

### The Texas A&M University System

Excellence in education, research and service

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## **Research Revs Up**

JES

What Brett Giroir brings to the A&M System

By Rod Davis

A&M System Communications

Growing up in Marrero on the working class West Bank of New Orleans, Brett Giroir, like most teenagers, couldn't wait to see what was beyond his small town. He got his first chance when he was admitted to Jesuit High School across the river in the Big Easy itself. Science had never particularly interested Giroir, but while studying immunology for an honors biology class his senior year, the young member of an old Cajun family ran into the question that would define his life's work: "What makes you sick?"

Today, as an acclaimed scientist and vice chancellor for research at The Texas A&M University System, Giroir continues the quest. "It's still a fundamental question that needs to be answered," he says. "Yeah, it seemed like a stupid question, a silly question, a juvenile question. But the more sophisticated you get, the harder it is to answer."

Pursuing the mystery took Giroir on an impressive arc, starting with selection as a National Merit Scholar and then, majoring in biology, as a Harvard Scholar. After receiving his M.D. from UT Southwestern Medical Center in Dallas, Giroir decided to give Texas a little more time. He served as tenured professor and associate dean for clinical affairs at UT Southwestern, where he also held the Associates First Capital Corporation Distinguished Chair in Pediatrics, and as chief medical officer at Children's Medical Center. He stayed busy with his own research projects, too, developing new treatments for infectious meningitis in children and securing five medical patents, with two pending.

In 1998, Giroir began a long-term involvement with the Defense Advanced Research Project Agency (DARPA). The federal government had become increasingly serious about the threat of biological warfare, and Giroir was asked to join a select panel of academic experts on biology and communicable diseases. One of the panel's first projects was to develop a scenario for protecting government buildings after a biological attack. The result of that study ultimately led to development of chlorine dioxide as a decontaminant. In 2001, that protocol was used to decontaminate the Hart Senate Office Building in Washington, D.C., which closed for three months after an envelope containing anthrax spores was delivered to U.S. Senate majority leader Tom Daschle.



No time for a desk: Dr. Brett Giroir, on a training mission early this year with the 310th Fighter Squadron at Luke Air Force Base, Arizona, ready to take off in an F16D Falcon.

In 2004, Giroir became deputy director of defense sciences at DARPA, and then director of that office two years later. He says the accomplishment of which he is most proud is a brain-controlled prosthetic arm that closely mimics the feel and agility of a natural arm and will provide nearly normal quality of life to upper limb amputees. This year, Giroir received the Secretary of Defense Medal for Outstanding Public Service in honor of his DARPA tenure.

While at DARPA, Giroir began working with Dr. Theresa Fossum, then a surgeon and clinical professor at the Texas A&M University College of Veterinary Medicine & Biomedical Sciences, and now also director of the Texas A&M Institute for Preclinical Studies (TIPS). He also met Guy Diedrich, vice chancellor for technology commercialization for the A&M System. Then Giroir started talking to Chancellor Michael McKinney, who was looking for just the right person to pump up greatly expanded system research goals. It was friendly persuasion, but powerful. "I got sucked into the A&M magnet, which is a really great place to be," Giroir recalls.

In June 2008, with the enthusiastic support of his wife, Jill, and daughters Madeline and Jacqueline, Giroir began unpacking in his new office on the second floor of the A&M System headquarters building about six miles south of the Texas A&M campus. The family couldn't be happier. "We love it here. It's a great place to be," he says. Jill, a graduate of SMU law school, is now involved with veterans programs and other volunteer services focusing on education of underserved

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# Cooperation and Expertise Guide A&M System Response to Ike



#### **First responders**

Throughout Ike's onslaught, the Texas Engineering Extension Service and its Texas Task Force 1 urban search and rescue team played a critical role in coordinating state and federal search and rescue efforts. In Galveston and Southeast Texas, Texas Task Force 1 performed or coordinated 3,350 rescues by air, ground and water. Before the storm hit, the team helped evacuate 70 hospital patients from Port Arthur and teamed with the U.S. Coast Guard to rescue nearly 100 citizens from the Bolivar Peninsula area.

Texas AgriLife Extension Service sent extension agents to 121 Gulf Coast and inland evacuation hub counties, including 86 extension agents to support animal care. Nearly 40,000 cattle and horses were stranded during the storm.

**Saje haven:** Reed Arena served as a shelter for special-needs patients during Hurricane Ike. The Texas A&M Health Science Center community supported federal and state agencies in providing assistance to evacuees.

> By Amy Halbert A&M System Communications

As Hurricane Ike approached the Texas coastline in early September with a projected landfall near Corpus Christi, administrators at Texas A&M University-Corpus Christi and nearby Texas A&M University-Kingsville swung into action with emergency evacuation plans. Then, as the massive storm drew closer to shore, it veered north. Texas A&M University at Galveston, which had been closely monitoring the path, was now the target.

As TAMUG officials closed the campus and ordered students, faculty and staff off the soon-to-be inundated island, a round of well-coordinated actions kicked into play that eventually involved nearly every member of The Texas A&M University System. From first responders to medical staff to assistance with housing or counseling, trained experts and devoted volunteers worked around the clock before and after the Sept. 13 landfall to care for lives and property that had been in harm's way. Amid the terrible losses, the A&M System family showed its bonds and commitment in a way that will never be forgotten.

#### **Evacuations**

As the first hurricane warnings for South Texas trickled in, Texas A&M University sent five buses to A&M-Corpus Christi to help transport evacuees. About the same time, some 215 students from Corpus Christi and Kingsville were evacuated to Texas A&M International University in Laredo. Nearly 500 miles northeast of Laredo, Texas A&M University-Commerce, in partnership with the American Red Cross, took in 79 hurricane evacuees.

Many of the students who were evacuated to Laredo had only been in the United States for a couple of weeks. "Some of our international students actually made their own campus housing available to students from their home countries," said Steve Harmon, director of the Office of Public Relations, Marketing and Information Services at TAMIU.

