



## **Epidemiology Studies Prone to Buffeting by Politics, Uncertainty**

By Rich McManus

 ${f B}$  ecause novels and essays are often better than scientific studies at expressing nuanced truths, Johns Hopkins epidemiologist Dr. Leon Gordis's delivery of the 15th annual Robert S. Gordon, Jr. Lecture on June 3 sometimes seemed more like a liberal arts seminar than a scientific presentation. After all, how many times have you heard Hungarian novelist Sandor Marai quoted in Masur Auditorium?

But that's not to slight a science that has the power to trace the worldwide spread of Epidemiologist Dr. Leon Gordis (r) accepts the flu virus to a pig farm in Mexico, or an outbreak of salmonella-tainted peanut products



Gordon Lecture plaque from Dr. Barry Kramer, NIH associate director for disease prevention.

to a specific producer. Rather, it's because the humanities have something to say—and Gordis's 32 years of teaching epidemiology to more than 17,000 students have a

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## features

**Conclusions of Epidemiology Not Immune to Challenge** 

ABOVE · Volleyball on the plaza between Bldgs. 33 and 31 was one aspect of 'Get

Beach Ready.' See story on p. 9.

**NIH Partners with Subway To Reduce Obesity** 

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**Annual BBQ Features Duel** 

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NIDA Honors Four Young Scientists

## **NIH Cancer Project Wins Top Honors at Intel Science Fair**

By Jenny Haliski

NIH for the first time announced Grand Awards in the Medicine and Health category at the Intel International Science and Engineering Fair (ISEF) held recently in Reno, Nev. The Intel ISEF, the world's premiere science competition exclusively for students in grades 9-12, provides an annual forum for more than 1,500 outstanding students nationwide to showcase their independent research.

"The Intel International Science and Engineering Fair is a platform for the best and brightest high school science students in the world," said NIH acting director Dr. Raynard Kington. "Hundreds of NIH scientists are poised to retire in the next decade. It is a priority for NIH to nurture the careers of brilliant young scholars and build a pipeline of scientists with an interest in one day working with one of NIH's 27 institutes and centers. Participating in the fair is one example of how NIH is



'Be Willing to Help Someone

## **Veteran CPR Trainer Egebrecht Is in Her** Element

By Belle Waring

As NIH's director of basic life support training for 24 years

(and counting), Juli Egebrecht is an enduring presence in a place that appreciates her specialty. Yet popular culture, pervasive as it is, tends to mangle what she does—or at least the perception of it.

Egebrecht is ready for that.

"No more Baywatch CPR," she says. "You can do the motions, but that's only on TV. You have to do the real thing, for real."

CPR torsos, equipment and desks ring her classroom walls (CPR stands for cardiopulmonary resuscitation, a rescue procedure). In the center is an open area where folks practice the lifesaving ratio of 30 chest compres-



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#### Feds Feed Families - Warm Up to Giving!

With recent economic troubles and without school nutrition programs, many area families and children are at risk of hunger this summer. Area food banks are facing severe shortages of non-perishable goods. To address this urgent need for assistance, HHS is partnering with other federal agencies in the "Warm Up to Giving" food drive. NIH has joined efforts to step up and meet this challenge by gathering food for families in need. The food drive, called Feds Feed Families - Warm Up to Giving, serves to replenish severe shortages of non-perishable items at food banks across the region.

The NIH "Warm Up to Giving" food drive began July 1 and will run through Aug. 27. Only non-perishable goods should be donated. Foods such as canned fruit, vegetables, tuna, chicken and peanut butter will go a long way to help families in need. Donated goods will go to the Capital Area Food Bank, which serves more than 700 food pantries, soup kitchens and other service organizations in the District, Virginia and Maryland.

You can drop off your donations in the clearly marked collection boxes at the following locations:

On-Campus

Cafeterias: Bldgs. 1, 10 (B1 and ACRF), 31, 38A, 45

Lobby: Bldg. 50

Off-Campus

Cafeterias: 6001 Executive Blvd., Rockledge II, Rockledge Blvd.

Lobby: 6120 Executive Blvd.

For more information, contact Joy Gaines at (301) 451-9299 or email Gainesj@mail.nih.gov. To learn more about the food drive, visit www.fedsfeedfamilies.gov.

### BTRIS To Launch July 30

BTRIS (Biomedical Translational Research Information System), a new intramural NIH information system for accessing research data, will be launched on July 30. It will contain data from the Clinical Research Information System (CRIS) as well as data from the initial group of IC-specific clinical research information systems.

What makes BTRIS robust is its Research Entity Dictionary (RED). The RED will allow researchers to ask for the data they need without having to worry about the different ways data are labeled in different systems and even within systems. For

example, there are 18 kinds of body temperature measurements in CRIS; when using BTRIS, a researcher can specifically request "Body Temperature, Post-Dialysis" or can just say "Body Temperature" to get all the measurements for a patient.

BTRIS users will, with the help of RED, also be able to identify patients that meet multiple criteria—for example to find all patients whose body temperature was over a certain value and received a specific antibiotic, some antibiotic in a particular class of antibiotics or simply any antibiotic at all. These are just some of the examples of how BTRIS will facilitate processes that up to now have been complex and labor intensive.

BTRIS will be released in phases; the initial release will allow principal investigators who have active clinical protocols to get access to identified data on their subjects. Phase 2, slated for September, will allow intramural researchers access to de-identified data for hypothesis generation and data mining.

