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UT DALLAS MAGAZINE

LAUNCH

From Entrepreneurs to Scientists, UT Dallas Sparks New Endeavors

UT DALLAS MAGAZINE

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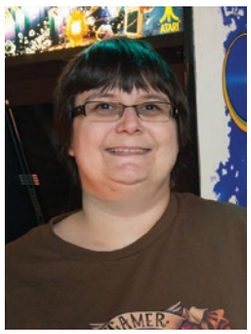

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LETTERS TO THE EDITORS

In response to the Fall issue:

"Come Together: Smarts Required. Nerdiness Optional. A Culture of Acceptance Encourages Students to Follow Their Passions" (Fall 2015) prompted spirited conversation on the University's Facebook page:

It was nice to finally go to a school where I didn't have to hide my nerdiness. I could say I played video games and loved comic book movies without anyone giving me a look of disgust. It was a breath of fresh air.
Alicia Himler BS'15

This is why we're so proud of our undefeated football team. #gochess
Amanda Neff, former UTD employee

It was nice to be valued for my brain instead of my appearance for the first time in my life. Where I wouldn't be ostracized for being intelligent. Nor was I alone. For once, I was among peers. There are no words for how good it was to feel normal.

And I found it to be plenty social. Social around ideas and research, which will quantifiably make the world a better place. That suited me perfectly.
Jennifer D. Steward BS'15

Nerd culture is the rejection of maturity. I am an electrical engineer, but I have always loathed the nerd culture.
Robert Fort BSEE'98

I currently attend UTD. I don't partake in as much of the "nerd culture" as a majority of the students. However, these students that do participate are some of the brightest and most intelligent people I've ever met. I'm proud to go to a university that embraces individualism and creativity. By the way, I'm a healthcare studies major, so I'm a nerd in my own way. Just with natural and medical sciences.
Jordan Farber, freshman

Yes! Comets are proud of being nerds! I hope this essential part of UTD is preserved even as it grows! Whoosh!
Amanda Lewis BS'13

It is finally confirmed! I love my alma mater's nerd culture! It's what makes it unique! Whoosh!
Antonia Okafor BA'13

Come on, only UTD could get away with Star Wars spirit shirts. Love my alma mater! #whoosh
Kristen Villemez BSEE'15

One of the key reasons I chose UTD!
Lindsey Kayla Britt, sophomore

Saying that is alienating other subcultures within the university. "Nerd culture" is awesome but there is a very specific subculture within the nerd culture that this status alludes to. Silly to advertise a diverse institution that way.
Rajiv Dwivedi BS'14

I love and miss this about UTD. Students always got my nerdy references in class!
Christine Renee Hand Jones PhD'13

I got a compliment walking to class from the parking lot for my #1 Dad shirt with a picture of Vader on it.
Kelly Venechanos, junior

Proud alumni. #whoosh
Mario Moreno BS'14

A refreshing "Alumni Perspective: Breaking from the Path." Ibrahim Bashir's article transported me back to my days at UTD. As he mentions, what sometimes seem to be small things can prove to be catalysts for bigger changes in one's life. As an undergrad, I was fortunate enough to be a part of the graduate-level South African study tour in 1997. Lucky timing placed us in Harare, Zimbabwe, on the day that President Nelson Mandela was being honored. Here we were, a bunch of rag-tag college students in shorts and T-shirts who only wanted a glimpse. We were picked out of the crowd to sit with honored guests at the ceremony. We were so excited. I remember [Mandela's] graciousness. After the ceremony, he came over to speak with us and shake our hands. This simple act of kindness struck me to my core — showing that no matter what life throws your way, you have the ability to make a difference in the world by showing gratitude to others. Today, I let kindness and gratitude be my guiding light. Thank you, President Mandela, and thank you, UTD!

Melody Glatz Maleitzke BS'97
Dallas, Texas

ON CAMPUS

Dr. Richard C. Benson visited campus in February after the announcement of his appointment as the next president of UT Dallas. He officially begins his new role on July 15.

Sociology graduate student Ryan Dorman BA'15 (right) introduces himself to Dr. Benson during a February campus reception.

Dr. Benson visited with faculty, staff and students during his first campus visit.

Richard C. Benson Named UT Dallas President

In February, The University of Texas System Board of Regents named Dr. Richard C. Benson the next president of UT Dallas. Benson, who was dean of Virginia Tech's College of Engineering, begins his new role at the University on July 15.

"The UT System Board of Regents has just provided me with the greatest honor of my professional career, and I cannot begin to express my excitement to serve as the next president of UT Dallas," Benson said at the time of his appointment. "UT Dallas is on a stunning upward trajectory, something that is commented on frequently in academic circles, and I am honored to join the faculty, staff and students as we work toward our goal of making UT Dallas a global force in education, innovation and research."

Board Chairman Paul Foster said, "Dr. Benson is tailor-made for this important role. We believe he is the right person at the right time to propel UT Dallas to even greater heights."

Benson replaces Dr. David E. Daniel, who left the position last summer to become UT System's deputy chancellor. Dr. Hobson Wildenthal is serving as president *ad interim*.

As dean, Benson has overseen a period of record growth since 2005 at Virginia Tech. The number of applicants to Virginia Tech's College of Engineering nearly doubled during his tenure. Also, the College of Engineering climbed to its highest-ever ranking in the National Science Foundation's report on engineering schools' research expenditures. The 2016 survey, reporting on figures for Fiscal Year 2014, shows the college in eighth place with $228.6 million in research expenditures, ahead of prestigious universities including Stanford, Ohio State, Illinois and the University of California, Berkeley.

Before his service at Virginia Tech, Benson was head of the Department of Mechanical Engineering at Pennsylvania State University. He previously served as chair of the Department of Mechanical Engineering at the University of Rochester, and prior to that was the associate dean for graduate studies in the university's College of Engineering and Applied Science.

Benson's research at the University of Rochester was primarily focused on the mechanics of highly flexible structures. He has twice been honored by the American Society of Mechanical Engineers (ASME). In 1984, he received the ASME Henry Hess Award, which honors a research publication by a young author. He also became a fellow of ASME in 1998.

Benson holds a bachelor's degree in aerospace and mechanical science from Princeton University, a master's degree in mechanical engineering from the University of Virginia, and a doctorate in mechanical engineering from Berkeley.

Benson, 64, spent his childhood in Dover, New Jersey, and though he loves the scenic beauty of Blacksburg, Virginia, he said he's eager to once again live in an exciting, urban environment and he's looking forward to all the Metroplex has to offer.

Benson and his wife, Leslie, have three adult children, Stephanie, James and Kenneth. ***-UT System Office of Public Affairs***

Founders Day Punctuated with Whoosh Stretching Across North Mall

Under a flawless, blue October sky, students, faculty and staff turned out by the hundreds to participate in the University's second annual Founders Day activities. The day included the largest "Whoosh" ever and a celebration of the newly enhanced North Mall made possible by gifts from Margaret McDermott, longtime campus supporter and widow of the University's co-founder Eugene McDermott.

The area that extends from Trellis Plaza to the Administration Building now boasts more than 70,000 square feet of lawn and plant areas; 115 cedar elms, magnolias and oak trees; 1,300 linear feet of stone wall seating; and 48,000 square feet of new concrete paving.

At a ribbon-cutting ceremony to officially open the North Mall, Student Government Vice President Grant Branam said the park-like setting is one of his favorite spots on campus and provides a peaceful space for students to gather, eat lunch or study for tests.

"It's really a special time to be here," said Branam, an arts and technology sophomore. "When I came here as a freshman, I never saw this kind of activity. Now the social heart of campus is opened up."

Founders Day is generally held on Oct. 29, the day on which the Founders Building — the first facility built on campus — was dedicated in 1964.

-Robin Russell

New Classification Moves UTD to Highest Research Category

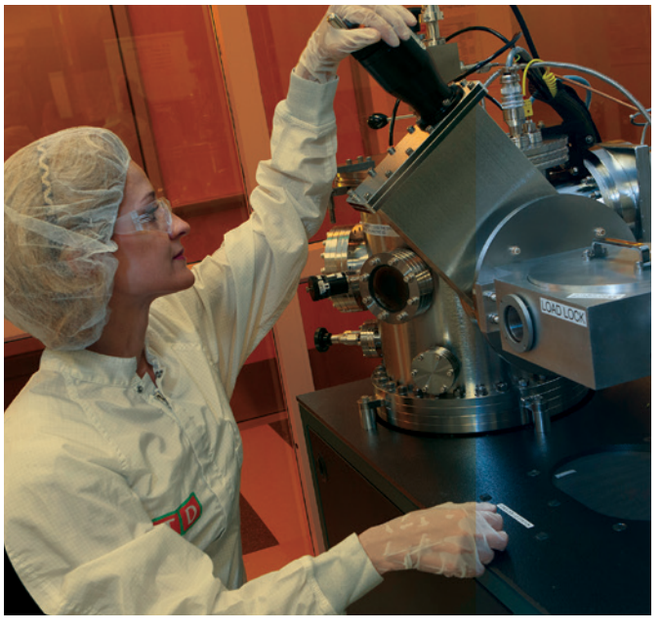
The 2015 edition of The Carnegie Classification of Institutions of Higher Education, which was released in February, included UT Dallas, UT Arlington, Texas Tech and the University of North Texas in its list of the 115 American universities classified as "Doctoral Universities - Highest Research Activity."

These four Texas universities join UT Austin, Texas A&M, Rice and the University of Houston in this classification. The Carnegie Classifications for doctoral institutions are issued every five years, and use the terminology *Moderate*, *Higher* and *Highest research activity* to classify doctoral universities.

Dr. Hobson Wildenthal, UT Dallas president *ad interim*, in responding to the Carnegie announcement, noted, "Our inclusion in this highest classification of research activity is an expected result of the increased size of the UT Dallas faculty and the commensurate increase in our research funding and expenditures. It is also to be credited to the initiatives launched in 2009 by the Texas Legislature, designed to increase the number of national research universities in Texas.

"Since the Carnegie Classifications are based largely on the aggregate quantity of an institution's research, it is noteworthy that UT Dallas is much the smallest of the Texas public universities in this Highest class. This testifies to the high research productivity of our distinguished faculty on an individual basis. This change in classification for UT Dallas is merely a milepost in our ongoing strategic plan to build UT Dallas into a research university of the highest quality, one that has true national and international impact."

-Office of Media Relations



The cleanroom research spaces in the Natural Science and Engineering Research Laboratory, are available for student and faculty research that require a particle-free environment. The state-of-the-art facility is indicative of the University's scaling up in research productivity.

WHOOSH!

Dr. Ray Baughman and **Dr. Kaushik Rajashekara** were named **Fellows of the National Academy of Inventors**.

Dr. Anne van Kleeck, professor in the School of Behavioral and Brain Sciences, was honored by the American Speech-Language-Hearing Association for the **best article of the year** for 2015.

Kiplinger's Personal Finance magazine ranked UT Dallas as one of the **100 best values** among the nation's public universities. UT Dallas rose to 33rd on the 2016 list, up from 34th in 2015.

UT Dallas Facilities Management received the 2015 Rick Fuszek Award for Outstanding Sustainable Materials Management from the **State of Texas Alliance for Recycling** in recognition of the University's on-campus compost operation.

More than 300 students participated in two sessions of Kids' University during summer 2015.

Kids' University Inspires Campers to Pursue Big Dreams

Community partners provided custom-made educational lessons to more than 300 students during Kids' University, a summer program designed to inspire children living in local homeless shelters to aim for college.

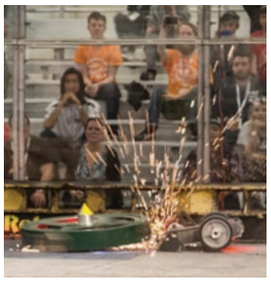
The University developed the four-day camp 20 years ago in partnership with Dallas nonprofit Rainbow Days to provide education and support to children experiencing homelessness, which can put them at risk of falling behind in school.

"Kids' University at UT Dallas provides children with a memorable experience of what their futures can be," said Dr. George W. Fair, vice president for Diversity and Community Engagement, and professor and dean of the School of Interdisciplinary Studies.

Classes at the camp included math, science, engineering and computers. The lessons were developed and taught by partners from the Perot Museum of Nature and Science, Home Depot, Frito-Lay, Cranium Kids and other agencies. American Airlines and other partner agencies also provided volunteers. ***-Kim Horner***

Team's Combat Robot Slices Up Competition to Capture National Title

Stuart Yun BS'13 and Alex Kollaja BS'13 took a week off work and drove 360 miles to Northern California, battling Los Angeles and San Francisco traffic, to assist current UT Dallas students competing in the 2015 RoboGames, the world's largest robotics exposition.



The Blender features a 70-pound titanium shell with four spinning steel blades that can slice at more than 120 mph.

"Both Alex and I were communicating with the battlebot crew over the course of two years," Yun said. "We wanted to get to know the new team and help them out at the competition."

Nusha Laleh BS'15, who was a mechanical engineering senior at the time of the competition, led the team to reclaim the title as national battlebot champions. At the 2015 competition, the team also placed third in its class internationally, behind two squads from Brazil.

Yun and Kollaja were part of the team that finished first in 2011. UTD teams also took the top spot in 2007 and 2009.

UTD's competition-winning weapon is a 120-pound combat robot known as The Blender. The design of the robot is classified as a full body spinner, where a 70-pound titanium shell spins four hardened steel blades that slice at more than 120 mph. The Blender's competitors are known to last only seconds, or are knocked out with a single stroke.

The UT Dallas battlebot team won its first national title since 2011 and finished third internationally at the 2015 RoboGames. Champion combat robot The Blender is pictured with the team's advisor, alumni and members.

Team members have to make needed repairs between battle rounds. This year that meant five rounds of competition — four breaks to make needed repairs.

"If your weapon doesn't get destroyed and you're not eliminated, you have to rebuild right before your next round, and that could be as little as 40 minutes," Laleh said. "It got really intense. That's where our alumni came in handy. They definitely helped us out a lot." ***-LaKisha Ladson***

Georgia Stuart and Jonathan Popa are two UT Dallas doctoral students participating in the mathematics training program funded by the National Science Foundation.

Mathematical sciences faculty lead the Enriched Doctoral Training Program. Back row, from left: Dr. Matthew Goeckner, Dr. Larry Ammann, Dr. Sue Minkoff (principal investigator), Dr. Yulia Gel and Dr. Felipe Pereira. Front row: Dr. Yifei Lou, Dr. John Zweck and Dr. Yan Cao.

Doctoral Math Students' Career Options Multiply with Training Program

The Department of Mathematical Sciences has a new offering to support a wide range of career path opportunities for doctoral students in mathematics and statistics.

The project, Team Training Mathematical Scientists through Industrial Collaborations, is funded by a three-year, nearly $600,000 grant from the National Science Foundation (NSF). In this first competition for the new NSF Enriched Doctoral Training Program in the Mathematical Sciences, NSF awarded funding to two universities: UT Dallas and Princeton.

"The goal of this project is to enrich training for American citizens or permanent residents who are getting PhDs in the mathematical sciences," said Dr. Susan Minkoff, professor of mathematical sciences and lead principal investigator of the grant. The co-principal investigators are Dr. Yan Cao, Dr. Yulia Gel, Dr. Felipe Pereira and Dr. John Zweck, all faculty members in the department.

The project's objective is to train students so that they are not so narrowly focused on strictly problems in math and statistics, Minkoff said. Students work in teams and with external partners from industry and government labs to develop mathematical and statistical approaches to problems arising in various areas of science, medicine and engineering.

Four students took part in the program this academic year, and six more will be added in each of the next two years.

Industry partners include Pioneer, RTI International, Johns Hopkins Applied Physics Laboratory, Lawrence Berkeley National Laboratory, Sandia National Laboratories, Parkland Center for Clinical Innovations and UT Southwestern Medical Center. ***-Amanda Siegfried***

University Earns High Marks for Diversity, Low Student Debt

UT Dallas is among the top universities in the country when measuring campus diversity and low student debt, according to a *U.S. News & World Report* ranking.

The report placed the University at 140th overall in its evaluation of more than 1,500 four-year colleges and universities in the United States. The University placed 145th in last year's report.

UT Dallas was ranked among the top 25 schools in the country for having a low percentage of students carrying debt. Fifty-two percent of the undergraduate class of 2014 graduated without any debt. UT Dallas and the University of Houston were the only Texas universities listed among the 25.

The Naveen Jindal School of Management also was featured in the report with its management program ranking among the 100 best undergraduate business programs in the nation. The Jindal School's online graduate business program ranked No. 2 and its online MBA program was No. 6 in last year's *U.S. News* Best Online Programs rankings.

The University also ranked high for its ethnic diversity. *U.S. News* put UT Dallas among the top 25 most ethnically diverse undergraduate student populations in the country. ***-Miguel Perez***

Val-Sal Twins Find Perfect Match in UT Dallas Neuroscience Program

Fellow students in Steffy and Stella Viju's neuroscience classes might think they're seeing double, but the identical twins could hardly blame them.

Born just a minute apart, the sophomores not only share the same birthday but also are both neuroscience majors with similar career interests. And they're so alike, they often finish each other's sentences.

"Ever since we were young, we've had the same interests," said Stella, who is just slightly older than Steffy.

The twins came to UT Dallas after graduating as valedictorian (Steffy) and salutatorian (Stella) at Poteet High School in Mesquite, about 20 miles southeast of UT Dallas.

Their academic achievements were so similar — including having the same GPA and final six weeks' grades — that school administrators had to go back further to find a tiebreaker: a one-point grade difference in a class.

"We were tied, but Texas doesn't allow co-valedictorians," Steffy said. "We're not competitive, though. We both have to do well together."

The twins chose the University because of its neuroscience program. Both enjoy studying how the brain works and are interested in doing undergraduate research on memory, brain plasticity, aging and pain. Each received an Academic Excellence Scholarship their freshman year, which covered their tuition and fees and provided a stipend for books.

Each wants to attend medical school, but they have different career aspirations. Stella hopes to focus on pediatrics. Steffy would like a career in oncology. ***-Robin Russell***

Twins Stella (left) and Steffy Viju were salutatorian and valedictorian of Poteet High School in Mesquite, respectively. They both study neuroscience at UT Dallas and plan to attend medical school.

WHOOSH!

Naomi D'Amato, an accounting junior, received a $2,500 Emerging Scholar Award through the **Golden Key International Honour Society**.

Graduate marketing students **Kathleen Callison, Aiswarya Chandrasekaran, Kuang Hsuan (Alicia) Keng** and **Manali Walvekar** placed in the top 2 percent of the more than 1,700 students who competed worldwide in the 2015 **Google Online Marketing Challenge**.

For the fourth consecutive year, the University's **Phi Kappa Phi** chapter was recognized as a **Chapter of Excellence**, the highest commendation possible.

Full-time MBA student **Hazem Elshorbagy** received a $15,000 scholarship through the **Texas Business Hall of Fame Foundation** for designing an environmentally friendly method for heavy crude oil extraction and testing ideas to improve the efficiency of trash hauling.

The anatomy of the human brain inspired architecture and engineering firm Page Southerland Page in its design of the Brain Performance Institute.

Brain Performance Institute Takes New Shape

The Brain Performance Institute's new home — a 62,000-square-foot facility that will bring together the latest research and training techniques designed to improve cognitive skills and health — is under construction adjacent to the Center for BrainHealth in Dallas. It is expected to open in 2017.

"The Brain Performance Institute will be the first facility of its kind — not an acute treatment center, but a place where healthy people as well as people who have sustained brain injuries or diseases have the opportunity to help their brains become healthier, more efficient and less stressed," said Dr. Sandra Bond Chapman, founder and chief director of the Center for BrainHealth and holder of the Dee Wyly Distinguished University Chair in the School of Behavioral and Brain Sciences.