At the Texas Forest Service, crews used state-ofthe-art aerial digital sketch mapping, as well as ground-based analysts to evaluate resource damage. TFS provided landowners and the government with a detailed damage assessment report and an online map showing damaged areas. A technical assistance hotline was set up within a few days of the hurricane's landfall.

#### **Health Science Center**

On the Texas A&M campus in College Station, Reed Arena was designated a special needs shelter, staffed and managed by the U.S. Public Health Service. Additional aid came from the Texas A&M Corps of Cadets, Texas A&M Health Science Center, TEEX Fire Recruit Academy, numerous student organizations and community volunteers.

Patients were transferred in from nursing homes and hospitals. The first arrivals were flown in by C-130 cargo airplanes from Beaumont and nearby areas. About 315 patients and family members eventually received care.

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### Notes from the Chancellor

Michael D. McKinney, M.D.

The Duke of Wellington famously observed that "the battle of Waterloo was won on the playing fields of Eton." It was not just that the young students excelled at cricket and the other sports of the day, but that they learned about leadership, sacrifice and working together toward a common goal. In effect, they developed the kinds of skills that would prevail over the armies of Napoleon and also carry forward into stewardship of their nation for generations to come.

Perhaps such lofty thoughts seem out of place on the playing fields of today, surrounded as we often are by ear-splitting cheering from crowds in multilevel stadiums, our attention constantly being hijacked from marching bands to fight songs to Jumbotrons. But I think the principle is the same.

One of my delights as chancellor is the opportunity to attend sporting events at all nine of our universities throughout the year. In the fall, of course, it's mostly volleyball and football. If you've been looking for me just about any weekend since early September, you've likely found me at a game in College Station, Stephenville, Kingsville, Canyon, Prairie View – wherever they have room for one more fan.

It's always fun. When West Texas A&M University beat Midwestern, Lou Ann and I rode in the homecoming parade, helped light the bonfire and cheered with President Patrick O'Brien and the school's fantastically friendly students at a pep rally. It pretty much wore us out, and we couldn't have been happier.

At Tarleton State University, Lou Ann and I joined President Dominic Dottavio from his booth to watch the Texans beat Angelo State. We cheered the "Purple Poo" (see photo above) and I briefly donned a purple wig when we scored a touchdown.

At Prairie View A&M University, Lou Ann and I were able to take in the game at Blackshear Field in the company of my good friend, President George



*Chancellor and cheerleaders:* Dr. McKinney helps spread the Panther spirit before a game at PVAMU.



*Fan club:* Dr. McKinney, center, and Dr. Dominic Dottavio, right, with Tarleton's "Purple Poo."

Wright, and his school's enthusiastic students and alumni. It was even more fun thanks to the company of Board of Regents Chairman Bill Jones and Regents Lupe Fraga, John White and Jim Wilson, as well as Student Regent Anthony Cullins and Vice Chancellor for Academic Affairs Frank Ashley. As at any PVAMU game, one of the highlights was watching a performance by the nationally renowned Marching Storm, which is headed to the Rose Bowl Parade.

At Texas A&M University-Kingsville, the game against Abilene Christian University in Javelina Stadium gave me a chance to get to know Dr. Steve Tallant, the dynamic new president. Athletics always have been a source of pride here, and I am glad to see that the former seven-time national champion team is on the road back to greatness.

One of my great treats is to join the experience that is an Aggie game at Kyle Field. For the Texas A&M–U.S. Military Academy contest, we had the added privilege of inviting more than 140 Wounded Warriors from Fort Hood, and later hosting them to burgers and hot dogs at the Reed House.

At each game at each of our universities, I come away with a good deal more than a victory smile or a vow to beat 'em next year. I know that I have witnessed the future. I see it in the hard-working athletes whose dedication carries over into both their studies and post-college careers. I see it in the dedicated faculty and administrators whose lives are models of devotion to ideals. I see it in the faces around me in the stands. I think they see it, too. I think that is why all of us are here.

We rightly take pride in our athletic programs as powerful recruiting tools for prospective students, as impressive showcases for visitors. Athletics open the front doors to our universities, and to the academic excellence that lies within. For many students, and their families, it is an important and decisive introduction to higher education.

### Dr. Rohack Named AMA President-elect



Following a yearlong term as president-elect, Rohack will assume the AMA presidency in June 2009. His annual term as president will be followed by an additional annual term as immediate past president ending in June 2010.

Currently, Rohack is a professor in both the Department of Medicine and the Department of Medical Humanities in Medicine at the HSC-College of

### News Briefs

New student regent selection process underway Each system university's student government has until Jan. 1 to recommend five student regent candidates to the chancellor. The chancellor then will select two finalists by Feb. 1; the governor will make the appointment June 1. The current student regent is Anthony Cullins of Dallas.

#### Texas A&M to offer Ph.D. online for teachers

The Texas A&M University College of Education and Human Development will soon offer a first for a U.S. state institution, an online doctorate in curriculum and instruction. The program, designed for classroom teachers who plan to continue working in public schools while pursuing the degree, was approved recently by the Texas Higher Education Coordinating Board. Faculty instructors from across the college will be involved. Three dozen faculty members already have developed online courses for the four-year program. Fifteen students will make up the first class to go through the program, starting in January.

#### **Texas A&M System introduces 'System Promise'** The Board of Regents has approved the A&M System Promise, which will provide free tuition and fees across the system for students whose families earn less than \$30,000 annually. Similar programs exist at Texas A&M International University (Dusty Promise), Texas A&M University (Aggie Assurance), West Texas A&M University (Buff Promise) and Texas A&M University-Corpus Christi (Islander Guarantee!).