There will be a BTRIS Town Hall Meeting on Tuesday, Sept. 15 at 2 p.m. in Lipsett Amphitheater, Bldg. 10. Dr. Jim Cimino, chief, Laboratory for Informatics Development and director of the BTRIS Project, will showcase NIH's BTRIS software. All staff are welcome to see how BTRIS will provide powerful new tools for enhancing the research process.

#### caBIG Annual Meeting, July 20-22

NCI's cancer Biomedical Informatics Grid (caBIG) will hold its 2009 annual meeting "Solving Basic and Clinical Research Challenges in Cancer and Beyond" July 20-22. caBIG has been developed to enable the sharing of data and knowledge, simplify collaboration, speed research to deliver diagnostics and therapeutics more efficiently and realize the potential of personalized medicine. caBIG connects major segments of the cancer community, linking 50+ NCI-designated Cancer Centers, members of the National Community Cancer Centers Program, large-scale NCI science endeavors and countless scientists.

caBIG capabilities also provide an interoperable platform for linking other disease communities. This year's conference is especially timely in light of the sweeping changes under way at the national level in life sciences and health care. The program includes sessions addressing topics ranging from the future of biomedicine to how to use caBIG tools and infrastructure to aggregate, integrate and analyze data. To register, visit https://cabig.nci.nih.gov/2009AnnualMeeting.

#### NHLBI Hosts IT Forum, July 21

An NHLBI IT Forum, "It's Not Web 2.0, It's Not Web 3.0, It's Simply Life!," by social marketing guru Peter Shankman will be held on Tuesday, July 21 from 10 to 11 a.m. in Natcher main auditorium. Shankman will address how to use web technology to advance the mission of organizations. RSVP appreciated to levinerac@mail.nih.gov, or if you need reasonable accommodation.

At a National P.E.P. (Play More, Eat Right and Push Away the Screen) Rally, more than 200 children participate in fitness activities offered through NIH's We Can! program.

## Corporate Partnership with 'We Can!' Spreads Messages Nationally

NIH acting principal deputy director Dr. Lawrence Tabak, NIH staff and celebrities encouraged children to lead healthier lives at an event launching a new partnership between NIH's We Can! (Ways to Enhance Children's Activity and Nutrition) program and Subway Restaurants' Fresh Fit for Kids line of meals. To announce the partnership, NIH and Subway held a National P.E.P. (Play More, Eat Right and Push Away the Screen) Rally recently at the D.C. Armory where Tabak offered potentially life-changing tips to more than 200 local children.

"Obesity is a significant public health problem, not just for adults, but also for our children who could suffer from lifelong medical and psychosocial problems," Tabak noted. "We are delighted to...educate children and their families about three simple steps they can take for a healthy weight: eat right, move more and limit screen time."

The kids responded enthusiastically to Tabak, shouting "We Can!" each time he mentioned the name of the national education program. The participants also cheered on boxing champion Laila Ali, Olympic soccer star Tab Ramos and Subway spokesman Jared Fogle.

Ali, Ramos, Fogle and We Can! coordinator Karen Donato of NHLBI participated in dozens of interviews about the partnership with TV and radio stations across the country, emphasizing the program's three key messages. As a result of coordinated media efforts, the NIH-Subway partnership garnered more than 49 million media impressions, employing print, television, radio and Internet platforms—with an estimated 42 million impressions reached through Hispanic media covering the event and interviewing Ramos and others.

Through a memorandum of understanding, Subway has committed to continue to spread We Can! messages nationwide to parents, teachers and the public as part of a co-branded marketing campaign. More information on We Can!, its partners and an array of materials available to parents, children and communities can be found at http://wecan.nhlbi.nih.gov.



## Kleeberger Named NIEHS Acting Deputy Director

NIEHS and National Toxicology Program director Dr. Linda Birnbaum has chosen Dr. Steven Kleeberger to serve as her acting deputy director.

Birnbaum described Kleeberger as "a topnotch researcher of gene-environment interaction in the pathogenesis of environmental lung disease" and praised the "wealth of scientific expertise and administrative experience [he brings] to the role of acting deputy director of the NIEHS." She also highlighted Kleeberger's experience as an NIH grantee prior to joining the institute in 2002.

Kleeberger is chief of the Laboratory of Respiratory Biology and principal investigator of the environmental genetics group. In 2006, he received the NIEHS Director's Challenge Award to lead an interdisciplinary team in translating this research to applications in human health. In 2008, he received the NIH Director's Award.

Prior to joining NIEHS, Kleeberger was a full professor of environmental health sciences at Johns Hopkins University's Bloomberg School of Public Health. Currently, he holds adjunct professorships at Duke University School of Medicine and the University of North Carolina at Chapel Hill Schools of Medicine and Public Health. He has published more than 130 peer-reviewed articles in leading biomedical journals as well as two dozen book chapters and invited reviews.

Kleeberger has served as a reviewer for more than 20 journals and has also held a number of editorial board positions. From 2006 to 2008, he was deputy editor of *Environmental Health Perspectives* and he continues to serve on its advisory board.

With more than 100 invited lectures in the United States, Europe, Asia and South America to his credit, Kleeberger enjoys a high profile in the scientific community.—Eddy Ball

## **Conference on Advancing Rare Disease Research**

The National Center for Research Resources and the NIH Office of Rare Diseases Research are holding a 1-day conference on Thursday, July 16 to discuss ways to further research in rare diseases. "Advancing Rare Diseases Research through Networks and Collaboration," will be held from 7:30 a.m. to 4:30 p.m. in the main auditorium of the Natcher Conference Center.