In the past two years, the institute has served more than 40,000 people at the Center for BrainHealth and via mobile training teams. Clients have ranged from professional athletes and executives to military veterans and teens.

The 62,000-square-foot institute is expected to open in spring 2017.

The new facility will offer brain physicals, virtual reality training programs for teens and adults on the autism spectrum, and other learning tools, as well as host events featuring experts from around the world. ***-Emily Bywaters***

First Lady of Zambia Learns About Callier Center During Visit

Esther Lungu, the first lady of Zambia, visited the Callier Center for Communication Disorders in the fall as part of a trip to the United States, saying she would like to utilize knowledge from Callier to help the people of her country.

Lungu was in Dallas participating in an event at the George W. Bush Institute that brought in a number of first ladies from around the world for the center's Global Women's Initiative summit. She often visits facilities that help children when she travels and chose to visit the Callier Center while in the area.

During her visit, Lungu met with speech and hearing disorder patients. She also visited with some of the center's audiologists, speech-language pathologists and students.

Dr. Jackie Clark, clinical professor at the School of Behavioral and Brain Sciences, each year leads students on trips to Africa to provide audiology services. Recently, she spearheaded a "teleaudiology program" in which rural Zambians can have their hearing checked remotely, without a doctor having to be present.

During Lungu's visit, she and Clark talked about that program as well as other ways that Zambia can provide more assistance to the country's audiologists so that hearing services for its citizens can be improved and increased. ***-Phil Roth***

Esther Lungu, the first lady of Zambia, was greeted during her visit to the Callier Center for Communication Disorders by children from the Callier Child Development Program, who sang and signed a song.

FROM THE LAB

Dr. John Geissman, professor and head of the Department of Geosciences, is part of an international research team studying exposed rocks in the Karoo Basin in southern South Africa.

Findings Rock Long-Held Assumptions about Ancient Mass Extinction

New evidence gathered from the Karoo Basin in South Africa sheds light on a catastrophic extinction event that occurred more than 250 million years ago and wiped out more than 90 percent of life in Earth's oceans and about 70 percent of animal species on land.

In research published in the journal *Geology*, Dr. John Geissman and his colleagues describe new findings that challenge the currently accepted model of the "Great Dying" and how it affected land animals.

Geissman, who is head of the Department of Geosciences and one of the authors of the study, is part of an international research team led by Dr. Robert Gastaldo of Colby College in Maine, lead author of the *Geology* study.

Two years ago, during a hike with a colleague through an arroyo in the Old Lootsberg Pass area in the Karoo Basin, Geissman noticed a feature in the rocks that looked familiar.

"As we were walking up this arroyo, I saw something that I knew I'd seen before in the Western U.S. where I teach a field geology class, but I hadn't seen it here before," Geissman said. "I knew exactly what it was — it was a fossilized volcanic ash bed."

The find was significant for two reasons. First, zircon crystals found in ash beds can be dated. And second, this ash bed was the first datable evidence found in close proximity to the position in the layers of rock where the extinction of land species was thought to have taken place.

The team dated the volcanic ash bed at about 253.5 million years old, leading the researchers to conclude that the terrestrial phase of the extinction took place at that time.

-Amanda Siegfried

WHOOSH!

Bloomberg Businessweek ranked the Naveen Jindal School of Management's **Full-Time MBA Program** No. 42 in the nation, and the **Professional MBA Program** was listed at No. 22.

Dr. Yonas Tadesse and **Dr. Majid Minary**, both from the Erik Jonsson School of Engineering and Computer Science, are part of the **2015 Young Investigator Program** for the Office of Naval Research.

The National Geospatial-Intelligence Agency and U.S. Geologic Survey named the UTD **Geospatial Information Sciences Program** as a **Center for Academic Excellence,** one of 17 in the nation.

Dr. Daniel Griffith, Ashbel Smith Professor of Geospatial Information Sciences, is a **2015 Fellow of the American Statistical Association**.

Flora Yan, a biology major, placed sixth overall in the individual competitions at the **2015 USA Cycling Collegiate Road Nationals** in Asheville, North Carolina.

Dr. Alex Piquero

Criminologist Tackles Perception of NFL Players

A 24-hour news cycle, viral videos and tweets about football players' run-ins with the law can make it seem like criminal activity is an epidemic in the National Football League.

But a UT Dallas study refutes that impression. The research found that from 2000 to 2013, the overall arrest rate for the general population was nearly double the rate for NFL players.

"There's a perception that the NFL has this huge crime problem and that it's longstanding. That's what everybody believes," said Dr. Alex Piquero, Ashbel Smith Professor of Criminology in the School of Economic, Political and Policy Sciences. "The data show that it's not true."

The study, "The National Felon League? A Comparison of NFL Arrests to General Population Arrests," was published online in the *Journal of Criminal Justice*. Piquero worked with co-authors Wanda Leal and Dr. Marc Gertz, both of Florida State University.

The authors compared arrest rates among 1,952 NFL players to arrest rates among males between ages 20 to 39 in the general population.

For every year between 2000 and 2013, the total arrest rate for the general population was significantly higher than the total arrest rate for NFL players. For example, the total arrest rate for the general population was 4,889 arrests per 100,000 people in 2013; the total arrest rate for NFL players was 3,740. For most years, the total arrest rate for the general population was one and a half to two times as high as the total rate for NFL players. ***-Kim Horner***

Dr. Kelli Palmer (right), assistant professor, and doctoral student Wenwen Huo, both in the Department of Biological Sciences, are investigating how bacteria acquire antibiotic resistance genes from one another.

Biologist Investigates How Gene-Swapping Bacteria Evade Antibiotics

A scientific peek into bacteria boudoirs is revealing how "sex" among disease-causing microbes can lead different species or strains to become resistant to antibiotic medications.

Dr. Kelli Palmer, assistant professor of biological sciences, is conducting research aimed at understanding the underlying mechanisms by which bacteria acquire antibiotic resistance genes from one another.

Her research has important implications for human health. While antibiotic drugs have reduced the number of illnesses and deaths associated with bacterial infections, the overuse of these drugs also has led some infectious agents to adapt to antibiotics, making the medications less effective.

According to the Centers for Disease Control and Prevention, each year in the United States, at least 2 million people become infected with bacteria that are resistant to antibiotics, and at least 23,000 people die as a direct result of these infections.

Palmer's research has attracted the attention of the National Institutes of Health, which recently awarded her a $1.9 million, five-year grant to study acquired antibiotic resistance in *Enterococcus* bacteria, the culprits responsible for some hospital-acquired infections.

In a study published by the *Journal of Bacteriology*, Palmer and her colleagues shed light on a gene-swapping process called conjugation, which, she tells her students, is like bacterial sex.

"Bacteria can exchange antibiotic resistance genes through conjugation, which requires them to meet up and come into physical contact," Palmer said. "The focus of this study was trying to understand how a bacterium called *Enterococcus faecalis* discriminates its own genetic material from 'other' genetic material trying to enter the cell during conjugation."

Dr. Michael Q. Zhang, director of the Center for Systems Biology and the Cecil H. and Ida Green Chair of Systems Biology Science, is a collaborator on the grant. Other authors of the study are doctoral students Wenwen Huo and Hannah Adams.

-Amanda Siegfried

WHOOSH!

Valerie Price BS'11, MS'14, a biology doctoral student, received the **Jess Hay Chancellor's Graduate Student Research Fellowship**. The $10,000 award is given annually to two students from UT System institutions.

Dr. Bernine Khan and **Dr. Kelli Palmer**, from the School of Natural Sciences and Mathematics, were among 100 recipients nationwide of ***INSIGHT Into Diversity*** magazine's Inspiring Women in STEM Award.

A team of mechanical engineering students took first place at the **2015 ASME Manufacturing Science and Engineering Conference Student Design Competition** sponsored by Raytheon.

Dr. Nasser Kehtarnavaz, professor of electrical engineering, earned the **Professional Leadership Award** from the Institute of Electrical and Electronics Engineers.

Underwood's Study of Teen Cyber Aggression Featured on CNN

A research project involving Dr. Marion Underwood, dean of graduate studies and professor of psychological sciences, found that most online conflicts among teens occur with friends; and that reading social media without posting is associated with psychological distress.

Underwood said that because social media dominates the lives of so many teens, the door is wide open for negative online experiences.

"Most young people will be the victims of cyberbullying. And quite often, that aggression comes from their so-called friends," she said.

Underwood helped develop the research model for a study done by CNN for a special that aired in the fall and can be found on the news outlet's website. She said the study is groundbreaking because it is the first study to examine what 13-year-olds actually post and say on social media outlets such as Instagram, Twitter and Facebook.

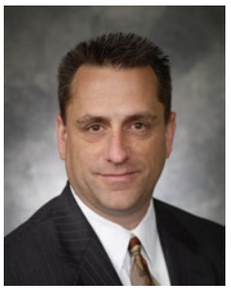
The CNN research was featured in a special on CNN's *Anderson Cooper 360* called "#Being13: Inside the Secret World of Teens" that examined the social media communication of 200 13-year-olds, including more than 150,000 of their social media posts.

Underwood served for two years as a consultant to CNN producers and is interviewed on the program. ***-Phil Roth***

Dr. Marion Underwood helped develop the research model for a CNN study and program called "#Being13." The program was hosted by Anderson Cooper.

Team Wins DARPA Grant to Explore PTSD Treatment

Dr. Michael Kilgard



Dr. Robert Rennaker

A federal agency awarded a four-year grant that could result in funding of up to $6.4 million to the University's Texas Biomedical Device Center to study a potential new therapy for individuals who suffer from post-traumatic stress disorder (PTSD).

The Defense Advanced Research Projects Agency (DARPA) grant that began in the fall will continue for four years. The grant is part of DARPA's ElectRx program to develop groundbreaking technologies using the body's innate neurophysiology to restore and maintain health.

The center's project will explore targeted plasticity therapy that uses vagus nerve stimulation during exposure therapy to reduce the fear response.

"We have translated two previous UTD therapies to the clinic. This could be the third," said Dr. Michael Kilgard, the Margaret Fonde Jonsson Professor and professor of neuroscience. Kilgard is one of the principal investigators on the project.

The DARPA grant provides support for research at nine UTD labs and a team of about 30 researchers that includes professors, postdoctoral researchers, graduate students, engineers and staff. A primary focus is the improvement of PTSD modeling, which will help boost the effectiveness of targeted plasticity therapy.

"The current preclinical models of fear are poor models for PTSD," said Dr. Robert Rennaker, Texas Instruments Distinguished Chair in Bioengineering. "This grant includes a new preclinical model so we can better understand the mechanisms behind PTSD before moving it to clinical trials."

The DARPA grant is part of a larger research initiative that was launched by the U.S. government in 2013. ***-Phil Roth***

Dr. Dean Sherry, professor of chemistry and the Cecil H. and Ida Green Distinguished Chair in Systems Biology, received the **Gold Medal Award** from the International Society for Magnetic Resonance in Medicine.

Joshua Gonzalez, a junior, received the **Richardson Real Hero Award** for his volunteer work, which totals more than 2,200 hours, with a Richardson Police Department youth program.

Dr. Reza Moheimani, the James Von Ehr Distinguished Chair in Science and Technology and professor of mechanical engineering, was appointed editor-in-chief of the journal ***Mechatronics***.

Dr. Wooram Park, assistant professor of mechanical engineering, received the **best paper award** at the 11th annual IEEE International Conference on Automation Science and Engineering.

NSF Grants Bring Together Researchers for International Conflict Projects

The National Science Foundation (NSF) awarded nearly $2 million to UT Dallas faculty who are working on two projects focused on international conflict.

Dr. Patrick T. Brandt

Dr. Alvaro Cárdenas

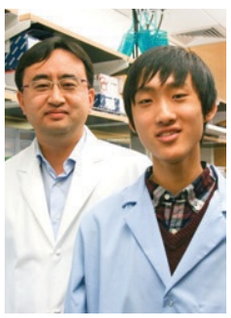
Dr. Jennifer Holmes

NSF awarded the three-year grants jointly to faculty members in the School of Economic, Political and Policy Sciences and the Erik Jonsson School of Engineering and Computer Science who will collaborate with researchers from other universities.

The first grant includes $1.5 million to create a research tool that uses big data to provide updated information on civil protests and unrest, and international conflicts. Dr. Patrick T. Brandt, professor of political science, is lead principal investigator. Dr. Latifur Khan and Dr. Vincent Ng will bring big data expertise and knowledge about how to extract the geographic and semantic meaning from the news.

A second grant totaling $401,051 will help researchers study Colombia's efforts to protect its power grid, pipelines and other infrastructure from decades of physical assaults and cyberattacks.

Dr. Alvaro Cárdenas, assistant professor of computer science, and Dr. Jennifer Holmes, program head of political science, public policy and political economy, are co-principal investigators. Dr. Vito D'Orazio, assistant professor of political science, will lead efforts on visualization and analysis. ***-Kim Horner***



Joshua Choe (right), with Dr. Jung-whan Kim

Talented Teen Earns Recognition for University Research

Two summers and many late nights devoted to research in a UT Dallas laboratory earned Joshua Choe a trip in March to Washington, D.C., to compete among the nation's elite young scientists.

Choe, a senior at St. Mark's School of Texas in Dallas, was one of 40 students chosen as finalists in the Intel Science Talent Search, the nation's oldest pre-college science and math competition. He was the only finalist from Texas, a distinction he earned through his research at the University.

Since the summer after his sophomore year, Choe has conducted research on lung cancer in the lab of Dr. Jung-whan Kim, assistant professor of biological sciences. Choe and his lab mates investigated therapeutic agents that might be effective against a type of lung cancer often linked to smoking.

Choe tested compounds for their ability to block a protein that transports glucose to cells. In squamous cell lung carcinoma, this GLUT 1 protein is present at higher levels than in normal cells or in other types of lung cancer. The team's findings may contribute to earlier diagnosis of a disease that accounts for up to 30 percent of all lung cancers. The results are expected to be published in a major scientific journal. Choe is one of the co-first authors of the paper, indicating his significant contributions to the study. ***-Amanda Siegfried***

Economists Say Internet TV Means More Options, Not More Viewing Time

The option of watching television online will not influence the amount of time a person spends viewing TV, but it does make the experience more pleasurable, according to a UT Dallas study.

"Some media reports predict that because people now have access to watch anything they want, anytime they want, they will spend more time watching TV," said Dr. Stan Liebowitz, Ashbel Smith Professor of Managerial Economics in the Naveen Jindal School of Management and one of the study's authors.

For their research, Liebowitz and Dr. Alejandro Zentner examined television consumption during the switch from broadcast TV to cable TV. Because data of current trends in internet TV viewing won't be available for another 10 to 15 years, the authors prognosticated what's going to happen based on what's happened in the past.

The study, published in the *Journal of Cultural Economics*, found that viewing time essentially stayed the same, even if the variety of available TV shows increased. Liebowitz said consumers have only 24 hours in a day, so giving them more variety does not mean they're going to spend more time watching television.

Dr. Stan Liebowitz

Dr. Alejandro Zentner

Although they're not watching more TV, viewers are getting greater enjoyment from watching television via the internet. "Additional program choices imply that people will be more likely to find a television show that more closely matches their taste," said Zentner. ***-Brittany Magelssen***

ARTS AND CULTURE

ATEC Students Found Game Development Company

A creative group with ties to UT Dallas has brought to life a universe of inverted physics, where players man a futuristic aircraft through massive, colorful bubble worlds.

InnerSpace is a single-player game set in interconnected bubble worlds that can be explored by air and sea. Players are tasked with collecting relics and interacting with each world's deity.

The game is the first commercial title released under PolyKnight Games. The indie game development company was established in 2014 by alumni Eric Brodie BA'13, Chris Miller BS'14, Tyler Tomaseski BS'14 and Steve Zapata BA'15, along with former UTD student Nick Adams and friend Eric Grossman.

PolyKnight Games was founded when the group was developing several projects in the game production lab within the School of Arts, Technology, and Emerging Communication. It began as a friendship between ATEC student Zapata and computer science student Tomaseski, who met during the 2013 fall semester while working on *Castor & Pollux* in the game production lab. They decided they wanted to start developing their own games, and Adams and Brodie joined shortly after.

Tomaseski said every team member envisioned starting their own company well before they came together. "I know, for myself, it's pretty much the reason I went to UTD: to build connections with other passionate developers who could join the journey."

The team found a wellspring of industry and entrepreneurial know-how in the faculty members of the ATEC program.

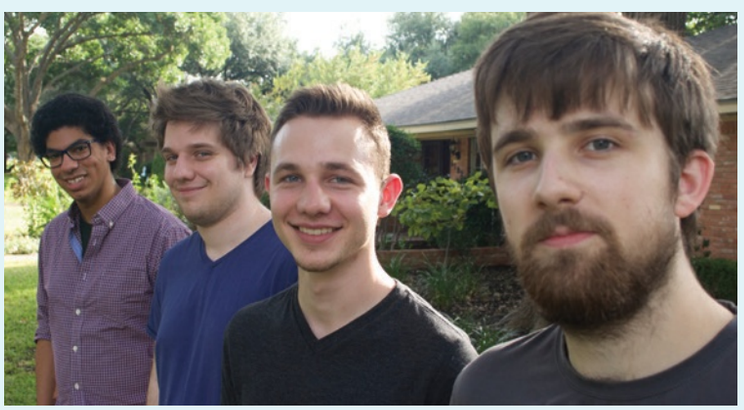
"Monica Evans (MA'04, PhD'07), Steven Billingslea (BA'10, MFA'13) and Jainan Sankalia (BA'09, MFA'12) have each provided fantastic support and advice to us during the process of developing the game," Brodie said. "Personally, Adam Brackin (PhD'08), who's now working at his own board game company, provided me with a significant amount of advice about running a company and avoiding mistakes new businesses can make."

To fund the ambitious project, the company ran a Kickstarter campaign in 2014 and raised more than $28,000 to create *InnerSpace*, offering backers exclusive artwork and custom designs for their support.

Brodie attributes its success to "preparation, preparation, preparation."

"I think we benefited from a game that stands out. It's a 3-D indie with a unique color palette, which is pretty different from many of the other games currently being made in the indie scene," he said. "Beyond the actual project, my personal goal is to get the company to a point where we can each work full time for the company. We've learned a lot during the development of this game, and hopefully, some of that will help us get to where I'd like to see us."

The game is slated for release this summer. ***-Miguel Perez***



Top: InnerSpace *is the first commercial release of PolyKnight Games.*

Above, from left: Eric Brodie BA'13, Tyler Tomaseski BS'14, Steve Zapata BA'15 and Nick Adams are four of the co-founders of PolyKnight Games.

WHOOSH!

Dr. Marvin Stone, a part-time clinical professor, received the **Lifetime Achievement Award** from the American Osler Society. The society honors the work of Dr. William Osler, who is often referred to as the father of modern medicine.

