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Healthy Partners

In a first-of-its-kind relationship, USF Health CEO Stephen Klasko announces a partnership with The Villages to make life healthier and happier for the retirement community's residents.

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Storm Chaser

As a new hurricane season gets under way, USF hurricane researcher Jennifer Collins sheds new light on monster

storms and how to improve the accuracy of seasonal forecasts.

Summer 2011



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As the nation's fastest-growing research university, USF has an annual economic impact of \$3.7 billion in the Tampa Bay region.

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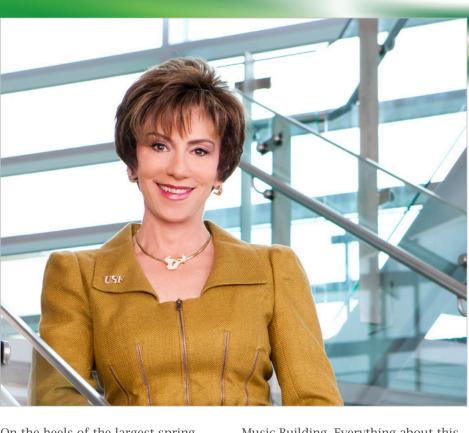
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On the heels of the largest spring commencement in the history of our university, the USF System is gearing up for a busy and productive summer. Thousands of new and returning students are making their way to campus, while hundreds are pursuing academic goals abroad.

In laboratories and in the classroom, students and researchers like assistant professor Jennifer Collins are making new discoveries. Collins and her students are debunking long-held misconceptions about hurricanes and hurricane activity.

Just a short drive away, near Ocala, USF Health experts are bringing their knowledge and resources to The Villages, an active retirement community, to create a national model for health in retirement.

And right here on campus we are celebrating our new, state-of-the-art

Music Building. Everything about this spectacular new facility was designed with students, educators and the community in mind.

In this issue you will read about a new report that puts USF's annual economic impact on the Greater Tampa Bay region at a staggering \$3.7 billion. It's no wonder the university has been recognized time and again as a key economic driver for the region.

There is so much news to share – new initiatives, outstanding students, ground-breaking research, innovative programs. As we head into summer, activity at this university heats up. We are a university on the rise, determined to make a difference in every corner of the region and every corner of the world.

Enjoy this issue of *USF Magazine*!

President Judy Genshaft

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

Passport to Learning

From the start of her tenure, USF System President Judy Genshaft and her husband, Steven Greenbaum, dreamed that every student would have an opportunity to travel abroad.

In February, their dream moved closer to reality when the University of South Florida Foundation announced that Genshaft and her husband are creating an endowment of \$1 million to support USF students who want to study abroad. The donation establishes the new Passport Scholars program open to all USF undergraduate and graduate students.

The donation is eligible for state matching funds, creating a total endowment of \$1.75 million.

"With this fund we want to ensure that students with important, innovative ideas can fulfill their goals of doing scholarship and research around the globe," Genshaft says. "We strongly believe that international travel is an essential part of a student's education. When they travel they learn about other cultures, they learn understanding and they learn how to care for one another. It is an experience students never forget."

Increasingly, employers are looking for new graduates to have overseas travel on their resumes and broad understanding of global issues.

"We believe in education and we also believe that travel can expand your horizons," Greenbaum says. "As parents we have made a point of traveling with our sons from the time they were very young, to expose them to different people and different cultures."

USF: Unstoppable Campaign Chairman Les Muma says the gift will serve as an inspiration to everyone in the Tampa Bay region.

"President Genshaft has once again led by example," he says. "True leadership requires action, and this gift from Judy and

Steve signals their continuing commitment to the USF System and the USF: Unstoppable campaign."

Vickie Chachere | USF News

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

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ACADEMICS



Top Scholars

USF students win top scholarships to pursue their academic goals.

Electrical engineering major Jean Weatherwax (pictured above) was awarded a Goldwater Scholarship to support her studies and research for the 2011-2012 academic year. The prestigious and highly-competitive scholarship, which pays tribute to Senator Barry M. Goldwater, is awarded to students planning to pursue careers in mathematics, the natural sciences or engineering.

This summer, Weatherwax will intern with NASA, working on the Mars rover project. She plans to pursue a doctorate in electrical engineering, specializing in bioelectronics and continuing to research and teach nanotechnology as her career.

Four USF students were awarded Fulbright English Teaching Assistantships to act as ambassadors from the United States and share their knowledge of the English language. The Fulbright program is the flagship U.S. international exchange program.

Alison Billias, who graduated in the spring with a master's degree in elementary education, will teach English in Cypress.

Marty Evenson, who received his bachelor's degree in international studies in the spring, as well as certificates in Modern Western European Studies and Film Studies, will teach English in Bulgaria.

Lauren Shumate, a 2010 Honors College graduate, who is now a graduate student majoring in political science, and assistant coach for the women's tennis team, will teach English in Serbia.

Ryan Walsh, an Honors College spring graduate with a bachelor's degree in history, and the Asia Programs coordinator at Education Abroad and an assistant in the USF Confucius Institute, will teach English in South Korea.

Two USF students were awarded United States Department of State, Bureau of Educational and Cultural Affairs Critical Language Scholarships for summer study abroad. The scholarships send students to intensive language institutes in-country to learn one of 13 critical languages.

Ginger Johnson, a doctoral student in applied anthropology, will study Arabic in Tunisia.

Demelza Hays, an international business major in the Honors College, will study Punjabi in India.

One USF student, information technology major Todd Mitchell, was awarded a SMART scholarship. The scholarship program supports undergraduate and graduate students pursuing degrees in science technology, engineering and mathematics. Mitchell will work with the Marine Corps Systems Command in Quantico, Va.

Ann Carney | USF News

15 Equals Success

Delaying graduation can be costly.

According to USF Vice Provost for Student Success Paul Dosal, delaying graduation by two years can cost as much as \$100,000 when you factor in the cost of attendance and lost income.

