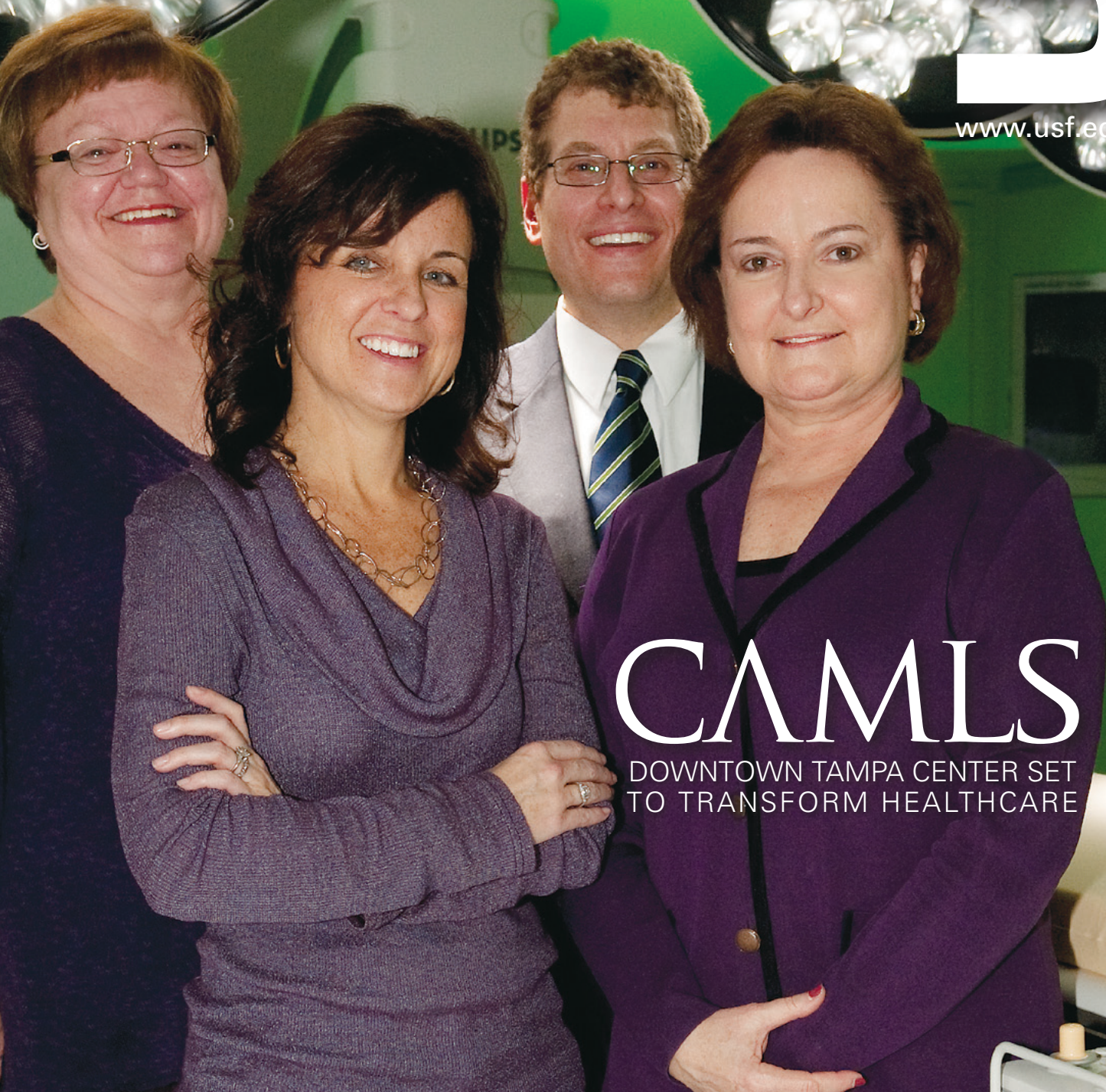


SPRING 2012
VOL 54 NO 1

USF

Magazine

www.usf.edu



CAMLS

DOWNTOWN TAMPA CENTER SET
TO TRANSFORM HEALTHCARE

COVER STORY

Transforming Healthcare

The new USF Health Center for Advanced Medical Learning and Simulation (CAMS) combines simulation experience with education and research excellence to redefine healthcare for the future.

Cover Photo: Beverly Hughes, executive director; Dr. Laura Haubner, medical director of the Virtual Patient Care Center; Dr. Stuart Hart, medical director of the Tampa Bay Research and Innovation Center; and Deborah Sutherland, chief executive officer.

▼ In the center's high-tech hybrid catheterization lab, healthcare teams will learn to seamlessly transition from an interventional procedure to an open surgical procedure.

24



Photos: cover and pg. 3, AIMEE BLODGETT | USF News; pg. 2, ERIC YOUNGHANS | USF Health

SPRING 2012



High Impact

- 4 President's Letter
- 5 "An Amazing University"

Spotlight

- 6 Students
- 8 Faculty
- 10 Research
- 12 Globe
- 14 USF System

Unstoppable

- 38 Carol and Frank Morsani invest in the future of healthcare.

Sports

- 40 Highlights

Voices

- 42 Gladis Kersaint



16 Encore Performance

CD recording earns Grammy nomination.

18 Sustainable Science

Device converts waste into energy, water.

20 Nature's Classroom

Shark expedition provides hands-on learning.

22 Debate On Campus

USF on national stage during GOP debate.

34 Get Moving!

Initiative puts focus on physical activity.

▲ Students get moving on one of several walking trails around campus. Nine new trails have recently been identified to encourage physical activity at USF.

USF is a high-impact, global research university dedicated to student success.



What an exciting few months this has been at USF!

We closed the year on a fantastic note—a historic gift from Carol and Frank Morsani that gives us the opportunity to shape the future of healthcare. Now, weeks later, we are pulling back the curtain on our most exciting project to date, the USF Health Center for Advanced Medical Learning and Simulation in downtown Tampa.

That’s just the beginning of the good news you will read about in this issue of USF Magazine.

In January, more than 2,600 students turned out for the annual Stampede of Service, USF’s largest annual community service project. Hundreds of students turned out again to watch the GOP Presidential Primary Debate broadcast live from our campus.

In February, four faculty members were officially recognized as Fellows of the American Association for the Advancement of Science. The honor is an important indicator of the distinction of an institution’s faculty. So, too, is the number of faculty Fulbright scholarships awarded each year. USF was recently named a top producer of Fulbright scholars, joining some of the most respected institutions in the country.

In May we will celebrate “Exercise is Medicine Month” at USF. Be sure to read our feature on USF’s initiative to promote exercise and physical activity around campus.

From our students and faculty to new initiatives and innovative technologies, it has been a busy start to the new year at USF. I hope you will share my excitement as you read through this issue of USF Magazine.

PRESIDENT JUDY GENSHAFT

“An Amazing University”

When U.S. Health and Human Services Secretary Kathleen Sebelius visited the new USF Health Center for Advanced Medical Learning and Simulation (CAMLS) in February, her comments spoke volumes about the trajectory of USF and the institution’s ever-increasing role in shaping the future.

“This is an amazing university, and this facility will be on the map across the country and across the world,” Sebelius said. “I have no doubt of that.”

The new 90,000 square-foot CAMLS facility will redefine healthcare for the future. It will further USF’s mission to improve quality of life in the region and across the globe.

Over the past year, USF has made remarkable strides. The institution

has grown its research portfolio to nearly \$400 million; ranked among the nation’s top producers of Fulbright scholars; solidified its leadership role in tracking the impact of the BP oil spill; recruited top biotech partners to the region; ranked ninth among public universities for U.S. patents issued; and opened a world-class diabetes center and a new Alzheimer’s research center that could be a model for the nation.

USF’s commitment to being a high-impact university has never been stronger. Its vision has never been more clear.

At its very core, USF is its people—its students, its faculty and staff. And it is these people who make USF “an amazing university.”

ANN CARNEY | USF News

USF Magazine is published by USF News. USF is a member of the University of South Florida System.

Publisher Michael Hoad
Executive Editor Peter E. Howard
Managing Editor Ann Carney
Design Editor Anne Scott

Contributing Writers Vickie Chachere, Missy Cooper, Janet Gillis, Lisa Greene, Amy Mariani, Melanie Marquez, Barbara Melendez, Daylina Miller, Tom Zebold

Contributing Photographers and Designers Aimee Blodgett, Eric Youngmans, Wayne Espinola, Amy Mariani, Vickie Chachere, Charlotte Koh, Nick Trobiano

USF System Administration

Judy Genshaft, President
Ralph Wilcox, Provost and Executive Vice President
Karen Holbrook, Senior Vice President for Research, Innovation and Global Affairs
Stephen Klasko, Senior Vice President for USF Health
Joel Momberg, Senior Vice President for University Advancement
Margaret Sullivan, Regional Chancellor for USF St. Petersburg
Arthur Guilford, Regional Chancellor for USF Sarasota-Manatee
David Touchton, Interim Regional Chancellor for USF Polytechnic

USF Board of Trustees

S. Elizabeth Bird
Matthew A. Diaz
W. Gene Engle
Stephanie E. Goforth
Brian D. Lamb
Rhea F. Law, Esq.
Stephen Mitchell, Esq.
Harold W. Mullis, Esq., Vice Chair
John B. Ramil, Chair
Louis S. Saco, MD
Debbie N. Sembler
Byron E. Shinn
Jordan B. Zimmerman

Contact USF Magazine

University Communications & Marketing
4202 E. Fowler Ave., CGS 301
Tampa, Florida 33620-4301
(813) 974-4014
news@usf.edu

Contact the USF Alumni Association

Gibbons Alumni Center
4202 E. Fowler Ave., ALC100
Tampa, Florida 33620-5455
(813) 974-2100 • (800) 299-BULL (2855)
alumni@admin.usf.edu

Update your contact information

www.giving.usf.edu

Reprint Policy: USF encourages reprinting articles in their entirety. Permission may be obtained by contacting ascott@usf.edu.