Dr. Sean Cotter, an associate professor of translation studies and literature, received the **Society for Romanian Studies Biennial Book Prize** for *Literary Translation and the Idea of a Minor Romania.*

Dr. Naofal Al-Dhahir, Erik Jonsson Distinguished Professor of Electrical Engineering, was appointed editor-in-chief of the Institute of Electrical and Electronics Engineers publication ***Transactions on Communications.***

Photo by Linda Blas/Shakespeare Dallas

Professor Fred Curchack Reigns on Stage

Fred Curchack, a drama professor in the School of Arts and Humanities, graced the stage in the titular role of Shakespeare's *King Lear* during the fall production by Shakespeare Dallas. Although this was the first time the veteran performer acted in the tragedy, Curchack knew the role inside and out. He has taught the English playwright's works from both acting and scholarly perspectives, and also produced a two-person play, *Lear's Shadow*. ***-Miguel Perez***

O'Donnell Institute Opens New Center at DMA

The Edith O'Donnell Institute of Art History debuted a new research center at the Dallas Museum of Art that will serve as a counterpart to the main offices at UT Dallas. The 1,882–square-foot satellite campus is equipped with state-of-the-art digital art history research tools and provides unique access to the art museum's collections and the research resources held at the Mildred R. and Frederick M. Mayer Library. The O'Donnell Institute was founded in 2014 with a $17 million endowment gift from arts patron Edith O'Donnell, and serves as a center for innovative research and graduate education in art history. ***-Miguel Perez***

Student Writes Civil Rights Novel

Sanderia Faye

Sanderia Faye, a PhD candidate in aesthetic studies, focused her debut novel, *Mourner's Bench*, on a young girl navigating life in small-town Arkansas during the civil rights movement of the 1960s. Published by the University of Arkansas Press, the novel follows 8-year-old Sarah Jones as she works to find a balance between the traditions and religion of her community and the progressive politics of her mother, all while activists thrust her town toward racial integration. ***-Miguel Perez***

Dr. Frederick Turner

Tests of Mind, Body Unite

Dr. Fredrick Turner, Founders Professor of Arts and Humanities, took up karate as a way to cope with high blood pressure, finding it more interesting than jogging. When he arrived at UT Dallas in 1985, he joined the Karate Club and has since earned a second-degree black belt. Turner is one of about 30 members in the club, which was founded in 1982, making it the oldest student recreational club on campus. Members practice shotokan karate, a form of the discipline that is marked by maximum speed, power and form. ***-Robin Russell***

HE SHOOTS *Comets Score*

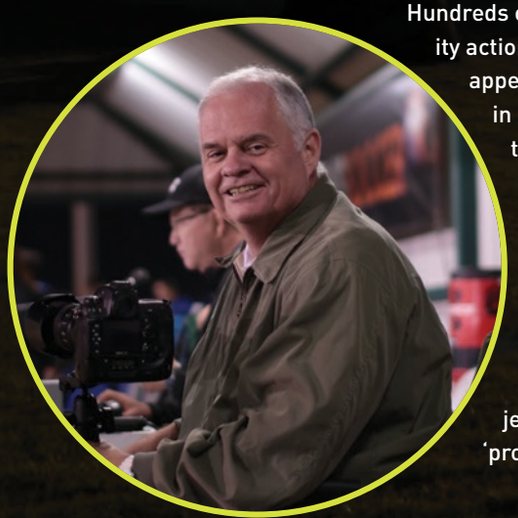
By Bruce Unrue

When it comes to giving his time, Doug Fejer may be one of UT Dallas' most prolific benefactors.

By occupation, Fejer is a local forensic accountant who offices just a few blocks from campus. But in terms of avocation, Fejer is known as the Comets' official sports photographer. When his real job of perusing bank statements and spreadsheets allows, Fejer grabs his bag full of high-end photographic equipment and finds his spot on the sidelines at UT Dallas athletic events.

"I never let work get in the way of having a good time doing what I truly love," said Fejer, who has been photographing UT Dallas athletic events since 2004.

In the past 12 years, Fejer has invested thousands of hours of his time, and tens of thousands of dollars worth of his own financial resources, in doing the one thing he can't imagine living without — photographing UT Dallas sports.



Hundreds of his professional-quality action photographs have appeared on UTD websites, in publications and promotional materials, and with news outlets and other universities across the country. Yet he's never asked for, nor received, a penny of compensation for his efforts.

"In my mind, Doug Fejer is every bit as much of a 'professional' photographer as any freelancer that we would have to hire," explained Athletics Director Bill Petitt. "The quality of Doug's work — and the effort he puts into it — are first-rate. There's no way we could replace his contribution to our program."

By fall 2015, Fejer had taken photographs at more than 500 UT Dallas athletic events. At an average of 350 shots per event, he has taken more than 175,000 photographs for the athletic program. More than 6,000 of his best pictures from the last 12 years are posted on his personal website, dougfejer.com. If using a professional rate of $300 to $500 per event to place a value on his contribution, the estimated total easily surpasses $200,000.

Fejer added UTD cross country to the list of sports he has photographed, following the Comets during the fall to a crosstown meet. Within hours, he had provided the Athletics Department with more than 100 professional-quality photographs of the Comets in action. Interestingly, that meet took place on the campus of the University of Dallas in Irving, which is where Fejer's relationship with UTD began.

> **"I like the action of sports, and I like being around the young people and their energy."**

In 2004, Fejer had been asked by a University of Dallas Crusaders soccer coach to attend one of her games and get shots of senior players who were wrapping up their college careers. She knew Fejer from his involvement with local youth club sports, and he was happy to oblige.

The Crusaders' opponent that day? The University of Texas at Dallas Comets.

Fejer posted photos from that game on his website, then alerted the coaches from both schools. Desperate for action prints of any kind at the time, the UT Dallas athletic staff contacted Fejer, asked for permission to use some of the photos, then mentioned, "If you're looking for something to take pictures of, you can always come over here any time you want," he recalled.

The rest, as they say, is history.

Fejer admits he is now obsessed with sports photography — a hobby he didn't pick up until he was 40 years old.

"My father always tried to get me interested in photography, but like most kids, I was resistant," said Fejer, who grew up the son of European immigrants in Michigan. "He gave me a camera when I went off to college and I think I shot maybe two rolls of film during the entire time I was in school. Then, I worked an entire year for a big firm in New York City and never took a single photograph."

But that all changed in the early '90s when Fejer's two children became involved in sports.

"I had a little auto-focus camera, but I realized it took too long from the time I would press the shutter until the camera actually fired. I was missing a lot of good shots," he explained. "So I thought maybe I need to go try one of those old cameras my dad had given me."

Sure enough, Fejer started getting much better action shots with an old, manual-focus camera. His obsession was launched.

"I don't even like to think about all the money. I was probably spending hundreds of dollars each weekend just on film and processing," admitted Fejer, who was a late convert to digital photography and advanced auto-focus technology. "I never took a course or read an instruction book. It was all just figuring it out as I went along. "

Since he took up the hobby 20 years ago, Fejer has owned almost a dozen different cameras and even more specialty lenses. "Every time that I get something new, I convince myself that this is the last camera or lens I'll ever need." He now has three different Nikon D3 cameras for sports photography.

Over time, Fejer has followed his avocation to sports venues throughout the area, where he shoots youth soccer, high school football, and both UTD and Southern Methodist University intercollegiate soccer. He has even talked his way onto the sidelines at several high-profile college football games.

Soccer, of all the sports he shoots, is his favorite "because you have a 90-minute game and the ball is in play for all 90 minutes. It's very simple. Someone always has possession of the ball."

"I'm not into architectural photography, and certainly not bird photography," he said with a grin in reference to the elite shooters often highlighted in popular photography magazines. "I like the action of sports, and I like being around the young people and their energy."

Fejer realizes he is providing a service to both the University and the student-athletes. "I grew up playing sports and have only a couple of photographs from back then. When these kids graduate, they'll have a war chest of photos from their days of playing at UTD."

In 2012, Fejer was honored for his service with induction into the University's Athletic Hall of Honors as a special contributor. "Of all the people inducted, I doubt anyone gets as big a kick out of it as I do," he said.

"When I tell people about that honor, they will comment that I must be an amazing volunteer," Fejer explained. "But I don't see it that way at all. I've never come out here when I didn't want to be here. I look forward to it. In fact, I hate the summer because there are no games. So when I return each fall, I greet everyone with, 'Happy New Year.' That's the way it feels to me.

"I'm sure I'll be taking photos at UTD until the day I die." UTD

Check out the entire photo gallery at dougfejer.com/UTD.

Fall Sports Recaps

The **volleyball team** (31-3) earned its third American Southwest Conference (ASC) title with a 3-0 defeat of Mary Hardin-Baylor. The team then advanced to the NCAA Division III National Tournament for the second time in three seasons. The Comets topped Whitworth in the opening round before falling to the eventual national champion, California Lutheran. Kayla Jordan wrapped up her career as the Comets' all-time assists leader (5,210), and was named co-ASC East Division Most Valuable Player. Jordan and teammates Michelle Toro and Holyn Handley also were named to the All-ASC team.

The **men's soccer team** (15-4-3) claimed its third ASC championship, and first since 2007, by defeating UT Tyler, 6-5, in penalty kicks. The Comets earned a trip to the NCAA Division III National Tournament, where the team lost to No. 6 Trinity in the first round. Danny Meyer was named the ASC Offensive Player of the Year after tallying 12 goals — four of which were game-winners — and three assists during the season. Sam Konstanty was named the co-ASC Defensive Player of the Year.

The **women's soccer team** (14-8) advanced to the semifinals of the ASC Tournament for the 14th consecutive year. The Comets topped LeTourneau, 2-1, to open the tourney before falling 3-1 to UT Tyler. UTD's roster included 15 freshmen, seven of whom received All-ASC honors. Jacqueline Kaufman netted a team-best 13 goals, the second-highest total for a freshman in program history.

The **women's** and **men's cross country teams** finished second and third, respectively, in the ASC Championships. The women's team then placed 15th in the NCAA Division III South/Southwest Regional Championship Meet, the best finish at the event in the program's history.

ACROSS SPACE AND TIME

by Amanda Siegfried and Paul Bottoni

UT DALLAS

UT DALLAS geoscientists have trained Apollo astronauts to spot interesting geology on the moon and have analyzed lunar samples that came back. Our space scientists have designed and built equipment to explore Venus, Mars, the moon and Halley's comet. Studies of the Earth's ionosphere and magnetosphere have for many years provided valuable insight into our planet's interaction with the sun.

Since our founding, space sciences and astrophysics have played a key role in the University's research enterprise. The earliest efforts through the Graduate Research Center of the Southwest and the Southwest Center for Advanced Studies (UT Dallas' precursor institutions) launched balloons and rockets and designed space-based instruments to study the Earth's upper atmosphere. Top specialists in the field of relativity and mathematical physics from around the world joined the center as it grew into a hub for international experts to visit and conduct research. As the center transitioned into a university, physics, mathematics and geosciences formed core departments in the School of Natural Sciences and Mathematics.

Building on these early research strengths, a cadre of cosmologists and astrophysicists today are engaged in a wide range of studies. From black holes and collisions of galaxy clusters to dark energy, dark matter and the conditions that gave rise to the universe, experts are tackling some of the biggest mysteries in the cosmos.

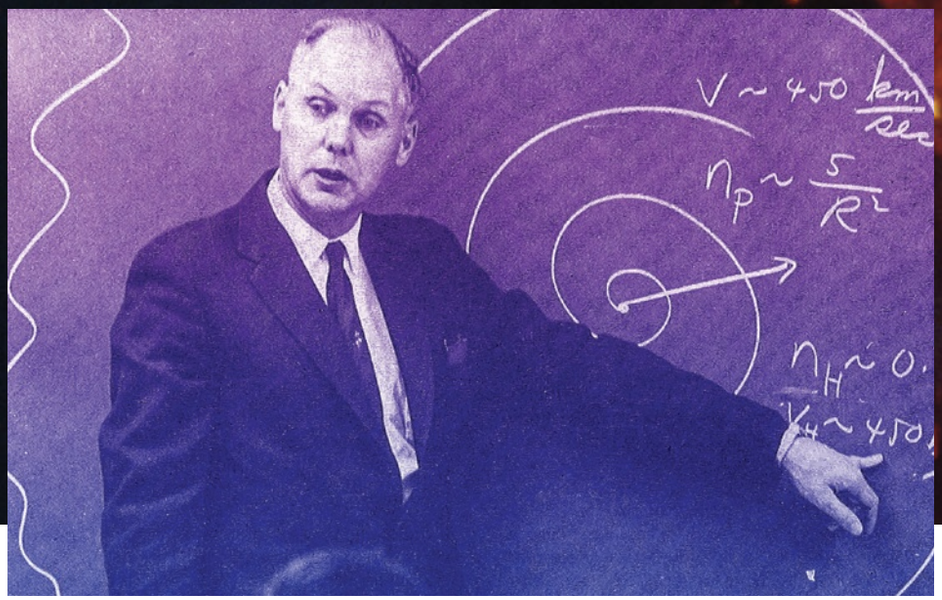
Here are a few snapshots that chronicle how UT Dallas' interests in space sciences — and the people behind the work — have reached across space and time.

Lloyd V. Berkner

President, Graduate Research Center of the Southwest

Lloyd V. Berkner was a leading figure in the American scientific community when, in 1961, he joined the Graduate Research Center of the Southwest (GRCSW), which ultimately became UT Dallas. Government grants for space research helped fund the institution as it grew, and Berkner's involvement opened doors. He also attracted top-caliber faculty members, among the earliest of whom were space scientist Francis S. Johnson and relativist Ivor Robinson. Berkner's ties to U.S. space interests began during the buildup of the space race with the Soviet Union. He acted as a champion for space exploration and as an intermediary between the scientific community and the U.S. government. In 1966, NASA gave Berkner its highest civilian award, the Public Service Medal, for his contributions to U.S. space programs. At the time of his death in 1967, Berkner was conducting a study for NASA on the history of the atmospheres of Earth and Mars.

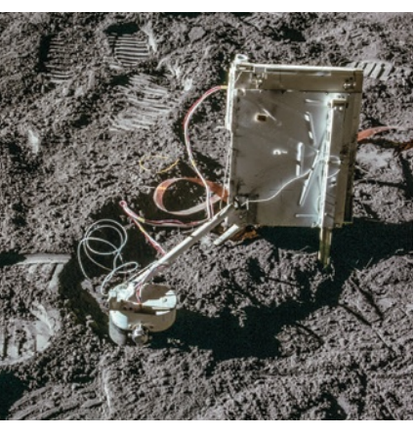
EXPLORING EARTH'S NEIGHBOR



Dr. Francis S. Johnson

Executive Dean of Graduate Education

Francis S. Johnson, who earned the Bronze Star while serving as a weather operator for the U.S. Army Air Corps during World War II, afterward designed instruments for testing German V2 rockets that had been seized by Allied forces at the end of the war. He was manager of space physics research at Lockheed Missiles and Space Co. when Lloyd V. Berkner recruited him to join the Graduate Research Center in 1962. Johnson was an expert on the Earth's upper atmosphere, and was asked by NASA to design experiments to detect the existence of a lunar atmosphere. The instruments flew on Apollo flights 12, 14 and 15. In 1973, NASA awarded Johnson its Exceptional Scientific Achievement Medal to recognize his part in the Apollo program. When the center became UT Dallas in 1969, Johnson was selected as acting president until 1971. He continued to teach and conduct research at the University, and served as executive dean of graduate studies from 1976 to 1979. He retired in 1989 and died in 2009.



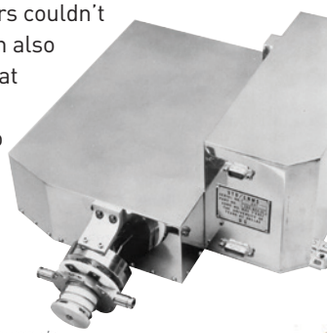
▲ *Johnson developed an atmospheric pressure testing device (lower left) that flew on Apollo flights 12, 14 and 15.*

▶ *Manuals were developed for the instruments Hoffman created for Apollo lunar missions 15, 16 and 17.*

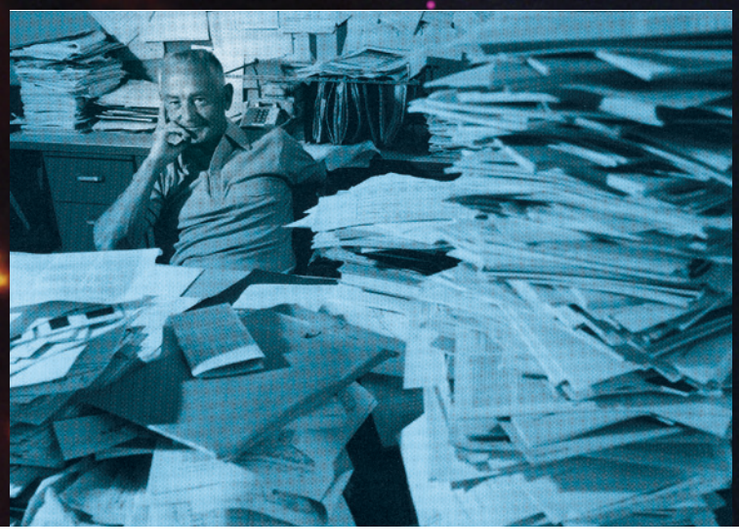
Dr. John Hoffman

Professor of Physics

John Hoffman, who joined the Graduate Research Center in 1966, has designed and built experiments that have traveled millions of miles throughout our solar system. His mass spectrometers, instruments designed to measure the characteristics of atoms and molecules, have helped explore Halley's comet and the atmospheres of Venus and the moon, and, most recently, played a key role in discovering the existence of water on Mars. As a member of NASA's Phoenix Mars Mission in 2008, Hoffman designed a mass spectrometer for the lander that analyzed gases from soil samples on the red planet. The samples were heated in furnaces, and the measurements determined that there was frozen water in the soil. Hoffman's instrument also shed light on Mars' atmosphere and climate history. The Phoenix team worked on Mars time, and because a Martian day is 40 minutes longer than an Earth day, work schedules were continually changing. The team worked in windowless rooms at an Arizona-based facility so members couldn't tell if it was day or night. Hoffman also designed mass spectrometers that flew on NASA's Atmosphere Explorers C and D satellites. Also on board: an instrument designed by his brother, Robert, who was a space scientist at NASA's Goddard Space Flight Center in Greenbelt, Maryland.



Hoffman had instruments aboard missions to the moon, Mars, Halley's comet and the Pioneer Venus mission.



Dr. James L. Carter

Professor Emeritus of Geosciences

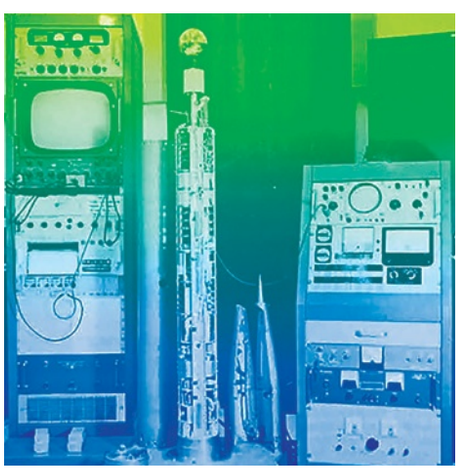
When James L. Carter joined GRCSW as a postdoctoral researcher in 1964, he planned to stay only a few years. Following NASA's Apollo missions, Carter was part of a team at the research center that examined lunar samples brought back by the astronauts. He also helped train Apollo astronauts about what kind of geology to expect on the moon's surface. In 2008, Carter retired from teaching and research, wrapping up a 40-plus-year career at the University. But, instead of kicking up his heels in his retirement, Carter focused his efforts on producing lunar regolith simulant — or fake moon dirt — to supply to NASA and other researchers. Since NASA's original stock had diminished, the organization turned to Carter to supply more than 40 tons of the product. The material is used for testing equipment and for other research projects. Carter learned how to create the simulant after years of study, and he keeps his recipe for the bone-dry, ashy substance close to the vest. In a new University ritual before the twice-annual Ring Ceremony, class rings are placed in a box and surrounded with Carter's moon dirt. The box, made of wood from the original Founders Building, symbolizes the University's past and its future.

Researchers from NASA and other organizations rely on Carter to supply lunar regolith simulant — fake moon dirt.