Helping students understand the costs associated with delayed graduation and the financial gains that come with full-time enrollment is the idea behind "Take 15," a new communications campaign launched by the Office of Student Success. The campaign encourages USF students to enroll in 15 credit hours per semester.

"The financial rationale for students to graduate in four years is compelling," says Dosal.

It costs about \$20,000 per year to attend the university, explains Dosal, and an average starting salary is \$30,000. Over two years that's \$100,000.

It's not that students don't want to graduate; many feel compelled to work to finance their education. "It's a reflection, to some extent, of the high number of limited income students we serve," says Dosal. "USF ranks fifth in the country for students receiving Pell Grants." The federal grants are awarded to students based on financial need.

But there are other reasons. Some students put off graduation for fear there are no jobs to be had in a troubled economy. To those students Dosal says, continue into graduate school and advance your earning potential.

"If you must stay in school – if you want to avoid the market for some reason – get another degree," he says.

take 15

The formula for a four-year track is simple, according to the Office of Student Success. Take 15 credits in the fall and 15 in the spring, leaving summers open for work or travel. Students required to take a certain number of summer credits can adjust the formula to a schedule that allows for 30 credits per year.

The new Take 15 campaign was developed in conjunction with USF's office of University Communications and Marketing. The campaign uses ads in *The Oracle*, USF's student-run newspaper, campus digital screens, orientation materials, electronic publications, emails, websites and other communication tools to spread the word.

Ann Carney | USF News

National Model

When Paul Sanberg conceived the idea for the USF Academy of Inventors in 2009, he envisioned creating a national model. That vision became a reality last year when the USF academy became the founding chapter of the National Academy of Inventors™. Sanberg, USF senior associate vice president for Research & Innovation, serves as its president.

The academy recognizes academic inventors who have a patent from the U.S. Patent and Trademark Office and

promotes innovation. It has more than 500 members from 17 member institutions, including three not-for-profit research institutions and one international affiliate.

Members' innovations are diverse, including nanotechnology applications, new medical devices, bioengineered cells, tracking devices for people with dementia and many more. Both the USF organization and the national academy play an important role in the translation of science and technology within the university community for the benefit of society.

"Without the creations of thousands of inventors on campuses and in laboratories across the globe, without their determination to discover new ways to solve seemingly intractable problems, without academic research and innovation, our world would be poorer indeed," says Sanberg. "These inventors are responsible for innumerable medical, scientific, artistic, engineering and other breakthroughs that save lives, create jobs, make us healthier, safer and more productive, add beauty to our world, uncover its mysteries, and build a better future for our children, and our children's children."

In addition to recognizing faculty inventors and their contributions to the university community and society, the academy edits an interdisciplinary journal, *Technology and Innovation – Proceedings of the National Academy of Inventors.* The quarterly publication showcases the positive impact of novel technologies discovered in universities.

Ann Carney | USF News

National Academy of Inventors Charter Member Institutions

Auburn University China Medical University Cleveland State University **Draper Laboratory** Embry-Riddle Aeronautical University Georgetown University The Jackson Laboratory Jackson State University Moffitt Cancer Center & Research Institute Ohio University Stevens Institute of Technology University of Akron University of Alabama University of Cincinnati University of Missouri – St. Louis University of Nebraska – Lincoln University of South Florida



www.academyofinventors.org

Inventive Kids

A system for drying dogs, a caddy that keeps grocery bags from spilling into car trunks, and a retractable cord to keep headphones from becoming tangled all took top prizes in the third annual USF Young Innovator Competition.

The inventions were tops in a field of 15 semi-finalists who went before a panel of celebrity judges, including Karen Holbrook, USF's senior vice president for Research, Innovation & Global Affairs, and pioneering stem cell researcher Paul Sanberg, USF's senior associate vice president for Research & Innovation and founder of the National Academy of Inventors (NAI). Befittingly, grand prizes were awarded to the students on Feb.11, Thomas Edison's birthday.

Third-grader Marissa Streng, whose dog drying system took the Outback Top Trademark Award, said she was inspired to come up with a better dog drying system after bathing her own dog and attempting to towel dry him, only to find him still soaking wet. The space-age looking suit - branded with a

USF Bulls logo - fits over the dog's body and gently circulates warm air around the dog.

The USF Young Innovator Competition is designed to promote innovation and creativity in the Tampa Bay region's young people by motivating them to solve problems with new ideas and products. Organizers have designed the competition to give children new insights into how their education gives them powerful tools and resources to solve problems, and coach them through how to make a professional presentation of a new idea. The competition is divided into three divisions: Grades K-5 (elementary school students): Grades 6-8 (middle school students); and Grades 9-12 (high school students).

The competition is the brainchild of Anna Hopen and her father, nationallyrecognized patent attorney Anton Hopen, who is a 1991 USF graduate in interdisciplinary science.

Members of the USF chapter of the NAI served as preliminary judges to select the 15 finalists. Grand prize winners in each division were awarded \$1,000 and tions were submitted for this year's competition.

TOP DOG

Elementary school student Marissa Streng took top honors at this year's **USF-sponsored** Young Innovator Competition with her "Puff-N-Fluff" dog drying system, modeled by the family's dog, Mojo.





Harvard Surgeon Leads Trauma Network

Trauma surgeon Jim Hurst began his medical career as a ship's surgeon.

On the USS Saratoga and USS Forrestal, Dr. Hurst was the only surgeon on board. He had to be ready to handle any medical emergency for a crew of nearly 3,000 - from a routine case of appendicitis to a plane crash on the flight deck.

"It's a pressure cooker," he says. "You mature rather quickly."

But the early training served him well.

After a career that has included a stint at USF, work in Cincinnati and part of the faculty at Harvard Medical School, Dr. Hurst is back in Florida.

Dr. Hurst was named the chief trauma medical director of the USF/HCA Trauma Network and a USF professor of surgery. USF and HCA joined forces in November to announce their new partnership. The joint initiative will enable five HCA hospitals in underserved areas to provide trauma care.