USF UNIVERSITY OF
SOUTH FLORIDA
SYSTEM



▲ U.S. Health and Human Services Secretary Kathleen Sebelius visits the USF Health Center for Advanced Medical Learning and Simulation during a visit to Tampa to talk about healthcare reform.



Stampede of Service

More than 2,600 students worked at 48 sites around Tampa Bay during the annual Stampede of Service (SOS) on Jan. 14, USF's largest day of volunteering in the community.

Braving the chilly air at 8 a.m., students met up with members of various campus organizations, fraternities and sororities to be sorted into their volunteer groups for the day.

Volunteer activities included aiding the elderly, feeding the homeless and cleaning up parks and playgrounds in the Tampa Bay region.

Andre Pert, a graduate public administration student, spent the day at Lowry Park helping a group of student volunteers pick up trash. Pert has participated in SOS since its inception in 2006, when then USF student Maxon Victor founded it as a way to

celebrate the Martin Luther King Jr. holiday.

"Getting involved and being a part of a lot of organizations kind of opened the door for me so I could give back to the community and make Tampa Bay a better place," Pert says.

SOS is hosted by the Center for Leadership & Civic Engagement (CLCE) at USF and is just one of the organization's community service events. Others include Bulls Leading and Serving Tampa (BLAST) and BullSERVE, which offers monthly and weekly volunteer projects. The event relies on student volunteers and site leaders to partner up with existing organizations in Tampa Bay that are in need of volunteers.

Shauna-kay Campbell, a business management student, was one of this year's site leaders at Lowry Park. She has been volunteering for four years at SOS and was



Scan the QR Code to view more photos of SOS 2012.



Student Heroes

University of South Florida students Scott Stiefeld, an exercise science major graduating in May; Heather Mallard, a sophomore studying communication sciences and disorders; and Luis Llerena, a senior majoring in business management, recently had lunch with USF President Judy Genshaft, who recognized the students for their quick action in attending to an individual who collapsed while working out at the Recreation Center. The quick action of the three students, performing CPR and other measures, is credited with saving the individual's life. In a letter to Eric Hunter, director of the Rec Center, Dr. Damian Caraballo, an emergency room physician at Florida Hospital Tampa, commended the students. "Although at the time the prognosis appeared grim, the patient was revived after 1.5 hours of life-saving CPR and medications," Caraballo said. "I know for a fact our patient would have died without your staffs' quick thinking and responsive ... care."

there to represent the Caribbean Cultural Exchange and National Council of Negro Women.

"It's kind of early to wake up on a Saturday morning but it's a great program to give back to the community, especially when so many people show up." Campbell says. "It's a great kickoff to the new year and a new semester so I think it's one of the better programs here for volunteering."

Campbell says that for many USF students, SOS is the first exposure they get to volunteering during their college career.

"It gives an opening eye to the CLCE and what they do and SOS is kind of the enabler, catalyst that starts people on their volunteering adventures," Campbell says.

DAYLINA MILLER | USF News

SOS SERVES MORE THAN 60 ORGANIZATIONS IN TAMPA BAY

- Senior Citizens
- Environment
- Youth
- Homelessness
- Poverty
- Women's Issues
- Education



FACULTY

AAAS Fellows Named

Four USF professors, **Yogi D. Goswami**, **Alan R. Hevner**, **Robert H. Tykot** and **Michael J. Zaworotko**, were recently recognized in Vancouver, B.C., Canada for having achieved the distinction of Fellow for the American Association for the Advancement of Science (AAAS). The honor is bestowed upon members by their peers, and is an indicator of the distinction of an institution's faculty.

Goswami, Hevner, Tykot and Zaworotko join an elite group of 539 association members awarded the honor this year.

Goswami was recognized for his distinguished contributions to research, development and education in renewable energies, particularly his innovative work in solar thermal power generation, and for upholding rigorous scientific discourse as chief editor of *Solar Energy*. Goswami is the John & Naida Ramil Professor and co-director of the Clean Energy Research Center at

USF. He holds 14 U.S. patents, one worldwide patent and seven patents pending.

Hevner, the Citigroup/Hidden River Chair of Distributed Technology, was recognized for his distinguished research contributions to the field of computer sciences, particularly in the areas of design science research, Cleanroom software engineering and distributed database systems. Hevner recently completed a two-year assignment as a program manager at the National Science Foundation and

was honored with a Lifetime Achievement Award for his contributions to the field of design sciences at the 2009 International Conference on Design Science Research in Information Systems and Technology.

A professor in the Department of Anthropology, Tykot was recognized for his distinguished contribu-

tions to archaeological materials science and bioarchaeology, as well as for service to American and Italian archaeological societies. Tykot specializes in the application of elemental and isotopic methods of analysis on human bone and teeth to measure dietary practices and mobility;

on obsidian, marble, and ceramics to determine sources and reconstruct ancient trade and transport; and on copper, silver, and gold-based metals to assess their composition and alloying technologies. He is president-elect for the



Michael J. Zaworotko



Robert H. Tykot



Alan R. Hevner



Yogi D. Goswami



International Society for Archaeological Sciences.

Zaworotko, a USF professor of chemistry since 1999, was recognized for his distinguished contributions to solid state chemistry and crystal engineering, as associate editor of *Crystal Growth & Design*, and for academic leadership. Zaworotko's research interests lie in the field of solid state chemistry and its relevance to pharmaceutical

and energy-related materials. He has published over 300 peer-reviewed papers and patents, and was listed by Thomson-Reuters 20th among the highest impact chemists in the world since 2000.

The tradition of AAAS Fellows date back to 1874. The association itself was founded in 1848, and today is the world's largest general scientific society.



Thomas Bernard
United Kingdom



Stefan Frisch
Wales, United Kingdom



Heide Castañeda
Germany



Sarah Kruse
El Salvador

Top in Fulbrights

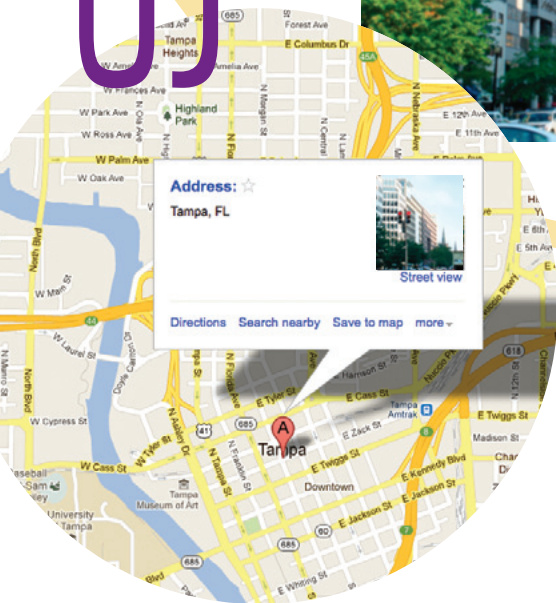
USF is a top producer of Fulbright scholars according to the Institute of International Education. The distinction, awarded for the 2011-2012 academic year, puts USF in the company of Ivy League powerhouses Harvard and Cornell.

Five USF faculty members received Fulbright scholar grants to fund specific research in the United Kingdom, Germany, El Salvador and Bulgaria.

USF's 2011-2012 faculty Fulbright scholars are **Heide Castañeda** from the Department of Anthropology; **Stefan Frisch**, from the Department of Communication Sciences and Disorders; **Thomas Bernard** from the Department of Environmental and Occupational Health; **Sarah Kruse** from the Department of Geology; and **Wei Zhu** from the Department of World Languages.

Though the top producers list includes only USF faculty in Tampa, **Ella Schmidt**, from the Department of Anthropology, Criminology and Interdisciplinary Social Sciences at USF St. Petersburg, also received a 2011-12 Fulbright scholarship.

ANN CARNEY | USF News



Crime-Busting Technology

You've just spotted a child fitting the general description of a missing child who is the subject of an Amber Alert received on your mobile phone. Quick, what do you do?

You snap a photo with your phone and send it to police dispatchers who can see the photo and know where it came from because the transmitted image includes a GPS "stamp" with the photo on a Google Map.

It's a scenario made possible by five USF researchers who were recently awarded

a patent for their wireless emergency reporting system. The system sends and receives notifications to cell phones in a defined geographic area.

The patented method provides emergency information to and from a centralized location over a wireless network. It uses cell phones in emergency communications, leveraging location-aware technologies and security applications. The easy-to-use system serves as a high-tech neighborhood watch, enabling law enforcement to access the eyes and ears of the public simultaneously via available cell phones.

The researchers, from the university's College of Engineering and Center for Urban Transportation Research (CUTR), received the patent for their "Wireless Emergency-Reporting System" in October. The inventors group includes Sean Barbeau, CUTR research associate and computer science and engineering doctoral candidate; Philip Winters, director of CUTR's Transportation Demand Management Program; Rafael Perez, computer science and engineering professor; Miguel Labrador, associate professor of computer science and engineering; and CUTR senior research associate Nevine Georggi.

