



# Scoop

March 18, 2005

THE UNIVERSITY OF TEXAS MEDICAL SCHOOL AT HOUSTON

## Events to Know

### March

**19 "The Aging Brain,"** a free Brain Forum event, 10:30 a.m.-noon, MSB 3.001.

### May

**19 Annual Faculty Meeting,** 11:30 a.m.-1 p.m., MSB 2.006.

## UTMost Interest

The Medical School's chapter of Alpha Omega Alpha, the National Honor Medical Society, inducted 31 student members and two faculty members, **Dr. Philip Orlander** and **Dr. Han Zhang**, March 8 at an induction dinner at Brennan's. Also inducted were alumni **Drs. Bela Patel** and **Thomas R. Lux**, and housestaff **Drs. Clair L. Lakkis, Monica Manga,** and **George Van Buren II.** **Dr. Valerie Parisi**, dean of medicine at The University of Texas Medical Branch at Galveston, was the featured speaker and gave her top 10 list for great leaders.

## STAIRWELL PROGRESS



The Medical School's new ground floor stairwell is on target to open in mid-May, says **Jim Victor**, manager, Project Management and Engineering.

## CLASSIFIED STAFF WORKSHOP MAY 20

The University of Texas Health Science Center at Houston will be holding its 10<sup>th</sup> annual Classified Staff Workshop "Going for the Goal – Embrace the Challenge & Seize the Opportunity" for 300 classified employees. This year, the workshop will be held Fri. **May 20** at the Park Plaza at the Reliant Center Conference Center (formerly the Radisson). The guest speaker will be **Jim "Mattress Mac" McIngvale**. Registration begins **April 1**. If you have any questions, please contact **Tiffney Carter** at 713-500-3340.

## COLLABORATION WILL DECIPHER BACTERIUM STRAINS

Two Medical School researchers are co-investigators with **Dr. George Weinstock**, co-director, Human Genome Sequencing Center, and professor, Department of Molecular and Human Genetics, Baylor College of Medicine, and the principal investigator on a two-year \$377,000 NIH grant, "Genomic Comparison of Infectious Strains of *E. Faecalis*."

What **Dr. Barbara Murray**, director, Division of Infectious Diseases, and **Dr. Danielle Garsin**, assistant professor, Microbiology & Molecular Genetics, are undertaking with Weinstock is a genome project using new sequencing methodology that allows them to sequence multiple bacteria in an efficient and cost-effective manner.

"Dr. Murray is the queen of studying *Enterococcus faecalis*," Weinstock said. "She's worked on this most of her career." For the last 15 years, Murray and Weinstock have pooled their efforts studying the pathogen. Presently, Murray has a 10-year \$4M R37 (MERIT) award, "Alternative Approaches for *Enterococcus faecalis* Infections," for studying its mechanisms of virulence.

(Cont'd. on back)

## TEACHING AND LEARNING CONFERENCE OFFERS AWARDS MAY 10

Health science center faculty, researchers, and other innovators from the Texas Medical Center are invited to submit abstracts, due Fri., **April 15**, for competition in the health science center's Advances in Teaching and Learning Regional Conference. "All those who teach students or who train others in health-related positions will gain from attending," said **Doris Ross, Ph.D.**, past dean, School of Health Information Sciences.

This year's conference, 9 a.m.-5 p.m. Tues., **May 10**, at the School of Nursing and Student Community Center, marks the sixth annual conference highlighting research, innovation, and technology in education. This will be the first year that \$500 awards will be presented to the best poster and best podium presentation.

Also, for the first time, the conference planning committee is calling for workshop proposals. Workshop proposals should be e-mailed by Fri., **April 1**, to the conference chair, **Cynthia L. Phelps, Ph.D.**, assistant professor, SHIS.

Podium presentations are limited, and the selection process is competitive. Examples of relevant podium topics include: technology in education; innovative models and methods for teaching/learning; pilot projects using technology in an educational setting; scholarship of teaching; teaching/learning evaluation; patient and/or public health education; and educational learning theory used in the health sciences.

For information on abstract requirements and judging criteria, visit <<http://www.shis.uth.tmc.edu/TeachingDay>>.

For more information contact <[Connie.J.Tapper@uth.tmc.edu](mailto:Connie.J.Tapper@uth.tmc.edu)> or 713-500-3973.



**Dr. Cynthia Phelps and Dr. Barry Mann, keynote speaker in 2004.**



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## MURRAY, GARSIN, AND WEINSTOCK COLLABORATE, CONT'D.

Garsin said, "Nematode mutants that are more resistant to infectious disease organisms such as enterococcus and staph are part of my focus."

According to Weinstock, enterococcus is a bacterium that we all carry in our gut and is relatively harmless there.

"It's a secondary pathogen, really," said Weinstock. "It's

not like tuberculosis, or cholera, or syphilis." The problem, according to Weinstock, is that when the bacterium gets out of our intestine and into our bloodstream, it has the capacity to colonize the heart and cause endocarditis, as well as infections of other tissues.

### Antibiotic resistance genes

"Probably the outstanding characteristic is that it's acquired lots of antibiotic resistance genes," said Weinstock. "It just seems to have a desire to suck up DNA and collect antibiotic resistance genes, more so than most bacteria."