Following a keynote address by Dr. Francis Collins, former director of the National Human Genome Research Institute, a series of expert panels will cover subjects ranging from training professionals in rare diseases research to translating basic research into clinical research and practice.

The event is free and open to the public. To register, visit www.ncrr.nih.gov/RDR\_Networks/. Contact Kimberly Potter at (301) 519-5344 or kimberly. c.potter@lmco.com if you have logistical questions. For content-related questions, email ordr@od.nih.gov.

#### **GORDIS**

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It's not always
that easy to issue
a smackdown to
suspicious science.
Uncertainty is a fact
of life in science,
and is indeed "the
reason so many
of you go to work
upstairs in the
labs—it's actually
an integral part of
science."

certain authority—when orderly facts bump up against messy humans.

In a talk titled "Epidemiology at the Interface of Science, Policy and Politics," Gordis used two prominent screening studies—one involving mammography and the other involving spiral CT to detect lung cancer—to show that for all our public bluster about data driving public health practice, "truth" can be up for grabs when it A) fails to align with entrenched political power and B) has already been purchased by an unseen hand.

In the first example, Gordis examined the 22-year debate about the value of mammograms for women ages 40-49. In 1987, the National Cancer Institute recommended that screening commence for women at 40. Six years later, experts could not agree on the value of routine screening for women in this age group. Gordis himself chaired a 1997 NIH Consensus Development Conference which found that the data did not warrant a universal recommendation, leaving it up to the discretion of a woman and her physician. Before the conference even ended, controversy erupted as the NCI director and a past NIH director took immediate exception to the findings.

"What we see here is the effect of political considerations," said Gordis. Even today, the issue "simmers and boils," he said. "There are still major disagreements."

The second example owes much to the congenital skepticism of the seasoned novel-reader (Gordis took a degree in Hebrew literature before earning his M.D.). A paper based on a 2006 study, the International Early Lung Cancer Action Program, claimed that spiral CT scanning can detect lung cancer in time to cure it. Four flaws, however, tainted its conclusions—Gordis said the study was not randomized, had no control group, failed to address the harms of screening itself and, perhaps most fatally, had been financed by a tobacco company. Quoting former NCI oncologist Dr. Otis Brawley, Gordis noted, "If you're using blood money, you need to tell people."

It's not always that easy to issue a smackdown to suspicious science, Gordis warned. Uncertainty is a fact of life in science and is indeed "the reason so many of you go to work upstairs in the labs—it's actually an integral part of science. But it makes policy based on epidemiology very hard. Scientific truth is often transient."

More literary allusions followed, especially with respect to being too sure of one's conclusions. Gordis finished with advice for the upcoming generation of epidemiologists: "I think we are resting too much on our laurels. We need to re-examine what we are doing. Populations are made up of people and their families. All those numbers represent human beings, who are often stressed and ill. There is a danger of treating people as abstractions."

Today's young trainees, he observed, are apt to do timid, lukewarm, incremental work. "I think there is a great fear of being found wrong," he lamented. "Youth is a time to be daring."

In an era when a doctoral candidate is more likely to download a PDF of a paper in his or her field than to browse freely among a variety of offerings, Gordis recalls the old days when a trip to the library yielded "a breadth of vistas" as he flipped through dozens of articles in fields as diverse as economics, sociology, psychology and health administration. High-tech downloads may be fast and accurate, but they are narrow, he warned.

During a brief Q&A, Gordis offered a frank response to a query about whether Gardasil, the much-touted HPV vaccine, should be made mandatory by certain states: "There is no evidence that Gardasil prevents cervical cancer. We really don't know if it's going to work. It seems to be effective for [viral types] 16 and 18, but there is some concern that other types may come in to displace those. I don't think the last word is in yet. But the drug company's behavior in pushing this vaccine is inexcusable. I see no reason why it should be mandatory."

## **Cancer Prevention Fellowship**

The Cancer Prevention Fellowship Program (CPFP) at the National Cancer Institute is accepting applications for 2010 fellows from now through Sept. 1. It offers training toward an M.P.H. degree at an accredited university during the first year, followed by mentored research with NCI investigators.

The CPFP provides competitive stipends, paid health insurance, reimbursement for moving expenses and a travel allowance to attend scholarly meetings or training. The typical duration in the CPFP is 4 years. To be eligible, applicants must possess an M.D., Ph.D., J.D. or other doctoral degree in a related discipline. Applicants must also be U.S. citizens or permanent residents. To learn more visit http://cancer.gov/prevention/pob or contact cpfpcoordinator@mail.nih.gov.

## **Eight NIH'ers Named to AAM**

Eight NIH scientists—four from NIAID (three from its Laboratory of Viral Diseases)—are among 73 microbiologists recently elected to fellowship in the American Academy of Microbiology. Fellows of the academy are elected annually through a highly selective, peer-review process based on their records of scientific achievement and original contributions that have advanced microbiology. There are now over 2,000 fellows representing all subspecialties of microbiology including basic and applied research, teaching, public health, industry and government service. The new NIH fellows are:

Dr. Jack R. Bennink, chief, viral immunology section, Laboratory of Viral Diseases, NIAID.