### Qatar National Research Fund representatives visit Texas A&M

Qatar National Research Fund (QNRF) representatives visited the Texas A&M campus Aug. 29 to present its flagship program, the National Priorities Research Program (NPRP). QNRF will fund a total of \$45 million for the second NPRP cycle, with grants ranging from \$20,000-\$350,000 per proposal per year. The NPRP is the largest grant funding activity of the QNRF and the primary means by which the QNRF will seek to address key national, regional and global needs through research and to pursue research opportunities for which Qatar may have a comparative advantage.

### A&M-Commerce professor wins 11th composing award

Dr. Ted Hansen, a professor and nationally known composer in the Texas A&M University-Commerce Department of Music, has received his 11th consecutive ASCAPLUS Award. It honors his work as a composer in the 2008-09 academic year, and is based on published works, performances, composition work and quality of compositions. Hansen's work has been performed at Carnegie Hall in New York City, The Kennedy Center for Performing Arts in Washington, D.C. and on national education television.

#### **PVAMU** secures \$5 million NASA grant

NASA recently awarded a team of Prairie View A&M University researchers \$5 million to seek methods to ensure the safety of astronauts and delicate flight instruments during NASA flights departing earth. PVAMU researchers will concentrate their efforts to develop designs and methods that will prevent harmful radiation from silently threatening flight crews and spacecrafts once they leave the protection of the earth's atmosphere.

*AMA honor:* James Rohack, M.D., has been elected president-elect of the AMA. Susan Rudd Bailey, M.D., former A&M System regent, was re-elected to the AMA Council on Medical Education.

J. James Rohack, M.D., a cardiologist from Bryan, Texas, in the Texas A&M Health Science Center College of Medicine, has been named president-elect of the American Medical Association (AMA), the nation's largest and most influential physician organization. Medicine. He is director of the Center for Healthcare Policy at Scott & White and medical director for system improvement in Temple, Texas, where he continues his clinical practice at Scott & White Clinic.

Rohack is not the only American Medical Association president from the Texas A&M Health Science Center. Nancy W. Dickey, M.D., president of the Texas A&M Health Science Center and vice chancellor for health affairs for The Texas A&M University System, was AMA president in 1998-99. In addition, Josie R. Williams, M.D., M.M.M., C.P.E., director of the Texas A&M Health Science Center Rural and Community Health Institute and assistant professor of internal medicine in the HSC-College of Medicine, is current president of the Texas Medical Association, the largest state medical society in the nation representing more than 43,000 physician and medical student members.

### Texas A&M-Kingsville receives \$2.3 million grant

Texas A&M University-Kingsville has received a grant from the United States Department of Education under the College Cost Reduction and Access Act. The university and its partner institution, Del Mar College in Corpus Christi, will receive a two-year, \$2.3 million Hispanic-serving Institutions grant to develop services and strategies to enhance student success in engineering. The grants are awarded to develop and carry out activities to improve and expand institutional capacity to serve Hispanic and lowincome students.

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### Texas A&M's Poet-Musician is First Hispanic Studies Ph.D.

By Holly Lambert Texas A&M University College of Liberal Arts

Juan Carlos Ureña, assistant professor of modern languages at Stephen F. Austin State University, has earned the first Hispanic Studies Ph.D. ever awarded at Texas A&M University. Ureña defended his dissertation, *History and Poetic Structure of Hispanic Popular Song (The Case for Central America)* this past April and graduated in August.

"The Hispanic Studies program gave me a strong academic foundation in literature and Hispanic culture," Ureña says. "These areas are very important in my professional life, and combining my work as a musician with my work as a literary scholar has been a unique opportunity."

#### **Musical roots spark new interest**

A Costa Rican performer, composer and songwriter, Ureña worked in music while living in his hometown of San José, traveling around the world performing in concerts and music festivals. He has recorded 10 albums of original music and has contributed to music collections in the United States, Latin America and Europe.

After studying music at the Universidad de Costa Rica, Ureña ventured to Texas with Jeana Paul — a Texan who had been living in Costa Rica — with whom he had fallen in love (and later married). In Texas, Ureña completed his master's degree in music composition at SFA and then began looking into Ph.D. programs in Spanish Studies.

Texas A&M's new Hispanic Studies program caught his attention. "When Texas A&M began its new Hispanic Studies program, which includes interdisciplinary fields with traditional Spanish literature courses, I was very interested. I write songs and poetry and have always enjoyed mixing the two professions." Ureña says.

The interdisciplinary nature of the program is, in part, a result of collaboration between disciplines and across campuses with Texas A&M in College Station and three Texas A&M System institutions: Texas A&M International University, Texas A&M University-Kingsville and Texas A&M University-Corpus Christi.

Unlike traditional Spanish programs that focus solely in language and literature, the Hispanic Studies Ph.D. allows students to take courses in disciplines such as history, sociology and philosophy. Graduates



**Internationally acclaimed:** Juan Carlos Ureña and wife Jeana in front of the Tower of London. Ureña's music and research have taken him around the world.

from this program are equipped to help address the complex socio-economic issues facing the largest demographic minority in the United States.

"Juan Carlos Ureña is not just the first student to get a Ph.D. in Hispanic Studies, but also a first-rate scholar," says Eduardo Espina, professor of Hispanic Studies and director of Ureña's dissertation. "His first two articles as a Ph.D. in the field have been accepted by referee publications and his dissertation will be published as a book. He is an example to follow for our Ph.D. students."

### Future lies in two greatest loves: music and Hispanic Studies

Throughout his time at Texas A&M, Ureña worked full time, teaching a full load of classes as an adjunct professor at SFA, commuting from Nacogdoches to College Station, all while taking a full load every semester. Now, he says, he is looking forward to "learning how to relax again."

The move also suits Jeana, an associate professor of

modern languages at SFA, and their three children, Pablo, Bryan and Esteban. "I really like this university. Nacogdoches is a beautiful place to live and to work," Ureña says. "We have a growing department and many enthusiastic students that we hope to send on to Texas A&M to continue their studies."

No matter how he splits his time between work and family in the coming year, he won't lose track of his own creative life and will continue to write, perform and record. "I love to play and compose music," Ureña says. "Music takes me many places."

