

## In This Issue:

**Conference Creates a Pipeline for New Engineers**  
PAGE 4

**Rice Wins Top Prizes in International Competition**  
PAGE 5

**Planting a Seed for Students**  
PAGE 6

**STEM + Sports = STEM-Letatics Academy**  
PAGE 7



**A HOMAGE TO LIFE:** Marcia Brennan helps to make the end of life less fearful and more humane.

## INSIDE:



**PEER APPROVAL:** Rice University's outreach and communications efforts receive recognition.

## The End of Life Has a Voice

Marcia Brennan wants the voices of the dying to be heard. Every Thursday afternoon, she goes to the Department of Palliative Care and Rehabilitation Medicine at MD Anderson Cancer Center, where she is an artist-in-residence, and sits with dying patients. She holds their hands and listens as they offer an image or a story that reflects a meaningful part of their lives. Their tales are often poignant, but always filled with wisdom, insight and love.

Brennan, a professor of religious studies and art history at Rice University, uses her skills as an art historian and writer to record the stories of the dying. And she does all this as a volunteer. Over the past eight years, she has visited with more than 1,000 patients, simply because she believes that their stories should be told.

"The voices of the dying are almost never heard,"

*Continued on Page 2 >>*

## Science and Communication Camp

In the cool air-conditioning of Rice University's Humanities Building, a group of middle and high school students placed a comic strip they'd written in Spanish onto an overhead projector. The strip showed how many blocks you could place on the end of a table, before the force of physics caused the blocks to topple.

The bilingual presentation was one activity of the weeklong Tapia Camp in Physics, offered by Rice's Tapia Center for Excellence and Equity.

The students, who are in grades eight through 12, come from schools all over the country. Nearly 90 percent of the participants have their fees paid for through federal government programs.

The students spent a week on the Rice campus in June and worked in teams on two projects that they presented

*Continued on Page 3 >>*

## Marcia Brennan *Continued from Page 1*

Brennan said. “The dying remain marginalized and all but invisible in contemporary society. There is always someone speaking on their behalf.”

A selection of stories that Brennan has recorded and collected over the years have been resurrected in “Life at the End of Life: Finding Words Beyond Words” (Intellect Limited, U.K. and The University of Chicago

ried for over 70 years. They tell a story about how they courted during the early years of World War II. The husband served in the Armed Guard of the Navy and was constantly being moved from port to port. When he was between shifts, he asked the woman to marry him and mailed her the engagement ring. Their wedding cake was shaped like a “V” for victory and was covered in white roses. After the wedding, she traveled by train to visit him whenever his ship was at port in the United States.

“She always did her best to meet me when I was gone,” said the husband, who was dying. “I guess I knew she was the one. I don’t know quite what it was. But it was her.”

Brennan said that the story contains all the elements of a classic wartime romance. “Their story represents a timeless expression of the gratitude they felt for the gift of one another,” she wrote.

The second story is about a woman who could barely speak because her breast cancer had metastasized to her brain. Brennan had to lean close to her as the woman whispered. “My family is beautiful,” she said. “I love them so much. My image is of all of us standing together, hugging each other, with open hands and a single heart.” Tears rolled down the woman’s cheeks while she held both of Brennan’s hands. As Brennan was leaving, the woman made a gesture of an open hand around the heart to thank Brennan. “You can’t ever live through something like that and not have it change your life for the better. The love that she gave me resonates every week in the work that I do.”

Every Thursday, Brennan goes up to the 12th floor of MD Anderson’s Acute Palliative Care Unit and spends several hours working with the dying. With pen and notepad, Brennan rapidly takes notes so that the patients don’t have to repeat themselves. She then molds their stories into the form of a poem and reads them back for accuracy. Brennan inscribes the final version of the art-

work in a handmade journal that the patients can keep and share with their families.

“What’s amazing and so beautiful to me are the common and familiar words that they use,” she said. “At the end of life, every word takes on a heightened significance.”