"The ability to attract Dr. Hurst is a great example of USF Health's move to national prominence," says Dr. Stephen Klasko, dean of the USF College of Medicine and CEO of USF Health. "By expanding our trauma program with HCA, and along with Tampa General Hospital, accounting for one of the largest trauma programs in the country, we can now analyze outcomes throughout the state and improve trauma care for all of Florida's citizens."

Most recently, Dr. Hurst was acting chief of surgery at Beth Israel Deaconess Medical Center and a visiting professor of surgery at Harvard Medical School.

"The chance to be part of building five new trauma centers in the state and working with people I'd sort of grown up with, personally and professionally, seemed like a lot of fun," Dr. Hurst says.

The new trauma network will increase public safety across the state. Currently. about 38 percent of Floridians live in areas not served by a trauma center.

"Those individuals who have access to a well-functioning trauma center get back to society, get back to work, get back to their families faster," he says. "This is going to decrease morbidity and mortality."

Lisa Greene | USF Health



Nursing on the Rise

USF's College of Nursing has earned its highest NIH ranking to date – placing 28th in research funding among the nation's nursing schools. The latest ranking represents a 12 percent jump – from \$1.53 million in 2009 to \$1.71 million in 2010.

Interdisciplinary Centers of Research Excellence in symptom management, oncology/end-of-life care, women's health, psychoneuroimunology and veterans' health have helped fuel the rise. The strategic centers have garnered the attention of the NIH and allowed the college to remain competitive in fiscally challenging years.

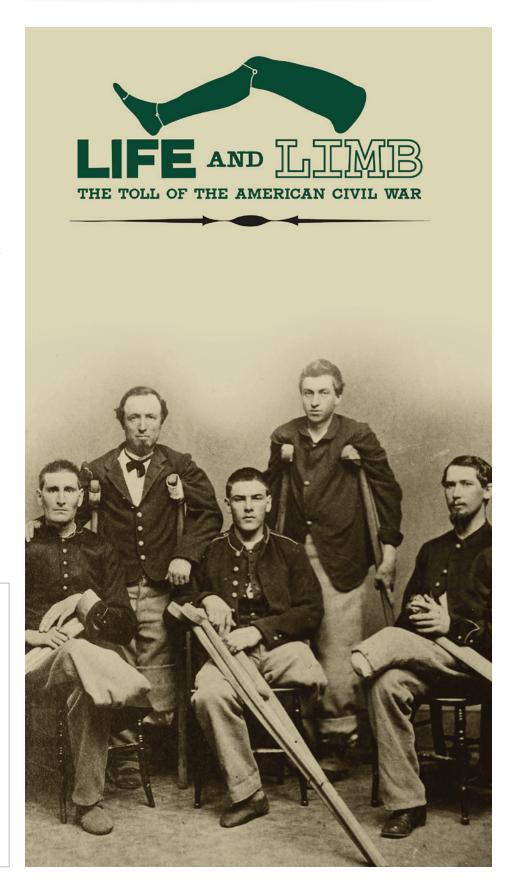
In addition to increasing its funding, USF's College of Nursing continues to surpass all nursing schools in the State University System in Florida, according to data released by NIH.

Anne DeLotto Baier | USF Health

First Stop, USF ▶

USF was the first university in the nation to host a traveling exhibition developed and curated by the National Library of Medicine. "Life and Limb: the Toll of the American Civil War" is touring the country this year in commemoration of the 150th anniversary of the Civil War.

The exhibition, which was on display at the Shimberg Health Science Library through April, focuses on the experiences of disabled Civil War veterans and their role as symbols of the fractured nation.





ment major, says crew was a natural fit. "When I first heard about Nathan world-class rowing facility in our back

versity and a win for the community.

only on this team, but in the commuon the community as other colleges

near future.

A Chance at College

An innovative program at USF St. Petersburg is giving young adults with intellectual disabilities a rare opportunity to immerse themselves into college life and receive educational and job training opportunities.

The pilot program, called Project STING RAY, offers programming, classes and mentoring for students with intellectual disabilities. The six students in the program have significantly lower IQs than average students and have more limited functional and social skills. They audit university classes, receive job training, help design their individual educational plans and immerse themselves in experiences out of reach to most young adults with intellectual disabilities.

Part of the K-16 Educational Initiatives in the College of Education at USFSP, STING RAY exemplifies what a newly funded consortium led by USFSP is striving to achieve statewide.

With a five-year, \$2.1 million grant from the U.S. Department of Education, the K-16 Educational Initiatives is leading the Florida Consortium on Postsecondary Education and Intellectual Disabilities to build resources for programs like Project STING RAY. The consortium's programs address the social, employment and academic needs of students with intellectual disabilities transitioning out of high school with a special diploma.

Academic mentor and USFSP psychology major Rachel Baumsteiger helps her mentee and classmate with studying and setting academic goals.

"It's a win-win for me," Baumsteiger says. "When I go over the class materi-

als with her, it definitely forces me to learn it better."

The consortium provides technical assistance to nine partnering institutions in Florida to align programs with the criteria in the national Department of Education's initiative on Transition and Postsecondary Programs for Students with Intellectual Disabilities into Higher Education.

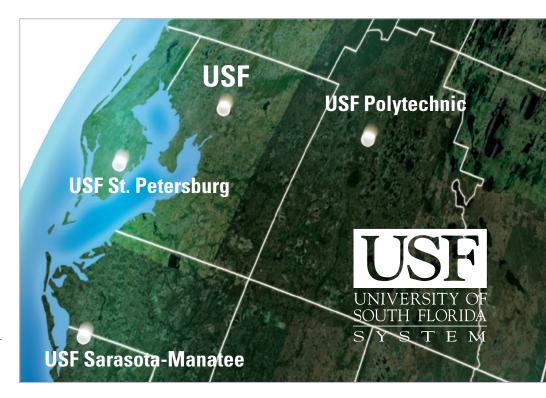
"This is giving options and access to postsecondary education that they wouldn't otherwise have," says Michael Shaffer, K-16 Initiatives project coordinator.