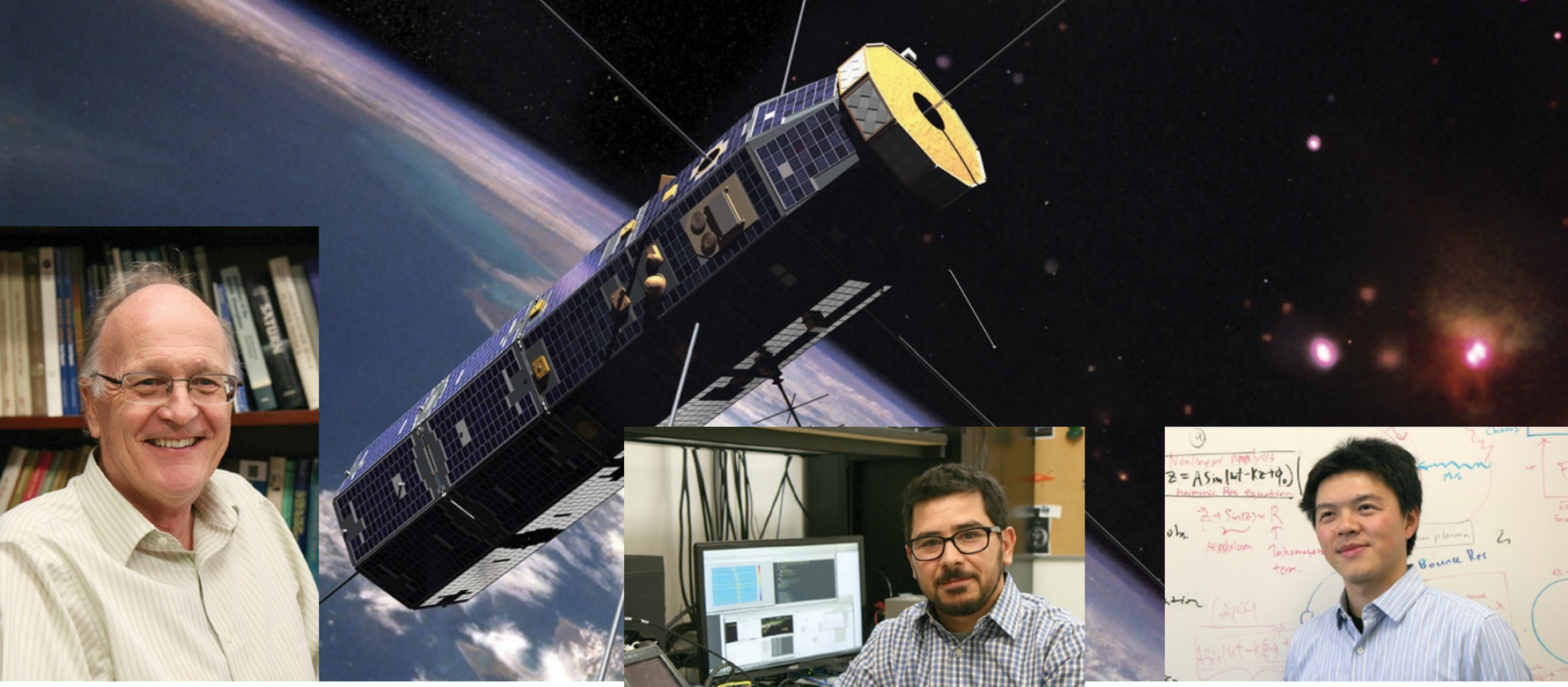
Dr. William B. Hanson

Director, Center for Space Sciences

William B. Hanson, a self-described hardware man, studied the Earth's atmosphere and created instruments to analyze its composition. His interests weren't limited to Earth, however. After joining the Graduate Research Center in 1962, he became part of the atmospheric entry team for NASA's Viking missions to Mars in the 1970s. When Francis Johnson became acting president of UT Dallas in 1969, Hanson stepped in as director of the Division of Atmospheric and Space Sciences, later renamed the Center for Space Sciences. He held the position until his death in 1994. The center was renamed the William B. Hanson Center for Space Sciences in his honor. In 1985, Hanson was awarded the John Adam Fleming Medal by the American Geophysical Union for his contributions to atmospheric research, joining a group of recipients that also included Johnson and Lloyd V. Berkner.



An early Graduate Research Center of the Southwest ionosphere experiment.



Dr. Roderick Heelis

Director, Center for Space Sciences

It was William B. Hanson who convinced Roderick Heelis — who had just received a PhD from the University of Sheffield in England — to cross the pond in 1973 for a research fellowship at UT Dallas. Heelis later succeeded Hanson as the director of the University's Center for Space Sciences. Heelis, the Distinguished Chair in Natural Sciences and Mathematics, is an expert on the interaction between the sun and planetary environments, as well as the dynamics of charged particles in the Earth's upper atmosphere, so-called "space weather." Disturbances in this region, the ionosphere, can disrupt GPS signals and navigation systems. Among his many projects was leading a team that designed and built an experiment dubbed CINDI, Coupled Ion-Neutral Dynamics Investigation. The $10 million project, sponsored by NASA and the U.S. Air Force, flew onboard a satellite and gathered data in the ionosphere. Although CINDI's mission ended in November 2015, scientists continue to use the data to predict when and where disturbances will occur. Heelis' team received a Group Achievement Award from NASA in 2011 for its efforts, and the project became the inspiration for an educational comic book series. In 2013, Heelis and his team were selected by NASA to design and build an experiment to study the effects that Earth's surface weather has on disturbances in the ionosphere. The University's instrument will fly onboard the Ionospheric Connection Explorer satellite, which is slated to launch in 2017.

Dr. Fabiano Rodrigues

Assistant Professor of Physics

One of the factors that attracted Fabiano Rodrigues to UT Dallas in 2012 was the reputation of the Center for Space Sciences as one of the top centers focusing on satellite studies of the upper atmosphere. The center's researchers not only investigate basic science questions but also provide important information for more applied studies. Rodrigues' work complements the center's space-based research by using ground-based remote sensing techniques, such as radars and GPS signals, to study variability in the upper atmosphere. He and his students, including undergraduates, have conducted research at some of the largest and most sensitive radio observatories in the world, including the Arecibo Observatory in Puerto Rico and the Jicamarca Radio Observatory in Peru.

Rodrigues and students have conducted research at the Arecibo Observatory in Puerto Rico.

Dr. Lunjin Chen

Assistant Professor of Physics

Beginning several hundred miles above the Earth's surface and extending tens of thousands of miles into space, the magnetosphere is like a giant magnetic envelope surrounding the planet. It protects the surface from harmful charged particles emanating from the sun and other sources in the galaxy, which would otherwise strip away our atmosphere. Lunjin Chen, an assistant professor of physics who joined the University in 2013, studies how energetic charged particles such as electrons interact with electromagnetic waves in the magnetosphere. Understanding these dynamics is important because energetic electrons in that region can pose a danger to astronauts in Earth orbit and to electronics on satellites.

Dr. Mary Urquhart speaks about Pluto with reporter Dan Godwin during an interview on television station KDFW.

Dr. Mary Urquhart

Head, Department of Science and Mathematics Education

Dr. Marc Hairston

Research Scientist, Center for Space Sciences

Part of the NASA grant that supported the CINDI project led by Dr. Roderick Heelis was used for science education outreach, particularly to middle and high school students. Beginning in 2005, Mary Urquhart, head of the Department of Science and Mathematics Education, and Marc Hairston, a research scientist at the Center for Space Sciences, published three issues of a comic book starring an orange-haired superheroine character named Cindi to help explain the science of CINDI to students. Urquhart, a planetary scientist, and Hairston also reach out to the general public by appearing in local news media to talk about astronomy topics such as eclipses, meteorites and the recent New Horizons mission to explore the dwarf planet Pluto.

NASA's CINDI (Coupled Ion-Neutral Dynamics Investigation) inspired University faculty to create an educational comic book series featuring android spacegirl Cindi.

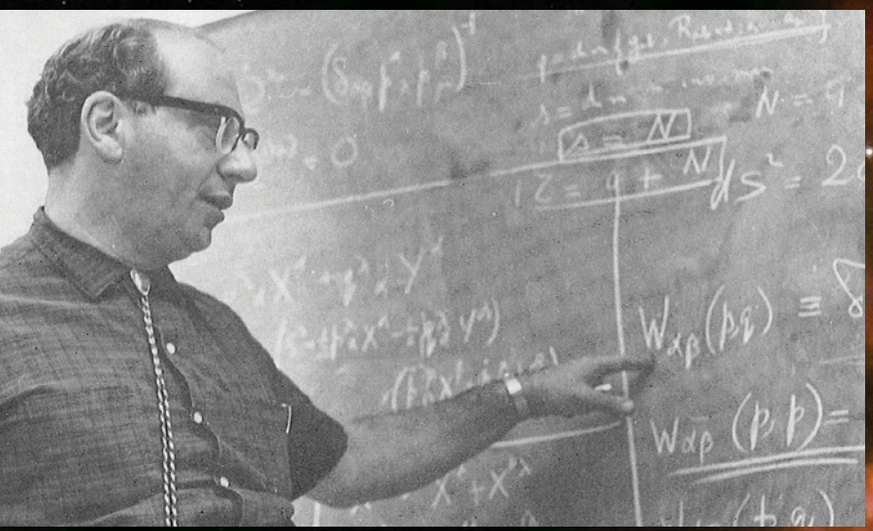
Dr. James Reilly BS'77, MS'87, PhD'95

NASA Astronaut

James Reilly BS'77, MS'87, PhD'95 achieved what countless people merely fantasize about — he became an astronaut. Reilly, a mission specialist, spent a combined 853 hours in space, including five spacewalks lasting more than 31 hours during which he helped assemble the International Space Station. He was selected for NASA's astronaut program in 1994, and went on his first space mission in 1998, with additional trips in 2001 and 2007. Upon returning from his final mission, Reilly presented the University a framed collage commemorating the flight along with a UT Dallas flag that made the trip to space. Today that flag is displayed on the fourth floor of the Eugene McDermott Library. Prior to becoming an astronaut, Reilly worked as an oil and gas exploration geologist. He spent the equivalent of 22 days in deep-submergence vehicles conducting research and projects in the depths of the oceans.

Reilly displayed Comet pride during the last of his three NASA missions.

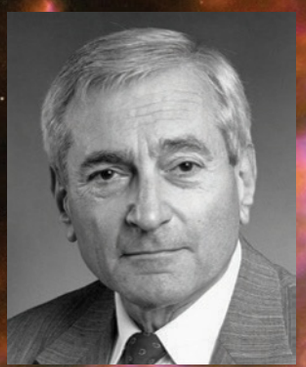
EXPLORING COSMIC



Dr. Ivor Robinson

Professor Emeritus of Mathematics Sciences

Soon after arriving at the Graduate Research Center of the Southwest in 1963 as head of the Department of Mathematics and Mathematical Physics, Ivor Robinson, a brilliant British mathematician, recruited friends Wolfgang Rindler and Istvan Ozsváth to join him. That same year, around a pool on a searing summer day in Dallas, Robinson and colleagues Alfred Schild and Engelbert Schucking from UT Austin cooked up an idea to hold a scientific conference in Dallas that would highlight new research in the combined fields of relativity and astrophysics, and in the process they created a new field called relativistic astrophysics. What began as a proposed small gathering grew into the first Texas Symposium on Relativistic Astrophysics, a conference that is still held every two years. Robinson, Rindler and Ozsváth forged distinguished careers at the University, each earning the title of professor emeritus. Ozsváth died in 2013.



Dr. Wolfgang Rindler

Professor Emeritus of Physics

Dr. Istvan Ozsváth

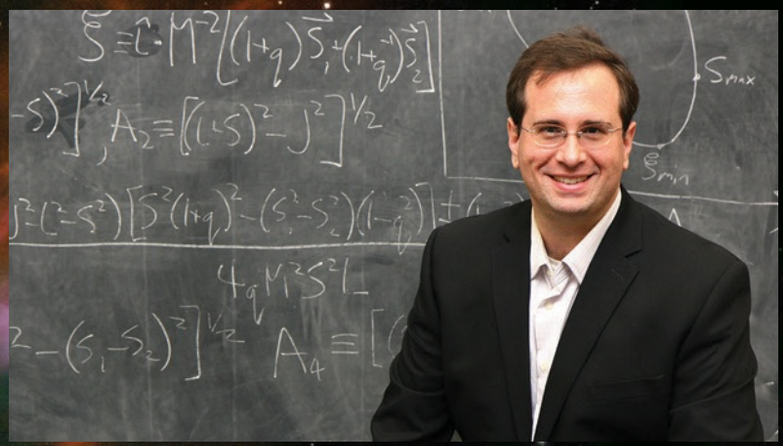
Professor Emeritus

Dr. Mustapha Ishak-Boushaki

Associate Professor of Physics

Mustapha Ishak-Boushaki, who arrived at UT Dallas in 2005 from Princeton University, leads the cosmology, relativity and astrophysics research group. The team of faculty members and their students is investigating many cosmic riddles dealing with the origin, evolution and structure of the universe. Ishak-Boushaki's research focuses in part on understanding cosmic acceleration, or why the universe appears to be expanding at an accelerating pace. He recently introduced a seminal technique to test gravity at large scales and narrow the source of cosmic acceleration. His research also provides insight into dark energy and dark matter, as well as gravitational lensing, where light from very distant galaxies is bent and distorted as it passes near extremely massive objects.

RIDDLES Cosmology and Astrophysics



Dr. Michael Kesden

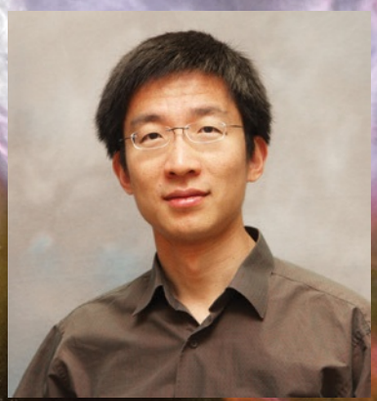
Assistant Professor of Physics

Michael Kesden's area of expertise was thrown into an international spotlight in February when scientists with the LIGO (Laser Interferometer Gravitational-Wave Observatory) collaboration announced that they had, for the first time, directly detected gravitational waves, which are ripples in the fabric of space and time generated by massively energetic events. The Earth-based experiment detected gravitational waves originating from two distant colliding black holes. Although not a part of the LIGO team, Kesden, a theoretical astrophysicist, has developed solutions to equations that describe such binary black hole systems and the gravitational waves they produce.

Dr. Lindsay King

Associate Professor of Physics

Lindsay King studies some of the largest structures in the universe — not just stars and galaxies but the dynamics of clusters of galaxies. For example, she uses data from the Hubble Space Telescope and other sources to examine a distant collision between two clusters of galaxies. One of the mysteries of this collision is that the galaxies are not moving as they would if the movement were due to what's visible with telescopes. King's research is looking at the role that dark matter might play in explaining this mysterious movement. Although it can't be seen directly, dark matter is thought to comprise about 27 percent of the universe; without it, galaxies might fly apart.



Dr. Xingang Chen

Associate Professor of Physics

As a theoretical cosmologist, Xingang Chen develops models to explain what the universe was like in its earliest moments. One of his research areas concerns tiny fluctuations in the primordial universe in properties such as temperature and density. As the universe expanded after the big bang, those "seed" irregularities became magnified, eventually forming all the large-scale structures — such as galaxies — that we see today. Chen and his colleagues recently suggested a novel way in which those early fluctuations could be used to probe the beginning of space and time, potentially revealing secrets about the conditions that gave rise to the universe.

UT Dallas and Gravitational Waves

In addition to Kesden, UT Dallas' Nobel Laureate Dr. Russell Hulse also has a special connection to LIGO's groundbreaking discovery.

Hulse's involvement began 40 years earlier, as one of the scientists who discovered a set of twin rapidly spinning neutron stars orbiting one another. They observed that in this binary pulsar system, the stars were moving closer to one another. In addition, they found that the amount of energy lost in that process matched what Albert Einstein's general theory of relativity predicted should be emitted as gravitational waves.

Dr. Russell Hulse

The discovery of that binary pulsar system in 1974 earned Hulse and Dr. Joseph H. Taylor the 1993 Nobel Prize in physics for their efforts. In the 1970s, Taylor was a professor at the University of Massachusetts at Amherst and Hulse was his 23-year-old graduate student. Hulse went on to pursue a research career in plasma physics, and in 2004 he arrived at UT Dallas as a visiting professor. In 2007, he was named Regental Professor.

CREATIVE SPARK

A new generation burns path from classroom to entrepreneurship

By Thomas Korosec

Ask Nicole Mossman MS'15 to describe her startup business in a few words and it's quickly evident she has her "elevator pitch" down cold.

"EverThread is a custom printing solution for the interior design market," the recent innovation and entrepreneurship graduate says. "In the past, a designer would source fabrics by looking from showroom to showroom, website to website. At EverThread, customers are able to source it in minutes as opposed to hours and days."

Mossman is in a hip, warehouse-space office in Dallas' West End, where she is getting help from a business accelerator that is providing capital, support and mentoring post-graduation. She recounts how the University's Naveen Jindal School of Management helped lead her to an idea for a new business. The former home décor and apparel product developer worked through a process both creative and analytical that led her to "pivot" from one idea to another, eventually arriving at her "aha"moment. While considering a project, she landed on the idea of developing a website that gives both designers and consumers the tools to customize and produce their own textiles and home décor products.

Through coursework, grants, business idea competitions with cash prizes, and extracurricular programs, UT Dallas is working in new ways to strike an entrepreneurial spark in students across academic disciplines. It's tapping the resourcefulness of its students — and the University's deep tradition of innovation and invention — while helping entrepreneurs like Mossman create businesses that are taking hold and passing the demanding tests of the commercial world.

From the introductory course for undergrads through the graduate track for launching businesses, techniques designed to "light that spark" have been adopted, says Madison Pedigo, director of the innovation and entrepreneurship academic program at the Jindal School.

"Students are pushed to get those creative juices going," Pedigo explains. "It's not easy finding a good business idea. Some students arrive with an idea that is pretty good; some really struggle. We teach them how to think creatively to come up with an idea, and how to assess if the idea is commercially viable.

"We talk about identifying market need and finding gaps in the market extending beyond current products. We also teach creativity and problem solving. We show them how to effectively brainstorm," he says.

In that same practical vein, students are asked to develop an "elevator pitch," a concise and interesting description of the business idea that can be told to a potential investor in the span of an elevator ride that lasts, at most, a minute.

Some courses also incorporate the format of the popular TV show *Shark Tank,* in which aspiring businesspeople make pitches to a group of investors who either choose to buy in or offer criticism as to why they decline to invest. "It gets a lot of enthusiasm going, a lot of passion and excitement," says Pedigo of the exercise, which mirrors how presentations are in fact made to angel investors who seek to back early stage companies.

> **"The University plays an important role in the broader entrepreneurial ecosystem in North Texas. We have thousands and thousands of smart, creative people who are attracted to UT Dallas because it's a hub of innovation and technology."**
>
> **—Jeremy Vickers**
> **Institute for Innovation and Entrepreneurship**

While about 5 percent of UT Dallas' 24,000 students take credit courses in entrepreneurship, the Jindal School's Institute for Innovation and Entrepreneurship reaches out with extracurricular programs to students from computer science, arts and technology,

Nicole Mossman MS'15
Founder of EverThread

Samples of EverThread patterns

engineering and other disciplines beyond the business school.

This fall, more than 100 student teams entered the institute's annual Business Idea Competition, which gives students the opportunity to develop their concepts and compete for $20,000 in cash and scholarship prizes. In another effort, 12 UTD startups began in the fall term in a 10-week experimental program called Launchpad. It's designed to incubate new business ideas by engaging prospective customers early in the creative process.