When Brennan embarked on this project in 2009, she had no plans to write a book. She simply wanted to volunteer at a hospital and use her artistic skills to help others. She got the idea from her friend, Jennifer Wheler, an internist at MD Anderson who founded COLLAGE: The Art for Cancer Network, a nonprofit organization that offers art programs to cancer patients. After talking to Wheler, Brennan went to work for COLLAGE and found her work incredibly satisfying — not emotionally draining, as some might expect.

“I’m completely honored that people are telling me their stories. I am humble and honored to be there,” she said. “I can’t believe I’m being allowed to do this work in this lifetime.”

Now that her book is out, she hopes that her work will accomplish three goals. The first is to give the dying a voice and contribute to the literature that deals with the end of life. Second, she hopes to help her students realize how the humanities can be useful in treating people. “My work is integrative in showing the ways the human being is always at least implicitly present in the technological devices we build and in the kind of care we deliver.”

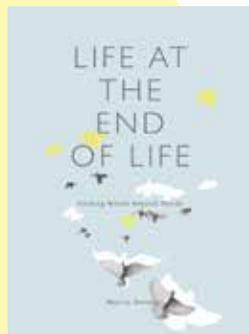
Third, she hopes her book will help transform our thoughts about dying and make the end-of-life process less fearful and more humane. “To promote nothing less than the death of death itself,” she wrote, “that is, the death of some of our most entrenched cultural fears, including those associated with the marginalization — if not outright erasure — of people at the end of life, the dehumanization of popular culture typologies, and the inability to imagine life continuing beyond the boundaries of the physical body.” ■

DAVID D. MEDINA

Director  
Multicultural Community Relations  
Public Affairs

“The voices of the dying are almost never heard. The dying remain marginalized and all but invisible in contemporary society. There is always someone speaking on their behalf.”

— Marcia Brennan



Press, 2016). Interwoven with scholarly analysis, prose poems and illustrations by the visual artist Lyn Smallwood, the book is as informative as it is moving and inspiring.

“It is my hope that this book contributes a meaningful perspective on how people at the end of life express and envision their experiences,” she wrote. “In this way, the book can help to serve as a life review for the living.”

Stories brought to life in the book evoke feelings of courage, integrity and beauty — not of disease, pain and suffering. The patients are paying their last homage to life through words and images that Brennan manages to capture with great sensitivity. Brennan found two stories particularly moving.

One is about a couple that had been mar-

## Science Camp *Continued from Page 1*

to their peers and judges at the end of the session. Winners received a trophy. They learned about effective communication, graphic arts, and engineering and math.

“We want them to be able to see that they can use math and science skills they already have,” said Paul Hand, Rice assistant professor of computational and applied mathematics. “But at a more abstract level, we want them to leave being able to communicate anything they want effectively, even if it’s something technical.”

For the last three years, the summer Tapia camps have given underrepresented students a front-row seat in learning what it means to have a career in math or science. All of these students have a demonstrated interest in those subjects, but many of them don’t have the exposure to professionals or academics, outside their classroom teachers, who can show them what they can do with these STEM skills.

Founded by Richard Tapia, University Professor and the Maxfield-Oshman Professor in Engineering, the program began as collaboration with the Houston Independent School District, in which students in the top 5 percent of their classes were invited to campus for the sessions. Over the last three years, it’s grown to embrace students from across the country and has added a component for teachers. The educators are given a weeklong boot camp in project-based learning and serve as judges for the student projects.

“There’s a lot of excitement about the sessions,” said Jaime Rodriguez, camp director. “We focus not so much on the science itself, but on the practice of science: research, presentations, working in groups. These are skills that students will need in life. And the teachers who take our project-based learning sessions say they find a real value in learning how to evaluate students and how to design group projects.”

The teacher component has been so successful, said Rodriguez, that next year the Tapia Center plans to open up the sessions to humanities teachers as well.

The central focus, however, remains on the students. All of them are bright and curious and show great aptitude for STEM study. But many of them, said Rodriguez, haven’t had anyone challenge them on their knowledge.

“With us, they learn how to effectively



**BUILDING A CAREER:** High school students at the Tapia Camp in Physics learn what it takes to become a scientist.

communicate not only what they know, but how they arrived at the conclusions. The goal is to help them help someone who doesn’t have their background understand these concepts.”