Dr. Edward A. Berger, chief, molecular structure section, Laboratory of Viral Diseases, NIAID.

Dr. Deborah M. Hinton, chief, gene expression and regulation section, Laboratory of Molecular and Cellular Biology, NIDDK.

Dr. Amar J.S. Klar, senior scientist, chief, developmental genetics section, Laboratory of Eucaryotic Gene Expression and Chromosome Biology, NCI-Frederick.

Dr. Jeffrey N. Strathern, deputy director, Center for Cancer Research; chief, Gene Regulation and Chromosome Biology Laboratory and head, genome recombination and regulation section, NCI-Frederick.

## 2009 Science in the Cinema Under Way

The annual free film and discussion series Science in the Cinema is under way. This year's topics include AIDS, cholera, polio, Darwin in the classroom, mental illness and stem cell research. The series results from a partnership between the NIH Office of Science Education and the American Film Institute (AFI) Silver Theatre and Cultural Center.

Every Wednesday through Aug. 12, a film with a medical science theme will be shown at 7 p.m. Following each film, an expert will comment on the science depicted in the film and take questions from the audience. Tickets are free and available on a first-come, first-served basis through the AFI Silver box office, day of show only. Seating is limited to the first 400 people.

All films will be shown with captions. Sign language interpreters and real-time captioning will be provided for the post-film discussions. For other reasonable accommodation, contact OSE at least 5 days before the event at moorec@mail.nih.gov, (voice) (301) 402-2470 or (TTY) through the Federal Relay Service at 1-800-877-8339. See the schedule at http://science.education.nih.gov/cinema.



Dr. Jeffery K. Taubenberger, chief, viral pathogenesis and evolution section, Laboratory of Infectious Diseases, NIAID.

Dr. Giorgio Trinchieri, director, Cancer and Inflammation Program, chief, Laboratory of Experimental Immunology, NCI Center for Cancer Research, and associate director for basic science, Trans-NIH Center for Human Immunology.

Dr. Jonathan W. Yewdell, chief, cellular biology section, Laboratory of Viral Diseases, NIAID. ②

NIH'ers named to AAM include (top, from l) Dr. Jack R. Bennink, Dr. Edward A. Berger, Dr. Deborah M. Hinton, Dr. Amar J.S. Klar and (bottom, from l) Dr. Jeffrey N. Strathern, Dr. Jeffery K. Taubenberger, Dr. Giorgio Trinchieri and Dr. Jonathan W. Yewdell.

#### **FAES Announces Fall Courses**

The FAES Graduate School at NIH announces the schedule of courses for the fall 2009 semester. The majority of 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, statistics, technology transfer, alternative medicine and courses of general interest. A technology transfer certificate program is also being offered. It is possible to transfer credits earned to other institutions for degree work, with their approval.

Classes will begin the week of Sept. 14; mail registration ends Aug. 21. An open house will be held Aug. 25 from 4 to 7 p.m. at the FAES Social and Academic Center, 9101 Old Georgetown Rd.; walk-in registration will be accepted then and also from Aug. 27-Sept. 4. Tuition is \$115 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 (SF-182) 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 (vendor's copy of SF-182) is needed in order to process registrations for classes. Asking your institute to pay your tuition is a preliminary step to registration but does not constitute registration with the FAES Graduate School.

Class schedules and course catalogs are available in the graduate school office, Bldg. 60, Suite 230; the FAES bookstore, Bldg. 10, Rm. B1L101; and the business office, Bldg. 10, Rm. B1C18. For a catalog, call (301) 496-7976 or visit www.faes.org.



### Right:

NIA's Dr. Stuart Maudsley (1) and Dr. Elisabeth Wagener, deputy director of the NIH Graduate Partnerships Program, answer questions at the NIH exhibit at the Intel ISEF.

#### **SCIENCE FAIR** CONTINUED FROM PAGE 1

encouraging students in science education."

NIH presented the Medicine and Health category, which recognized a total of 26 students in several levels. Outside funding sources financed the awards, including a Best of Category prize of \$5,000 and a notebook computer. In addition, a \$1,000 award was given to the winner's school and the Intel ISEF-affiliated fair they represented. The first place prize was a \$3,000 cash award: second place was \$1.500; third place was \$1,000 and fourth place was \$500.

Judges, who came from scientific institutions all over the world, assessed the projects and recommended finalists for the NIH announcements. NIH officials, including Dr. Elisabeth Wagener, deputy director of the NIH Graduate Partnerships Program, and Drs. Joseph Mindell (NINDS), Carla Easter (NHGRI) and Stuart Maudsley (NIA) also evaluated projects.

Ashoka Sanjaya Rajendra, 17, from the Loudoun County Academy of Science in Sterling, Va., won Best of Category and a first place prize for his project, "Down-regulation of hTERT Sensitizes Chemotherapeutic Effects of Docetaxel in Human Prostate Cancer Cells."

> The other two first place prize winners were Nayana Ghosh-Choudhury, 17, from San Antonio, for the project, "Statins Prevent Breast Cancer Growth and Metastasis, a Third Year Study" and Stephen Walter Trusheim, 18, from Golden Valley, Minn., for the project, "Engineering and Validat

ing Predictive Infection Surveillance Strategies for Methicillin-resistant Staphylococcus aureus."

"I was truly impressed by the quality of the science and how well the students presented their work," Wagener said. "We had a really difficult job trying to determine which of the projects were the best of the best, but these three stood out as clear winners. It is my hope that all the participants continue with their science education and their research too! Hopefully one day we'll see them at the NIH."