To preview samples of Ureña's music, visit his personal website at juancarlos.urena.com.

For more information on the Ph.D. program, visit http://hisp.tamu.edu/graduate-phd.html.

Download an MP3 file of his song, "Colores," at our website, tamus.edu/quest.

### Research Revs Up

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our world. At the top of the list are global health and health security — not only for humans but animals and plants as well. Texas A&M and the A&M System are uniquely positioned to make significant contributions in this area. Another issue essential for economic development and national security is energy-independence through environmentally sensitive technologies."

Giroir sees unparalleled opportunities to draw upon and combine system resources, from internationally acclaimed faculty and world-class programs in agriculture, veterinary medicine, public health and nuclear engineering in College Station to environmental engineering programs at Texas A&M University-Kingsville and wind power studies at West Texas A&M University in Canyon. Add to that breadth of resources the system's unique facilities such as the Texas A&M Institute for Genomic Medicine (TIGM), poised to advance medical applications from the human genome project, and Disaster City, a model for studying catastrophic impacts operated by the Texas Engineering Extension Service (TEEX). "We need to leverage each other's resources," says Giroir. "We need to work together better as a system so that we share people as well as resources to really make an impact." It costs money to do that, so one of Giroir's priorities is finding more donor support for research, which he says is key to achieving breakthroughs in all fields. "It's not just about lighter aluminum for your car, it's really about developing structural nanomaterials for airplanes, and multifunctioning nanomaterials for solar cells and other energy-harvesting applications. It is about revolutionary biomaterials that could be implanted in your body or used to deliver drugs. All these things are expensive and we need to develop systemwide strategies for research

and collaboration in order to realize this potential."

When Giroir enumerates the ever-expanding universe of research, he's like a kid who can barely sit in his chair. More accurately, he's an artist – of the sciences – filled with passionate visions about the way things could be. Same as when he was at Jesuit High School. But with perspective.

"In science you are trained to be a reductionist, but when you get to some point in your career, you realize that reductionism will not solve the bigger problems. You spend the first five to ten years of your scientific career getting more and more specific and then you reverse that and you see how to fit big things together.

"There are no major problems that can be solved by

**Welcome to Aggieland:** Giroir, wife Jill and daughters Madeline and Jacqueline take in a game at Kyle Field. Moving to College Station was an enthusiastic family decision.

children, as she was in D.C. When he's not training for triathlons, Giroir's thinking of looking for some land in Brazos Valley countryside to raise cattle as he did before his assignment in Washington.

But his eyes remain fixed on his mission. "I came here because I thought this system was in a unique position to solve major problems that now challenge a single department or even a single college. The innovations really occur at the interfaces among disciplines. And we have to do everything we can as a system to break down and smooth out traditional barriers to cross-discipline collaboration."

Doing "everything we can" starts where it did with Giroir. With finding and nurturing the people who ask questions and can't stop until they find answers.

"Critical needs for research are not just supporting the best and the brightest but supporting the young faculty who will develop into the best and brightest," he says. "There is such a shortage of emerging scientists, technologists, engineers and mathematicians. We need to go back to our undergraduates and support them so they get hooked on research and fill that pipeline, and we need to go into the underserved communities as well. We have tremendous ability to do that.

"That's why I'm here. I see incredible capabilities, people who will really roll up their sleeves to try to solve problems and work together. We have an opportunity to make an impact that I don't see anywhere else."



*Expert advice:* Helping students put their genius to commercial use is just the start of the plans Tim McLaughlin has as the first head of the new Department of Visualization at Texas A&M.

#### By Lloyd Armbrust A&M System Communications

You'd never mistake the humble administration office in Building C in the Langford Architecture Center on the Texas A&M University campus for a back lot in Burbank, but look again. The brand new Department of Visualization is poised to become a premiere incubator of technology for the stars. For almost 20 years, hundreds of students from various academic fields have been trained in this building to literally shape the face of visual effects in modern filmmaking.

They have gone to work for firms like Pixar, Dreamworks and Lucasfilm, and worked behind the scenes in a litany of productions. Most recently, Pixar's *WALL-E* listed 22 Texas A&M students in the credits. When visualization – or "viz"as they like to call the discipline –was given its own department in January 2008, both past achievements and future opportunities were forged into one.

You probably wouldn't be thinking Hollywood if you had walked into Tim McLaughlin's office earlier this fall, either. The new visualization department head was surrounded by a clutter of unopened boxes and the accumulations of a career that includes 13 years at Lucasfilm and technical credits on films from *Jumanji* to *Star Wars: Episode 1*. Running the department at his alma mater offered him a once-ina-lifetime shot at extending his creative insights and experience into new generations of students.

For now, the department offers one degree, a Master of Science in visualization sciences, which has been available since 1989 through the Department of Architecture. McLaughlin envisions growing his department to include an undergraduate degree in visualization, too. He wants to recruit students from all fields, computer science to traditional art programs to web design.

"It's a unique program," says McLaughlin, "incorporating technology with mathematical and visual structures exposing students to thinking with both sides of their brains . . . that's why we're in the College of Architecture—because architects have done this for years.

"There's not an intention to create a fine arts program, but can you put the visually creative here? Yeah, you can. Call it the Aggie version of fine arts" he says.

Despite the extensive involvement of "viz" with films, McLaughlin isn't concerned about getting his students title credits. He wants to prepare them for a wide-open field. "Not all of our students are gearing themselves to work for Industrial Light and Magic (ILM) or Pixar or Dreamworks or Electronic Arts," he says. "They see themselves doing other things, like working in forensics, simulations, teaching or even fine art. There are so many opportunities out there."

One of his most ambitious ideas is to offer a Ph.D. in visualization, which doesn't currently exist anywhere. It won't be easy. "This is not an inexpensive program to run," he says. "We provide computing resources, lab space, video cameras and stage space, and there's only so much of that to go around. But there is a great capacity for growth in graduate programs."