"The University plays an important role in the broader entrepreneurial ecosystem in North Texas," says Jeremy Vickers, the institute's executive director. "We have thousands and thousands of smart, creative people who are attracted to UT Dallas because it's a hub of innovation and technology. We're the top of the funnel," he explains. "We educate students on entrepreneurship, help them work on their ideas and when they move to the level of launching a business, we funnel them out to our partner networks of incubators, accelerators and investors."

Part of that network is the Dallas Entrepreneur Center, an entrepreneurial hub that offers co-working spaces, mentoring and an array of local connections. "At a university like UT Dallas, there is a tremendous talent base," Trey Bowles, the center's CEO, says in an interview at the center's West End workspace. "When you bring all these cross-campus connections to bear, you get great ideas coming out."

The University's embrace of entrepreneurship is part of a national trend that the U.S. Commerce Department identified in a recent report. "America's colleges and universities

have gotten the entrepreneurial bug," the 2013 report concludes. "Hundreds of colleges and universities across the U.S. are creating entrepreneurship programs with the short-term objective of creating educational value for their students and the long-term goal of driving economic growth in their communities through locally developed enterprises."


Jeremy Vickers

The benefits to the local economy can hardly be overstated. Over the last two decades, the majority of job creation in the United States has occurred in young startup companies, according to the report.

"The better we play our role to help entrepreneurs launch businesses, the better we serve the overall community," says Vickers, who previously served as the Dallas Regional Chamber of Commerce's vice president of innovation before moving to UT Dallas.


Jon Shapiro

Jon Shapiro, director of the University's Venture Development Center, which houses spin-off companies affiliated with the University, says some of the unique qualities of the UTD student body make it, in his mind, a great environment in which to foster entrepreneurism. "We have smart students and lots of people who are first-generation Americans. They're enthusiastic, motivated and willing to work. The American dream is hot with these kids. They've seen [Microsoft founder] Bill Gates and [Facebook founder] Mark Zuckerberg. They've watched *Shark Tank*. They're supercharged," he says.

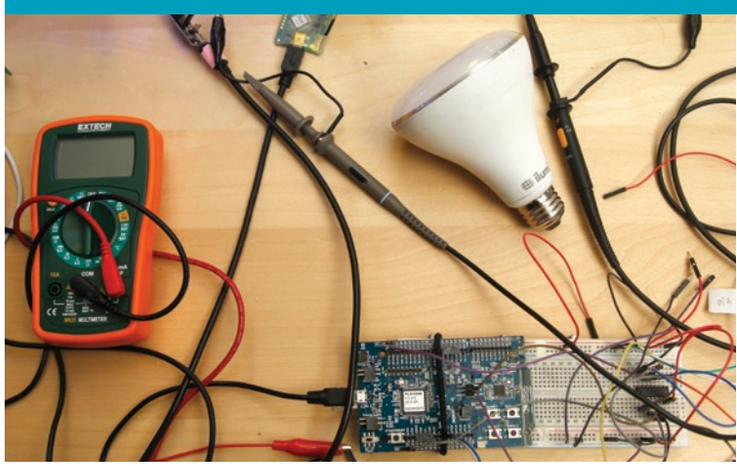
He might have added that they're part of a generation that sees starting a business as an appealing option. Half to two-thirds of millennials are interested in running their own business, according to the U.S. Chamber of Commerce Foundation. Part of the attraction is the star status achieved by young entrepreneurs such as Facebook's Zuckerberg or Groupon's Andrew Mason. The foundation also concluded that instability in the workplace and witnessing their parents' jobs being downsized after years of loyal service has led millennials to see entrepreneurship as a rational alternative to a traditional corporate career.

Such findings tie in with what Vickers has observed at the institute that he leads. Startups, particularly web-based ones, require much less capital than businesses begun in the past, he says. And while students may dream about becoming the next Elon Musk, founder of Tesla Motors and PayPal, "what is likely going to happen is they're going to launch a business that will pay for three or four people to have a very nice living," notes Vickers. "They're going to realize their dream and do what they want to do to make a living. It doesn't need to become a hundred million dollar company to be a success."

Mossman says carving out her own lifestyle and following her passions are two big reasons she's chosen to create her own business. "I'm a single mother with two kiddos and I want to be able to live life a little on my terms," she says. "I can fit it all together responding to the workflow, not the 9 to 5."

The U.S. Chamber Foundation noted in another report that the inability of the millennial generation to get loans or credit — along with the burden of student loans — has been an obstacle for creating startups within their group. That's why, for the most promising startup ideas, UT Dallas is providing a bit of seed money to get concepts up and running.

Swapnil Bora MBA'11 (left) and Corey Egan MBA'10
Co-founders of ilumi



Smartbulb on ilumi test bench

Array of ilumi smartbulbs

For Mossman, that seed money has made a difference for EverThread. Her business idea first was selected by a panel of business school professors for a $25,000 UT Dallas grant, with funding provided by Texas Instruments. Then she received $3,500 for a second-place finish in the annual Business Idea Competition. Mossman used the funds to develop her website and pay legal fees to incorporate. Later, she says, investors provided additional seed capital, enabling her to employ staff, ramp up marketing and expand.

Corey Egan MBA'10 and Swapnil Bora MBA'11 started their business with $5,000 they won in the Jindal School's 2010 business competition and they haven't looked back. Their Plano, Texas-based company, ilumi, makes LED "smartbulbs" that allow users to control colors and light levels through a mobile app. The latest model, which retails for $59.99, went on sale in the fall at Best Buy.

"If it were not for the competition, we wouldn't have come up with the idea," says Egan, talking at ilumi's office, where a staff of eight works among boxes of bulbs piled around the desks. Egan, who majored in marketing and entrepreneurship, manages marketing and sales, while Bora, who studied engineering as an undergraduate before earning a graduate business degree, handles the technical side. Neither had any experience with lighting or light-bulbs before they began brainstorming to come up with a new product.

Their concept came from thinking about what Egan calls the "very disruptive" federal mandate that sought to phase out the energy-wasting incandescent bulb. They added in the fact that everyone is now walking around with a computer in their pocket. "We saw those two things meeting and came up with ilumi," Egan explains.

After graduation, Egan and Bora took traditional jobs but continued to work on their idea. In the fall of 2012, Egan recalls, "We decided to go all-in and convinced our significant others it was OK not to make a salary for a couple of months." They turned to crowdfunding, raising pre-orders from a large number of people via the internet, and continued perfecting their LED lightbulb through a series of prototypes.

Egan and Bora stayed in touch with UT Dallas and put one of their former professors on their advisory board. So when *Shark Tank* producers approached the business school looking for promising contestants, program director Pedigo approached the two alumni as good candidates. "We didn't want to at first but he talked us into it," Egan recalls. Pedigo says he saw an opportunity for free publicity and knew Egan and Bora would do well given their track record in business school idea competitions.

On the show, which aired in April 2014, Dallas Mavericks owner and billionaire entrepreneur Mark Cuban struck a deal with the two in which he offered a $350,000 investment for a 25 percent stake in their company. "During the taping of the show, when Cuban made his offer to us, he started out saying, 'You know, UT Dallas has some of the smartest kids in the country and it's right in our backyard. So Swapnil and Cory, I'm going to make you an offer,'" Egan relates. "It was a real nice plug for the University, but it ended up getting edited out."

Egan says, "We played as many wild cards as possible," from prize money to several rounds of crowdfunding. They began shipping their first bulbs in 2014 and a year later introduced a second generation. Either Cuban or

continued on page 31

FRIENDSHIP LEADS TO BUSINESS VENTURE

By Robin Russell

From the time Luke Escude and Caleb Devany first met in a computer science class in the Erik Jonsson School of Engineering and Computer Science, they experienced a creative synergy that drew them from a classroom friendship to a joint business venture.

In 2015, Escude launched PrimeVOX Communications, a Voice over Internet Protocol (VoIP) business that provides companies with custom-tailored phone services over the internet. He brought on Devany as his sales rep in December.

Escude developed the specialized software in response to a customer who asked him to develop the best possible phone service. Devany sells companies their internet-based telecommunications products, which are just a fraction of the cost of a regular phone service.

They're about to hire a third employee, a director of operations, to handle their company's FCC compliance and regulation, legal work and internal operations.

PrimeVOX Communications already has more than a dozen clients, from private schools to call centers. Escude and Devany are leasing office space in Addison, Texas, and have joined the Plano Chamber of Commerce. They are optimistic their business will draw $1 million a year within five years.

Both Escude and Devany are juniors. They said that their courses have helped to finesse their self-taught skills. Escude has refined his software design processes, and he's found entrepreneurial mentors in faculty members such as Dr. Stephen Perkins, who co-founded NetMass Inc., a cloud-based backup and archiving service provider company.

"Luke is one of those students who stand out in the crowded field of smart UT Dallas students. He has the drive and knowledge to be highly successful as a computer scientist," Perkins said. "More importantly, he has the drive and leadership skills necessary to make a startup successful. His knowledge, drive and determination provide a strong foundation for the company."

Because the culture at UT Dallas encourages initiative and creativity, becoming entrepreneurs has not conflicted with the students' full-time studies, Devany said.

"It doesn't interfere with my schoolwork; it feels integrated with what I'm doing," he said.

At 21, Escude wants to keep doing what he's doing after he graduates, but he already recognizes he wants to leave a legacy.

"I want to change the world and be remembered for it," he said. "But I also want to redevelop what it means to be the next Bill Gates." UTD

Entrepreneurs Caleb Davany (left) and Luke Escude of PrimeVOX Communications

someone on his investment team is in touch weekly, and Cuban's team has been instrumental in opening retail outlets to the startup, Egan says.

Cuban has publicly shown his support for UT Dallas entrepreneurs twice more since buying into ilumi. In 2015, he visited the campus in November as a celebrity judge for the annual Business Idea Competition, and in October, he was one of two *Shark Tank* investors who sunk $250,000 into Foot Cardigan, which sells colorful custom-designed socks by subscription. Tom Browning MPA'05, PhD'09 is one of five co-founders of the Dallas-based startup.

Amir Rajan BS'06
App developer and author

The University is building a roster of alumni who have started businesses. They numbered 340 by last count, but there are likely more because many don't report back on what they are doing, Pedigo says. It wasn't difficult finding Amir Rajan BS'06. A software engineer, Rajan quit his full-time job to "do my own thing and learn some new skills" by designing mobile game apps for use on Apple phones and tablets. When one of his first titles, *A Dark Room*, went to No. 1 in the App Store in April 2014, everyone from *The New Yorker* to gaming site Giant Bomb was writing about the text-based game, its minimalist appeal and its viral success.

Rajan says it took him about five months to develop *A Dark Room*, which was conceived by a Canadian game developer. He recast the game, which brings the user through an apocalyptic world, to give it a darker bent and formatted it to work on iOS mobile devices. It took another five months for the game to reach the top of the U.S. charts, staying there for 18 days. At one point, it generated 50,000 downloads in the span of just a few days, purchased for 99 cents each. "It was kind of a shock," Rajan says. "You're not prepared for that type of success."

As with most games, the wave of popularity subsided and today *A Dark Room* gets about 100 paid downloads a day.

Rajan followed up with two other titles: *Ensign*, which he developed himself, and *A Noble Circle*, which he developed with a partner in Brazil.

If anything, Rajan says, working for himself has taught him the value of stubborn persistence. In order to get his games featured in the App Store, for instance, he worked through a series of contacts to obtain the email address of someone he thought might be able to help him. "I sent that person an email a week for 17 weeks before I finally got a reply back," he recalls. "When they said, 'We'll get back to you,' I started sending two emails a week. Finally they assigned someone and I've gotten multiple features because of it."

Rajan says accepting that he will make mistakes has been one of the lessons he's learned in his short time in business. "To market my game I tried social media and I thought I could merchandise T-shirts. I didn't sell any shirts," he says. "I use them now to send to editors as a thank you."

Rajan has turned what he has learned into a book for other developers, *Surviving the App Store*.

The creativity that students Kathryn Ratliff BS'14 and Jonathan Chari have demonstrated with their speech therapy startup is exactly what the entrepreneurial program

is working to foster. Their business took shape in an introductory entrepreneurship course that Ratliff was auditing. Ratliff, now a graduate student in the School of Behavioral and Brain Sciences, says the idea behind their Songbird Speech Solutions took shape in a speech pathology class during a discussion about ways to get parents involved in speech therapy for their kids.

"I remember in one of my first practicums, my supervisor said that learning to speak is like playing an instrument. It's about muscle memory and practice," she says. Ratliff, a violin player, could relate to that analogy.

Ratliff zeroed in on the therapy materials that parents were encouraged to use as homework — flashcards and drills that children tended to resist as not being fun. Ratliff's concept was to create children's books and songs incorporating speech therapy practice that are engaging and promote positive interactions between parents and children. Her story "Josh the Shark," for instance, focuses on *sh*, *ch*, and *j* sounds.

Ratliff presented her idea in the entrepreneurship class. Chari, another student in the class, says he saw more promise in Ratliff's idea than the one he proposed: using three-dimensional printing to custom-make wedding cake toppers. He teamed with Ratliff, conducting market research on the book and song series, and the duo further refined and developed the idea in a subsequent startup class.

Chari, who is working toward a bachelor's degree in biomedical engineering and a fast-track MBA, says about 200,000 children under age 6 have been diagnosed with a speech disorder, and their potential market is much larger because many kids without disorders have trouble saying word sounds correctly at some point. The storybooks and songs can help parents work with their kids before a disorder develops. The business is not meant to replace speech therapists but to give them a supplement that they can provide parents to take home.

The innovation behind Songbird Speech Solutions was recognized with several awards, including first place for social entrepreneurship in the UT Dallas Business Idea Competition and an honorable mention in a nationwide competition sponsored by Texas Christian University.

Over the past year, Ratliff and Chari invested $4,000 of prize money in their company and began producing a prototype book. They abandoned their first version after Ratliff tested the compact volume on a group of young kids. "It took no time to read it and they noticed. One of them said, 'That was a really short book, and it's small,' " she recalls. The team has since come up with a larger, illustrated volume that more closely resembles a typical children's book. They had 100 printed for their first edition and have sold about 25.

Ratliff, who wants to make a career of speech therapy, says, "I've been able to read my books to kids. I love this."

Chari has been involved with several projects that have been honored in business idea competitions. Looking ahead, he can see himself as an entrepreneur in the health field. "I've developed broad skills where I can be part of a development team and find a way to grow a business," he says. "It's one thing to make a gizmo; it's another to sell it to somebody." UTD

Jonathan Chari (left) and Kathryn Ratliff BS'14
Co-founders of Songbird Speech Solutions

INNOVATION INCUBATORS

The Institute for Innovation and Entrepreneurship supports students and faculty with entrepreneurial training and resources. With a campus-wide focus, IIE offers courses, conferences, networking and competitions.

Two of the signature programs are Startup Launch and Launchpad.

Startup Launch reflects the strong emphasis the Jindal School's innovation and entrepreneurship program places on experience, says Madison Pedigo, the program's director. The courses are taught at the UT Dallas Venture Development Center, an incubator primarily used by faculty-led businesses. "We want to immerse them, bring them into contact with the entrepreneur located around the corner," Pedigo says. For graduate business students with exceptional proposals, the Jindal School offers up to $25,000 in seed money, along with mentoring and office space.

Omeed Shams (left) and Andrew Brown, Jindal School graduate students, developed Kwest, a smartphone app that uses riddles, puzzles, games and the like to guide people as they explore neighborhoods such as the Bishop Arts District and Deep Ellum in Dallas. The duo brought the idea to life through Startup Launch. They plan to get Kwest into 25 cities through a model that recruits "Kwestperts" to contribute content.

Launchpad is a way for the business school to reach out to students in engineering, computer science, arts and technology, mathematics and other disciplines "where there's a high potential for creation and invention," Jeremy Vickers, executive director of UT Dallas' Institute for Innovation and Entrepreneurship, says. The 10-week experimental program is open to about 20 students as an extracurricular course to incubate ideas for new businesses. UTD

Computer engineering senior Emiola Banwo (center, front) is part of a team from the Jonsson School's capstone UTDesign program. The team's project was selected for Launchpad's interdisciplinary business training. Members are working to create a browser for the Internet of Things, the futuristic network of devices such as smart thermostats and activity trackers.

GAME NOT OVER

ALUMNI PERSPECTIVE

by April Pruitt BA'14

VIDEOGAMES: Before they were in our pockets, they were on our televisions and before that, they were in a dark arcade room filled with sights and sounds that are still part of our culture. They are the media that combine art with technology.

In 2014, I completed a degree in interdisciplinary studies with a focus on art and technology and business management. I was an older student, getting my education and raising a family at the same time.

I felt a little out of sync with some of my younger classmates. For instance, the games of my youth were Galaga and Pac-Man — often played in arcades where I tried to progress through the various levels while getting the most play from a 25-cent investment on a console without a pause button. Many who grew up with modern games like Portal and Halo just didn't understand the attraction to the arcade games. Fortunately there were enough fellow classic game enthusiasts at UTD to found a club for those with similar interests.

My goal after graduation was to work in the animation and videogame industry. Little did I expect that I would be re-creating an arcade from the 1980s, an adventure that began when I read that the National Videogame Museum would be established in Frisco, Texas.

When I reached out to museum founders Joe Santulli, John Hardie and Sean Kelly to offer my help, it turned out that they were just as excited to hear from me since they needed help getting more than 40 different games ready for regular play.

Joe, John and Sean provided a storage locker full of classic arcade games (some of which are more than 50 years old) including Computer Space, the original dedicated Pong, Galaga, Centipede and Q-bert. Most were in rough shape and would need work both inside and out.

Because the average game weighs over 300 pounds, I enlisted the help of my husband, Jeremy, who has some amazing woodworking skills. We began working in the storage locker because the museum's building wouldn't be ready for several months. In the hot Texas sun, we pulled games apart, taking out heavy CRT (cathode ray tube) monitors that hold a 10,000-volt charge, whether plugged in or not. It was overwhelming, but I love a great adventure, especially if it involves technology.

The Frisco Discovery Center was eventually ready for the museum to start moving in. The move allowed us to continue making repairs, but in a climate-controlled, powered, and safe environment.

After moving the games into the museum, Joe, Jeremy and I visited a local arcade auction and were fortunate to find a number of other games, including the power couple themselves — Pac-Man and Ms. Pac-Man.

Repairing classic videogames is a complicated task. Each game manufacturer has its own way of building arcade games, from the main printed circuit board to the cabinet holding it.

Several main components are included in all the games: the monitor, main game board, power board, and power brick. But these items may be presented in completely different ways in each

game. For example, Missile Command has only one board for the main computer with audio built onto the power board, but Spy Hunter has a four-board stack for the main computer and smaller boards mounted all over the cabinet, for a total of 12 different circuit boards.

The technology for game display also varies. Some machines, such as Asteroids, are vector based, meaning that the scene is drawn on the fly rather than having a picture move across the screen. These complex games require a special vector monitor and specific testing equipment for the boards.

The bulk of my job, though, was not patching wires but conducting research — a lot of it. For board repairs, I needed to locate technicians for each manufacturer. Many of the technicians are engineers whose hobbies include classic videogames. Someone who regularly repaired Atari games, such as Space Duel, probably wouldn't have the expertise to repair Taito's Zookeeper. I was fortunate to have my husband's help with the sometimes months-long quest for technicians, as well as handling shipping the boards for repairs.

Besides pulling monitors and other support boards that often needed 30-year-old capacitors and other components replaced, I repaired unfortunate wiring configurations made possible by an abundant use of electrical tape or even duct tape. I never knew what I would find in a machine, since many had been on location in bars or stuck in a barn for years.