Rob Baynard '11 | USF St. Petersburg

Blue Skies for Business

USF Polytechnic opened its Blue Sky Wauchula facility in February. The technology business incubation program, established last year, also has locations in Lakeland, Winter Haven and Sebring. Blue Sky focuses on attracting and nurturing entrepreneurial businesses in order to create an environment where USFP faculty, staff and students can engage in experiential learning by working with client firms to grow their companies and bring innovative technologies to market.

The Blue Sky facilities are the first public business technology incubators in Polk County.



Toad Tongues

Biologists have known for decades that toads snare prey by flipping their sticky tongues in just a few thousandths of a second. More recently, researchers determined that the notoriously slow toad springs its mouth open using elastic recoil in a bow-andarrow mechanism that literally whips out its tongue and catches its prey.

Now, scientists have learned that toads have another trick-they can flip their tongues and feed even in the cold, at temperatures that virtually immobilize many amphibians and reptiles.

In a recently published study in the Journal of Experimental Biology, Stephen Deban, assistant professor in USF's Department of Integrative Biology, and Kristopher Lappin of California State University Pomona, concluded it is the elastic recoil mechanism itself that gives toads their cold-proof tongue flipping ability.

Deban and Lappin knew that muscle contractions are severely slowed by cold temperatures, and that ectotherms, like amphibians and reptiles, can't warm their bodies above the

temperature of their surroundings. The researchers reasoned that the toad's elastic recoil mechanism should allow them to circumvent this limitation—"like shooting a bow and arrow," Deban says.

"It doesn't matter how long it takes the muscles to draw back the bow, the arrow always flies at the same speed," he adds.

To test their hypothesis, Deban and Lappin used high-speed digital imaging to capture the details of southern toads, Bufo terrestris, feeding on crickets and beetles. They simultaneously made electromyographic recordings of the mouth opening and closing muscles, to determine when the muscles were activated by the nervous system.

The high-speed images revealed just what Deban and Lappin predicted: the toads launched their tongues with nearly the same speed at all temperatures. Feeding movements that are not elastically powered, however, were strongly affected by cold.

Last year, Deban's laboratory discovered that chameleons can shoot their tongues out with maximum performance whether they are cold or warm, also by virtue of an elastic mechanism.

"Finding the same phenomenon in toads, which have evolved their tongue projection independently from chameleons," Deban says, "suggests that elastic mechanisms may be a widespread strategy among animals to maintain high performance

> Vickie Chachere | **JSF News**

in the cold."



Searching for Atlantis

Since Plato etched his immortal story of a spectacular city which fell into the ocean, the lost city of Atlantis has captivated the imagination.

Doñana National Park is a marshy mud flat on the southwest coast of Spain. For all but six weeks out of the year, it is covered in water from the rivers which flow into the Atlantic Ocean, which lies just beyond a string of dunes.

When the water recedes, it leaves a dusty landscape with very little signs of life. But it's not what is on top of the ground that has the world transfixed these days - it is the mystery of the lost city that some believe lies beneath.

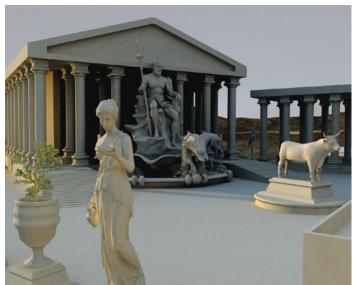
And it is a mystery that USF professor Philip Reeder is playing a major role in solving.

Reeder is part of an international research team led by famed archaeologist Richard Freund. The team, which includes historians and geophysicists from across the United States and Canada, has drawn startling distinctions between anomalies underneath the marsh in Doñana and the clues Plato left in his writings about Atlantis thousands of years ago.

From its geographic location near the Straits of Gibraltar - known in ancient times as the Pillars of Hercules - to the three concentric rings of the same dimensions Plato described as being unique to Atlantis' construction, scientific ground surveys conducted by the team seem to bear a striking resemblance to Plato's one-and-only description of the lost city.

Is what's buried beneath the Spanish marsh definitely Atlantis? Not so fast, Reeder cautions.





"I wouldn't venture that," says Reeder, whose research has taken him through an adventuresome list of archaeological digs from the ancient Holy Land to the site of Nazi atrocities at Sobibor in Poland.

"To definitively say it's there would require something that will probably never happen - which is a full excavation. It's a World Heritage Site and the Spanish authorities are not interested in digging up a World Heritage Site."

Vickie Chachere | USF News

ATLANTIS?

Since the 1920s, explorers have speculated that a marshy mud flat on the southwest coast of Spain might be the location of the former grand city of Atlantis, said by Plato to be elaborately built on three concentric circles with harbors separating the rings of land. Two rectangular temples, one dedicated to Poseidon, were to be in the city's center. Given the seismic activity in and around that part of the world, the idea that an earthquake may have set off a tsunami that drowned the city is eerily plausible.

In March, the site was the subject of a National Geographic special, "Finding Atlantis."

Helping Japan

USF students and student organizations have been stepping up to the plate raising money to help people in Japan who remain homeless, displaced and hungry following the recent earthquake, tsunami and ongoing nuclear plant catastrophe.

Their efforts include:

- USF alumna Francis Maraj (2010, International Studies) started a Web site called "Save Japan Now" with a student group including Japanese exchange students studying at USF. Selling t-shirts that say "I Love Japan," the initiative, sponsored by USF World, raised more than \$2,300 for Japan relief.
- The Japanese Club, working with several USF student organizations and sponsors, hosted a "Hope for Japan" charity dinner and candlelight vigil in April. The event raised more than \$500.