#### **Entry level**

Not long after earning his Bachelor of Environmental Design and Master of Science in Visualization Sciences at Texas A&M, McLaughlin went to work for ILM, a division of Lucasfilm. His first assignment put him in the big leagues right away: a technical director for *Jumanji*. Then he went into one of the most famous movie franchises in history. "By the time *Star Wars: Episode I* came around, I was in charge of managing the 'zoo'— or the 60-something digital creatures in the movie." His role was to take creatures from concept drawings and bring them into the digital realm. "If you imagine a race, I'm the pit crew boss," he says. "I'm in charge of making sure that the car is built and performs well for the driver or this case, the animator."

McLaughlin stayed at Lucas Films for 13 years. "Very few people get to do something that the rest of the world can go see," he says. It was what inspired him to come back to Texas A&M. "At ILM, we were always involved in doing world-class work, focusing on doing what's never been done before and at a level that's the best in the industry.

"I want to do the same kind of work here," says McLaughlin. "We're talking about bringing in undergraduates, making our own department and pushing the master's program to the next level. This is a truly unique department that offers students things they won't find anywhere else."



Helping hand: Tim McLaughlin tutors a student in the visualization lab.



Members of the 2008-09 Chancellor's Student Advisory Board (CSAB) joined members of the Board of Regents and Chancellor Michael D. McKinney (standing, left) at a breakfast in September. The CSAB, created in 1982, provides an avenue for student leaders to address student issues common to all A&M System campuses. Regents pictured above: Standing, from left: Morris E. Foster, fourth; Gene Stallings, fifth; James P. Wilson, eighth. Standing, from right: Lupe Fraga, first; Chairman Bill Jones, second; John D. White, third; Erle Nye, fourth; Student Regent Anthony Cullins, seventh. Seated, right: Ida Clement Steen.

### Reading for Life

#### WTAMU freshman program inspires

#### By Rana McDonald West Texas A&M University

Regalia-clad faculty filled the convocation stage. Freshmen in the West Texas A&M University class of 2012 squirmed in their seats on the floor of the First United Bank Center. Parents and friends who had come for the annual September event chatted in the surrounding stands. Then Valentino Deng, one of the "Lost Boys of Sudan" who survived that country's bitter civil war, rose to stand at the podium.

No one moved. No one talked. Except for Deng, who looked out over the crowd and began a story that no one should have to tell, but all should hear.

"I walked for hundreds of miles," he said. "I starved. I witnessed death and many atrocities. I almost lost hope, but I came to find out that when you face challenges, you must always remember not to lose hope."

The power of the account was made even more meaningful to the freshmen because, thanks to an



Writer and reader: Valentino Deng, on whose ordeal in the Sudan the novel What is the What is based, with A&M System Chancellor Michael McKinney, at freshman convocation at West Texas A&M University.

impressive WTAMU summer reading program, they already had read about it.

Deng is the model for the central character in Dave Eggers' novel What is the What, which had been selected for the university's 2008-09 Readership WT program. Launched in 2005 as part of WTAMU's Quality Enhancement Plan, the program uses the common-reader model, in which all participating students are given the same book so that they can share the literary experience with their peers and perhaps develop a lifelong love of learning and reading.

The university debuted its common reader approach in 2005 with A Hope in the Unseen by Ron Suskind. Po Bronson's What Should I Do with My Life followed in 2006. Night, by Elie Wiesel, was the chosen reader in 2007.

Last spring, The Texas A&M University System Board of Regents heard a powerful summary of the impact of Wiesel's holocaust account from Eva Harder, now a sophomore communications major. As part of the WTAMU program, she and 19 other students who competed in an essay contest had been named Readership Ambassadors and traveled to Poland. They visited the former concentration camps at Auschwitz and Birkenau described in Night. "It had an immeasurable impact on my life-as a student and as a human being," said Harder.

Chancellor Michael D. McKinney, M.D., was so impressed that he ordered copies of both Night and What is the What. "These books are outstanding-I've even underlined key phrases in mine," McKinney said later. As he sat on the convocation stage next to Deng, McKinney carried his own dog-eared copy of Egger's novel.

The remarkable book recounts Deng's experiences, which began with separation from his family in 1987 and led to the grueling trek from Sudan to Ethiopia and Kenya. He escaped death many times, hid from government soldiers and lived in refugee camps-all in search of a safe haven. In 2001, he came to the United States.

Deng's words kept the convocation audience riveted. Especially his concluding thoughts: "College has the ability to improve life. You have everything you need here to better your own future and change the world." Proof of the power of the common reader program



With honors: Valentino Deng and WTAMU President Patrick O'Brien walk to the stage at convocation for the class of 2012 at First United Bank Center. Deng's moving account of his ordeal as one of the "Lost Boys of Sudan" was presented as part of WTAMU's acclaimed freshman reading program.

was never more palpable. "I have never felt that much attention from a group of freshmen before," said McKinney. "They were spellbound. I was so impressed. I was like a kid getting to sit by Valentino."

Dr. Russell Lowery-Hart, associate vice president of academic affairs and director of Readership WT, described the event as "priceless." He said that Deng "shared first-hand the hardship, loss and tragedy that he experienced. It's something that continues in East Africa today. It also gave our students further insight into man's inhumanity to man and how to fight it."

Competition for this year's Readership Ambassador contest is already under way. Writers of the top 15 essays on What is the What will travel to Africa in March 2009.

Deirdre Johnston, a mass communication/ broadcasting major from Friona, said the book made her grateful for what she has. Brandon Moore, mass communication/public relations major from Magnolia, said just hearing about Deng's challenges made him thankful for the opportunity to go to college.

For Aaron Martin, an engineering major from Amarillo, "the book was really inspirational-a reality check. I'm halfway through my essay and would love to go to Africa."