The new home for these classic games, the National Videogame Museum, is the first of its type in the U.S., dedicated to preserving the history of the videogame. The 10,000-square-foot facility includes interactive exhibits for electronic games of all kinds, including handhelds, consoles, and the area where I devote the most time — a replica arcade from the '80s.

Every time I am at the museum, I experience a feast for the eyes.

A black light responsive theme created by a local artist includes a sculpted foam centipede that appears to come out of the wall, providing an authentic arcade feel. Local artists also created murals throughout the museum depicting video game characters ranging from Mario to Lara Croft. Interactive exhibits about the history of videogames include the world's largest Pong and Super Nintendo controllers with buttons that are the size of an adult hand. Little-known gaming systems are displayed throughout. Collectible promotional items— stuffed dolls, hats, keychains, patches and even cereal boxes — fill display cabinets. And thanks to donated furniture from well-known game designer and producer Randy Pitchford of Gearbox Software, visitors can see a replica of his office.

Working in the museum is an amazing experience, one that I will remember for a lifetime. I am grateful for the opportunity to bring these classic games back to life. **UTD**

Playing videogames tops the list of favorite activities for April Pruitt (left), son Jake and husband Jeremy, shown here in the National Videogame Museum replica arcade.

Recently, the National Videogame Museum opened in Frisco, Texas. The 10,000-square-foot facility includes interactive exhibits for electronic games of all kinds, including handhelds and consoles, as well as a classic, fully stocked arcade.

Learn more about the museum at nvmusa.org

New Home for Alumni, Hub for Students, Resource to All

On Founders Day, a time to celebrate and honor the contributions of UT Dallas founders J. Erik Jonsson, Eugene McDermott and Cecil H. Green, the University also held a groundbreaking ceremony for the future Davidson-Gundy Alumni Center.

Creating a place of return and a bond among alumni past and future is the primary purpose of the center, which is scheduled for completion in 2017. Located north of the Naveen Jindal School of Management, between the Edith O'Donnell Arts and Technology Building and Parking Structure 1, the center will also accommodate rentals for meetings, weddings, conferences and more.

The center is named for Nancy Gundy Davidson BS'80 and Charles "Chuck" Davidson MS'80, who made a gift of $15 million to support its construction.

The center's architect, Overland Partners in San Antonio, was named by *Architect* magazine as one of the Top 50 Design Firms of 2015 and has been part of such notable projects as the UT Austin Liberal Arts Building, the Lady Bird Johnson Wildflower Center and the Texas A&M Bonfire Memorial.

Three sides of the building will feature a scrim, or screen of perforated aluminum mesh, designed to catch sunlight and create the illusion of comets moving through the cosmos.

The Davidson-Gundy is described as a building within a park, enveloped by approximately 33,000 square feet of outdoor space. A shaded grove will offer a relaxed atmosphere for seated outdoor gatherings. Twenty-five existing trees plus new ornamental trees and decorative grasses will frame the large outdoor event space. An expansive patio off the green will extend the event space inside and out.

The first floor of the Davidson-Gundy will offer a ballroom suitable for lectures, banquets, conferences, career fairs and other programming. The space is expected to accommodate up to 800 people in a lecture-style setting and approximately 500 in a seated banquet setting, and will be immediately adjacent to a spacious pre-reception area that connects to outdoor spaces. The Davidson-Gundy also will include executive meeting space and several more casual meeting rooms, as well as office space for alumni relations, events and operations staff.

The Davidsons, who met during their time on campus, are alumni of the Jindal School. Their giving has made possible the creation of a number of endowed chairs and scholarships. The Davidson Management Honors Program is named in their honor. Both also served as members of the Realize the Vision Campaign Council, and Chuck is a member of the Development Board. They were honored as School of Management Distinguished Alumni in 2002 and UT Dallas Distinguished Alumni in 2008.

"Fifty years from now, we will be guided and driven and supported by our alumni and I think that is the vision Chuck and Nancy had when they conceived of the center," said Dr. Hobson Wildenthal, president *ad interim*. ***-Sara Mancuso***

The Davidson-Gundy Alumni Center will be a place where the University's more than 90,000 alumni can connect with one another and the campus.

To discuss giving and naming opportunities associated with the Davidson-Gundy Alumni Center, contact Melinda Mendoza-Ellis at **(972) 883-2445** or **mellis@utdallas.edu**.

Dr. Wildenthal, president *ad interim*, Nancy Gundy Davidson BS'80 and Charles "Chuck" Davidson MS'80 break ground at the new center.

Niyi "John" Olajide BSTE'04 created an Opportunity Fund to benefit students.

Alumnus Gives in Support of National Society of Black Engineers

Niyi "John" Olajide BSTE'04 is young, successful and philanthropic. At 35 years old, he is running a vibrant technology health care business, and he recently created the University's first Opportunity Fund to benefit a student group.

Students in the National Society of Black Engineers at UT Dallas will receive support for educational programs, travel and more because Olajide, a former member of the student organization, wants to give back.

Originally from Nigeria, Olajide worked as a consultant in the health care industry to help pay for his bachelor's degree in telecommunications engineering. It was during a visit to his aunt, who worked at a home health care agency, that Olajide's professional career came into focus. He took notice of the agency's multiple un-networked computers and connected them, allowing the agency to work more efficiently.

Sensing a business opportunity, Olajide founded Axxess, a Dallas-based technology company that streamlines operations for health care agencies.

As his business grows, Olajide wants to ensure that UT Dallas students have access to the same formative educational experiences that he did.

"I'm a very proud UT Dallas alumnus," Olajide said. "Some of the brightest engineers in the country graduate from this school, and the opportunities are limitless for them. I'm glad to help and support their dreams so that they can make a difference in the world. If they succeed, we all succeed, and I'm dedicated to helping make that happen."

The Daniel and Elizabeth Olajide Opportunity Fund is one of 80 such funds established at UT Dallas. These unrestricted endowments can be established to support a school, department, research center or any other area donors choose. These funds can be created with a gift of at least $10,000 and can be pledged over five years.

"When alumni support UT Dallas, it sends an important message to our students that not only are they a worthy investment, but that it's beneficial to stay connected to the University even after they graduate," said Dr. Mark W. Spong, dean of the Erik Jonsson School of Engineering and Computer Science. ***-Sara Mancuso***

Top: In October, alumni living in China whooshed with representatives of the Naveen Jindal School of Management following a reception. They heard from Dr. Hasan Pirkul, Jindal School dean (above, left), and Jun Zou MBA'98, CFO of iDreamSky (above, right).

Comets in China Strengthen Ties Through Social Media App WeChat, Dean's Visit

Alumni living in China recently welcomed representatives from UT Dallas to the country, raised thousands of dollars for scholarships, and spread the proud news on social media that Dr. Aziz Sancar PhD'77 won the 2015 Nobel Prize in chemistry.

Much of this new activity in China has been inspired by connections made through WeChat, the mobile app of choice for users in China, where Facebook and Instagram are unavailable. The Naveen Jindal School of Management's WeChat channel is part of an effort to connect with 1,800 graduates in China — a push that has led to new alumni chapters in Shanghai and Beijing, and crowdfunding for a scholarship to benefit students.

Hua Bai, a master's student and native of China, runs the Jindal School's WeChat presence. The posts, all of which are in Chinese, provide a new and popular link with the channel's approximately 1,300 followers.

"When students graduate and go back to China, they can't use Gmail, Facebook, YouTube and Instagram," said Bai, who is double-majoring in marketing and information technology and management. "So it was very difficult for us to reach out to alumni. They had an amazing experience while they were here, so they value the opportunity to stay in touch."

Last fall, WeChat posts about the possibility of a visit from Dr. Hasan Pirkul, dean of the Jindal School, helped bring more than 100 graduates to two receptions with the dean. Some asked for selfies with Pirkul, while others said they took the day off from work to attend. After the receptions, graduates formed new alumni chapters.

Many of these alumni also are working to raise funds for an endowed scholarship that will make the transition easier for students who are enrolled in the Jindal School.

-Sara Mancuso

Benefactor Provides Custom Instrument for Guitar Studies Program

Dr. Enric Madriguera

There is a special sound that comes from a Brazilian rosewood, cedar-top Stephan Connor guitar. Most UT Dallas students would never encounter a custom-made instrument of such quality. But now many — both performers and listeners — will have access to its unique sound.

When Russell Cleveland learned that Dr. Enric Madriguera, director of guitar studies, was interested in buying a Stephan Connor for the University's program, he gave one to the University from his private collection.

"Mr. Cleveland's gift will always be available to our most-talented student soloists," Madriguera said. "Those select students who excel, yet do not have the funds to compete or perform on a really fine guitar, now have this ability thanks to Russell's gift to guitar studies at UT Dallas."

The instrument will be available to advanced students and faculty.

"Stephan Connor has become an outstanding guitar builder to the top performing artists, including Eliot Fisk," said Cleveland, a well-known collector of classical and acoustic guitars. Fisk is an internationally acclaimed classical guitarist. "I am pleased that the UT Dallas guitar program has this outstanding instrument."

Cleveland is the driving force behind the annual Texas Guitar Competition and Festival, which celebrated its 15th year at the University this spring. A Wharton School graduate with a passion for music, Cleveland also created an endowed professorship in guitar studies. Madriguera has held the Russell Cleveland Professor of Guitar Studies since it was established in 2009.

"Most of my guitars are from Spain or Germany, so having a world-class concert instrument built by Stephan Connor, a great American maker, is a huge step forward for us," Madriguera said. "I was interested in this type of instrument as it has several innovations, including a sound port, which gives the guitar a robust sound and great projection." ***-Sara Mancuso***

Dr. Aziz Sancar accepts his Nobel Prize from H.M. King Carl XVI Gustaf of Sweden at the Stockholm Concert Hall in December.

Alumni Profile

A Nobel Partnership

Aziz Sancar PhD'77 and Gwen Sancar MS'74, PhD'77

By Amanda Siegfried

Around 5 a.m. on Oct. 7, 2015, the phone rang at the home of Dr. Gwen Sancar MS'74, PhD'77 in Chapel Hill, North Carolina. She was just getting up to prepare for that day's lecture at the University of North Carolina School of Medicine, where she is a professor of biochemistry and biophysics.

When she answered the phone, the woman on the line asked to speak to Gwen's husband, Aziz, who was still asleep. She couldn't tell Gwen what the call was about, only that it was an important call from Stockholm, home of the Royal Swedish Academy of Sciences.

"So I woke up Aziz and said, 'It's Stockholm!' He said, 'No way,' and I said, 'Yes way! Here, take the phone!'" Gwen recalled.

For the next 36 hours, no more sleep would come for Dr. Aziz Sancar PhD'77, the Sarah Graham Kenan Professor of Biochemistry and Biophysics at the UNC School of Medicine. It was a whirlwind, as he gave interviews and accepted congratulations from all over the world for being named one of the winners of the 2015 Nobel Prize in chemistry.

Aziz's journey to reach that pinnacle of scientific achievement included a critical stop at The University of Texas at Dallas. As a graduate student here in the mid-1970s, Aziz Sancar (pronounced SAN-jar) began his Nobel Prize-winning research on DNA repair, mentored by one of the pioneers of the field, Dr. Claud Stanley Rupert, now a UT Dallas professor emeritus.

It was also here that Aziz met Gwen Boles, a Texas native and fellow PhD student in molecular biology. The two formed a friendship, talking (and sometimes arguing) over laboratory equipment as they conducted delicate genetic research, and created a bond that would eventually lead the UT Dallas alumni to marriage and a partnership in science and service that has lasted nearly 40 years.

GENESIS OF GENIUS

Aziz grew up in a rural village in Turkey, one of eight children born to illiterate parents. His first career ambition was to become a soccer star for the Turkish national team, but Aziz ultimately decided to pursue science and medicine. He attended Istanbul Medical School and graduated at the top of his class.

After spending two years as a physician in rural Turkey, he returned to school, this time in the U.S., to learn more about the underlying mechanisms of disease. His first stop was Johns Hopkins University, where he was exposed to the then-novel field of DNA repair.

When Aziz learned that the scientist who had discovered DNA repair, Dr. Claud Stanley Rupert, had moved from Johns Hopkins to UT Dallas, he reached out.

"I knew I wanted to work on DNA repair, and I wanted to work with Dr. Rupert, so I contacted him," Aziz said. "He gave me an ambiguous answer, so I just showed up at his lab and said, 'You didn't say no.'"

"That was Aziz," Rupert said. "When he wanted to do something, he found ways of getting it done."

Aziz said the intellectual climate at UT Dallas was "outstanding," despite the fact that when he arrived in 1974, the University was not yet 10 years old.

That high-caliber scientific environment was generated years earlier, in UT Dallas' precursor institution, the Graduate Research Center of the Southwest. Its founders — Erik Jonsson, Cecil Green and Eugene McDermott (who also created Texas Instruments) — recruited distinguished scientists from around the world to conduct fundamental research and provide graduate-level education in science and mathematics. Research focused on atmospheric and space sciences, geosciences, mathematics and mathematical physics, molecular science and genetics.

The institution became The University of Texas at Dallas in 1969, offering only graduate degrees at first before undergraduates were subsequently admitted.

"UT Dallas was the world center for DNA repair research," Aziz said, "with at least five scientists working on different aspects. It was an extremely stimulating intellectual environment."

FOUNDATIONS OF ACHIEVEMENT

Nobel Prizes are awarded to individuals whose work confers the "greatest benefit to mankind," according to the will of the prize's founder, Alfred Nobel. The three recipients of the 2015 chemistry prize — Dr. Aziz Sancar, Dr. Tomas Lindahl and Dr. Paul Modrich — won for their individual efforts to map, at a molecular level, how cells repair damaged DNA and safeguard genetic information. Their work has applications in the development of new cancer treatments.

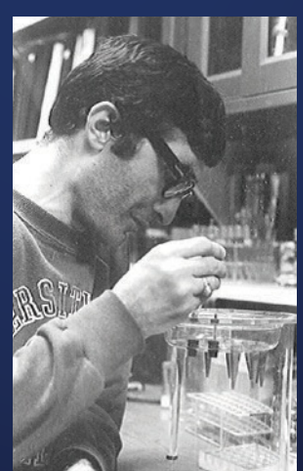
DNA is the genetic material in each of our cells that contains all the instructions for carrying out life's functions. When it is exposed to damaging agents from the environment, such as cigarette smoke and ultraviolet light from the sun, those agents can cause changes to DNA called mutations, which are associated with many diseases, including cancer.

Like all organisms, human cells have processes to repair damage that is done to DNA. When those repair processes go wrong, additional disease-causing mutations can occur.

At UT Dallas, Aziz's work focused on DNA repair in a bacterium, partly because in the 1970s, bacteria provided a much simpler experimental system than other organisms. As his PhD advisor and mentor, Rupert suggested that Aziz try to clone a gene for an enzyme called photolyase, which Rupert had been "playing" with, as the elder scientist described it. The enzyme repairs a cell's DNA that has been damaged by ultraviolet light.

Above: Gwen Sancar watches as Aziz Sancar writes his name in the Nobel Foundation's guest book that has been signed by the laureates since 1952.

The Sancars on their wedding day in 1978.



At left: The Sancars spoke with reporters following the Nobel announcement in October.

Aziz Sancar in a UT Dallas lab in the 1970s.

"He worked tremendous hours," Rupert said. "He probably worked 90 hours a week. Nothing else existed but his work. If he wasn't in the lab, he was in the library reading journals."

Aziz successfully cloned that gene, and was the first to purify and describe the bacterial enzyme photolyase. Cloning the gene was a painstaking achievement that today is a common occurrence in the lab.

"Research methods and technologies have changed a lot," said Aziz, who went on to study DNA repair in mammalian cells. "When I was at UTD, it took me a year to clone a gene. Now, a first-year graduate student can clone a gene in two days."

Aziz said his time at UT Dallas heavily influenced his subsequent research achievements and career.

"It was the foundation of everything I have done since," he said. "I started on DNA repair at UT Dallas, and I have continued for over 40 years on that path. The University has had a significant impact on my research."

Having a student of Aziz's caliber working in the lab raised everybody's game, Rupert said.

"I never had a student like him. He's my masterpiece, so to speak, except I didn't do [the work], he did it. He's the guy who put in the hours and just would not stop until he had it just the way he wanted it. It was a great experience to have him in the lab."

PARTNERSHIP

Working long hours in a UT Dallas lab certainly paid off scientifically for Aziz, but it had other life-changing ramifications as well.

Gwen Boles came to UT Dallas to pursue graduate studies after earning a bachelor's degree in biology from Baylor University in her hometown of Waco, Texas. She grew up in a working-class family, where her mother — who started as a secretary and became vice president of an insurance company — stressed the importance of education.

Unlike Aziz, Gwen had a passion for science from an early age, encouraged by the women in her life.

"I knew when I was 6 years old that I wanted to be a scientist," she said. "That was in part because my mom did some basic laboratory tests for the insurance company at that time, and on Saturdays I would go with her to the little lab." Also, Gwen's aunt had a master's degree in chemistry and an independent lifestyle she admired.

As an undergraduate, Gwen conducted research for two summers at Emory University in Atlanta. There she first heard about a new university that had opened in Richardson, Texas — ironically, just a Texas-sized stone's throw from her hometown. Several Emory professors had left to teach there.

Based on what she heard and wanting to stay in Texas for graduate school in molecular biology, she chose to attend UT Dallas. Her research focused on DNA replication in eukaryotes, which are organisms such as plants and animals, as opposed to Aziz's graduate research on prokaryotes — single-celled organisms, like bacteria.

"Aziz and I were both very hard-working grad students, and two of the few who tended to work very late in the lab, so we would meet in the evenings over equipment, basically," Gwen said. "We talked with each other at night because there wasn't anybody else to talk to while we waited for things to happen with our experiments."

"Once she got angry at me because I was hogging some equipment," Aziz recalled. "We argued over it a little bit, but then we became very good friends."

With so much time and effort devoted to their graduate research and studies, the couple didn't have much of a social life.

"Other than watching the Dallas Cowboys," Aziz said. "I've been a fan of the Dallas Cowboys ever since the Hail Mary pass," referring to the game-winning desperation toss by quarterback Roger Staubach in a 1975 NFL playoff game.

The combination of their American and Turkish backgrounds — and the differences between them — made their relationship interesting, Gwen said.

> *"I started on DNA repair at UT Dallas, and I have continued for over 40 years on that path. The University has had a significant impact on my research."*
>
> —Dr. Aziz Sancar

"The more I learned about Turkey from him, the more fascinated I was by it. I wouldn't say we didn't have cultural differences, but we were both understanding and worked it out."

The couple's parents were accepting, Gwen said, and Aziz's mother was especially helpful.

"His mother was basically a peasant woman from Turkey, and a devout Muslim, but she believed that everyone should be taken on their own merits and was equal in the sight of God," Gwen said. "When I went to Turkey the first time, she made it very clear to the rest of his family that as long as I made her son happy, she was happy. That led the way for the rest of the family and their attitudes, which helped a lot."

The couple was married in Waco in 1978. After taking separate research positions in New York and at Yale School of Medicine, they both joined the UNC medical school faculty in 1982. Aziz received the UT Dallas Distinguished Alumnus Award in 2009.

Dr. Claud Stanley Rupert and Dr. Aziz Sancar.

BUILDING BRIDGES

Several years ago, the couple established the Aziz and Gwen Sancar Foundation to help promote closer ties between the U.S. and Turkey. Recognizing the need to help Turkish students adapt and transition to American culture, the couple established the Carolina Turk Evi, or Turkish House, in Chapel Hill. The house has four rooms for rent for Turkish graduate students and visiting scholars, and it's a hub for activities aimed at educating the community about Turks and Turkey.