- Students in Barbara Pinters's Academic English Level 4 + Advanced Business Topics class held a fundraiser for Japan at locations around campus. Students provided fun services or gifts, such as chair massages or henna tattoos, in exchange for donations to the Japanese Red Cross. In just two hours, Pinter's students raised \$770. INTO USF contributed to the effort for a total donation of \$1,000.
- USF students Enaam Alnaggar and Kimberly Karalius hosted "Tomodachi! USF Writers Unite for Japan" in the Marshall Center in April. The event included raffles for signed books and merchandise, as well as t-shirts and pins. Proceeds from the event were donated to Second Harvest Japan.

Daylina Miller | USF News





Service Break

A growing number of USF students opted for an alternative spring break this year - a Bulls Service Break. Organized by the Center for Leadership and Civic Engagement, the breaks raise awareness of social issues through education and intensive service learning experiences.

180 Number of USF students who participated in a Bulls Service Break this spring.

Number of sites around the nation where USF students traveled to serve communities in need.

Pounds of debris removed from an environmentally protected site by Honors College students at one service site in Baton Rouge, LA.

Number of children who received at least 13 hours of reading time over the week at one Washington, D.C. area service site.

DANOE BAADATHON

For 17 hours beginning at noon on March 26, 471 USF students danced the night away to raise money for the more than 17 million children helped by the Children's Miracle Network each year. The annual event, now in its 8th year, is the largest student-run philanthropy event in the nation. USF's Dance Marathon raises money specifically for All Children's Hospital in St. Petersburg, FL.

Impact

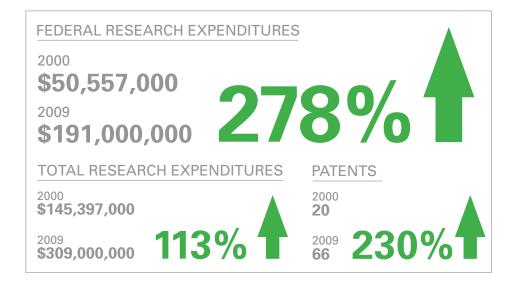
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USF plays an enormous role in the Tampa Bay region.

As the nation's fastest-growing research university, USF is a magnet for attracting health and technology companies – companies that play an important role in reviving the economy and expanding opportunities throughout the state.

But the university's impact doesn't stop there. The university unites the region's greatest assets in science, technology, math, engineering, health care, education and financial services, and is relentlessly focused on preparing students to thrive in a globally-competitive market.

It's a staggering impact – one that adds up to new knowledge, new companies and new jobs for the Tampa Bay region – an annual economic impact of \$3.7 billion.

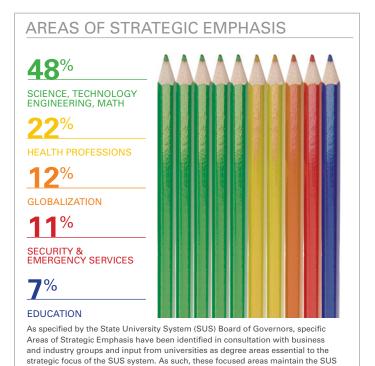


Astonishing Growth in Research and Innovation

- USF ranks 34th in federal research expenditures for public universities in FY 2009, and 2nd in Florida.
- With a 213% increase between 2000-2007, no other American university grew its federal research enterprise at a faster rate than USF, according to the Chronicle of Higher Education.
- A 200% increase in patents awarded over the past five years places USF 2nd in Florida for patents awarded. USF's license income grew 46% from FY 2000-2009.
- USF is one of only four Florida public universities classified by the Carnegie Foundation for the Advancement of Teaching in the top tier of research universities, a distinction attained by only 2.3% of American universities.

USF Prepares a High-Demand, High-Tech Workforce

■ In 2009-1010, the USF System was one of the top in the state for degree production, awarding a total of 10,835 degrees to bright and talented students entering the workforce or continuing their education. Of the total degrees awarded, USF is among the top five in the state awarding degrees in areas of strategic emphasis (41% of degrees).



in direct alignment with moving the economic growth of the State of Florida.

Impressions

We invited USF students, alums and employees to send us their best photos. We challenged them to be creative, artistic and genuine - to pick favorite places and memorable scenes. Here are a few of our favorites, and a few words from the photographers who sent them in.

#1 Leslie Cannon **Financial Aid Advisor**

"I was working on a Saturday and had my camera with me. This squirrel was right outside my office window."

#2 Torie Doll **Junior, Mass Communications**

"I love sitting next to this fountain; the sound of running water is so relaxing."

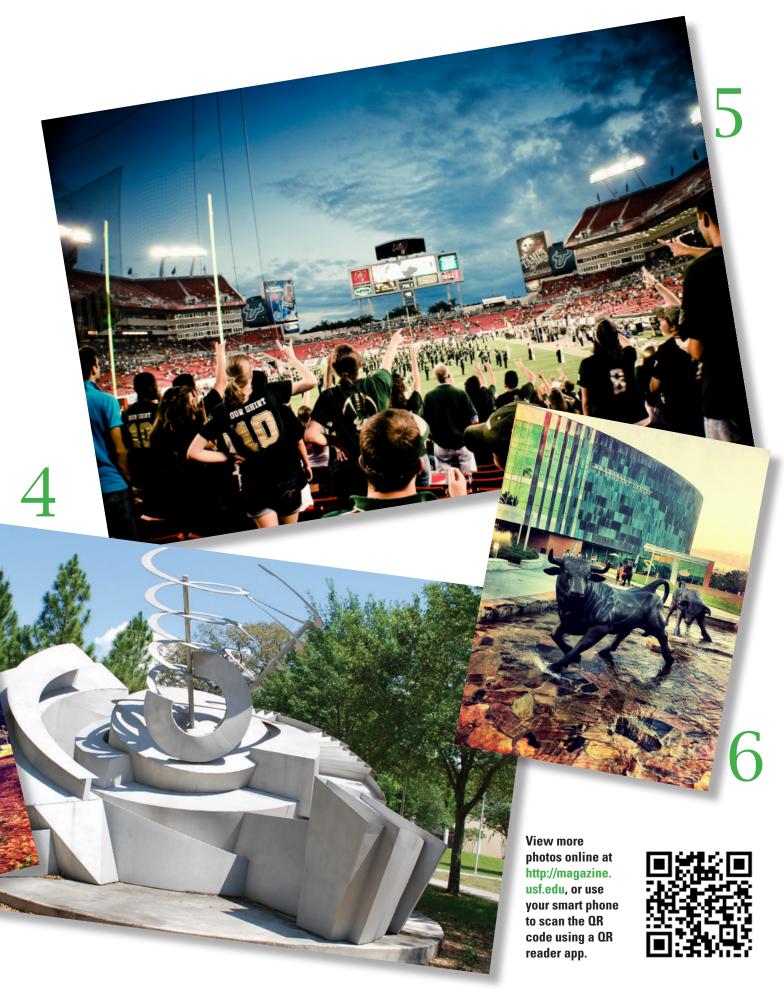
#3,6 | Brandon Schuster Sophomore, Advertising