Crime-busting isn't the only application for the new technology. The system would allow emergency planners to communicate with users in an evacuation scenario, such as a hurricane or other natural disaster.

Communicating with the public in emergency situations is a growing issue as more and more households are dropping their land lines and moving to wireless-only service.

JANET GILLIS | College of Engineering

Pathways to Technology

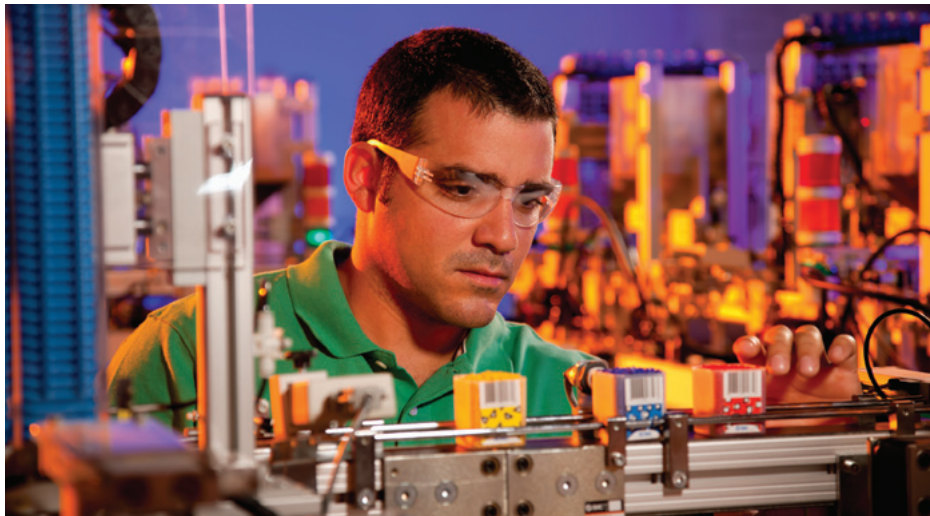
A nearly \$1.2 million grant from the National Science Foundation will allow USF researchers to study a process to help create a highly trained workforce in engineering technology.

Assistant professor Will Tyson is leading an interdisciplinary team from USF's departments of sociology and anthropology and the Florida Advanced Technological Educational Center (FLATE) at Hillsborough Community College to examine student pathways from Tampa Bay area high school career academies through community college advanced technology programs to the local workforce.

"There is an urgent need for an educated technology workforce in the U.S. FLATE and our local community colleges are addressing that need," says Tyson, a sociologist and principal investigator.

The grant is one of eight active \$1 million NSF grants at USF, and the only one awarded to an assistant professor.

Researchers will use data to answer questions like: What are the academic and demographic backgrounds of



▲ HCC's engineering technology students are trained to become skilled technicians who perform many functions in manufacturing, service, utilities, logistics and other industries.

students who enroll in advanced technology programs at community colleges out of high school? How are their educational and employment outcomes different from comparable students who enter the workforce or enroll in bachelor's degree programs out of high school?

And they will gather information from individuals who represent the "real life"



Will Tyson

aspect of the data—students, teachers and administrators as well as employers and employees from local businesses who hire graduates from engineering technology and associated AS degree programs.

The study also will examine best practices to help provide information to improve the education of engineering technicians.

BARBARA MELENDEZ | USF News

Training New Principals

One hundred individuals in four Bay-area school districts will receive accelerated principal preparation training thanks to a \$2.5 million grant awarded to the College of Education by the Florida Department of Education.

USF's Department of Education Leadership & Policy Studies will partner with Manatee, Pasco, Pinellas and Polk Coun-

ty school districts to implement the 25-month collaborative, job-embedded principal program. Participants in the Gulf Coast Partnership program will earn dual school leadership certification that typically requires 48 months of preparation.

"The USF/GCP aims to prepare future leaders capable of making systemic school reforms that will develop and sustain improvements in student achievement," says Leonard Burrello, professor and a principal investigator on the grant.

The program's primary goal is to prepare high-performing individuals who will increase administrator, teacher and staff effectiveness while raising student academic achievements in high-need schools. In addition, the program will strive to improve school leadership preparation by developing a single, accelerated, streamlined, and high quality intensive program that becomes the model for Level I/Level II school leadership certification in Florida.

KIM TUCKER | College of Education



Grand Challenge

It may be one of the most basic components of human life, but for nearly 900 million people around the world, clean water remains out of reach. And leaders at the USF Patel School of Global Sustainability are working to change that.

In November, the school announced the first Patel Grand Challenge, a challenge to inventors in developing nations to create a low-cost and easy-to-use water purification device that could save millions from the perils of contaminated drinking water.

According to world health officials, one in eight people do not have access to safe drinking water, and more than half the diseases worldwide are caused by polluted water.



Scan the QR code to read more about the Smart Pot challenge or see more online at psgs.usf.edu/patelgrandchallenge.



The Patel Grand Challenge, launched in partnership with the International Water Association, seeks the invention of a technologically-advanced yet inexpensive “Smart Pot” that would automatically disinfect water at the point of collection.

Noted global philanthropist Kiran C. Patel, who has devoted much of his life to providing better healthcare to people in developing nations, says the project will most benefit people who live in isolated communities where there are no water treatment facilities. It is in those villages where people continue to gather water as they have for decades: walking miles to a water source and carrying it home in a jug.

This year’s Patel Grand Challenge is intended to be the first of many competitions the center will hold each year to generate tangible solutions to some of the world’s most pressing problems. This year’s winning proposal will receive up to \$100,000. Working alongside the Patel Center for Global Solutions, the winner will build and develop a prototype of the Smart Pot.

VICKIE CHACHERE | USF News

◀ The Patel Grand Challenge invites innovators from the developing world to create a “Smart Pot” that purifies contaminated water and has a similar size and weight to a traditional jerrycan.



Visiting Dignitaries

Amid the excitement of the GOP debate coming to campus, 50 top USF students got the opportunity to meet with Sir Peter Westmacott, Britain’s top diplomat in the United States.

It was the recently-appointed ambassador’s first visit to an American university campus.

During the hour-and-a-half-long exchange requested by Westmacott, students posed questions and voiced their opinions on a range of topics from higher education, tuition and politics, to the Russian-EU conference and the recent oil embargo.

“Our students didn’t go easy on him; they had some very strong opinions on certain issues and posed some pretty tough questions,” says USF Senate President Khalid Hassouneh. “He was very

impressed with the intellectual dialogue of the student body.”

In a meeting with USF President Judy Genshaft, Provost Ralph Wilcox and Karen Holbrook, senior vice president for Research, Innovation & Global Affairs, Westmacott was briefed on USF’s globally-leading programs in neurosciences, autoimmune diseases, sustainability and veteran’s reintegration.

That same day, USF also played host to François Dellatre, French Ambassador to the U.S. Dellatre was at the USF Patel Center for Global Solutions to honor several individuals, including French and American World War II veterans. The ambassador awarded each of the four veterans a medal of honor issued by the Republic of France.

ANN CARNEY | USF News



▲ USF President Judy Genshaft greets Sir Peter Westmacott, Britain’s top diplomat in the United States.

USF ST. PETERSBURG

Digital Masters

A new, fully-online master's degree program at USFSP meets the needs of established and budding journalists and other communication professionals by addressing the growing demand for online and digital media skills.

The master's degree in Digital Journalism and Design offers journalists and other communication professionals courses to develop their web publication, audio visual production and photography skills while integrating them with foundational journalistic principles. Students will also explore the evolving ethical and legal aspects of digital media.

"No other degree program that we are aware of integrates digital technology as deeply into the practice of journalism as this one does," says Mark Walters, director of the M.A. in Digital Journalism and Design. "This program will build a community of thinkers, learners and doers steering the direction of online information and news delivery."

Courses include multimedia reporting, digital media technology, entrepreneurial journalism, photojournalism, audio and video production, visual information design and more.

"This degree prepares communicators to deliver content in the engaging ways news consumers are seeking," says Frank Biafora, dean of the College of Arts and Sciences. "Students will find the relevance of this degree program essential for the development of their careers in journalism and other communication professions."

MELANIE MARQUEZ | USFSP

USF SARASOTA-MANATEE

National Scholars

Four USFSM students were selected from more than 3,100 applicants to present at the National Conference for Undergraduate Research (NCUR) in March. Hosted at Weber State University in Utah, the NCUR promotes undergraduate research, scholarship and creative activity in all fields of study. The annual conference gives undergraduate scholars in all fields and from all types of institutions of higher learning a forum to share the results of their work through posters, presentations, performances and works of art.

Jami Worley, a psychology major, will present "The Importance of Trial Ambiguity: Understanding the Influence of Pretrial Publicity on Jurors' Decisions and Emotions." Her faculty mentor, Christine Ruva, is assistant professor of psychology. Candace Rainville, a

Jan. 15, 1:30 p.m.
Fountains sparkle on Sembler Plaza at USF St. Petersburg. ►

In September, USFSP made its debut ranking in U.S. News and World Report—36th among public regional universities in the South.

criminology major, will present "Are Pictures Better than Words When Mapping Alcohol Expectancies?" Rainville's faculty mentor, Richard Reich, is assistant professor of psychology. History major Paul Dunder will present "It Did Not Happen Here: Nazi Infiltration of America in the 1930's." His faculty mentor is June Benowitz, assistant professor of history. Erin Carter, an English major, will present "Natural Law in the Tragedy of King Lear." Her faculty mentor is Suzanne Stein, assistant professor of English. Each of the faculty mentors is part of the USFSM College of Arts & Sciences.