### A Closer Look at Contracts and Grants

The following contracts and grants were funded by external sources during fiscal year 2008 for projects at the Texas A&M Health Science Center and Texas A&M University-Commerce. These are just a few highlights of the many research projects taking place in the college and across the entire A&M System. The projects are listed by name of principal investigator, department, project name, funding source, amount and duration.

#### Focus: Texas A&M Health Science Center

Kenneth McLeroy (joint with others) School of Rural Public Health (joint with others) The Program for Rural and Minority Health Disparities Research National Center of Minority Health and Health Disparities, National Institutes of Health (NIH) \$6.8 million over five years

**David Carlson** 

**Rajesh Miranda** Neuroscience and Experimental *Therapeutics* College of Medicine Fetal Alcohol Exposure and Neurodevelopment NIH- National Institutes of Alcohol Abuse and Alcoholism (NIAAA) \$1.5 million over five years

Jerry Feng **Biomedical Science** Baylor College of Dentistry Role of DMP1 in Mineralization

NIH

Lynne Opperman Biomedical Science Baylor College of Dentistry Curvilinear Mandibular Bone **Reconstruction Plate** NIH-NIDCR \$998,000 over four years

Rena D'Souza **Biomedical Science** Baylor College of Dentistry Regulation of Runx2 Function by Twist-1 in Tooth Development NIH-NIDCR \$850,000 over four years

#### **Jianing He** Endodontics *Baylor College of Dentistry* A Comparative Outcome Analysis of Endodontic Retreatment and Single Implant-supported Restoration American Association of Endodontists Foundation \$500,000 over four years

**Srinath Palakurthi** Pharmaceutical Sciences College of Pharmacy Novel Targeting Approach for Breast Cancer Gene Therapy Department of Defense \$110,000 over one year

Biomedical Science Baylor College of Dentistry BCD Research Infrastructure Enhancement Program NIH-National Institute for Dental and Craniofacial Research (NIDCR) \$2 million over five years

#### Rena D'Souza

**Biomedical Science** Baylor College of Dentistry Baylor's Scientific Training Program for Dental Academic Researchers: B-STARS NIH-NIDCR \$1.5 million over four years

#### Larry Gamm

Health Policy and Management School of Rural Public Health Center for Health Organization Transformation National Science Foundation \$375,000 over five years

#### \$1.1 million over four years

Marcia Ory (co-PI) School of Rural Public Health (joint with others) School of Rural Public Health Statewide Evaluation of Childhood Obesity Prevention Policies in Texas: Texas Safe Routes to School & Increased Health Food Access for WIC Clients **Robert Wood Johnson Foundation** \$1 million over five years

**Larry Bellinger** Biomedical Science Baylor College of Dentistry Sex Steroids and TMJ Pain NIH-NIDCR \$1 million over five years

**Chunlin Qin** *Biomedical Science* Baylor College of Dentistry Studies of Proteins Involved in Dentinogenesis NIH-NIDCR \$1 million over five years

Jennie Ward Robinson (co-PI) School of Rural Public Health (joint with others) School of Rural Public Health Center for Excellence in Public Health and Water Research Institute for Public Health and Water Research, and The Clorox Co. and Health Science Center funding \$580,000 over five years

#### **Gerald Frye**

Neuroscience and Experimental *Therapeutics College of Medicine* CNS Development, GABAARS and Vulnerability to Ethanol NIH-NIAAA \$540,000 over four years

#### Focus: Texas A&M University-Commerce

#### **Dr. Gilbert Naizer**

Curriculum and Instruction M2T2 - Maximizing Motivation, Targeting Technology National Science Foundation \$987,662 over three years

Dr. Ben Jang

Chemistry Scholarships and Research Experiences for Transfer Students to Excel in Science and Engineering National Science Foundation \$593,700 over four years

#### **Dr. Laurence Angel**

*Chemistry* Acquisition of a IM-Q-TOF Mass Spectrometer National Science Foundation \$310,000 over three years

### **Recent Appointments**



Mark M. Ellison, former director of the Emerging Technology Program for the office of Gov. Rick Perry, has been named associate vice chancellor for economic development for The Texas A&M University System. Ellison serves as the A&M System's initial point of contact for economic

development issues and activities, from local to international. He guides ongoing efforts to leverage the economic development resources of the A&M System to benefit businesses, communities, academic and governmental entities.



Dr. Malcomb G. "Gayne" Fearneyhough was named associate director of the Texas Veterinary Medical Diagnostic Laboratory Aug. 1. Fearneyhough has served as head of diagnostic services for the agency since 2002, coordinating testing and results

generated from various laboratory functions. Additionally, he served as agency interim director prior to the appointment of Dr. Tammy Beckham in April. IVMDL is one of the busiest full-service diagnostic facilities in the world, handling more than 220,000 cases a year.



Julie Imke was named director of West Texas A&M University's new Amarillo Center on July 21. The Center is located in Chase Tower in downtown Amarillo. The Center offers 31 selected upper-level and graduate classes. Imke handles the day-to-day operations and provides assistance to students on matters ranging from financial aid to

course offerings.



Dr. Theresa A. Maldonado has been named executive associate vice president for research at Texas A&M University and also will serve as the institution's interim vice president for research. Maldonado previously was the associate dean for research within Texas A&M's Dwight Look College of

Engineering and deputy director of the Texas Engineering Experiment Station (TEES). Maldonado also holds tenure as professor of electrical and computer engineering.



Kyle Smith was named executive associate director of the Texas AgriLife Extension Service on Aug. 1. Smith, a veteran of nearly 36 years with the Texas A&M System, has served as the agency's associate director for county programs since 1993. As executive associate director,

Smith serves as chief operating officer and AgriLife Extension's second-in-command. He is responsible for developing and coordinating staffing, supervisory and budgetary recommendations for the entire agency.



Dr. Steven H. Tallant assumed his duties as the 19th president of Texas A&M University-Kingsville on Oct. 1. Tallant previously was provost and vice chancellor for academic affairs at the University of Wisconsin-Eau Claire. Tallant was responsible for all undergraduate and graduate

academic programs including the direct supervision of four academic deans and the dean of graduate studies. He also provided leadership in several restructuring es, including the creation of the College of Education and Human Sciences and the College of Nursing and Health Services.