NIH also had an exhibit at the fair to provide the young scientists and their families, teachers and mentors with information about NIH, including training programs and science careers.

"We are delighted to have NIH participate in Intel ISEF this year," said Elizabeth Marincola, president of the Society for Science & the Public, which coordinates the competition. "By presenting the Medicine and Health category, NIH scientists are sending a strong message to our finalists: that the top research agency in the United States wants them to consider careers in biomedical science."

Wagener emphasized how important NIH finds the students' research. "We need you and we want you to succeed. You are the innovative minds that are already driving research and advancing the knowledge in your fields. It is my sincere hope that you stick with it. You are the ones who are going to make the exciting breakthroughs of tomorrow. You are truly shaping the future. We need your fresh ideas and motivation to tackle all the new scientific questions that arise every day," she said.

NIH's participation in the Intel ISEF is supported by multiple ICs including the Office of Sci-

#### Below:

NIDA's Cindy Miner (1) presents Addiction Science Fair Awards to (from 1) 3rd place winner Lucia Mocz, 1st place winners Sehar Anjum Salman and Jada Nicole Dalley, and second place winner Daniel Jeffrey Martin.



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First place Medicine and Health Category winners (from l) Nayana Ghosh-Choudhury, Ashoka Sanjaya Rajendra and Stephen Walter Trusheim pose with Wagener.

ence Education, the National Center on Minority Health and Health Disparities, the Office of Research on Women's Health, the Office of Intramural Training & Education and NIDA.

NIDA and the Friends of NIDA presented the Intel ISEF Addiction Science Awards for the second time. This year, research into the effect of third-hand smoke on the risk for genetic mutations in fruit flies by Sehar Anjum Salman and Jada Nicole Dalley, both 16-year-old juniors in San Antonio, won the top Addiction Science Award.

"What impressed us most about these young scientists was their ability to design and complete an extremely successful scientific project without having access to a college-level laboratory," said NIDA director Dr. Nora Volkow. "They showed great imagination and creativity in using a variety of resources, including an atlas of *Drosophila melanogaster* mutants, to maximize the results and potential significance of their efforts. As a result, they have made a timely contribution to an emergent and important area of research."

Winning second place was Daniel Jeffrey Martin, a 17-year-old junior from Phoenix, for his project, "The Effect of Human Methamphetamine Usage on Carnivore Scavenging." Martin made a retrospective analysis of data from a local medical examiner's office to demonstrate that carnivorous animals do not like to scavenge the remains of humans known to have abused methamphetamine.

The third place Addiction Science Award was given to a computer science project, "Complex Evaluation of Danger and Tranquility in Urban Settings: An Immunocomputing Intelligence Approach," developed by 18-year-old Lucia Mocz, a senior from Mililani, Hawaii. Using an artificial intelligence algorithm, she was able to generate highly detailed maps that integrate correlated indicators of danger and tranquility in the urban region of her home town.

## **Principles of Clinical Pharmacology Course**

The Principles of Clinical Pharmacology course, sponsored by the Clinical Center, will begin in Lipsett Amphitheater, Bldg. 10 on Sept. 3. The course will be held Thursday evenings from 6:30 to approximately 7:45 and will run through Apr. 22, 2010. "Many medical schools don't offer formal courses in clinical pharmacology," said Dr. John Gallin, director of the Clinical Center. "This program covers what researchers need to know concerning the clinical pharmacologic aspects of drug development and use."

The course covers topics such as pharmacokinetics, drug metabolism and transport, assessment of drug effects, drug therapy in special populations and drug discovery and development. "We have assembled an outstanding faculty for this course, drawing from the scientific staff at the NIH, the FDA, the pharmaceutical industry and many prestigious academic institutions in the U.S.," said course director Dr. Juan Lertora, director of CC clinical pharmacology.

The faculty, led by former course director Dr. Arthur J. Atkinson, Jr., has also prepared and edited a textbook, *Principles of Clinical Pharmacology*, Second Edition (2007), which follows the sequence of the course lectures. This textbook is highly recommended and is available in the Foundation for Advanced Education in the Sciences Bookstore in Bldg. 10 and through Amazon.com.

Since the course was first offered 12 years ago, it has expanded beyond the CC to include a number of off-site partners. Last year there were about 206 students from 13 long-distance partners in addition to some 345 enrollees at NIH.

Registration is open to all interested individuals at no cost unless the course is being taken for graduate credit. The course may be taken for credit through the Foundation for Advanced Education in the Sciences as PHAR 500 I and PHAR 500 II; contact FAES directly at (301) 496-7976 before Aug. 21. Certificates of participation will be awarded at the end to all students who attend 75 percent of the lectures. More information is available at www.cc.nih.gov/training/training/principles.html or by calling Donna Shields, (301) 435-6618.

## NIH Sailing Association Open House, Aug. 1

The NIH Sailing Association will hold an open house on Saturday, Aug. 1 from 10 a.m. to 3 p.m. at the Selby Bay Sailing Center in Mayo, Md. Explore your interest in learning to sail and discover opportunities for sailing with NIHSA. We will be giving demonstration sails for adults in the club's 19-ft. Flying Scot sailboats. Fall sailing classes begin Aug. 26; this is a good chance to preview the boats and meet the members. At the open house you can: join NIHSA; sign up for the 6-week Adult Sailing Class; find out about club sailboat racing; check out the social schedule of NIHSA; and meet members. Directions can be found at www.recgov.org/sail. Come check it out—sailing, food, drinks and beer for \$5 per person. Look for posters and flyers around campus for more information.