MISSY COOPER | USFSM

USF POLYTECHNIC Robot Challenge

More than 165 high school students from throughout Florida competed in the fourth annual USF Poly RoboBattle in February. The event helps students learn to design and build robots

with both radio- and autonomous-controlled behavior using the TETRIX design system.

Student teams develop robots that can perform tasks defined in the challenge, and then compete with, and against, other teams in qualifying competitions and a state championship. The USF Poly RoboBattle is a FIRST (For Inspiration and Recognition of Science and Technology) Tech Challenge regional qualifying competition. It is the last qualifying competition before the state championship.

Sixteen teams from Clearwater, Lakeland, Longwood, Miami, Palm Harbor, Riviera Beach, St. Petersburg, Tampa and Winter Haven competed in the event. Among them was the Smoke and Mirrors team from

Lakeland—winner of the 2010 world championship.

Rod Brame, program director of STEM education and assistant professor of science education at USFP says "The FIRST Tech Challenge lets high school students experience the fun and excitement of complex problem solving in a positive and supportive team environment." And, he adds, "It also helps them discover the excitement and rewards of science, technology and engineering."

USFP News

Performance

Grammy Nod

Not bad for a first-time collaboration.

A CD recording produced at the USF School of Music's new concert hall earned a Grammy nomination for "Best Choral Performance."

The recording of the Brahms German Requiem was produced as part of the Professional Choral Institute, a two-week-long intensive summer training program put on by USF and Miami-based professional choral ensemble Seraphic Fire. Competition for the nomination was stiff, with a pool of contenders including the London Philharmonic and the Los Angeles Master Chorale.

"This is huge for us," says USF professor James Bass, who served as choral master.

Bass, director of Choral Studies in the School of Music and artistic director of the Master Chorale of Tampa Bay, and Brad Diamond, assistant professor of voice, sang on the CD along with nine USF students among the 30 voices.

Diamond and Bass designed the summer training program to prepare singers to break into the growing and very competitive field of professional choral singing. The nation's top graduates of conservatories and university music programs compete for spots that allow them to work side-by-side with the professional musicians of Seraphic Fire.

"Professional choruses are on the rise in the United States," Diamond says. "We do more than work on singing technique. The Profes-





sional Choral Institute shares the tools, the information and even the personal contacts that are so important to breaking into a truly successful career.”

Although the group did not bring home a Grammy, the nomination was a huge honor.

ANN CARNEY | USF News



Photo: ANMEE BLODGETT | USF News

Members of the USF Chamber Singers, several of whom performed on the Grammy-nominated CD, perform at the USF Showcase, an international student recruitment event held in the Marshall Student Center Ballroom.

Science

Waste Not

For Daniel Yeh, there are some unvarnished facts about life on Earth that need addressing.

First, there are 7 billion people who live here. They need clean water to grow food, and energy to power their communities.

And another fact about those 7 billion people: they all poop.

So what if you could take some of the things humans really need—such as clean water and energy—and harvest

Grand Challenges Explorations grant to support his innovative anaerobic membrane bioreactor, trademarked as the NEWgenerator.™

The project is one of 110 projects in six categories selected for support from the Gates Challenges fund, designed specifically for researchers to explore unconventional ideas that could solve persistent global health and development challenges.

Yeh will use the grant to develop a prototype device that, once linked into

“The dirtier the better. The more polluted it is, the more methane we can recover.”

– Daniel Yeh

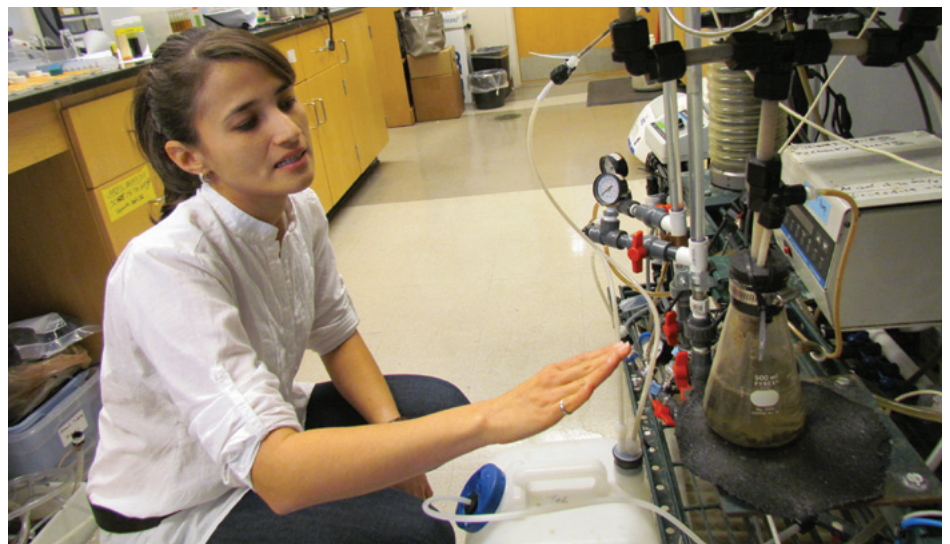
those things from the one thing everybody has to do?

That’s exactly what Yeh, USF Associate Professor of Civil and Environmental Engineering, has done.

In November, the Bill & Melinda Gates Foundation awarded Yeh a \$100,000

a waste collection system, will convert human waste into water that has been thoroughly cleaned of pathogens and is suitable for crop irrigation or household uses. The process, which uses microbes to break down waste, also produces methane gas which can be captured and used for heating and as a clean energy source.

▶ Former student Ana Prieto, at work on the NEWgenerator,™ earned her PhD while working in Yeh’s lab. Her research landed her a postdoc position at a new National Science Foundation Engineering Research Center focused on water.





With the world's clean water supply reaching a crisis-level in depletion, many experts acknowledge that using potable water for uses other than drinking is simply a waste of a dwindling resource and new solutions are needed. Yeh's system is relatively inexpensive, doesn't consume much energy and doesn't leave much byproduct.

In Yeh's lab, a small version of the NEWgenerator™ has been built and perfected over more than four years. The "waste" matter used to test the machine's isn't what you might think; for the experimental stage, Yeh uses dry cat food soaked in water which mimics the properties of human waste.

"The dirtier the better," Yeh explains of the raw matter going into the machine. "The more polluted it is, the more methane we can recover."

Yeh's system differs from current wastewater treatment plants which use aerobic microbes to breakdown wastes. Those systems require more energy to run and leave considerable sludge

byproduct. His project also is intended for a much smaller scale than large centralized systems which are expensive for communities to construct.

"I keep going back to the fact there are 7 billion people on the planet," says Yeh, citing the milestone the world's population passed late last

year. "It's kind of a wake-up call.

"How are we going to make enough food? Where's the energy going to come from? We have to stop having everything being a one-way street. We need to close the loop."

VICKIE CHACHERE | USF News



▲ Yeh, left, works with graduate student Ivy Cormier and undergrad Herby Jean on the NEWgenerator™. "Students build the machine," he explains. "We use innovation as a vehicle to build STEM capacity."

▼ Samples from Yeh's lab illustrate how dirty water becomes clean water as it is processed by the NEWgenerator™.

Field Work

A group of USF marine biology students did more than just watch when they joined their professor and Mote Marine Laboratory researchers on a recent shark expedition.

They worked.

On board the RV Eugenie Clark, the students pulled in all types of sharks—from blacktips to bull sharks—during the 11-hour expedition in the Gulf of Mexico. The sharks, nine in all, were tagged and measured for size and blood was drawn for multiple research projects, including how the Deepwater Horizon oil spill affected the animals. Most of the sharks were released, while some were euthanized to gather tissue samples for research and genetic testing.

The students were enrolled in USF marine biologist Philip Motta's Biology of Sharks and Rays class. The undergraduate course is a joint effort between USF and Mote to give students hands-on-experience. In addition to USF's crew, Bob Hueter, director of the Center for Shark Research at Mote, and Mote intern Monica Schmidt took part in the expedition.

Motta says the joint effort by USF and Mote affords students an opportunity that cannot be matched by textbooks and instructional videos.

"When you have a six-foot bull shark in the back of the boat and the students have to hold that shark down and draw blood at the same time with a struggling animal and record all the measurements, that is something invaluable," Motta says. "The students will never forget that."

Story and Photos by AMY MARIANI | USF News



▲ Bob Hueter, director of the Center for Shark Research at Mote Marine Laboratory, examines a shark caught by the USF crew.



▲ Students and researchers hold down the live shark as they measure its length.



▲ The sharks are tagged to indicate they've been caught and samples were drawn.



▲ The class spent the entire day out at sea, fishing for sharks and gathering samples.

On Campus

National Stage

A viewing audience of 7.2 million people tuned in as the candidates took the stage at USF for the GOP presidential primary debate on Jan. 23.

Steps from the event, a watch tent meant for 800 students became standing-room-only. Hundreds more stood outside and around the giant white tent, hoping to catch a glimpse of the debate broadcast on a large screen inside. The watch tent party was sponsored by USF Student Government.

