

Events to Know

August

9 Freshman Orientation and White Coat Ceremony. Contact the Office of Student Affairs at 713.500.5160.

11-12 Freshman Retreat. Camp Allen. Contact the Office of Student Affairs at 713.500.5160.

14 First day of class.

UTMost Interest

Dr. Samer Fakhri, assistant professor and director of rhinology and sinonasal surgery in the Department of Otolaryngology - Head and Neck Surgery, was quoted in the March 30 issue of the *Houston Chronicle* about nasal polyps, a chronic condition that afflicts one in 200 people nationwide.

Dr. Deepa Vasudevan, assistant professor of family practice and community medicine, was quoted in the April 5 issue of the *Houston Chronicle* about a national study that addressed the rising rate of childhood obesity.

Dr. Esmail Porsa, assistant professor of family practice and community medicine and a joint primary care fellow, was an invited expert to the North American TB Advisory Board meeting from May 17-18 in San Diego. Porsa's research with the Joint Primary Care Fellowship focuses on new screening techniques for tuberculosis.

Dr. Pedro Ruiz, professor and vice chair for clinical affairs in the Department of Psychiatry and Behavioral Sciences, along with **Dr. Francisco Fernandez**, wrote a book titled *Psychiatric Aspects of HIV/AIDS*. It was published in April by Lippincott Williams & Wilkins. In addition, Ruiz was installed as president of the American Psychiatric Association (APA), during the 2006 APA Annual Meeting in Toronto May 25. The APA has a national membership of 38,000 psychiatrists. On July 6, Ruiz delivered the Okasha Lecture at Ain Shams University in Cairo, Egypt. On the same day, Ruiz was made an "Honorary Fellow" of the Egyptian Psychiatric Association.

Fitness Center to be CCTS, more fitness options available

When one door closes, another opens... When the Medical School Fitness Center officially closes its doors at the end of this fiscal year, the space will become a new home for the Center for Clinical and Translational Science (CCTS), according to Interim Dean **Jerry Wolinsky**.

"This area will house portions of the staff of the University Clinical Research Center, the Center for Clinical Research and Evidence-Based Medicine, and clinical investigation infrastructure support just as quickly as the space can be renovated," Wolinsky said.

The Medical School Fitness Center (MSFC), located on the eighth floor penthouse of the Medical School Building, will close Aug. 31 and further construction of the area will begin in early 2007.

"Several alternative fitness center options are available for Medical School faculty and staff, who want to continue their exercise routines, including the UT Recreation Center, the Methodist Hospital Fitness Center, and Rice University," Wolinsky said.

Individuals with a current membership at the MSFC have the option of a refund or using the membership at the UT Recreation Center at 7779 Knight Road, which has cardiovascular equipment, free weights, Cybex machines, basketball, tennis, and sand volleyball courts, an Olympic-size swimming pool, jogging trail, and locker rooms. The center also offers programs, such as group fitness, wellness, personal training, recreational sports, and aquatics. Visit <http://ae.uth.tmc.edu> for details.

The Methodist Hospital Fitness Center is located in the Smith Tower 583. Fees are \$25 per month and include use of treadmills, bikes, elliptical trainers, free weights, cable cross over machines, men's and women's dressing areas, showers and towel service, and free fitness classes. Contact **Michelle Hunnicutt** at 713.441.5956 for information.

Exercise activities available at the Rice University Recreation Center include swimming, bas-

(Cont'd. on back)

Finding the gene for hearing shapes and tasting words



Dr. David Eagleman

Each time she bites into an apple, she hears the sound of bees buzzing in her ears. Whenever the Rolling Stones come on the radio, visions of silver triangles appear in his head. These experiences aren't from people reliving the '70s. They are normal for the 4 percent of the population with synesthesia – a perceptual condition that's marked by a mixture of the senses.

"Synesthesia is a harmless condition," said **Dr. David Eagleman**, assistant professor of neurobiology and anatomy. "There doesn't seem to be any disadvantage to it. In fact, it might only be advantageous because synesthetes often have better memories than non-synesthetes. That's because they're tagging information with an extra dimension."

Because synesthesia can involve any of the senses, it's estimated that there are more than 100 different forms. Synesthetes might see colors when they listen to music; feel shapes while tasting food; or experience tastes when hearing words.

"With synesthesia, you have more cross activation between neighboring neural areas than you do in normal brains," Eagleman said. "In a synesthete's brain, neighboring areas are talking to each other more than normal."

The most common form of synesthesia is associating colors with letters of the alphabet or with numbers. For example, a synesthete might see the letter "H," and that induces the color pale yellow, or see the number "2" as lime green.

Eagleman stresses that the blending of senses synesthetes experience is not a hallucination. "It's not the same as a hallucination," he said. "Hallucination is something that you see, and you believe it exists in the outside world. Synesthesia is not like that."

"It's automatic, involuntary, and unconscious," Eagleman continued. "You know that it's in the

(Cont'd. on back)



Innovative therapies offered at new stroke recovery clinic



Dr. Elizabeth Noser

Dr. Elizabeth Noser, the stroke training and recovery program director at the Medical School, has developed a comprehensive stroke recovery clinic that includes robotic therapies and new studies.