### **EGEBRECHT**

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Egebrecht has spent 24 years teaching CPR at NIH and is always glad to have more students.

PHOTOS: BELLE WARING

sions to 2 breaths.

"I'm an anthropologist by training," says Egebrecht, "and I tell my classes you have to develop a real-world scenario. While you're waiting for the AED [automated external defibrillator] to come, CPR is hard and it's tiring, so you have to get people to take over and convince them to work with you."

Since 1985, Egebrecht has been an NIH contractor; she's currently here with the American Heart Association via the Cambridge Group. "I've had 4 different paymasters," she says, "but it's the same position."

What's changed is the program. "It's gone from being first aid and CPR to courses for the layperson as well as the health care provider. And now," she says, "the latest is the AED training," a trend that started in the late 1980s.

An AED is a computerized medical device that can detect a life-threatening heart rhythm and then deliver a corrective shock (defibrillation). The AED uses voice prompts, lights and text messages to tell the rescuer how to proceed, step by step.

Sudden cardiac arrest occurs, on average, every 2 minutes throughout the U.S. In the absence of emergency rescue, survival falls 10 percent per minute over the first 10 minutes, so the initial shock is best performed by bystanders.

Untrained as well as trained people can use the AED. If trained, however, the rescuer will be able to use the AED more quickly and efficiently, with fewer interruptions in compressions.

"It's wonderful, it's easy, it's fun for people to learn and they're interested in learning it," says Egebrecht. "The latest AEDs have lithium batteries, very compact. Some are small enough to fit on police utility belts."

Originally from Wisconsin, Egebrecht grew up in a medical family. She studied pre-med, switched to anthropology then married and moved to Alabama with her husband, a Boeing physicist. After 5 years of the moon shot life at Marshall Space Center, they relocated to Silver Spring, Md.

As a young mother with two children, Egebrecht volunteered as a swim instructor and coach. Once she took the in-house CPR training, she was hooked.

"I've been a CPR instructor since 1972," she

says, "since the dark ages, with the blow-up Annies [full-sized mannequins]. We literally pumped them up; you pressed on the chest and their legs flew up in the air."

The American Heart Association guidelines change every 5 years; Egebrecht revises her own curriculum accordingly. Her basic life support and CPR classes draw people from every IC, including the Clinical Center. (Advanced life support is taught to code team and critical care personnel by the CC's nurse educators.)

"I love it here," she says. "People here think outside the box; they are more amenable to change. [IC and program] directors come in every 2 years [for renewal] and do their bit, and when they're here they're totally focused on the class. They're wonderful and they set a great example. But I also think they're just interested in it."

Those who teach don't necessarily know the impact they make on students. Sometimes the payoff comes way down the line. Egebrecht says she occasionally gets feedback about incidents when "someone does save someone outside of the hospital...One of the physicians here, a pediatrician, had a class with me," she recalls. "He and his family went camping in West Virginia [at a spot where there was a pool]. He heard an ungodly scream [and] saw a young girl being taken out of the pool. So he started CPR. Before the helicopter got there, she was breathing."

The girl survived.

"[The physician] sent me an email," Egebrecht continues. "He said, 'I heard your voice while I was working on her.' And I'm sitting there crying while I read it."

In a separate incident last December at Rockledge Fitness Center, graduates of Egebrecht's training helped resuscitate an NIH'er. He, too, survived.

"My father died of a heart attack back in 1976," Egebrecht says. "And I believe in this program... You have to be willing to volunteer to help someone."

For class information and registration, visit http://dohs.ors.od.nih.gov/cpr\_training.htm. ③

# feedback

Have a question about some aspect of working at NIH? You can post anonymous queries at www.nih.gov/nihrecord/index.htm (click on the Feedback icon) and we'll try to provide answers.

Feedback: With such need for child care for NIH personnel and the extreme length of the NIH child care wait list, I would think that the new child care center would be a prime candidate for ARRA funding. But I have heard rumors that it is not considered an important enough project to warrant ARRA funding. If providing child care for NIH personnel is not important, then how can NIH claim to be "family friendly" and support the needs of its many working parents?

Answer from the Office of Research Services: NIH leadership fully supports child care and has formally included the construction funds in the FY 2010 budget request. The use of Recovery Act funds was not determined to be feasible because the proposed Northwest Child Care Center was not considered "shovel ready." In parallel with the FY 2010 appropriations process, NIH is continuing with concept study of the facility so that if the funds are, indeed, appropriated in 2010, we will be ready to award a construction contract soon thereafter.

**Feedback**: What is the deal with the moving boulders? One day they are one place and then another day they are moved, leaving a huge indentation where they were. What's up?

Answer from ORS: There are several areas on campus where boulders have been moved. The reasons vary depending on the situation. For example, in the vicinity of Bldgs. 50, 12 and 13, boulder positioning was adjusted to improve pedestrian safety and the aesthetics near the loading dock. Boulders were added or adjusted near NIH Gateway Dr. and the East Child Care Center to improve safety. In other areas, boulder positions were adjusted to facilitate future construction, sidewalk replacement and a stormwater retention pond on the southeast lawn.