Ike's power: The storm surge from Hurricane Ike severely damaged the only bridge leading from Galveston Island to Pelican Island and the TAMUG Mitchell Campus.

Nancy W. Dickey, M.D., president of the Texas A&M Health Science Center and vice chancellor for health affairs for the A&M System, worked alongside student volunteers and other Health Science Center personnel. Almost all of the 44 students in the inaugural class of the College of Nursing assisted patients, and nearly 70 medical students from the College of Medicine worked in various shifts and double shifts.

"For our students, it can never be as rewarding to do a tabletop exercise as it is to actually sit down beside someone and help them work through what to do when you've lost everything and you're not sure where your next prescription refill or even your next meal may come from," Dickey said. "Every one of our students walked away tremendously fulfilled with the personal stories that are the glue holding all of those exercises together."



Aftermath: Urban forester Mickey Merritt marks a storm-damaged tree on Galveston Island.

#### Sea Aggies head inland

In the aftermath of the storm, coastal residents began the grim task of evaluating the damage. In Galveston, buildings were demolished. Roads were inaccessible. There was no power, no water and no timeline for restoration.

At TAMUG's Mitchell campus on Pelican Island, where most classes are held, damage was reported at several buildings, and more extensively at a small boat basin.

at Texas A&M University-Texarkana, who hosted the Sea Aggie Project, which collected school supplies and clothing for TAMUG students. In less than two weeks, Texas A&M welcomed the Sea Aggies to College Station.

"Hurricane Ike was a devastating storm, but we were fortunate-all of our students, staff and faculty members evacuated safely," said Loftin. "While two of our three locations in Galveston sustained significant damage, we have been able to quickly recover. Most importantly, we have been embraced by our friends and colleagues in College Station who have made it possible for our students to continue their fall semester there."

Commencement for TAMUG will be held Dec. 14 at the Moody Gardens Convention Center in Galveston. Special guests include Texas A&M System Chancellor Michael McKinney, Board of Regents Chairman Bill Jones and Texas A&M President Elsa Murano.

#### After the storm

In the weeks following the storm, the Texas Public Works Response Team (PWRT), led by TEEX and sponsored by the Governor's Division of Emergency Management, worked to restore critical infrastructure. A team of engineers and geologists from across the country, assembled by Dr. Billy Edge, Bauer Professor of coastal and ocean engineering at Texas A&M, conducted a Hurricane Ike damage assessment. The data they collected will be compiled into a report for the American Society of Civil Engineers to help communities rebuild in a way that can minimize future storm damage.

The storm also had a devastating effect on livestock, and many ranchers were in dire need of water and food for the estimated 20,000 head of displaced cattle and horses in southeast Texas. Prairie View A&M University donated more than 100 round bales of hay to Chambers and Jefferson Counties, and also lent portable panels to aid in the retrieval of cattle and horses.

"Out of the devastation left in the wake of Hurricane Ike sprung a spirit of cooperation and support among our system members unlike anything I've seen before," said McKinney. "We took care of each other not because someone gave us that job, but because it was the right thing to do."



Jeffrey S. Vitter was recently named provost and executive vice president for academics at Texas A&M. Previously he was the Frederick L. Hovde Dean of the College of Science at Purdue for six years, where he helped develop a new undergraduate core curriculum designed to provide

students with flexible education choices and research experiences within their disciplines. Vitter also holds tenure as professor of computer science.



Lt. General Joseph F. Weber, USMC (Ret.) has been named Texas A&M's vice president for student affairs. Weber served in assignments worldwide with the U.S. Marine Corps, commanding at all levels and serving in a wide variety of senior staff positions. His primary duties focused

on the training, education and readiness of thousands of service members and civilians as well as the responsibility for their health and welfare.

The day after Ike made landfall, administrators at the A&M System, Texas A&M and TAMUG weighed their options. In light of the severe destruction on Galveston Island, and the impact on housing, the prospect of students being able to return to class in Galveston looked bleak. If classes were to resume, it would have to be in College Station, which put into motion a contingency plan developed after Hurricane Rita in 2005.

Led by Texas A&M vice president for operations Dr. Russell Cross, more than 60 administrators, in conjunction with Dr. Bowen Loftin, executive vice president and CEO of TAMUG, began preparations. The massive undertaking included finding housing and classroom space for the students and professors, and helping them adjust to such a change early in the fall semester.

The A&M System's Office of Real Estate worked nonstop to secure housing for more than 1,600 students and 70 TAMUG faculty members. A helping hand also came from the students, faculty and staff



First response: A Texas Task Force 1 swift water rescue crew searches Galveston's flooded neighborhoods for trapped residents.

### Entrepreneurship Bootcamp Offers Disabled Veterans Chance to Make Dreams Come True

By Chrystal Houston Mays Business School Texas A&M University

John Reed and his family raise horses and cattle on their 30-acre Double R Ranch outside Gatesville, Texas, but for the former Army sergeant, that's only part of a larger dream. He wants the ranch to become a refuge for disabled veterans and others suffering from physical or emotional trauma. He wants it to be a place of healing.

Reed knows that's important. Combat injuries from tours of duty in Iraq and Afghanistan left him with hearing loss, damaged knees and severe emotional issues. "I have real bad PTSD (Post-Traumatic Stress Disorder). The only place I feel comfortable is with my animals. I thought maybe that would work for others," says Reed, who took medical retirement after leaving the service last year.

It wasn't long before the veteran also realized that his traumas were destroying his marriage. While medical services were available to him, he couldn't find help for his wife and children, who had to cope with the man who had returned from the battlefield so changed.

