002 National Science Board Public Service Award for outstanding contributions to communicating, promoting, and helping to develop broad public policy in science and engineering. SACNAS was recognized for "giving information, support, guidance, and mentoring to budding young Latino and Native American scientists and engineers." At its annual conference, which NIGMS cosponsors, SACNAS provides chances for undergraduate and graduate students to participate in their first scientific meeting and hear talks by leading scientists. ■

TSP Now Accepts Transfers, Rollovers

The Thrift Savings Plan now accepts transfers and rollovers from more types of eligible retirement plans. Effective Apr. 1, the TSP accepts transfers and rollovers of eligible section 403(b) annuities (such as the TIAA/CREF), 457(b) plans, Simplified Employee Pensions (SEPs), and traditional individual retirement accounts (IRAs), in addition to transfers and rollovers already accepted. The Federal Employees' Retirement System Act does not allow the TSP to accept after-tax balances (amounts you contributed that had already been taxed); therefore, transfers from IRAs (and all other plans) must consist solely of balances that will be subject to income tax upon distribution. This means, for example, that a Roth IRA would not qualify for transfer or rollover. The Thrift Board has revised the TSP-60, Request for a Transfer Into the TSP, to reflect this change in law. Employees who have TSP accounts may obtain a TSP-60 from the TSP web site (www.tsp.gov) or from the TSP Service Office (504-255-6000). ■

'Exercise Pill' in the Offing?

Researchers supported by the National Institute of Arthritis and Musculoskeletal and Skin Diseases have discovered that an enzyme called calcium/calmodulin-dependent protein kinase (CaMK) is a major player in activating "slow-twitch" muscles—those involved in sustained exercise like swimming or running.

A University of Texas Southwestern Medical Center team directed by Dr. R. Sanders Williams developed a mouse model that produced high amounts of this enzyme in its skeletal muscle. The animals' muscles showed increased numbers of mitochondria, the energy-producing micromachines in cells, mimicking the mitochondrial increase associated with endurance exercise. The mice were also more resistant to fatigue after repeated muscle contractions, and their muscles showed increased activity of mitochondrial enzymes important in fatty acid metabolism and electron transport. In addition, CaMK was found to activate the gene PGC-1, the "master regulator" of mitochondrial proliferation in mouse muscle cells.

Some have speculated that the discovery of these effects could eventually form the science base for developing an "exercise pill." Such a pill, they say, would influence muscle-signaling pathways to confer muscle activity benefits on people whose health conditions prohibit exercising, including those with heart and respiratory conditions. ■

Wednesday Afternoon Lectures

The Wednesday Afternoon Lecture series—held on its namesake day at 3 p.m. in Masur Auditorium, Bldg. 10—features Dr. Robert J. Lefkowitz on June 19; he is HHMI investigator and James B. Duke professor of medicine and professor of biochemistry, Duke University Medical Center. His topic is "Beta-Arrestins: Traffic Cops of Cell Signaling."

On June 26, Sir Richard Peto, professor of medical statistics and epidemiology, Oxford University, will give the annual Robert S. Gordon Jr. Lecture on "Halving Premature Death."

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