Turk Evi offers Turkish cooking classes, celebrates Turkish holidays, and hosts middle and high school teachers to help prepare them for summer experiences in Turkey. The foundation also works with other organizations to help fund schools and libraries in underdeveloped areas of Turkey and to assist recovery efforts during natural disasters.

"It's our way of giving back to Turkey," Gwen said, "but also our way to help build better relations between Turkey and the U.S. at the grassroots level."

COMING FULL CIRCLE

Back on that October day, as the news began to sink in after the early-morning wake-up call from Stockholm, the first call Aziz made was to the couple's goddaughter.

The second number he dialed — at still an early hour — was that of his beloved mentor.

"I was delighted" to get the call, Rupert said. "He deserves good things. He's a wonderful man. He takes good care of his students and he's generous in giving credit to people.

"I feel like my own career is crowned by this. If I've done any good science at all, it's getting Aziz his PhD, and getting him on his way. " UTD

ALUMNI NOTES

1970s

Jeannie S. Butler MS'75, PhD'81 was awarded the Partners in Excellence Award by Opera Volunteers International for her service to the Columbia, South Carolina-based Palmetto Opera—one of four volunteers in North America to be honored in 2015. She serves as treasurer for the organization and previously was its vice chair.

1980s

Ben Cunningham BS'80 is chief executive officer of Liberty Capital Bank in Addison, Texas. Ben founded the bank in 2008. His community involvement includes serving on the board of directors for the WaterTower Theatre in Addison, and as an officer of the Addison Business Association and the Rotary Club of Carrollton-Farmers Branch.

Eric M. Damewood BS'86 is executive vice president for healthcare collections company Elevate Recoveries. With more than 12 years of experience in the healthcare receivables industry, Eric oversees marketing, sales and client relations. He also served as a noncommissioned officer in the U.S. Army for nine years.

Kurt M. Weigel MS'87 was recognized by Continental Who's Who as an accomplished professional in aviation, based on 40 years of experience in the field, with more than 30 of those years in service to the U.S. Navy. Kurt is director of environmental health and safety for Leading Edge Aviation Services Inc. and Associated Painters Inc. in Spokane, Washington. He retired as a Navy captain in 2004.

Brentley A. Jackson BS'89 is the tax manager for Fort Worth accounting firm Rylander, Clay & Opitz LLP. Brentley has more than 10 years of experience in the field.

Merrill Matthews PhD'89 is a resident scholar with Dallas research think tank Institute for Policy Innovation. He contributes regularly to Forbes.com and has been published in a number of national news publications. Previously, Merrill was president of the Health Economics Roundtable for the National Association for Business Economics. He serves as vice chairman of the Texas Advisory Committee of the U.S. Commission on Civil Rights.

1990s

Tom Clare MBA'90 is vice president of marketing for Gurucul, a user behavior analytics and identity access intelligence company. Tom has 20 years of marketing management experience in the information security industry.

Farris Rookstool III BA'90 combed through history to pinpoint and commemorate the exact location where President Lyndon Baines Johnson took the oath of office aboard Air Force One on Nov. 22, 1963. A formal commemoration ceremony was held in September at Dallas Love Field.

Engineer Receives Alumni Achievement Award

Christina Deoja BS'08 always wanted to work at NASA. Long-fascinated with images from space, Deoja told her parents early on she wanted to become an astronaut.

She never made it to the launch pad, but she's happily immersed in her job as a NASA electrical engineer, working on projects that include testing electrical power systems on the Orion spacecraft and Morpheus lander vehicle.

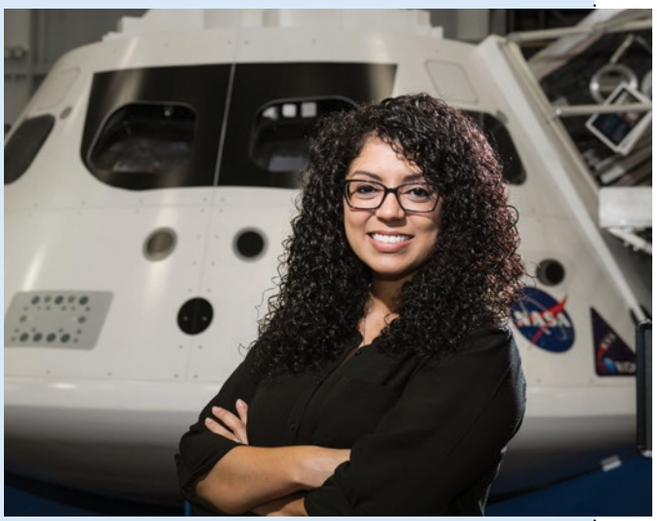
"I love it. It's fun. The work we do is so cool. On the Morpheus project, we were doing rocket testing on a weekly basis," Deoja said.

Deoja was recognized by UT Dallas with the 2015 Undergraduate Alumni Achievement Award, whose recipients are accomplished in their industry or profession and engaged in their local community.

She shares her passion for her work as a mentor in the same weeklong program that solidified her career decision years ago. Held at the Johnson Space Center in Houston, the program guides 11th-grade students through a simulated mission to Mars.

Deoja also serves as a mentor in a NASA program that engages girls in fourth to sixth grades with the STEM fields.

-Robin Russell



Christina Deoja BS'08 is an electrical engineer at NASA, working on projects that include testing electrical power systems on the Orion spacecraft and the Morpheus lander vehicle. She was honored with the 2015 Undergraduate Alumni Achievement Award.

ALUMNI NOTES

Far left: Ja'Maya Jackson, a first-grade student at Trinity Environmental Academy, checks off items on a list of things students were instructed to observe during a nature walk. The school was founded by Michael Hooten BS'98, Jennifer Hoag MAT'08 and Dhriti Stocks MPA'15 (pictured from top to bottom).

Trio Creates Habitat for Learning with New Charter School Near Trinity

Nature hikes are part of the curriculum at a new charter school founded by three UT Dallas alumni.

Michael Hooten BS'98, Jennifer Hoag MAT'08 and Dhriti Stocks MPA'15 established the Trinity Environmental Academy last fall. Located near the Great Trinity Forest in southern Dallas County, the school uses its surroundings to teach hands-on lessons about science and other subjects.

The academy sits on the campus of Paul Quinn College, where the students can explore plants and creatures along a creek that feeds into the Trinity River or work in the organic garden that replaced the college's football field.

The school is the vision of a group of science teachers who wanted to use nature as a living laboratory for lessons on environmentalism and sustainability.

Hooten is the academy's CEO and superintendent, while Hoag is chief academic officer. Stocks serves as the academy board vice president and director.

Trinity Environmental Academy
An SES School of Science and Engineering

Visit online at triea.org.

After earning his business degree from the Naveen Jindal School of Management, Hooten transitioned into teaching and leadership roles at North Texas charter schools that focused on underserved communities. Opening the academy gave him the chance to share his love of the outdoors with students, some of whom have had little exposure to topics such as environmental stewardship and sustainability.

"A lot of kids grow up fearing nature as opposed to appreciating it," he said.

During one of their recent nature walks, first-graders at the academy carried a list of items they had to search for. A frog about the size of a quarter quickly captured their attention.

"You found something on our checklist," said their teacher, Liz Webster.

Students checked off the item "something brown." By the end of the walk, students had checked off everything on their lists. It was just the type of lesson the school's founders envisioned. ***-Kim Horner***

Kelli Martin MA'95 was promoted to vice president of workforce development for Atmos Energy Corp. from director of technical training. Kelli previously held leadership roles at Microsoft, Alcatel and Gabberts.

Eric Evans BS'96 is the senior vice president of strategic planning for HCA Healthcare, Gulf Coast Division. Eric began his career at HCA in 1996, most recently serving as chief operating officer for the Woman's Hospital of Texas.

Kevin S. Mullen BA'97, MA'99 is a shareholder in the law firm Littler Mendelson PC. In September, Kevin moved his management-side employment law practice from Dallas to Austin, co-founding the firm's third office in Texas.

Sreenivasan "KK" Koduri MBA'98, MS'99 was re-elected as a Texas Instruments Fellow. He was among seven TI innovators to receive the title for breakthrough and incremental technology innovation. KK is technology lead on competitiveness in TI's Analog business and was instrumental in TI's development of copper wire bonding technology. He has received 47 U.S. patents and several international patents. In addition to his two degrees from UT Dallas, he holds bachelor's, master's and doctorate degrees in electrical engineering.

A.K. Mago MBA'99 was appointed to the University of North Texas System Board of Regents. A.K. is chairman and CEO of Mago and Associates Inc., a Dallas-based business and investment consulting firm. He was the founding chairman of the Greater Dallas Indo American Chamber, now known as the US-India Chamber of Commerce. He was awarded the Padma Shri award by the president of India in 2014—the fourth highest civilian award in the Republic of India.

2000s

U.S. Rep. Michael Burgess, MD MS'00, serving the 26th district of Texas, founded the Congressional Health Caucus. After receiving his medical degree from the UT Health Science Center in Houston, he completed residency programs at Parkland Hospital in Dallas before going into practice as an OB/GYN for three decades.

Joey Sudomir MS'02 is system-wide chief information officer for Texas Health Resources. Joey oversees all health information technology systems among more than two dozen hospitals and short-stay facilities.

Ilker Aslan BS'03 earned a doctorate degree in economics from the University of Fribourg in Switzerland in 2014.

Carla S. Mashinski MBA'04 is the chief financial officer of Cameron LNG in Houston and serves on the board of directors for Unit Corp., an energy company based in Tulsa, Oklahoma. She has more than 30 years of experience working in the energy field.

Brent Raindl MS'04 is president of PlainsCapital Bank for the Dallas market. Brent joined PlainsCapital Bank (then PNB Financial) in 1998.

Benjamin Martin Lotzer BA'05 has joined the sales team of JP & Associates Realtors Uptown in Dallas.

Phil Pizzurro BS'05 was promoted to managing director of the Chicago office of Dallas-based merger and acquisition advisory firm Generational Capital Markets.

Kimberly Aaron PhD'06 is president of the United Way of Northwest Arkansas. Kimberly has more than 30 years of experience in the business, public and nonprofit sectors and previously served as CEO of the Arkansas Rice Depot. She was formerly with the North Texas Food Bank and the Institute of Public Affairs at UT Dallas.

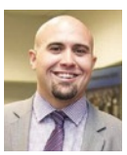
Daniel Chon MBA'06 was president, CEO and co-founder of AccelSPINE, a medical device manufacturing company that has been acquired by CTL Medical Corp. He has more than 10 years of experience in the medical/healthcare fields, with additional experience in the technology and international business fields.

David Christian BA'06 is assistant professor of counselor education at the University of Arkansas. Previously, David was a high school teacher at Mesquite High School in Mesquite, Texas, and went on to serve as a professional school counselor.

Jeff Ghouse BS'06, MS'07 co-opened Ansbach + Ghouse PLLC, a Dallas-based immigration law firm. Jeff has more than five years of experience in the practice of corporate immigration law.

Melissa Merritt-Darden BA'06, vice president of community management company Associa Carolinas, serves on the board of directors for the Community Associations Institute (CAI) Association of Professional Community Managers. She will chair the steering committee for the North Carolina 2016 CAI Annual Conference.

Eric Van Steenburg MA'06 joined the faculty of Montana State University's Jake Jabs College of Business and Entrepreneurship. Previously, he taught at James Madison University and Southern Methodist University. His research interests include nonprofit marketing, political marketing, consumer behavior and persuasive communications.



Dustin Gadberry BS'07 (left) and **Archie D. Nettles Jr. BS'11** (bottom left) were named to the *Dallas Business Journal*'s "40 Under 40" list for their professional achievements and contributions to the community. The two were chosen from more than 500 nominees who excel in their fields. Among their achievements, Dustin started Gadberry Construction Co., which now has offices in Dallas and Houston, and Archie is the student program coordinator for the Veteran Services Center at UT Dallas, where he advises student veterans and connects them to campus and community resources.

Lilli Wisler BA'07 was named Elementary Teacher of the Year for the 2014-15 academic year by the Plano Independent School District. Lilli teaches fifth grade at Barron Elementary School in Plano, Texas.

Kenneth Zheng MS'07, PhD'11 is an assistant professor of accounting at the University of Wyoming. He previously taught at the State University of New York, Buffalo.

ALUMNI NOTES

Graduate Reaches Four Degrees of UT Dallas Inspiration with second PhD

Dr. Massa Shoura finished her final university semester with a flourish, earning her fourth academic degree in eight years and her second PhD — all from UT Dallas.

Dr. Massa Shoura (left), with her UTD advisor, Dr. Stephen Levene, became the University's first female student to receive a PhD in biomedical engineering.

With a PhD in molecular and cell biology from the School of Natural Sciences and Mathematics already in hand, Shoura BS'08, MS'10, PhD'13, PhD'14 became one of the first three students — and the first woman — to earn a PhD in biomedical engineering from the University.

"It's extremely unusual for anyone to receive two PhDs, under any circumstances," said Dr. Stephen Levene, professor of bioengineering and Shoura's advisor for both doctorates. "But Massa has been an unusual student in several respects, and she happened to be at the right place at the right time."

In 2006, Shoura transferred from Richland College as a molecular and cell biology major. She earned her bachelor's degree in 2008, but also took graduate-level classes as an undergraduate. That put her on a fast track to a master's degree, which she received in 2010.

Working with Levene, who was then a faculty member in the Department of Biological Sciences, Shoura began the research for her molecular and cell biology doctorate, which she received in 2013.

When Levene moved from biology to the Department of Bioengineering in the Erik Jonsson School of Engineering and Computer Science, Shoura decided to pursue another academic endeavor.

"When my advisor moved to bioengineering, I started talking with the bioengineering graduate students," she said. "I felt that a bioengineering approach would be a good fit for what I wanted to do next."

The resulting research provided Shoura with enough material to complete a dissertation for her biomedical engineering doctorate.

With the breadth of research experience and skills she gained at the University, Shoura received several offers of postdoctoral positions from some of the country's leading research institutions, including Harvard, the University of California, San Francisco, Massachusetts General Hospital in Boston, and the University of Wisconsin, Madison. In the end, she accepted an offer from Stanford University School of Medicine, where Nobel Prize-winning biologist Dr. Andrew Fire is her postdoctoral sponsor. ***-Amanda Siegfried***

Jacob Bartok BA'09 received an Excellence in Elementary Teaching award from the Plano Independent School District for his work with students at Meadows Elementary School in Plano, Texas, where he has taught since 2009. Previously, he was named the Meadows Beginning Teacher of the Year for the 2009-10 academic year.

2010s

Cale Sherry BS'10 and **Craig Shacklett MS'13** together founded the startup UrComped, which attracts valuable players to casinos through complimentary offers across multiple venues.

Eric David BA'13 is a staff writer for SiliconANGLE, an online media outlet that provides news, information and analysis of the technology industry and innovation. Eric provides news and coverage of the latest trends in social media and gaming.

Cristin Padgett BS'14 sought nomination for the state House District 33 seat in Texas. Cristin also served as 117th precinct chair for the Collin County Democratic Party and on the communications committee. She is a member of Women Organizing Women Democrats.

Dr. Laura Bell PhD'15 is an assistant professor of political science at Francis Marion University in Florence, South Carolina.

Prathiksha Srinivasan BA'15 was one of nine aspiring writers chosen for the inaugural HBOAccess Writers Fellowship in 2015, an eight-month program for budding screenwriters. Prathi's work was chosen out of 2,000 submissions for the program held at the HBO campus in Santa Monica, California.

Stay in Touch:

Send your news, notes and photos — new babies, weddings, whooshes of all kinds — to alumni@utdallas.edu or to Alumni Notes, UT Dallas Magazine, AD14, 800 W. Campbell Road, Richardson, TX 75080-3021.

Prescription for Success: Med Student Wins Phi Kappa Phi Fellowship

Raheel Ata BS'15 knew he wanted to someday work in the medical field.

His specific career niche crystallized during his Archer Fellow semester in Washington, D.C. While doing clinical rotations at Walter Reed National Military Medical Center, Ata observed investigational clinical trials with veterans, using devices such as robotic arms for amputees.

"It gave me a model for what I wanted to do. I was seeing patients who aren't being helped because the technology they need doesn't yet exist," said Ata, an alumnus of the McDermott Scholars program. "I'd like to be an academic physician who works with industry to develop new technologies for medical applications."

Ata, who is focusing on bioengineering and bioinformatics at Stanford University School of Medicine, was recognized for his dedication to the intersection of medicine and technology with a $5,000 Phi Kappa Phi Fellowship. It marked the fourth year in a row that a student or alumnus from UT Dallas received a fellowship from the honor society.

The summer before his freshman year at UT Dallas, Ata's zeal for learning led to a student research position in the polymer chemistry laboratory of faculty member and 2001 McDermott Scholar Dr. Walter Voit BS'05, MS'06.

Ata's undergraduate experience also included studying medical ethics at Oxford University in a one-on-one tutorial, and completing an internship at the U.S. Food and Drug Administration's Center for Devices and Radiological Health.

-Robin Russell

Raheel Ata BS'15, who received his white coat as he began medical school at Stanford University in fall 2015, earned a $5,000 Phi Kappa Phi Fellowship for his dedication to the intersection of medicine and technology.

In Memoriam

REMEMBRANCES OF UNIVERSITY ALUMNI

Sherri Elizabeth Allen BS'81, Aug. 26, 2015, Lewisville, Texas. Married to Dr. David Allen for 37 years, she had four children and four grandchildren. She held volunteer positions at various churches that her husband pastored, including Prestonwood Baptist Church in Plano, Texas, Audelia Road Baptist Church in Dallas and MacArthur Boulevard Baptist Church in Irving, Texas. She taught at Canyon Creek Christian Academy in Richardson. In 2004, Allen became the volunteer coordinator for the USO at DFW Airport, ministering to America's military personnel and their families.

John Charles Amos BS'80, Nov. 8, 2015, Mansfield, Ohio. Amos grew up in southern Ohio and later moved to the Cleveland area where he graduated from Euclid High School in 1963. After enlisting in the U.S. Navy, he served in Yokosuka, Japan, as a musician in the U.S. Navy band. Amos moved to Dallas upon his discharge, where he started his family and graduated from UT Dallas. He was an active member of AMVETS Post #26 in Mansfield, where he served as post commander.

Thomas Lee Boyle BGS'79, Aug. 3, 2015, Dallas. Boyle passed away aboard ship in Willemstad, Netherlands, on a Rhine River cruise. He was part of the first graduating class at Greenhill School in 1951. Fluent in several languages, Boyle frequently worked internationally — in seismic exploration in Saudi Arabia and Venezuela and as a sales executive for pharmaceutical company Warner-Lambert in Mexico. He wed Marjorie Ann Cramer in Midland, Texas, and they then moved to Dallas, where he worked in sales for the printing industry. He and Marjorie were self-employed investors and he also obtained a real estate broker's license. Boyle was a longtime member of the Dallas Ski Club. He loved opera, baseball, boating and fishing. He was a member of the International Good Neighbor Council to promote trade with Mexico. He also volunteered as a docent for the San Miguel de Allende public library in Mexico.

Henry Cox Bradbury MS'76, Nov. 11, 2015, Addison, Texas. Bradbury earned a bachelor's degree from Stephen F. Austin University and a master's in environmental management and science from UTD. He worked for Frito-Lay for 12 years as the group manager of environmental affairs before becoming the principal of the Bradbury Group LLC. He had an extensive background in industrial site selection, corporate environmental management systems, environmental communications and remediation project management. He was an advisory council member of the Friends of Caddo Lake National Wildlife Refuge, a past president of the Dallas Caddo Hunting and Fishing Club, an environmental and technical director for the Brownfield Redevelopment Corporation of Marshall and a management consultant for the Rare Earth Mine project in West Texas.