The search for answers led Reed to a new program offered at Texas A&M University's Mays Business School. He joined 15 other disabled veterans to participate in the Entrepreneurship Bootcamp for Veterans with Disabilities (EBV), which offers wounded veterans a crash course in starting and running a successful small business. Donors underwrite all student costs, including travel and lodging.

Modeled after a program launched in 2007 at Syracuse University, the EBV was offered this year in conjunction with Syracuse through the Center for Executive Development at Mays. It also was provided at UCLA and Florida State University. Students completed a three-week online course followed by an eight-day residency at one of the four participating campuses. Business faculty volunteers provide oneon-one mentoring for the following year.



*Healing dream:* Former Army sergeant and bootcamp participant John Reed plans to open a ranch offering healing for disabled veterans and their families.

There's no "typical" EBV student. Ages range from early twenties to early sixties. Some are amputees, some use hearing aids. They represent different ranks, races, genders and education levels, with varying lengths of service in all four branches of the military.

Many, like Reed, plan to help others who have served their country. A number of the business plans at the Mays bootcamp focus on providing veterans' services, from launching benefits-oriented websites to setting up affordable housing for the disabled.

Mays interim dean Ricky Griffin said that partnering with Syracuse in this venture was "the easiest decision I've made in the past 15 months as dean... This university has a unique history that reflects a strong entrepreneurial spirit and a pervasive military culture."

Applications are now being accepted for the 2009 EBV program. Details can be found at http://whitman.syr.edu/ebv/.



**In business:** Bootcamp participants, such as retired Army Sgt. Maj. David "Ranger" Kiel (middle, back row), came from different backgrounds, with varying lengths of service in all four branches of the armed forces, but were united by their shared experience of military life.

### TAMUQ Seeks More Water for the Planet

Important new research at Texas A&M University at Qatar could mean a major breakthrough to alleviate global water shortages. Based on improved technology, the university's water and environment research group hopes to be able to desalinate inland water with zero discharge of the brackish groundwater that typically accompanies such operations.

The improvement would have enormous implications for inland regions in Qatar and other areas with limited freshwater resources that have urgent need for affordable water supplies to meet growing demands.

The proof-of-concept research study, led by Dr. Ahmed Abdel-Wahab, will be funded by a \$420,000 grant from Qatar Science & Technology Park (QSTP).

For coastal areas, disposal of reject brine is a common practice, but it is a major problem for inland plants seeking to desalinate groundwater because of the need to protect surface and



Dr. Ahmed Abdel-Wahab

groundwater resources. Zero liquid discharge, in which brine is treated to produce desalinated water and essentially dry salt, would greatly increase the potential for recovering previously unusable groundwater reserves.

The Qatar project will focus on developing inexpensive and environmentally benign desalination techniques that will maximize water recovery and minimize the volume of concentrated brine that needs to be vaporized. The process also will also conserve water because of high rates of recovery.

In technical terms, the approach involves combining applications of two-stage reverse osmosis with brine treatment processes. This is designed to remove the salts that can that can foul the reverse osmosis membranes, which tend to decrease water recovery from brine in the second stage.

The desalination techniques are also are expected to require much less energy than thermal desalination and provide environmental benign brine treatment and salt management. Additionally, the research will add a commercial incentive as zero-liquid-discharge salt byproducts become a marketable commodity rather than a waste product.

"The advancement of zero-liquid-discharge science and associated reduction of costs will be of tremendous benefit and will alleviate the water supply challenges faced by the state of Qatar and other communities worldwide striving to meet rapidly growing water demands with limited freshwater resources," said Abdel-Wahab. "Given the need for zero-liquid-discharge technology and the disadvantages of existing methods, it is imperative to

find alternative treatment technologies."

### Borlaug Institute Helps Rwanda

Rwanda's devastated coffee industry is getting a big boost and international attention thanks to the country's ongoing involvement with a project led by the Norman Borlaug Institute for International Agriculture at Texas A&M University. Since 2001, the Sustaining Partnerships to Enhance Rural Enterprise and Development (SPREAD) project, in conjunction with the Borlaug Institute, has helped tens of thousands of Rwandan farmers increase their income and improve their quality of life.

In 2007, SPREAD and its project partners presented Rwanda's first national Golden Cup coffee competition. In August 2008, Rwanda expanded its role to host the world-renowned Cup of Excellence. Of the top 24 winners in the contest, 19 received SPREAD support with quality control and lot creation. Last October, the project hosted a new postcompetition online auction that brought in about \$500,000. Winning coffees received bids ranging from \$4.20 a pound up to \$18 a pound.

"SPREAD efforts have lifted the Rwandan coffee industry to the top of its class, and created a model that will serve the Rwandan people for decades to come," said Paul Katzeff, CEO of Thanksgiving Coffee Company, a California-based specialty coffee roaster. Upcoming SPREAD activities will help some 6,000

small-scale pyrethrum flower farmers thanks to a partnership with S.C. Johnson Company. It also will help another 2,000 Rwandan farmers involved in chili pepper production and processing.

The Borlaug Institute is working with one of the SPREAD project coffee industry partners in the U.S. to bring Rwandan specialty coffee to Texas A&M in spring 2009.



**Top brews:** Rwandan women involved in the SPREAD project score coffees that have been set out for evaluation during competition.



# A&M System Salutes Wounded Warriors

More than 140 members of the U.S. Army's Wounded Warriors Program at Fort Hood spent a beautiful fall afternoon enjoying burgers, hot dogs and a little lakeside fishing at Reed House on the Texas A&M University campus, guests of Chancellor Michael McKinney and his wife, Lou Ann. Earlier in the day, the soldiers, including Fort Hood's commander Lt. Gen. Rick Lynch and his wife, Sarah (top right), were guests at Kyle Field as the Aggies defeated Army.

A moving and emotional experience for all, the Reed House visit gave the soldiers, injured in Iraq and Afghanistan, the opportunity to relax in the presence of an A&M System family that truly appreciated their sacrifices and dedication.

Launched in 2004, the Wounded Warriors Program serves more than 2,300 soldiers and their families.

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