Meanwhile, in Theatre 1, a live audience including more than 350 business and community leaders, international dignitaries, analysts, friends and university administrators, as well as nearly 70 USF students, listened as the

candidates discussed the issues for the 18th time this election season.

It was a classroom come to life.

USF hosted the nationally-televised debate in partnership with NBC News, the Tampa Bay Times, National Journal and the Florida Council of 100. NBC's Brian Williams moderated the event.

Behind the scenes, the media filing room in the Marshall Student Center Ballroom buzzed with journalists and political pundits. More than 430 reporters from around the world were credentialed for the debate. Chris Matthews, Andrea Mitchell, Chuck Todd and David Gregory all filed reports live from campus



in the days leading up to and following the history-making event.

According to leading political analyst and USF Distinguished Professor of Political Science Susan MacManus, for Republicans, it's all about Florida. "In terms of our racial and ethnic mix, we mirror the country more than any other state."

And there's one other thing, she says.

"Historically, if a Republican can't win Florida, they can't win the White House in the general election."

AMY MARIANI | USF News



▲ More than 430 members of the media filed reports from the Marshall Student Center Ballroom while a standing-room-only watch party for 800 was sponsored by USF student Government on the Martin Luther King Plaza.

◀ NBC's Brian Williams moderated the debate that was broadcast live from USF's Theatre 1.



Scan the QR code to read more about debate day on campus or go to <http://www.usf.edu/debate2012>.

Transforming Healthcare

▶ CAMLS takes simulation to a new level says Dr. Stephen Klasko, CEO of USF Health. The facility offers every possible form of education and training for health professionals under one roof.



are

By ANN CARNEY | USF News

The pulse of healthcare transformation echoes in downtown Tampa.

Doctors, nurses, pharmacists and other healthcare professionals from around the world are being tested for cognitive, behavioral and technical competence as individuals and teams. Engineers fine-tune prototypes for a new medical device. Military medics treat simulated trauma patients that graphically mimic a soldier seriously wounded in combat. Health professionals at all levels, amazingly, now interact with one another.

And it's all taking place under one roof.

Welcome to the new USF Health Center for Advanced Medical Learning and Simulation (CAMS).

The \$38-million, 90,000-square-foot facility is on the fast track to becoming

a national model for improving medical training and patient safety, and creating aggressive and needed healthcare solutions through cutting-edge technology, innovation and simulation.

The new center, which opened in February, will become a job engine for Tampa Bay and is expected to bring 30,000 visitors to the region each year — people who will need hotels, restaurants, transportation and entertainment. It is projected to have a \$5.7 million annual impact on the Tampa economy going forward, with an increase of at least 5 percent yearly.

“CAMS marks an important new chapter not just for USF Health and the Tampa Bay community, but also for how health education and evaluation are performed across America,” says Dr. Stephen Klasko, dean of the USF Health Morsani College of Medicine and CEO of USF Health.

Photos: ERIC YOUNGHANS | USF Health



◀ **CAMLS' Surgical and Interventional Training Center, the largest surgical arena in the nation, features two daVinci robots in its high-tech robotics training suite.**

Nothing else like it

Nestled in the shadow of Tampa's high rise office towers, the state-of-the-art facility rubs shoulders with a trolley line that links to historic Ybor City, Tampa's Latin Quarter. Riverwalk is steps away, and so too are museums and a performing arts center featuring Broadway plays that mingle with nearby restaurants and sports bars.

CAMLS integrates three floors of innovative simulation experience with education and research excellence. The interior is split into four strategically integrated core components: a Surgical and Interventional Training Center; an Education Center; a Virtual Patient Care Center; and the Tampa Bay Research and Innovation Center.

Remarkably, even before opening its doors, the facility was accredited by the American College of Surgeons and the Society for Simulation in Healthcare and had earned 16 national accreditations for its continuing education programs.

"This is the only place in the country that will start to assess, 'Is this doctor competent?'" says Klasko, whose excitement about the impact CAMLS will have on the future of healthcare is palpable. "The simple fact is that zero doctors have had their technical skills and team-

work competence objectively assessed since they had their medical training."

But the facility isn't just for doctors. It's for nurses, pharmacists, psychologists, combat medics, paramedics, occupational therapists, biomedical engineers and technology specialists. It's for every healthcare professional in every career and at every experience level.

Deborah Sutherland, chief executive officer and the driving force behind bringing CAMLS from ambitious vision to reality, says no other healthcare training facility in the nation can make that claim.

Learners leave the center with a printed report evaluating their technical and cognitive skills, and comparing their skills before and after the learning event. Every procedure and activity is recorded and played back for analysis. Team learners are assessed for individual competencies as well as how they perform as part of a team.

Hands-on surgical and interventional skills center

In the facility's Surgical and Interventional Training Center (SITC), located on CAMLS' first floor, surgeons, interventional cardiologists, interventional radiolo-



▲
Dr. John Armstrong, CAMLS chief medical officer, says the facility's hybrid catheterization lab is the first of its kind in the world. The multipurpose suite allows healthcare teams to move seamlessly from an interventional procedure to an open surgical procedure saving critical time.

gists and residents learn how to perform robotic, computer-assisted and image-guided surgeries. The SITC features the only hybrid catheterization lab in the world—a multi-purpose suite that allows healthcare teams to move from an interventional procedure, such as angioplasty, to an open surgical procedure, such as bypass surgery, without leaving the treatment room or switching healthcare teams—changes that typically take about 45 minutes in a scenario where every second counts.

The SITC additionally features one 21-station and two 7-station surgical skills labs. Each station is equipped with everything needed, including a table, instruments, anesthesia hook-up, laparoscopic tools and a light to conduct any type of operation, from jaw surgery to an organ transplant. The labs are supported by an on-site tissue bank and accredited vivarium. There's a trauma operating room, a robotics suite with two high-tech da Vinci robots, 11 operating microscopes, a synthetic cadaver and a 64-slice CT scanner, a high-definition scanner that is considered the benchmark technology for CT angiography.

All together, the SITC's 39 surgery stations make it the largest surgical arena in the United States.

In the center's trauma operating room, sights, sounds and temperatures are adjusted to simulate different environments—like battlefields, urban hospital settings, jungles and natural disaster zones.

"We are going to use technology to disrupt the environment in a standardized way," says Dr. John Armstrong, chief medical officer for CAMLS and director for trauma and disaster education at USF Health. "No one has ever done that before."

Teaching individuals to work in teams

Armstrong, a practicing trauma surgeon, joined USF Health last year. He calls the new center "beyond state-of-the-art," adding "there's nothing like it on the planet."

A former colonel in the U.S. Army Medical Corps, Armstrong has focused his career on teaching teams of health professionals how to save lives by working together better. As director of the U.S. Army Trauma Training Center in Miami, a center nationally recognized for its team training expertise, he trained Army forward surgical teams for deployment to the combat zone.

Armstrong says interprofessional team training is a major focus for the center and a vital component for patient safety considering that most medical errors are caused by communication failure between team members.

"We are going to bring strangers together and move them through a simulated environment," he says. "There is tremendous value in that."

Just above the SITC, on the facility's second floor, the interactive Education Center features a 200-person high-tech, tiered auditorium; four classrooms; a high resolution conference room; an executive board room; breakout space; exhibit space; and a built-in registration area. There's even a restaurant-worthy catering kitchen for special events.

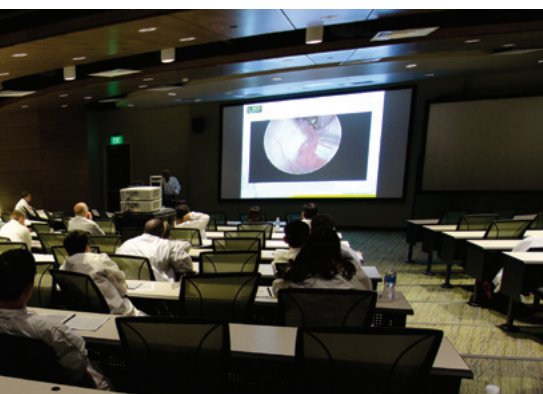
A risk-free environment for learning

At the Virtual Patient Care Center (VPCC) on the facility's third floor, simulation technology allows doctors, nurses, anesthesiologists, therapists and other healthcare providers to hone their skills—from bedside manner to open procedures—in a risk-free environment. The center includes six, fully-equipped patient exam rooms, five team training rooms, three debriefing rooms, eight individual training rooms and a virtual inpatient and retail pharmacy. Surgical simulators allow for individual and team training for endoscopic, laparoscopic and interventional vascular, urologic and gynecologic procedures.

In the debriefing rooms, learners, facilitators and instructors sit together and review recordings of just-completed simulated



exercises in a non-threatening, non-judgmental setting. They consider what went right, what went wrong, what could have been done differently, what might have happened. The technology lends itself to re-creating past events at another institution, such as a mass casualty scenario or procedure gone wrong, to allow for root



▲ In the Virtual Patient Care Center, individuals and teams hone their clinical and communication skills.

▲ The facility's 200-seat auditorium is hard-wired for satellite video-conferencing and features an interactive audience response system.

▲ Dr. Laura Haubner, a neonatologist, is medical director of the VPCC.

cause analysis. It allows healthcare teams to step out of the setting to focus on problems or develop a new process.

"Patients" in the VPCC come in adult, pediatric and neonatal models. There are combat casualty simulators and birthing simulators. The life-like mannequins have a



computer-driven, age-appropriate physiology that can mimic routine and crisis medical scenarios. They can convulse, produce breathing sounds, create variations in blood pressure and heart rate, and secrete blood and other imitation bodily fluids. In a crisis they can scream.