Feedback: I was recently told by a lab safety person that plants are not allowed in the laboratory. Is this a new rule? What is the reason for it? I do not see how plants could be a safety hazard. Plants are well known for cleaning the air and adding a bit of life, especially to an oth-

erwise dull lab. I can understand most of the lab safety regulations, but this one confounds me.

**Answer from ORS**: Plants and animals that are not associated with the work being conducted in the laboratory are prohibited because they are potential sources of experiment contamination and pest infestation.

**Feedback**: Could you find out why the parking in MLP-10 has gotten so crowded? The lot has been filling up so much earlier since February, and the situation has not let up even since summer started, when things are usually lighter.

Answer from ORS: The Division of Amenities and Transportation Services has reviewed numerous sources of traffic data to determine trends, but there is nothing that stands out as a single identifiable reason for any increase in traffic volume on the campus, including at MLP-10. Research has shown that other forms of transportation to the campus are increasing such as Transhare, bicycling, vanpools/carpools and shuttles. However, traffic counts to the campus remain consistent with previous years' numbers.



## **Fitness Event Brings Beach to NIH**

The NIH R&W Fitness Program in partnership with the Office of Research Services' Division of Amenities and Transportation Services held their first annual Physical Activity Day "Get Beach Ready" on June 2. The event supported the 2009 NIH President's Challenge and the HealthierFeds initiative. Participants showed off their skill at

volleyball, their strength at Tug of War and joined various group exercise classes such as Pilates, core conditioning, indoor group cycling, stretching, move n' groove, boxing conditioning and body challenge. All activities and classes were free to NIH employees and contractors. The Fitness Center is currently planning another physical activity day in the fall. Suggestions for activities can be emailed to Laura Lavrin, Fitness Center director, lavrinl@ od.nih.gov. For more details about fitness centers and their programs, visit www. recgov.org/fitness.





Women who suffer from migraine headaches in middle age accompanied by neurological aura (visual disturbances, dizziness or numbness that can precede migraines) are more likely to have damage to brain tissue in the cerebellum later in life, according to NIH researchers.

## Migraines with Aura in Middle Age Linked to **Brain Lesions**

Women who suffer from migraine headaches in middle age accompanied by neurological aura (visual disturbances, dizziness or numbness that can precede migraines) are more likely to have damage to brain tissue in the cerebellum later in life, according to a study by researchers at the National Institute on Aging, the Uniformed Services University of the Health Sciences and the Icelandic Heart Association in Reykjavik. Researchers said many people have these types of "silent" brain lesions, but their effect on physical and cognitive function in older people is not well studied. The study appeared in the June 24 Journal of the American Medical Association. Researchers found that women are more susceptible than men to localized brain tissue damage identified on magnetic resonance images and that women who reported having migraines with aura were almost twice as likely to have such damage in the cerebellum as women who reported not having headaches. Researchers noted that while the study shows an association in women between migraine and cerebellar tissue damage later in life, the functional significance of such brain changes remains an open question. Located in the lower back side of the brain, the cerebellum is involved in motor activity, balance and cognition.

### Unexpected Bacterial Diversity Found on Skin

The health of our skin—one of the body's first lines of defense against illness and injurydepends on the delicate balance between our own cells and the millions of bacteria and other one-celled microbes that live on its surface. To better understand this balance, NIH set out to explore the skin's microbiome, which is all of the DNA, or genomes, of all of the microbes that inhabit human skin. An initial analysis, published May 28 in the journal Science, reveals that our skin is home to a much wider array of bacteria than previously thought. The study also shows that at least among healthy people, the greatest influence on bacterial diversity appears to be body location. For example, the bacteria that live under your arms likely are more similar to those under another person's arm than they are to the bacteria that live on your forearm. Drawing on the power of modern DNA sequencing technology and computational analysis, the research team from NHGRI, NCI and the Clinical Center uncovered a far more diverse collection of microbes on human skin than had been detected by traditional methods that involved growing microbial samples in the laboratory.

## Delay in Diagnosis of Menopause-Like **Condition Tied to Low Bone Density**

Women and young girls who experience delays in diagnosing a premature, menopause-like condition face increased risk of low bone density. according to new research by NICHD scientists. A delay in diagnosing the condition, called primary ovarian insufficiency, may make women more susceptible to osteoporosis and fractures later in life, the researchers concluded. Delays in diagnosis are common because the main symptom, irregular or stopped menstrual periods, is often disregarded by women and their doctors, the researchers said. The researchers also found that the beginning of menstrual irregularity before age 20 was a strong risk factor for lower bone density. The teen years are a critical period for developing healthy bones. The study appeared online in the Journal of Clinical Endocrinology and Metabolism.

## Scientists See Important Advance for Cancer **Immunotherapy**

A new approach to stimulating immune cells enhances their anticancer activity, resulting in a powerful anti-tumor response in mice, according to a study at the National Cancer Institute. The work appeared online June 14 in *Nature* Medicine. Led by Drs. Luca Gattinoni and Nicholas Restifo of NCI, researchers found that a subset of immune cells, T lymphocytes called CD8+ memory stem cells, were capable of mediating strong anti-tumor immune response. These potent cells were generated in the laboratory by stimulating anti-tumor T cells in the presence of drugs designed to mimic an important signaling pathway. Called Wnt, the pathway describes a complex network of proteins whose interactions are essential during development and stem cell maintenance. If confirmed in humans, the use of tumor-reactive CD8+ memory stem cells could reduce the numbers of tumor-specific T cells needed for successful immunotherapy, thus making this type of therapy easier to develop so that more patients could benefit.—compiled by Carla Garnett



The phone numbers for more information about the studies below are 1-866-444-2214 (TTY 1-866-411-1010) unless otherwise noted.