The problem is that there are enterococci that are resistant to all antibiotics. When you have one of those that colonizes the heart, the only treatment is to do heart valve surgery to eliminate the site of infection. Otherwise, it will kill you,

Weinstock emphasized.

"In the last couple of years, enterococcus, which is resistant to the silver bullet of antibiotics — vancomycin — has transferred its resistance to staphylococcus, a much more serious pathogen," Murray commented. The concern now is that vancomycin-resistant staph will become common.

### Sequencing defense

With the sequencing capacities that are available, Weinstock said, they now are able to sequence literally hundreds of strains of isolates of a bacterium and really get a broad picture of its diversity. This is very valuable for determining what to focus on for antimicrobial defense.

"We would aim it at sequencing two enterococcal strains — a laboratory strain and another one isolated from a person who had endocarditis, a heart infection," Weinstock said. "We will use Pyro and Sanger sequencing methodologies and Nimblegen microarrays. After we have generated the DNA sequence, Danielle, Barbara, and myself, in our laboratories, will work together to predict the genes, compare the genomes, and draw conclusions about the diversity of enterococci in relation to heart infections."

Weinstock said Garsin's nematode enterococcus work, which has a system that allows the scientists to test which proteins, genes, and toxins in enterococci are important during an infection, will help the project greatly. "With the three of us, it's a good combination of clinical, functional, and genetic expertise," Weinstock concluded.

- C. O'Brien



Dr. Danielle Garsin at work with her nematode research.



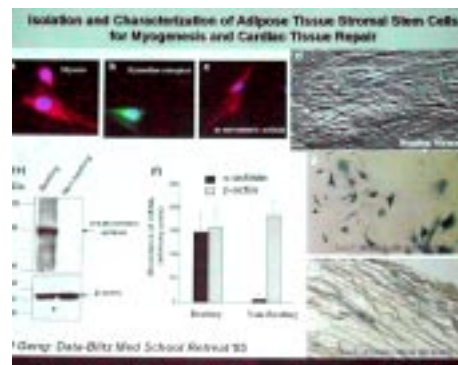
Automated DNA sequencing at the Baylor College of Medicine Human Genome Sequencing Center is being used to decipher the genomes of two strains of *Enterococcus faecalis*.

## RESEARCH RETREAT YIELDS A BONANZA OF SCIENTIFIC WORK

Dozens of Medical School researchers made their way to the Forest Ballroom at The Houstonian Hotel March 4 and 5 to listen to colleagues' reflections on their up-to-the-minute scientific endeavors. Included in the two-day forum were lively talks and slide presentations by over 30 presenters.

A favorite, "Datablitz Presenters," included 16 short talks and slide presentations. Some of the presenters included **Michael Blackburn, Ph.D.**, giving a report on "The Ying and Yang of Adenosine Signaling," indicating that adenosine may be an anti-inflammatory agent, and may also act as a censor in chronic lung disease. **Carmen Dessauer, Ph.D.** spoke on the role of relaxin and its implications for physiologic functions; **William Dowhan, Ph.D.** addressed "Lipids as Determinants of Membrane Protein Topology;" **Pablo**

**Okhuysen, M.D.** cited the availability of "Clinical Research Center Feasibility Funds," and **Yong-Jian Geng, M.D., Ph.D.**, discussed using adipose tissue stromal stem cells for cardiac tissue repair.



A slide from one of the Retreat's presenters, Dr. Yong-Jian Geng.

A highlight of the retreat was an address by the keynote speaker **H.R. Kaback, M.D.**, from the University of California, Los Angeles. Kaback detailed recent advances in the understanding of the function and structure of membrane transport proteins.

The forum was coordinated by the Research Committee.

## UT HOUSE MEDICS PROVIDE SERVICES APRIL 16, 23

For 14 years now, the UT House Medics Spring Home Repair Program has provided volunteers to the Houston community to beautify homes for elderly homeowners.

With scrapers, brushes, hammers, and screwdrivers in their willing hands, volunteers provide a better quality of life to underserved elders who would like to continue to age in their homes. In recent years, program participants have renovated up to five homes during the spring home repair. Each home requires 50-60 volunteers. Work days (volunteers work one or both) are Saturday, **April 16** and Saturday, **April 23**.

To see photos of previous workers in action or to get more information, visit <<http://is.hsc.uth.tmc.edu/projects/housemed.html>>. Contacts are: **Krysti Suarez**, 713-500-2241, or **Dennie Clemons**, 713-500-2235.

Volunteer sign-up is until **April 23**.

## HCPC HEALTH FAIR APRIL 2

Everyone is invited to the grounds at the Harris County Psychiatric Center, 10 a.m. – 1 p.m. Sat., **April 2**, 2800 South MacGregor Way, Houston, TX 77021. Come and learn about the available services and resources that encourage physical and emotional well being. Various health screenings, information sharing, door prizes, games, and more will be offered.

For more information, contact <[tammy.l.merimon@uth.tmc.edu](mailto:tammy.l.merimon@uth.tmc.edu)>.