A variety of innovative treatments is now available at the HealthSouth Center for Neurological Research and Recovery, 7580 Fannin St., Suite 205, which opened its doors in July.

“This clinic is tailored to the needs, deficits, and care of people who are recovering from a stroke,” said Noser, who serves as the director of the new center’s Stroke Recovery Program. “We’re offering the most cutting-edge therapy available, as well as access to clinical trials, stroke survivor groups, and the latest in drug therapies.”

The clinic will include intensive constraint therapy, in which the limb not affected by the stroke is held in place while motor training is performed on the impaired limb. Studies using constraint therapy in small groups of chronic stroke patients have demonstrated improvement in dexterity and motor function.

Patients who have lost mobility may receive help from the “AutoAmbulator,” a sophisticated treadmill that holds a patient upright while robotics help move the legs in a normal walking pattern.

Other therapies available at the clinic include “stim” therapy (electrical stimulation of the muscles of the pharynx for treating swallowing disorders), interactive metronome (patients perform motor tasks in response to auditory and visual stimuli), and cortical implantation.

“For too long, people who have survived a stroke have been told, ‘You’re lucky you survived,’” Noser said. “People don’t realize how debilitating a stroke can be. It’s our goal, through this clinic, to help people regain as much control over their bodies, and their lives, as possible.”

For more information or to schedule an appointment, call 713.383.0429.

-D. Mann Lake

Do you like the new look of *Scoop*?

Take the Medical School’s online poll at med.uth.tmc.edu by Aug. 9 to cast your vote!

MSFC closing, cont’d.

ketball, racquetball, squash, volleyball, tennis, jogging, and use of the cardiovascular, fitness, and weight rooms. Call 713.348.4058 or visit www.ruf.rice.edu/~ricerec/member_info.html for more details.

Automatic payroll deduction at the MSFC will be cancelled Aug. 31, unless Auxiliary Enterprises receives notification by Aug. 4 to transfer payroll deduction to the UT Recreation Center.

Refund forms are available at the front desk of the Medical School Fitness Center or at <http://ae.uth.tmc.edu>. Return refund forms by mail or in person to the MSFC.

Contact **Charles Figari** at 713.500.8400 or **Pauline Habetz** 713.500.8425 with questions about current memberships, refunds, or cancellations.

-C. Webb

Synesthesia, cont’d.

mind’s eye. There’s no confusion about what they’re looking at.”

Another common form is experiencing a series of numbers or units of time in a particular sequence. To research this type, Eagleman developed a virtual reality program. “It allows people to place all of their weekdays, months, or numbers into a 3-dimensional space and arrange them in relationship to their body space,” he said.

Synesthesia appears to be heritable, and this intrigues Eagleman, who is interested in its genetic basis. Through the study, “The Genetics of Synesthesia: Linking Genes to Perception,” he wants to find the gene responsible for synesthesia.

“There’s never been a study of this kind before – trying to link genes to how you perceive the world,” Eagleman said. “Synesthesia struck me as a great example of how people can, with a slight genetic difference, actually see the world differently.”

A series of tests, posted online and created by Eagleman (www.synesthete.org), helps him clearly distinguish synesthetes from non-synesthetes for the study. Individuals taking the test will see a letter or number appear on screen and pick the color that best represents their synthetic perception. During the test, the letter or number will appear randomly three times over the course of 108 times.

“Synesthetes will pick the same color,” Eagleman said. “If you’re faking it, it’s difficult to remember what color you assigned to ‘J’ 57 trials ago. You have to nail the ‘J’ with the same color three times. For a real synesthete, it’s no problem.”

He then evaluates the distance in color space between their answers. “A real synesthete will have small distances between their colors, and a non-synesthete will have larger distances,” Eagleman said. “From this, I’m able to calculate a score for each person, and synesthetes are clearly discriminable from non-synesthetes this way.”

Over the past one and a half years, Eagleman and his research assistants have collected DNA from more than 100 family members with synesthesia – mostly from the United States and Australia – for the study, which is funded with seed money from the University Clinical Research Center (UCRC). In collaboration with **Dr. Dianna Milewicz**, professor and director of the Division of Medical Genetics, Eagleman and his team have begun to sequence the DNA in the hunt for the responsible gene or genes.

“What’s clear is that synesthesia results from increased cross talk in the brain,” he said. “From looking at the pattern of inheritance, it appears to be an X-linked dominant trait. It looks like it could be a single gene.”

If it proves to be a single gene, Eagleman plans to explore new ground. “It turns out that there may be some other, non-synesthetic fraction of the population who expresses this gene,” he said. “The gene may cause cross talk between other areas of their brain, for example in the frontal lobes, which are involved in reasoning, planning, and decision making. We don’t know what it would mean to have increased cross talk between other parts of the brain. Once I find the gene, then I can look at the normal population, try to find who else is expressing this gene and where, and see what’s different or special about them.”

Are you synesthetic? Go to Eagleman’s website at www.synesthete.org to take the battery of online tests.

-C. Webb

**To send a news tip or event for *Scoop*,
e-mail scoop@uth.tmc.edu.**