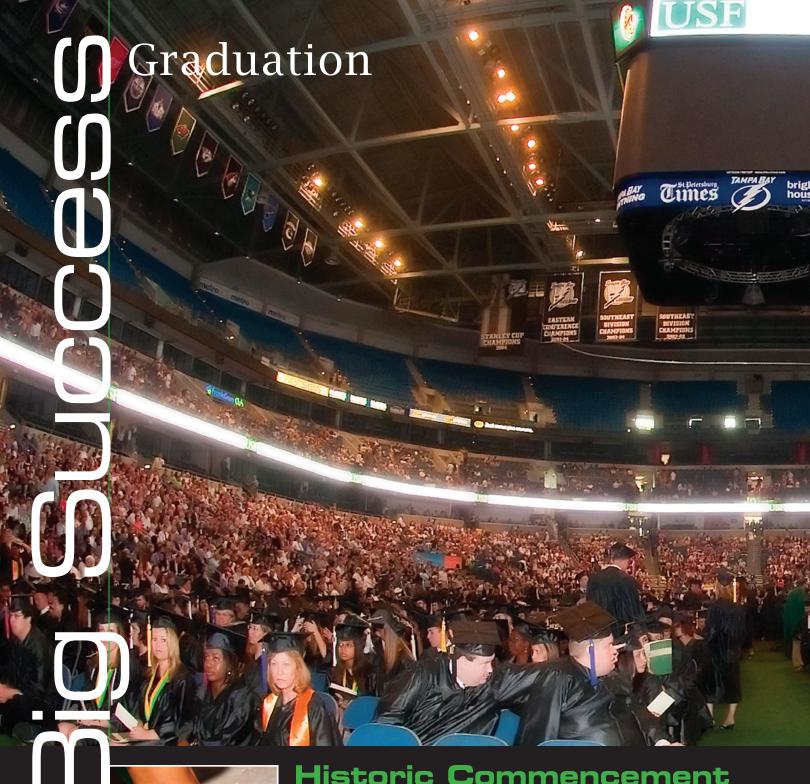
"I had just gotten the iPhone 4 and started snapping away. I touched up the Marshall Center photo just a bit, but not much that's really the beauty and majesty of the building."

#4,5 Eduarda Castro Sophomore, Business Advertising

"Situated by the new Music Building, this monument calls everyone's attention by its size, width and forms, as well as being another magnificient symbol of the University of South Florida."