Throughout the summer, nearly 400 students participated in the camps, and Rodriguez said that sessions are already being booked and purchased for next year. While the sessions may only last a week, Tapia said the results are longer lasting.

“For one week the students live on the campus of a world-class university, hear from world-class scientists concerning their science and their story and receive project-based instruction working with curricula designed by world-class scientists. They hone their presentation skills and leave Rice excited, motivated and believing that a career in science just may be a good choice.” ■

**HOLLY BERETTO**

Engineering Communications  
School of Engineering  
Computational and Applied Mathematics

**“We want them to be able to see that they can use math and science skills they already have. But at a more abstract level, we want them to leave being able to communicate anything they want effectively, even if it’s something technical.”**

— Paul Hand

## Conference Creates a Pipeline for New Engineers

During National Engineers Week for 2017, Rice University delivered the message to more than 800 students and teachers that engineering is an excellent way to earn a living and help change the world.

“We’re interested in acculturating the next generation of engineering students. We want to prepare them for STEM opportunities and create a pipeline for new engineers. We want them to know Rice is an option” said Cesare Wright, outreach specialist and lecturer with the Rice Center for Engineering Leadership (RCEL).

The event was started in 1951 by the National Society of Professional Engineers, and today is observed by more than 70 engineering, education and cultural societies and more than 50 corporations and government agencies in the U.S.



**CULTIVATING STEM STUDENTS:** Middle school students learn about opportunities that STEM careers have to offer.

National Engineers Week kicked off at Rice Feb. 19 with VISION 2017, an invitation-only program in which some 100 academically talented and ethnically diverse high school seniors from around the country participated.

“The idea,” Wright said, “was to sway high-prospect students to select Rice. We wanted to make the university — and the engineering school in particular — attractive to them.”

Later in the week, some 500 students took part in the T.H. Rogers Science Night at the alternative primary and secondary school in Houston. RCEL and Trumbull/Unmanned, a Houston company that integrates drones into the energy industry, hosted an educational booth on drones and aerial robotic technology.

Additionally, the engineering school and RCEL hosted DiscoverE, in which 53 HISD seventh graders took part in various engineering activities. Kaz Karwowski, RCEL executive director; David Van Kleek, RCEL professor in the practice; Yvette Pearson Weatherton, associate dean for accreditation and assessment for the George R. Brown School of Engineering; and Wright organized and led the

event.

While students were competing in the design challenge sessions, Wright and Shelea Majors, media specialist for the Houston Independent School District, led a professional development session for teachers that focused on best practices in project-based STEM learning.

“I had an awesome time at Rice and so did the students. We enjoyed coming out of the classroom for a few hours to brainstorm with other educators about ways to better engage the students. I wish there were more activities like it. I would love for this to be offered as an extended professional development seminar so that I could walk away with a completed lesson plan,” said Dahia Penrice, a STEM teacher at James Hogg Middle School in Houston.

Teams from 10 HISD high schools made presentations to Microsoft representatives as part of Digital Learning Day, with Wright serving as a judge in the competition. Called Together With Tech, the districtwide contest encouraged technology integration in K-12 classrooms. The final round of presentations took place in the Microsoft Technology Center.

“Every year for National Engineers Week we hope to have more outreach events involving more students and teachers. Next year, I’m sure we’ll be even busier,” Wright said. ■

**PATRICK KURP**

Engineering Communications  
School of Engineering



**ENGAGING IN ENGINEERING:** A team of students prepare for a design challenge competition.

# Rice Wins Top Prizes in International Competition

Rice University won five awards in a series of competitions that recognized the university for its excellent work in organizing alumni diversity events and for articles that highlight Rice's outreach efforts in the community.

On June 14, the Council for Advancement and Support of Education (CASE) announced that Rice won two Grand Gold Awards and one bronze award in its 2017 Circle of Excellence Awards international competition.

The winning entries focused on Rice University's celebration of 50 years of black undergraduate life. CASE judges convey Grand Gold status on entries that represent exceptional work. The Office of the President, Development and Alumni Relations, Public Affairs and the Association of Rice University Black Alumni collaborated on the yearlong project.