“What’s going on with my baby? Is he alright? Why won’t anyone tell me anything?” shouts an adult-size mannequin with a newborn mannequin nearby, hooked up to a beeping monitor.

“Having visited probably two dozen simulation centers around the world, I’d say CAMLS is one of the state-of-the-art centers that I’ve seen. I’ve been very impressed with the organization as well as the physical facilities,” says Dr. Sterling Williams, vice president of education for the American Congress of Obstetricians and Gynecologists. “One of the biggest challenges, especially when it comes to procedures, is making sure people are not only competent, but confident. Simulators

can provide a vehicle for getting acquainted and polishing up your skills before meeting with the patient.”

The future of healthcare training

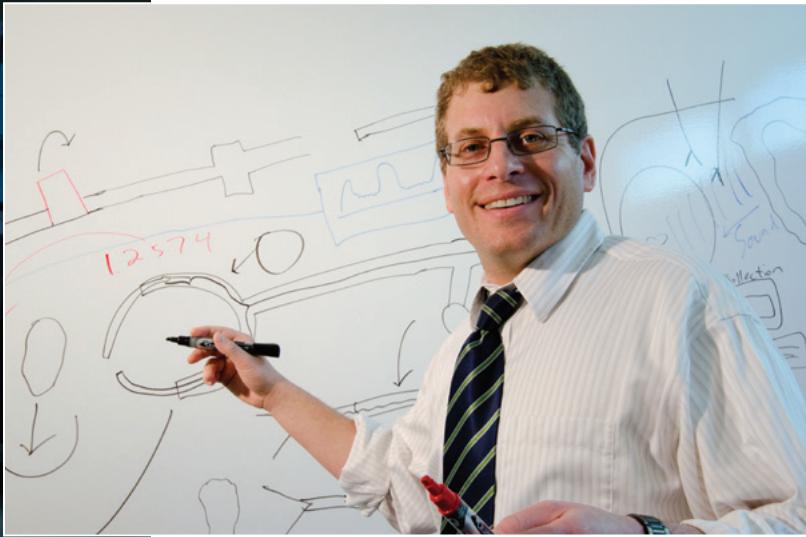
Dr. Darrell Kirch, president and CEO of the Association of American Medical Colleges, says CAMLS is not just a national example, but “an international example of where we’re heading around teaching and assessing doctors and other healthcare professionals based on their competence.

“The technology is dazzling, but what’s most important to me is the positive impact it will have on patient care—on patient outcomes.”

The VPCC is the beta test site for the world’s first laparoscopic hysterectomy simulation module, the result of an academic-entrepreneurial partnership between two USF Health faculty members and a team of engineers at the Symbionix Research and Development Center in Israel.

And it is a study in the future of pharmacy education. USF pharmacy students, as early as their first year, work alongside doctors, nurses and treatment teams in the VPCC. They confer on diagnoses, order appropriate medications and corresponding lab work, and demonstrate competency at preparing medication orders safely. Orders are transmitted wirelessly to the hospital’s virtual inpatient and retail pharmacies where they’re filled by other USF pharmacy students and sent back to the patient’s room.

“The concept of having a skills lab is not new, but the ability to do it in a professional environment that comes as close to the real thing as possible is clearly a competitive advantage,” says Kevin Sneed, PharmD, dean of the USF College of Pharmacy. “With CAMLS we are capable of creating the most highly trained individuals you will find in any pharmacy setting. We will be able to implement brand new ideas to transform the pharmacy environment and acclimate students to be part of a brave new world.”



▲ **Dr. Stuart Hart, a urogynecologist, leads the facility's Tampa Bay Research and Innovation Center, a hub for collaboration and innovation.**

▲ **CAMLS CEO Deborah Sutherland says innovative partnerships with specialty societies, industry partners, the defense health system and other health-related organizations have helped steer the facility's early success.**

Developing better devices

Just steps from the VPCC, at the Tampa Bay Research and Innovation Center (TBRIC) on CAMLS' third floor, scientists, engineers, doctors and industry partners work together to develop new, better and safer devices, procedures and instruments for patient care. The largely open space is designed to encourage collaboration. Walls in the team room are whiteboard from ceiling to floor; natural light pours in through the windows.

TBRIC's modeling and simulation room allows researchers to generate advanced anatomical and analytical models. A rapid prototyper—a three-dimensional printer—produces silicone models, such as pediatric teeth and gums, complete with muscles and bones. Each model is produced to scale and has rigid and flexible parts. Visiting healthcare professionals use the models to test new devices, like soft tissue lasers and dental cleaning instruments.

The real-life innovation zone puts everything under one roof—from research to market. That means new and innovative medical technologies and products get to market faster—technologies and products tested by doctors and other healthcare professionals to identify potential hazards and ensure safe and easy interface between users and patients.

A real-life laboratory for improved patient care

Sutherland calls CAMLS “a real life lab for training students and healthcare professionals using the latest in technology to assure better patient outcomes.”

She says about a third of users will come from USF. The rest will come to Tampa from across the state, across the nation and across the globe. All will be assessed and evaluated based on the specific performance criteria culled from statistical analysis and developed in concert with key medical societies and professional organizations.

Those learners, Sutherland believes, will be pleased with the strategic location of CAMLS in downtown Tampa.

The trolley line provides a scenic ride past the Port of Tampa to Ybor City, a National Historic Landmark District featuring restaurants and nightclubs in red brick buildings with wrought iron balconies. It's a short walk to luxury hotels and Tampa's burgeoning Riverwalk. The Tampa Bay Times Forum, home to the NHL's Tampa Bay Lightning, is in sight, along with cruise ship berths, the Channelside entertainment complex and the Florida Aquarium, where visitors can dive with sharks or take a Dolphin cruise.

“We're doing all this in an urban environment that allows USF to take a leadership role in the City of Tampa and the redevelopment of downtown Tampa.”

Early success

Weeks before opening, the academic-entrepreneurial center had nearly 700 outside bookings—courses and events scheduled by learners and stakeholders across all healthcare specialties. But it wasn't just bookings that kept the center's phones ringing, it was genuine interest in an idea whose time has come.

“Our success is partly due to the strategic partnerships that we have formed with specialty societies like the American Congress of Obstetricians and Gynecologists; the American College of Surgeons; the American College of Cardiology; third party payors; industry partners like Stryker, Philips, Covidien and McKesson; the defense health system; and other health-related organizations,” says Sutherland. “We share a mutual vision for transforming healthcare through transforming education and innovation.”

CAMLS is a concept that can be replicated in other parts of the nation and other parts of the world. Already there is interest from other countries about the possibility of building the next CAMLS.

And it is those possibilities that Klasko, Sutherland and others feel will further advance USF's leadership role in transforming the future of healthcare. ■

It has been called an economic engine for Tampa Bay, the only center of its kind worldwide, a center for innovation. Here's what Tampa Bay leaders are saying about USF Health's Center for Advanced Medical Learning and Simulation.



"This particular project will be the single largest economic impact in the downtown central business district for Tampa in the last 10 years. Unquestionably, the impact it will have with the visiting doctors and professionals will be a real game-changer for the City of Tampa."

▼ **Mark House**
Managing Director, The Beck Group
Immediate Past Chair, Tampa Hillsborough
Economic Development Corp.

"The opening of USF Health's CAMLS is the most innovative and unique economic development project to occur in downtown Tampa in decades. The anticipated thousands of visiting medical and scientific professionals, as well as the relocation of related technology and scientific companies, will provide many opportunities for additional hotel rooms, office space, restaurants and other retail. We look forward to welcoming these new visitors and workers in Tampa!"

▼ **Christine M. Burdick**
President, Tampa Downtown Partnership

"USF is in the lead in transforming the Tampa Bay area into the premier health innovation center in the United States. CAMLS is a concrete example of how our community is moving forward and creating the valuable high-wage jobs that we need. CAMLS not only means construction jobs now, but this is going to build the jobs for the future in Tampa Bay."

▼ **U.S. Rep. Kathy Castor of Tampa**

"CAMLS is a game-changer for downtown Tampa. Nothing in the last 10 years is as significant or as far-reaching as this project will be."

▼ Tampa Mayor Bob Buckhorn

"Wow, what an achievement for the Tampa Bay community, let alone the meetings industry! Kudos to this world-class facility and to the University of South Florida for making such a valued commitment to the Tampa Bay area."

▼ Kelly Miller
President & CEO, Tampa Bay & Company

"CAMLS is a one-of-a-kind facility providing the world with a gateway into the exploding medical technology capabilities of the University of South Florida and its partners and the opportunities for high-tech expansion in Florida. CAMLS will be the example of positive economic impact for decades to come."

▼ Rhea F. Law
CEO & Chair of the Board, Fowler White Boggs P.A.
Past Chair, Tampa Hillsborough Economic
Development Corp.

"CAMLS is a welcome addition to the life sciences economy in the Tampa Bay area. It offers the promise of becoming an extraordinary resource for Florida's medical device industry, further enhancing the growth of an already strong and nationally recognized industry cluster."

▼ Geary A. Havran,
President NDH Medical, Inc.
Chairman, Florida Medical Manufacturers'
Consortium, Inc.

"The CAMLS project represents two important things for Tampa Bay—quality jobs, and what we can accomplish when we work together. This facility is also a great representation of an important industry cluster—applied medicine & human performance—identified as a high-impact growth sector which will be the source of much of the job growth in the future for Tampa Bay. The CAMLS project is a shining asset that will only enhance the growth of this sector."