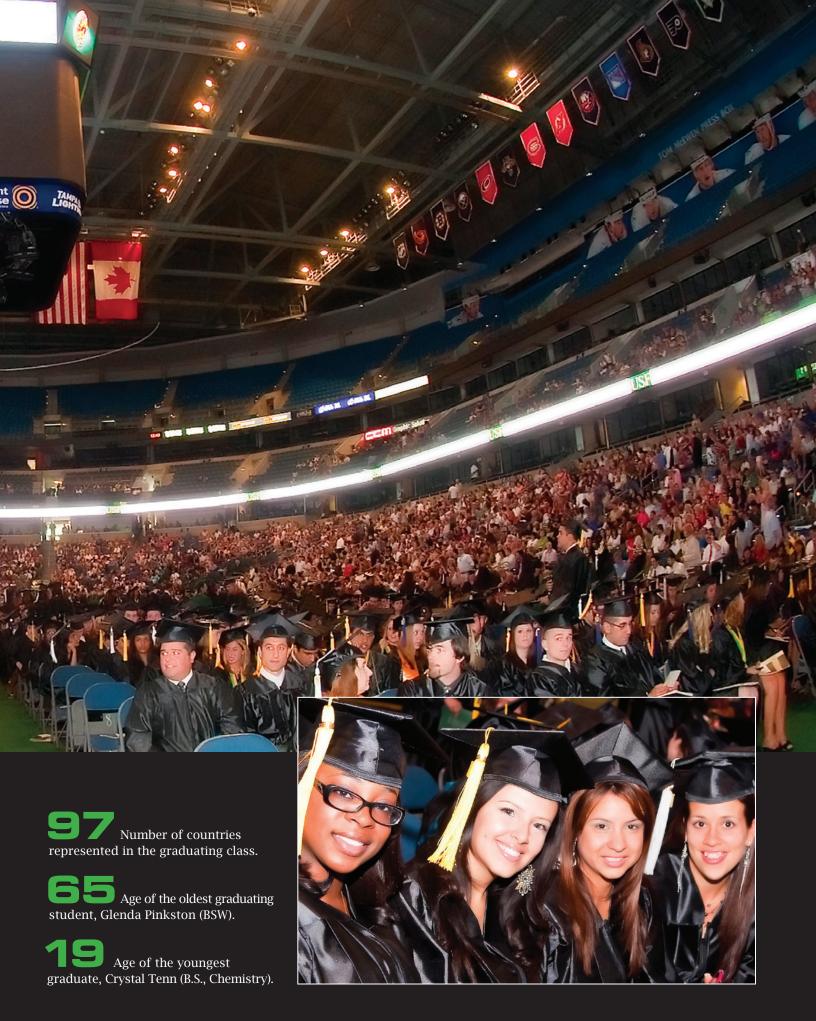
Historic Commencement

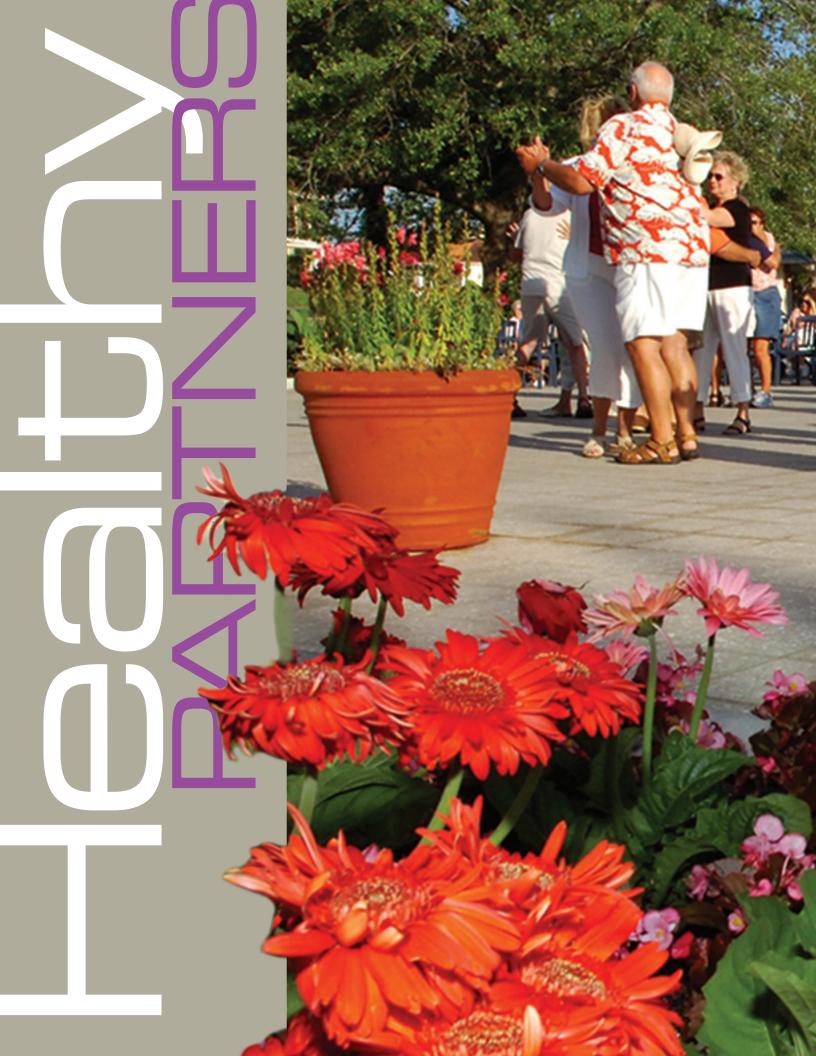
It wasn't just the change in venue - it was the sheer number of graduates. Over five days in May, at five Tampa Bay locations (due to ongoing renovations at the USF Sun Dome), the USF System graduated its largest class ever.

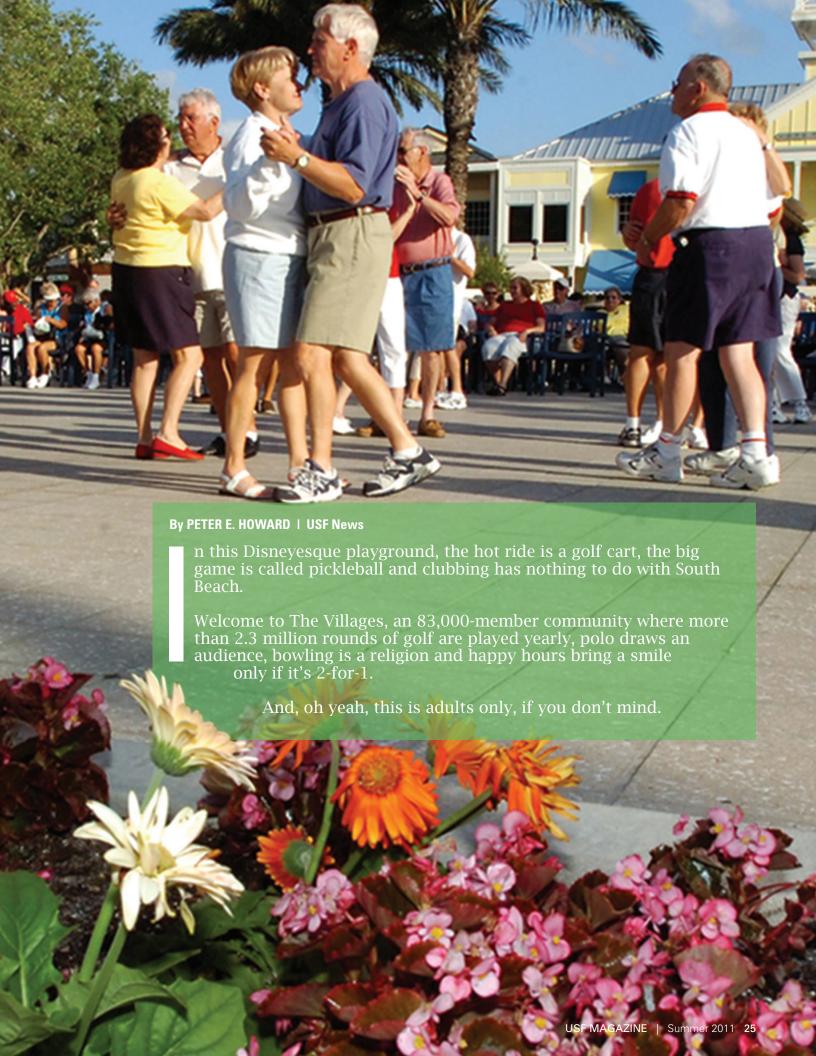
of diplomas awarded to students throughout the USF System.