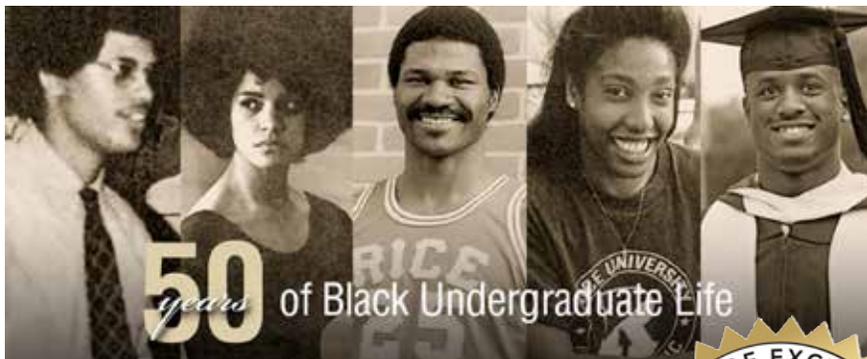
The Grand Gold Awards were given in the categories "Special Events: Yearlong" and "Diversity Programs: External Constituencies," and the Bronze Award was given in the category "Alumni Relations: Programming for Special Constituencies."

"We were blown away by Rice's entry," the judges wrote. "The more we read into the application, the more impressive the undertaking became." Calling the event "inspirational," the judges described it as "a fully comprehensive, well-planned, mission-driven year of community building."

Also in June, Multicultural Community Relations won third place in the Houston Press Club's Lone Star Award competition for the fall 2016 issue of Rice at Large. The Lone Star Awards are given each year in recognition of outstanding achievements in journalism and mass communication in the state of Texas.

MCR's also won a 2017 Gold Award in the regional CASE Accolades competition for a feature article, "Voices for Refugees."

"This multifold recognition by our peers of the great work by Rice's Multicultural Community Relations team is a testament to the progress being made, in collaboration with university colleagues, to serve the diverse communities on campus and in Houston and, in the process, to build trust and goodwill," said Linda Thrane, vice president for Public Affairs. ■



"WE WERE BLOWN AWAY BY RICE'S ENTRY. THE MORE WE READ INTO THE APPLICATION, THE MORE IMPRESSIVE THE UNDERTAKING BECAME." CALLING THE EVENT "INSPIRATIONAL," THE JUDGES DESCRIBED IT AS "A FULLY COMPREHENSIVE, WELL-PLANNED, MISSION-DRIVEN YEAR OF COMMUNITY BUILDING."

**JAN WEST**

Assistant Director  
Multicultural Community Relations  
Public Affairs



## Planting a Seed for Students

Schlumberger, the largest oilfield services company in the world, in collaboration with Rice University, is making an effort to expand computer education to all students.

Schlumberger Excellence in Educational Development (SEED) aims to inspire the digital creators and innovators of the future by supporting a wide range of robotics and computer science events, student clubs and camps, and professional development programs for teachers. What began as a grassroots employee project in 1998, SEED now is the largest channel for outreach in Schlumberger. Paula Harris, director of global education, spearheads SEED.

Schlumberger joined the Rice University School Mathematics

earth sciences through computer modeling and simulation. By offering engaging computer science experiences in required courses such as mathematics and science, these programs will truly have an impact on all students.

“Code.org is proud to partner with RUSMP to expand access to computer science in the Greater Houston area at a time when the majority of K–12 schools still don’t offer it,” said Hadi Partovi, CEO and founder of Code.org.

“By offering Code.org Professional Learning Programs, RUSMP through Schlumberger’s generous support will give teachers the tools and support they need to introduce foundational 21st-century skills into their classrooms and put all students on a path to success in today’s high-tech world,” she added.



**EVERYBODY COMPUTE:** Teachers, as well as students, attend Rice summer camps to learn how to expand computer education to all.