▼ Stuart Rogel
President & CEO, Tampa Bay Partnership

"CAMLS is the most significant project in downtown Tampa since the opening of the Marriott Waterside Hotel & Marina. This state-of-the-art facility will bring medical professionals from all over the world to our destination, and could be the catalyst to continue transforming our downtown into a world-class convention and meetings destination. The hospitality industry is pleased and excited to have CAMLS as part of the community."

▼ Paul Catoe
CEO Emeritus, Tampa Bay
& Company

”





▶ USF exercise science alumna Nilesia Hall performs one of the exercises featured in USF's new Fit2Go video library.



Scan the QR code to read a round-up of USF's fitness initiatives, including the Fit-2-Go library on iTunes U.



Get Moving!

By ANN CARNEY | USF News

When USF's College of Education launched its Lit2Go program, an online treasury of classic literature on iTunes U in 2007, no one could have envisioned the program's success—more than 20 million downloads to date.

Now the university is hoping to have that same kind of impact with the launch of Fit2Go, an exercise video collection created by USF Campus Recreation as part of the Exercise is Medicine on Campus initiative.

"I was so impressed with the content that I thought USF should distribute it on iTunes U," says College of Education Dean Colleen Kennedy. "The 'Fit2Go' name seemed like a natural extension of our extremely popular Lit2Go series."

That was music to the ears of Aaron Craig, assistant director of fitness at the Campus Recreation Center.

Craig, along with a team of students and professionals from Campus Recreation, was instrumental in developing the online exercise library that was first made available on the department's website last year. The interactive library allows users to point and click on a specific muscle or muscle group and then choose from a selection of videos that dem-

onstrate how to safely and effectively perform suggested exercises.

Response to the library has been overwhelmingly positive, says Craig. "I've received calls and emails complimenting the site and requesting even more exercises."

Having the library available on iTunes U means access to a wider audience. And that's the idea behind the Exercise is Medicine (EIM) initiative—getting the word out about the benefits of exercise and physical activity.

In September, the USF EIM task force issued its report on opportunities to encourage and promote physical activity at USF. The interdisciplinary task force was created by USF President Judy Genshaft as an on-campus extension of the national EIM initiative developed by the American College of Sports Medicine (ACSM).

Alan Kent, assistant vice president for health and wellness, and co-chair of the task force, says the initiative makes sense for USF. Provost Ralph Wilcox serves on the national advisory board of the ACSM, and both he and Genshaft have made a commitment to integrating exercise and wellness into daily life at USF.

"We are excited to participate in this



EXERCISE IS MEDICINE BY THE NUMBERS

Just 150 minutes of moderate physical activity each week can:

- Reduce diabetes risk by 50%
- Reduce colon cancer risk by 60%
- Reduce risk of Alzheimer's disease by 40%
- Reduce risk of heart disease and high blood pressure by 40%
- Decrease depression and improve sleep

effort because it is consistent with the strategic goals and objectives of Wellness USF—the coalition of Student Affairs departments dedicated to student well-being,” says Kent.

Among those departments is Student Health Services which now includes physical activity as a vital sign, just like heart rate, temperature and blood pressure. New students are asked about their level of physical activity and provided with recommendations. Where appropriate, students are referred to a health and fitness professional at the Campus Recreation Center.

In its September report, the EIM task force made a series of recommendations to support the on-campus

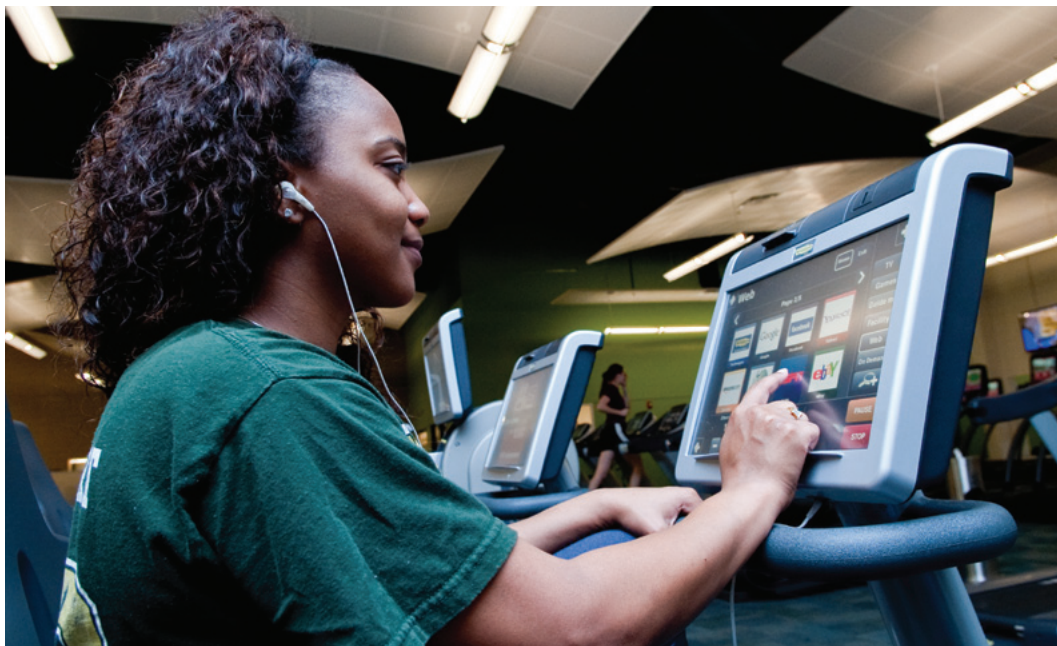
initiative. They included installing elevator signage encouraging the use of stairs; developing an EIM On Campus Web page; installing sidewalks and water fountains in key locations, especially along walking trails; and expanding the successful “Borrow our Bikes” program.

Now, the university's Healthy Campus Coalition will focus on implement-

ing the recommendations as well as developing broader campus wellness initiatives.

While that work gets under way, Craig and her colleagues are developing programs and resources to promote and encourage physical activity.

This summer, Craig and Katie Jones, a licensed dietitian with USF Wellness Education, along with a health psychologist from the USF Counseling Center, will pilot a 12-week program for students at risk for cardiovascular, pulmonary or metabolic disease. Fitness, nutrition and behavioral change experts will educate, motivate and support students as they progress toward making physical activity and healthy lifestyle choices part of their everyday lives.



▲ Student Bratisha Smith accesses the Internet on one of the rec center's 45 TechnoGym machines.

▲ Aaron Craig, exercise science intern Jon Bing, grad student Theresa Chu, and personal trainer Yolanda Lemons stretch at Campus Rec's parcourse.

▲ Bing adjusts the MyRide for group fitness instructor Nakreshia Causey. Screen choices include a virtual ride in the country, a virtual fitness instructor and workout statistics.



And, through collaboration with the Center for Urban Transportation Research (CUTR) and Larry Collins, an instructor in the Department of Orthopaedics & Sports Medicine, Craig and her team have identified nine walking routes in and around campus with distances up to 1 1/2 miles, some leading to Campus Rec's parcourse. Exercise science students, along with representatives from Students With Disabilities Services, have walked the routes to identify potential hazards as well as drinking fountains, restrooms and shaded areas along the routes. Once finalized, the routes will be made available on the Campus Recreation website.

In February, as part of National Recreational Sports & Fitness Week, the

department collaborated with exercise science faculty to host the first EIM Lecture Series. In addition, an OpenStreetMap party—a collaboration with CUTR, the Bicycle Club and the Department of Geography—invited walkers, runners, skateboarders and rollerbladers to map their favorite routes around campus using a GPS. In May, for the second time, USF will celebrate "Exercise is Medicine Month," as officially proclaimed by Florida Governor Rick Scott and President Genshaft.

While there's no shortage of opportunities for physical activity around campus, the highest tech exercise experiences are housed in the recently renovated Campus Recreation Center. The NBC Today show recently called the center "one of the highest tech

fitness centers in the nation." Each of the center's 45 TechnoGym cardio machines is connected to the Web and more than half of its cardio equipment features a personal viewing screen where users can experience on-demand music videos, television programs, playlists and movie trailers.

But, according to Craig, "where" you exercise isn't necessarily the focus. It's "that" you exercise.

"I want to meet people wherever they are—whether it's an avid exerciser or a beginner," she says. "Through technology, we are able to provide a myriad of opportunities to engage in physical activity both on and off campus. We not only need to spread the word that 'Exercise is Medicine,' we also need to lead by example." ■

Campaign

Investing in the Future of Healthcare

By LISA GREENE | USF Health

Frank Morsani worked his way through the car business, blending a passion for change and a zeal for innovation to become one of the top-selling car dealers in the country and a civic and philanthropic leader.

Along the way, his wife Carol stood by his side—dedicating herself to raising their two daughters and making a difference in the community.

Together they succeeded.

And it was together in December they made their largest philanthropic gift to date—\$20 million to construct a new college of medicine at USF—the largest gift from an individual ever received by the university. The gift brings the Morsani's

total giving to USF Health to \$37 million, and to the university as a whole, \$43 million.

In honor of their philanthropic commitment, the university renamed its medical college the USF Health Morsani College of Medicine.

“This is the most fantastic special announcement ever,” USF President Judy Genshaft told the Board of Trustees. “Carol and Frank Morsani have given us a remarkable opportunity to shape healthcare in the Tampa Bay region and beyond.”