Albert Robert Brydon BS'85, Aug. 9, 2015, Dallas. A Dallas native, Brydon was a graduate of Hillcrest High School. He was married to Kathy for 30 years and had two children, Carolyn and Charles. Brydon enjoyed spending time with his family, playing golf and coaching his children's baseball and basketball teams. He was a remodeling contractor.

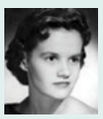
Justin Andrew Capers BA'90, BS'01, Nov. 30, 2015, Hershey, Pennsylvania. Capers completed three bachelor's degrees — two from UT Dallas (biology, neuroscience) and one from Texas Christian University. He also earned a master's degree from the University of North Texas Health Science Center in Fort Worth. He married Dixie L. Anderson in Dallas. Capers worked as a physician assistant of neurosurgery at Penn State Milton S. Hershey Medical Center. He received national certification in 2005 and was active in the Pennsylvania Society of Physician Assistants. Capers was an avid snow skier, an animal rescuer, a member of the Catholic church, a practical joker, a medical volunteer, a frequent speaker for Alcoholics Anonymous, and a mentor to future physician assistants.

Ronald H. Cowart MS'05, Aug. 6, 2015, Terrell, Texas. Cowart grew up in Terrell, excelling in high school football, basketball and baseball. He enjoyed working out, playing basketball and pursuing outdoor activities such as hiking. He earned a master's degree in applied cognition and neuroscience at UT Dallas where he was involved in research for a time. Cowart worked with staging companies to erect and disassemble massive stages for concerts and performances, including Super Bowl halftime productions.

Irene del Corral MA'84, PhD'94, Nov. 16, 2015, Richardson. A New York City native, del Corral earned a degree with honors in Spanish from Hunter College. She moved to Mexico City where she worked as an executive assistant and later married Mexican attorney Jose del Corral Diego Fernandez. The family later moved to Richardson. She was fluent in English, Spanish, French, German and Hebrew and also studied Russian and Japanese. She was a professor of Spanish at Southern Methodist University and Richland College. She translated several works, including *Lightning of August* by Mexican author Jorge Ibargüengoitia, Octavio Paz's *Translation: Literature and Letters*, and the poem featured in the film *Ribbon Around the Bomb* about Mexican artist Frida Kahlo. Del Corral was an avid reader, a follower of political news, a crossword and puzzle aficionado and a master knitter.

Wayne "Doug" Douglas BS'78, Nov. 7, 2015, Prosper, Texas. Douglas served in the U.S. Air Force as a missile guidance technician, receiving many awards and medals while in the service. He later worked in various agencies, eventually retiring as director of international business for Northrop Grumman Corp. He and his wife, Neva, were the parents of four children. He was an active member of Prestonwood Baptist Church, North Campus. Douglas enjoyed listening to country western music, gardening, and playing with his grandchildren and dogs.

Elizabeth Maxwell "Maxie" Greer BA'80, Nov. 26, 2015, Fort Smith, Arkansas. Greer was born in Bedford, Indiana, and later lived in Lewisville, Texas. She had been a data programmer for IBM and a medical biller. She was of the Jewish faith. She is survived by her daughter and son, a grandchild and great-grandchild, and a sister and brother.



Sarah Ellen Steel Hill BA'79, Aug. 11, 2015, Denton, Texas. Hill was the third child and only daughter of Marshall T. Steel, longtime pastor of the Highland Park Methodist Church on

In Memoriam

REMEMBRANCES OF UNIVERSITY ALUMNI

the SMU campus. At the age of 13, she took a trip around the world with her parents that included the opportunity to stand inside the great pyramid in Egypt. Over her life, Hill traveled to all of the continents, including Antarctica. She and her husband, Norwood Oakley Hill, raised four children. She loved outdoor fishing adventures to locations in Canada, Alaska and Australia. After earning her degree in sociology, she volunteered for Family Outreach North Texas. Hill recently served as a DFW Airport ambassador. Among her many other interests were singing in church and community choirs, playing golf, and sewing for friends and family.

Eddie B. Lane BA'80, Oct. 14, 2015, Dallas. Dr. Eddie B. Lane Sr. was one of the first African-American students at Dallas Theological Seminary (DTS). He earned a bachelor's in history from UT Dallas, a ThM degree from DTS and a DMin degree from Denver Seminary. At the time of his death, Lane was associate professor emeritus of pastoral ministries at DTS, where he had helped develop the urban ministries emphasis in the master's program. Lane founded Bibleway Bible Church in Dallas, which he pastored for 48 years, and also established an early childhood development center there. He was founder and president of the Institute for Black Family Renewal and the Black Family Press. He also served as president of the National Black Evangelical Association. Lane is survived by his wife, Betty Jo, three children and eight grandchildren.

Kevin Robert Mellnick BS'84, Oct. 3, 2015, Dallas. Mellnick was born at Burderop Park, Oxfordshire, United Kingdom. He served in the U.S. Army as a medical lab technician, which later became his life's work. He attained the rank of Eagle Scout in the Boy Scouts of America. He had four children and four grandchildren.

Dorothy May Ramsett-Snyder BGS'86, Sept. 23, 2015, Dallas. Ramsett-Snyder graduated from St. Francis School of Nursing in La Crosse, Wisconsin. She married Clarence Dale Snyder in 1952. Through their military service, the family moved several times, including to Japan, before coming to Texas in 1962. They first lived in Refugio, then relocated to Plano. Ramsett-Snyder was a volunteer for the Plano Information and Referral Service for people in crisis and was active in Resurrection Lutheran Church. She returned to a career as a nurse after completing her bachelor's degree at UT Dallas. Ramsett-Snyder was interred at the Dallas-Fort Worth National Cemetery.

Patricia Sue Greer Stonecipher BA'83, July 30, 2015, Oro Valley, Arizona. Stonecipher was married to Joel H. "Stoney" Stonecipher for 55 years. She was a talented seamstress and used her skills to create numerous Halloween costumes, quilts and Christmas stockings for her three granddaughters, their cousins and her great-granddaughter. Other interests included her horse, Queen; needlepoint; baking; and crossword puzzles.

James Burke Toney BA'81, Oct. 23, 2015, Richardson. Following service in the Army as a staff sergeant and artillery instructor at Fort Sill, Oklahoma, Toney worked for Phillips Petroleum in Borger, Texas. He married Connie Weese in Borger, then moved to Richardson, where he was an electronic technician with Collins Radio. In 1964, he began working for the Graduate Research Center of the Southwest. After earning a degree in geosciences, he was employed by ARCO Oil and Gas. Toney finished his career at UT Arlington, retiring from the geosciences department. A lifelong involvement in the martial arts began with tae kwon do classes at the Texas Instruments Karate Club. He earned a black belt in a number of martial arts and taught for years at the Texas Karate Institute, eventually becoming a grandmaster in tae kwon do. Many of his students went on to become instructors or school owners. He was an original board member of the Southwest Karate Black Belt Association. He was named Shihan for North America by the Kokusai Dai Ni Gojuryu Karate Kyokai. Additionally, he was inducted into the Texas Martial Arts Hall of Fame and the Karate Masters Hall of Fame.

Gregory Moreland Trim BA'87, Dec. 28, 2015, Plano, Texas. After earning a degree in finance from UTD, Trim spent his career working in the information systems business in the Dallas area. His first love was his family, especially his nieces and nephew. He enjoyed both camping with family and solo camping. A former Boy Scout who completed a 14-day Boundary Waters canoe trip, he floated 18 days through the Grand Canyon with the Sierra Club as an adult. Trim was an avid photographer and was passionate about space and the NASA program. A lifelong Republican, he had a keen interest in conservative politics.

Linda Cecile Mundy Watters BA'89, MA'96, Nov. 1, 2015, Dallas. As a dedicated reader and art and literature enthusiast, Watters earned a bachelor's degree in literary studies at the age of 50. Seven years later she completed a master's degree in humanities with a focus on literature. She served as a volunteer "picture lady" for the Richardson Independent School District and as a docent for the Dallas Museum of Art.

Carolyn Fay Birdsong Wright BS'85, Dec. 11, 2015, Farmersville, Texas. Wright put herself through school, earning a bachelor's degree in business administration. She was an accountant for Rockwell International. She married Milton Wright in Plano, Texas. Her favorite hobby was quilting, and she was a member of several guilds, including the Farmersville Quilt Guild. She was a member of the First Baptist Church of Farmersville. Wright had 11 grandchildren and two great-grandchildren.

Gary Glen Young BS'99, Sept. 26, 2015, Plano, Texas. Young was a finance manager for BT Americas Inc. He is survived by his wife of 32 years, Vicki Stogsdill Young, two children, three grandchildren, a sister and brother, and two nieces. Young had earlier survived cancer.

KEEP US INFORMED

If you learn of the death of a UTD alumni, faculty, staff or friend, please send any information to **alumni@utdallas.edu** or to

UT Dallas Magazine, AD14
800 W. Campbell Road
Richardson, TX 75080-3021

Dr. Bert Moore

1944-2015

Dr. Bert Moore, who led the School of Behavioral and Brain Sciences (BBS) as dean for 26 years, died Oct. 20, 2015, at the age of 71. A memorial service in his honor was held at the Edith O'Donnell Arts and Technology Building Lecture Hall.

"The entire UT Dallas community has been saddened by the death of Dean Bert Moore," said Dr. Hobson Wildenthal, president *ad interim*. "Bert was unwavering in his dedication to his school's community of students, staff and faculty. His commitment to supporting the mission of the University and enhancing the academic experience of our students drew unparalleled respect and affection from all who were fortunate to know him as a colleague over his many years of service."

Moore joined UT Dallas in 1980 as program head of the psychology department in the fledgling School of Human Development, now known as the School of Behavioral and Brain Sciences. He became dean of the school in 1989.

Under Moore's leadership, the school's enrollment grew from 387 to 2,427, the number of faculty more than doubled, and the degree programs increased from five to 13. He stepped down from the dean's role on Sept. 1, 2015.

In addition to his duties as dean and the Aage and Margaret Møller Distinguished Professor, Moore was a clinical professor of clinical psychology at UT Southwestern Medical School and a fellow of the Association for Psychological Science and the American Psychological Association. He served as associate editor for the journal *Motivation and Emotion*, was on the editorial boards of several journals, and was a member of review panels for the National Institutes of Health and the National Science Foundation.

One study for which Moore was well known explored the ability of preschool children to delay gratification. The "Marshmallow Test," as it was called, examined the reasons why some children were able to delay gratification while others were not.

Moore also was known for his commitment to the civil rights movement. In 1965, he invited Dr. Martin Luther King Jr. to speak at Southern Methodist University in Dallas, where Moore was a leader of the student body. King accepted the invitation and Moore personally drove King from the airport to the campus.

Moore earned a bachelor's degree in psychology from SMU, a master's degree from the University of Illinois and a PhD from Stanford University. He joined UT Dallas after appointments at Wellesley College, the University of California at Santa Barbara, UT Austin and Stanford.

Moore is survived by his wife, Dr. Lynne Kirk, a professor at UT Southwestern Medical Center; three children, Matthew Moore, Anne Kirk and Kory Kirk; and two grandchildren.

MOORE TO BE MEMORIALIZED WITH COURTYARD, ENDOWMENTS

Dr. Bert Moore's legacy of leadership and caring is being honored through the establishment of a courtyard at the expanded Callier Center for Communication Disorders Richardson campus.

The Bert Moore Courtyard, named at the request of the Foundation for the Callier Center and Communication Disorders, will be a quiet area with trees and benches that connects the current Callier facility with the expanded area. The new building is scheduled to open in 2016.

The Foundation for the Callier Center is a nonprofit organization separate from UT Dallas that provides financial support for the Callier Center. The foundation has been instrumental in raising millions of dollars for Callier since its inception. Board members said Moore was key in building the relationship between the foundation and UT Dallas.

In September, Moore was honored with the creation of two endowments in his name. One was created by Dr. Sandra Bond Chapman, founder and chief director of the Center for BrainHealth and Dee Wyly Distinguished University Chair in BBS. Called the Bert Moore Chair in BrainHealth, the new position will support the chairholder's research activities in clinical brain science.

In addition, the University created the Dean Bert Moore Endowment. The endowment will serve as an asset to the dean of BBS to recognize and support research of key faculty and students in the fields of neuroscience and psychology.

In Memoriam

REMEMBRANCES OF UNIVERSITY FACULTY, STAFF AND FRIENDS

Dachang Cong
1950-2016

Dr. Dachang Cong, faculty member and associate dean for undergraduate studies in the School of Interdisciplinary Studies, died in January at the age of 65.

Cong began his career at UTD in 1991. He taught courses on cultures, globalization and how digital technology has transformed cultures and economies of China, Japan and the U.S.

He worked closely with the recently launched healthcare studies program and also directed the American studies program. Cong received the Distinguished Teacher in Diversity and Multicultural Education Award in 2011 and a Teaching Excellence award in 2000.

He served on the executive committee for the University's Confucius Institute and as an academic assessment committee member for the Southern Association of Colleges and Schools.

Cong, who was born in China, earned a bachelor's degree from Shaanxi Normal University in Xi'an, China before coming to the United States. For his dissertation at Yale, Cong researched the Amish and how they grappled with modern technology.

In 1997, he published *When Heroes Pass Away*, *The Invention of a Chinese Communist Pantheon*, which examined the treatment of communist leaders from the late 1980s to the mid-1990s. More recently, he was working on a book about the globalization of China, Japan and the U.S. in the 21st century.

C.V. Glines
1920-2016

Carroll V. "C.V." Glines Jr. — author, retired Air Force colonel and curator for the General James "Jimmy" H. Doolittle Archives at the Eugene McDermott Library at UT Dallas — died in January at the age of 95.

Glines served as Doolittle's biographer and the official historian of the Doolittle Raiders, a group of volunteer airmen who conducted a bombing mission over Japan just months after the attack on Pearl Harbor. He worked with Doolittle on two books, as well as co-authored Doolittle's official autobiography. In total, Glines wrote more than 35 books and 800 magazine articles on aviation and military subjects.

Aviation journalist and publisher George Haddaway brought Glines to UT Dallas after the History of Aviation Collection relocated from UT Austin. Haddaway tapped Glines to oversee the Doolittle Collection of correspondence files, awards, plaques and medals that were donated. Glines worked at the library for 22 years.

Glines was a military pilot and flight instructor who participated in many historic flights. He was an Air Force Reserve Officer Training Corps and Air University instructor. While in military service, he earned a bachelor's degree and MBA at the University of Oklahoma, and a master's in journalism at American University in Washington, D.C. He taught journalism classes at the University of Dayton, University of Alaska and American University.

Glines retired with the rank of colonel in 1968 and served as editor of several military publications.

Glines and his wife, Mary Ellen, were married 72 years before she preceded him in death in November 2015. He is survived by a son, two daughters, five grandchildren and six great-grandchildren.

Geraldine "Patti" Henry
1927-2016

Longtime UTD supporter and former development board member Geraldine "Patti" Henry died in February at the age of 88.

Henry joined the UT Dallas Development Board in 1983, and later served on the board's executive committee as vice chair. She was a member of the committee for support of the engineering and computer science programs, and chaired the University's annual fund campaign. Henry also volunteered as chair of the School of Arts and Humanities Advisory Board.

For her dedication to UT Dallas, the Patti Henry Pinch Undergraduate Scholarship was created. As a result, more than 54 students have received funding for research and travel expenses. As a nod to Henry's love of golf, each year the scholarship receives a boost from proceeds raised at the annual UT Dallas Golf Tournament and Scholarship Fundraiser.

She established the J.E. "Yank" Henry Memorial Endowed Scholarship to assist UT Dallas students.

Henry was past president of the Richardson Woman's Club and a dedicated volunteer for the Methodist Richardson Medical Center Foundation, which honored her with its Legacy Award.

She is survived by two sons, two grandchildren, two great-grandchildren, a brother and numerous nieces and nephews.

Wilma Louise Jones
1926-2015

Wilma Louise Jones, a former human resources payroll supervisor at the University, died in October at the age of 88, in Tulsa, Oklahoma.

Raised in Topeka, Kansas, she graduated from high school in 1944 with a perfect attendance record. She attended Washburn University, where she earned a bachelor's degree in mathematics. In 1947, she married Harry "Glynn" Jones.

Jones was a member of the Zeta Tau Alpha sorority and the Pilot Club. She also volunteered with the American Cancer Society.

Jones is survived by a son, brother, sister, two grandsons and one great-granddaughter.

Ludwig Alexander Michael
1919-2015

Dr. Ludwig Alexander Michael, emeritus trustee and former president of the Foundation for the Callier Center, died in October. Michael was instrumental in the establishment of the Callier Center in 1963. He recommended and recruited the first executive director, Dr. Aram Glorig, one of the nation's leading hearing specialists. To pay tribute to Michael's service and dedication to working with children with deafness, the Ludwig A. Michael, MD Callier Center Executive Directorship was established in 2012. The first holder of the directorship is Dr. Thomas Campbell, executive director of the Callier Center and Sara T. Martineau Professor in Communication Disorders.

"As a longtime board member of the Foundation for the Callier Center, Dr. Michael guided Callier through its most formative years. His wisdom, generosity and passion had an enormous impact on making Callier what it is today," said Campbell.

Michael earned both a bachelor's and a medical degree from New York University. He completed his residency in otolaryngology at Barnes Hospital in St. Louis, Missouri, before serving in the U.S. Army Medical Corps, specializing in audiology and the treatment of soldiers with hearing loss. He came to Dallas in 1948, where he practiced for more than 60 years and served on the faculty at UT Southwestern Medical School for more than 50 years. He also served twice as chief of otolaryngology at Baylor University Medical Center in Dallas.

Preceded in death by his wife, Carmen Miller Michael PhD, he is survived by two children, two grandchildren, a sister, and a nephew and nieces and their children.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From developing research to unleashing new technology to providing first-class educations, the University is paving the way for the next generation. And much of this progress begins with you.
Your contributions help educate and enrich the many lives affected by UT Dallas. Consider a gift today to support a school, center or program important to you.
Together, you and UT Dallas will continue shaping tomorrow's landscape.
utdallas.edu/support

HINDSIGHT: A 'Wicket' Time

In the late 1960s, when campus boasted little more than the Founders Building, the surrounding prairie land was ideal for a pick-up game of baseball or soccer — or cricket.

A cricket match was played July 2, 1966, on a makeshift pitch near where the Cecil and Ida Green Center now stands. Teams consisted of faculty and staff drawn from both the geosciences and atmospheric and space sciences departments of the Graduate Research Center of the Southwest (the University's precursor).

Al Mitchell, who chronicled the early history of the Graduate Research Center and UT Dallas, wrote that "faculty and staff members of British origin joined in their own 'Fourth of July' (to show no hard feelings, they said)," a light-hearted reference to the defeat of the British by colonists during the American Revolution.

In the above photo, geosciences captain Glen Riley strategizes with Herbert Haas in the foreground, while space sciences batsman Paul Edwards defends the wicket. The teams braved the July heat and nagging chigger bites, with geosciences claiming the laurels in a 63-24 victory. UTD

Cricket still has a presence on campus 50 years after the faculty match. The sport is part of the UT Dallas Club Sports Program. In 2015, the Comets Cricket Club claimed the national title at the American College Cricket championship tournament.

Photo courtesy of *The Mercury*

A *Whoosh* Heard ‘Round the World

Gabrielle Siegel, an emerging media and communication freshman, does the Comet Whoosh in front of Blarney Castle during a family trip to Ireland in summer 2015. The EMAC program in the new School of Arts, Technology, and Emerging Communication prepares students to understand and create the next generation of digital media content.