Project (RUSMP) at the Computer Science Education Regional Partners Summit hosted by the White House Office of Science and Technology Policy in Washington, D.C., last September. The summit discussed how to expand computer science education for all students. Schlumberger responded to the call by committing to sponsor two interdisciplinary professional learning programs for teachers: computer science in algebra and computer science in science. Both programs will be hosted by RUSMP in partnership with Code.org, a nonprofit organization dedicated to expanding access to computer science to women and underrepresented minorities.

Teachers in the computer science in algebra program will learn how to infuse computer programming into secondary mathematics classrooms. The innovative curriculum will give students an opportunity to learn how algebra is applied in the real world through an exciting, hands-on approach. Similarly, teachers in the computer science in science program will learn how to introduce concepts in life, physical and

In addition to supporting the professional development of computer science teachers, SEED underwrites collaborative projects supporting the establishment of computer labs, the expansion of network connectivity and computer science education in more than 50 countries. Last year, SEED sponsored after-school coding and robotics clubs in 35 schools from the Houston Independent School District and in 48 schools from Fort Bend Independent School District.

“With all these efforts, Schlumberger is meeting the challenge of providing the highest quality computer science education for all students,” said Anne Papakonstantinou, director of RUSMP. “Rice University, and in particular RUSMP, is proud to collaborate with Schlumberger in this mission to broaden participation in computer science.” ■

Schlumberger



**ALICE FISHER**

Director of Technology Applications and Integration  
Rice University School Mathematics Project

# STEM + Sports = STEM-Letics Academy

About 200 elementary school students attended a two-week summer program at Rice University to learn about mathematics and science while playing a sport.

Organized by the Rice University Office of STEM Engagement (R-STEM) and Rice Athletics, the inaugural program, STEM-Letics Academy, offered students classes in science, technology, engineering and mathematics (STEM) in the morning, and in the afternoon provided students with an opportunity to explore STEM in various sports on the playing fields.

Because of the rising number of STEM-related jobs and careers in today's society, R-STEM wanted to create an experience for elementary students that would spark curiosity and excitement for STEM. Specifically, the program was designed for young students to focus on the importance of STEM and learn how to solve problems through engineering activities.

Each day, students engaged in hands-on activities that introduced them to an energy form, such as electrical, wind, thermal, mechanical and force in motion. Students then tried to solve an engineering challenge that centered on a form of energy.

Throughout the week, students constructed light emitting diode (LED) owls, wind turbines, houses, roller coasters, Bristlebots, stomp rockets and marble mazes. These STEM projects allowed the students to review elementary content topics and preview new topics that would be seen in the next grade level.

R-STEM staff and teachers from school districts throughout the Houston area led the content portions of the day, engaging with the students and guiding them through the activities.

"Students were given the opportunity to explore with different types of energy, and they had to problem-solve," said Nancy Gealow, a fifth-grade teacher. "Many times the activities wouldn't work so they really had to use the design process and evaluate their work and redesign. I thought this was really valuable when talking about STEM." Rice Athletics interns, with the support of the teachers, led the afternoon sports activities.

Industry reports indicate that students entering the workforce have difficulty with "soft skills." Collaboration, cooperation, problem-solving and persistence are all classified as soft skills and were a focal point of the STEM-Letics Academy.

"The camp challenged me to be a better problem-solver," said Samantha, a student participant.

Christie Arce, a teacher in the program said, "STEM-Letics allowed students to work on their team-building skills as well as problem-solving and communication."

Plans are underway to offer an expanded version of STEM-Letics Academy next June. ■



**A KICK-OFF EVENT:** A new program at Rice teaches students how to explore STEM through sports.

**MATTHEW CUSHING**

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# AT LARGE

## Rice at Large Survey

**David D. Medina**, Director, Multicultural Community Relations, Office of Public Affairs

Rice at Large is a quarterly newsletter that showcases the university's outreach and engagement programs at Rice. It has been published for the last 11 years, and we want to make it even better. Please let us know what you think of this publication and offer suggestions for improvements. To take the survey, go to <http://rice.edu/RALsurvey>. Thanks in advance for your input. We hope that you continue to enjoy reading Rice at Large. ■