The gift will create a dramatic new education center at USF Health, focusing on new ways to teach the team-based care of the future. The new building will host a teaching clinic that will be designed as a national model for free community care in a dynamic learning environment.

And it will create the Stephen K. Klasko Institute for an Optimistic Future in Healthcare—an institute named for current CEO of USF Health, and dean of the

▶ USF President Judy Genshaft shares a laugh with Carol and Frank Morsani at the press announcement.



USF: UNSTOPPABLE

To date, the USF: Unstoppable campaign has raised more than \$534 million of its \$600 million goal. To learn more about the campaign and opportunities for giving, visit www.unstoppable.usf.edu



▲ Dr. Leslie W. Miller, chair of USF Cardiovascular Sciences, greets the Morsanis.

medical college, Dr. Stephen K. Klasko. The institute will be home to some of the college's most innovative projects, including the PaperFree Florida electronic records initiative.

"What has inspired us about this university is the commitment to excellence," Frank Morsani says. "It's not just words. Everybody who's observed this university knows it's real."

No one knows that better than Klasko.

"Our vision for the Morsani College of Medicine could not be more clear or dramatic," he says. "We intend to be the leaders of the revolution that will transform the future of healthcare education

and healthcare delivery ...Not by changing the existing reality, but by creating a new model that makes the old model obsolete."

The Morsani's most recent gift builds on the couple's decades-long commitment to volunteerism and philanthropic leadership. Their gifts have helped build major institutions in Tampa. Frank Morsani, a former chairman of the U.S. Chamber of Commerce, has been chair of the USF Foundation and a reason for the success of the USF: Unstoppable campaign. Carol Morsani has served on numerous boards, including the boards of the Tampa Museum of Art and H. Lee Moffitt Cancer Center. In 2004, she helped found the USF Women

in Leadership and Philanthropy program and was named honorary chair.

But while the Morsanis champion civic and philanthropic leadership, they believe in personal modesty.

"We were very reluctant about the naming," Frank Morsani says. "That's not why we do things. We do it because it's the right thing to do. We feel tremendously honored and humbled for this to happen."

There's another reason, too. The Morsanis hope their gift will serve as a call to action.

"We hope this encourages others to say, 'Let's look at what we're going to do with our resources.'" ■

Highlights



Dom Dwyer

◀ Bulls Go Pro in MLS SuperDraft

Three Bulls recently stepped off the college soccer stage and onto pro turf.

Big East Offensive Player of the Year Dom Dwyer, a forward, was selected 16th overall by Sporting Kansas City in the Major League Soccer SuperDraft. Defender Aubrey Perry went 26th overall to the Columbus Crew in the second round. Keeper Chris Blais capped off a stellar draft for the Bulls by going 33rd overall to the San Jose Earthquakes.

All three helped the Bulls win the Big East Red Division title and make a trip to the Elite Eight this past season.

“All three guys put South Florida first this season and I think that helped in the team’s success, but it also helped in them getting seen and getting drafted,” head coach George Kiefer says.

◀ Bulls Post Best Start to Big East Play

The USF men’s basketball team broke new ground in the Big East this season.

The Bulls started conference play with a 6-3 record, the program’s best showing at the midpoint since it joined the Big East.

USF already has surpassed its overall wins total from last season (12) along with its Big East wins total (5) from 2010-11.

“I think any time you win that feeds into your confidence even more,” head coach Stan Heath says.



Ron Anderson , Jr.



▲ Super Bowl XLVI had USF Flavor

Former Bulls Jason Pierre-Paul and Jacquian Williams became world champions on Feb. 5 by helping the New York Giants hand the New England Patriots a 21-17 loss in Indianapolis.

Pierre-Paul, a second-year pro, and Williams, an NFL rookie, each had two

tackles in the big game to finish off spectacular seasons for Big Blue.

Pierre-Paul finished his regular season ranking fourth in the NFL with 16.5 sacks. The former first-round pick added a half sack in the playoffs and finished the season with 104 tackles.

Williams was selected in the sixth round and emerged to post 93 tackles and two

forced fumbles in the postseason. His strip of San Francisco's Kyle Williams in the NFC Championship paved the way for the Giants to make the Super Bowl trip.

A total of five former USF players have now played in a Super Bowl.

By TOM ZEBOLD | USF Athletics

Gladis Kersaint

By ANN CARNEY | USF News

As a young student, math made sense to Gladis Kersaint. So much so, she made it her life.

Today, the Caribbean-born Kersaint is a respected scholar in the field of mathematics education. She holds a bachelor's degree in mathematics and a master's and doctorate in mathematics education. She has been a high school mathematics teacher and currently is professor of mathematics education in the Department of Secondary Education at USF. She was recently named interim director of the David C. Anchin Center and associate dean for research in the College of Education.

Over the course of her professional career, Kersaint has authored four books and served as the developer of three others for the National Council of Mathematics. She is co-author of a middle school mathematics textbook

series that is currently being used in more than 20 school districts in Florida. And she has advanced research in education. Since joining USF in 1998, Kersaint has been the principal or co-principal investigator on key federal and state grants totaling more than \$30 million and focused on mathematics and STEM (science, technology, engineering and mathematics) education projects.

USF: What is the greatest challenge in secondary education today?

Preparing teachers to meet new curriculum requirements.

USF: Why the emphasis on STEM education?

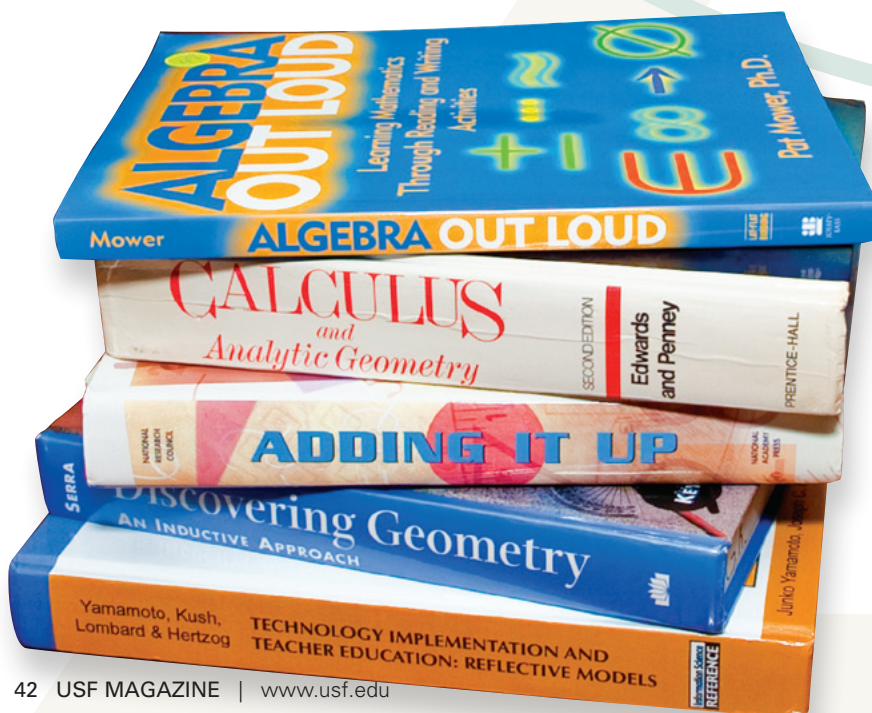
Broadly speaking, it is an important issue for us as a nation. STEM affects our lives in every way, from computers to tablets and everyday machines. To broaden career options, citizens need to become interested in information related to STEM.

USF: Are boys really better in math and science than girls?

I don't think so. I think the issue is opportunities to engage in math and science in rigorous and relevant ways. I think we need to change the culture so math and science are more inviting for women.

USF: What role do teachers play in supporting STEM education?

A big one. In addition to providing instruction in subject matter, teachers must encourage students' interest in





STEM, engage them in ways that are relevant, and provide encouragement for continued studies in these areas.

USF: What is the greatest challenge for teachers in advancing STEM education?
Given the technological changes taking place, teachers need to keep abreast of changes in STEM fields and find real-world connections to bring back to students.

USF: What work is under way at the Anchin Center to improve the quality of education?
The Anchin Center is a conduit for the advancement of teaching. We work in collaboration with faculty

and other centers to enhance teacher preparation and student achievement through research and teacher and leader development.

USF: Why is collaboration important for change in education?
I learned early on we have complex challenges to address; they're hard to tackle alone. With collaboration we have a better chance of making change. We need to bring people together with all sorts of expertise.

USF: What would people be surprised to know about you?
I took swimming lessons for the first time a few years ago. Now I can float! ■

QUICK TAKES

Greatest classroom technology: Computers

Old math or new: It's the same

Teaching students or training teachers: Both

Your hero: Teachers

Hobby: Who has time?



UNIVERSITY COMMUNICATIONS
& MARKETING
University of South Florida
4202 E. Fowler Ave, STOP CGS301
Tampa, FL 33620-4301

Non Profit Org.
U.S. POSTAGE

PAID

Tampa, Florida
Permit No. 257



Welcome to USF

A new grand entrance featuring majestic landscaping, an oval of flags and sparkling fountains welcomes visitors to USF. Condensation from the library's cooling system provides water for the fountains. The new front door was part of a renovation project to improve traffic flow and enhance student safety.

Photo: AIMEE BLODGETT | USF News