#### Januvia Study

Volunteers are needed for a study examining the immune function in healthy volunteers given short-term treatment of sitagliptin. Investigators wish to determine if and how sitagliptin alters immune function. If you are 18 or older and healthy, consider participating in this study. All study-related tests are provided at no cost. Compensation is provided. Refer to study 09-DK-0055.

#### **Sleep Deprivation and Obesity**

A sleep and weight study for obese adults ages 18 to 50 who sleep less than 6 hours at night is recruiting volunteers. This study will examine the relation of sleep to body weight, the amount of body fat and the level of hormones that control appetite. Medical history and physical examination are provided at no cost. Compensation is provided. Refer to study o6-DK-0036.

### Type 1 Diabetes Clinical Research Study

Individuals ages 16-30 who have been diagnosed with type 1 diabetes within the last 4 months are needed for a clinical research study. The goal is to look at restoring beta cell function in individuals recently diagnosed with T1DM. No cost for study-related tests, medications or treatments. Compensation is provided. Travel assistance may be available. Refer to study 09-DK-0056.

#### **Healthy Volunteer Smokers Needed**

The Mood & Anxiety Disorders Program, NIMH, is looking for healthy volunteers with no current or history of mental illness, between the ages of 18 and 65, to participate in a variety of research studies. Study procedures may include: PET and/or MRI scans, psychological interview and neuropsychological testing, depending on the study you choose to participate in. Call (301) 435-8982 for more information.

#### Phone Survey on Genetic Counseling, Cancer

Volunteers are needed to participate in a brief telephone survey to gather opinions about genetic counseling and testing for breast and ovarian cancer. You may be eligible if you are an African-American (black) woman, are 21 years of age or older, are able to read and understand English, have at least one relative diagnosed with breast or ovarian cancer or have a personal history of breast cancer. Participants will receive a \$25 American Express gift cheque after completing the survey. To find out if you are eligible, call Toni Harrison in the Lombardi Comprehensive Cancer Center department of cancer control, (202) 687-8915, or visit http://fishercenter.georgetown.edu/genetic/participate/counseling/ for more information.

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NINR director Dr. Patricia Grady (c) welcomes new council members (from l) Dr. Janet Williams, Dr. Barbara Guthrie, Dr. Kathleen Potempa and Dr. Gail Stuart.

#### NINR Welcomes Four Council Members

NINR director Dr. Patricia Grady recently welcomed four new members to the National Advisory Council for Nursing Research. They are:

Dr. Barbara J. Guthrie, associate dean for academic affairs at Yale University School of Nursing, a nationally recognized expert in culturally responsive health-related policies and programs. Her research has focused on health promotion and risk reduction programs for adolescent girls from diverse social and ethnic backgrounds.

Dr. Kathleen Potempa, dean of the University of Michigan School of Nursing, with 25 years of experience in nursing education, research and administration. She previously served on the HHS National Advisory Council on Nurse Education and Practice and her research has focused on fatigue, exercise and cardiovascular fitness.

Dr. Gail Stuart, dean of the Medical University of South Carolina College of Nursing and a professor in the College of Medicine. A practitioner in the National Academies of Practice and chair of the board of the Annapolis Coalition on the Behavioral Health Workforce, her interests involve the study of depression and anxiety disorders as well as mental health delivery systems.

Dr. Janet Williams, Kelting professor of nursing at the University of Iowa College of Nursing and a past president of the International Society of Nurses in Genetics. Her research interests include the impact of genetic testing for Huntington's disease and she is a frequent consultant on projects to promote the education and practice of genetics in nursing.



Daytime Knights

## **Annual Camp Fantastic Barbecue Features Duel**

Bldg. 31's patio took on a carnival atmosphere June 16 when the annual Camp Fantastic Barbecue set up shop. Coordinated by the Recreation and Welfare Association to benefit Special Love Inc.'s camp for children with cancer, the event was themed "Life is a carnival!"

The afternoon featured hot dogs and barbecue from High Point Farm plus ice cream and popcorn, music by perennial favorite band Street Life, a duel between two Knights of Medieval Times and carnival games.

An unusually quiet, but glamorous "JLo" (a remarkable wax likeness of Jennifer Lopez courtesy of Madame Tussauds Wax Museum) oversaw it all and posed for photos with adoring fans.

The barbecue sold out at 12:30 p.m., by then accommodating patrons with pre-sold tickets only. Including lunch sales, a raffle, carnival games-playing and other charitable activities, the event raised close to \$4,500-about enough to send eight kids to camp for a week.

"This year was a huge success," said one of several R&W event organizers. "Thanks to everyone who came out and supported the event. We plan to make next year even bigger and better."



No Knights, So Long. Knights of Medieval Times duel before a live audience. No blood was shed and no swordsman was hurt in the making of this demonstration.





Above, attendees play carnival games to benefit Camp Fantastic. At left, a celebrity sighting? A waxen JLo oversees activities at the BBQ. Below, the well-attended event sold out about midway through the lunch hours. Organizers deemed it a rousing success.

PHOTOS: DAVID BROWNE