Number of medical degrees awarded by the USF College of Medicine.

Number of graduates who will serve their country as commissioned officers in the armed forces.









"This is the busiest bunch of old people you have ever seen," says Donna Grimes, who, with her husband Jerry, have been carving divots on the fairways here since 2004.

And this is where USF Health is planting its flag. It wants to know what makes these active adults tick. Are there ways to improve an aging baby-boomers quality of life? Can a customized health profile, linking physical health and psychic health, benefit individuals?

Partnering with The Villages Health System, USF Health will be conducting studies of residents living in this sprawling central Florida community, which is expected to grow to more than 100,000 residents by 2017. These folks move around their town centers in

50,000 golf carts, belong to a dizzying A-to-Z listing of more than 1,800 clubs and organizations ranging from Acoustic Guitar to Zumba Workouts, and spend leisure time lounging around more than 50 community pools.

The Villages is a melting

pot of retirees from all 50 states. As such, information gleaned from a deep dive health study will benefit not only "villagers," but hopefully many of the 77 million baby-boomers in this country sliding into retirement.

Dr. Stephen Klasko, dean of the USF College of Medicine and CEO of USF Health, says the partnership with The Villages is both unique and astounding. When has there ever been the opportunity to study a whole community? The result could be a new model of health care aimed at problem-solving, empowering patients and access to new, clinical treatments.

"This is the coolest thing we have done," says Dr. Klasko. "Our goal is to look at health care 10 years from now."

Dr. Elliott Sussman, professor of medicine at USF Health, says the end result of the studies and research is clear: "to develop stuff to help people live longer and healthier." USF Health and The Villages have two years of funding in place for the studies. He expects future studies will be funded through significant grants from various agencies and organizations, along with industry partners.

ACTIVE ALUMNI

The USF study aims to facilitate a healthy, active lifestyle and vigorous quality of life for seniors like USF alumnus Jerry Grimes and his wife Donna.



HEALTHY ADVICE

Dr. Les Miller speaks to residents after The Villages Homeowner's Association meeting in May.



If we understand health better as we are aging, Dr. Sussman says, the ultimate goal is to assess, develop and implement "the kind of health interventions that improve health and reduce health care costs."

Already known as "Florida's Friendliest Hometown," The Villages now wants to be "America's Healthiest Hometown."

The Villages already boasts an impressive inventory of health care outlets, including a 200-bed hospital, a Veteran's Administration clinic, hospice center and an assisted living facility. Adding USF Health seems a natural fit.

"Our local physicians will benefit greatly from USF's presence," says Lee Huntley, CEO of The Villages Health System. "USF brings additional resources to the community that can only help our dedicated providers in the care they're providing to our patients. This is a great example of how academic physicians and private physicians can work together to identify and implement best practices on behalf of residents and our patients."

More than 1,000 "villagers," as they call themselves, turned out for the May 11 annual meeting, which focused mainly on the new partnership. The community, says Villages spokesman Gary Lester, is extremely inquisitive about what the studies will bring - both in short-term benefits to them and long-term impact for future generations, including their own children and grandchildren.

"These are folks that are very mindful of leaving a legacy, of being a part of history," says Lester.

Jerry Grimes is thrilled to see USF's involvement here. He received a master's degree in vocational rehabilitation from USF in 1973, and has been active in the USF Alumni Association for years. He's often seen wearing Bulls gear on the golf course or driving his golf cart



featuring a USF license plate. He's followed with pride USF's recent assent to a major, global research university.

He expects great things from the budding partnership between USF Health and The Villages Health System.

"The more I can learn about who I am health-wise, I'd like to know," he says. "I'm proud that USF is going to be in our community. I think it will bring a lot more visibility to USF looking at gerontology and it could spin off other research."

Jerry and Donna Grimes moved to The Villages in 2004 from Roanoke, Va. It was a home-coming of sorts for Jerry, who went to high school in Orlando. Another factor in choosing The Villages was its proximity to USF – about a 75-minute drive.

The couple marvels at all The Villages has to offer. Its own newspaper, radio station and television station. Live entertainment at the town squares nightly, often involving retro bands from the '60s and '70s. If you want to

try a sporting activity, like, say, archery or kayaking, it's offered. Same goes for clubs and organizations.

The Villages continues to expand, even in a down economy. More than 2,200 homes were sold in 2010, and that number could be surpassed this year. New residents move in nearly daily. The community covers 40 square miles in three counties: Lake, Marion and Sumter.

The Grimes's live smack dab in the middle. Just the way they like it.

"Even though there are 80,000 people here, it still feels like a small town," says Jerry Grimes, 63.

Donna Grimes, 65, says each day brings new opportunities, from sports, to clubs, to courses at the life-long learning college.

"There is just no place like this," Donna Grimes says. "It's Disneyland for adults." ■



Storm Chaser

By ANN CARNEY | USF News

or storm experts like Jennifer Collins, what happens between hurricane seasons is just as important as the seasons themselves in predicting and understanding hurricane activity.

"There is always something to learn," she says.

Like the fact that hurricane activity in the Northeast Pacific and the North Atlantic are interconnected.

Collins, assistant professor in the Department of Geography, Environment and Planning, made the discovery only after dividing the Northeast Pacific into two distinct sub-regions – east and west.

"Other researchers hadn't noticed the relationship – partly because they treat the Northeast Pacific basin as one major region," she explains. "When you mix it together, you don't see the connection."

But it's a complex relationship; one that is closely tied to the El Niño phenomenon, sea surface temperatures and winds, among other environmental factors. Collins also noted the role that relative humidity in the mid-atmosphere played on hurricane development in the western sub-region of the Northeast Pacific. An active season in the western sub-region of the Northeast Pacific, Collins found, typically means a less active season in the North Atlantic. The same is true in reverse.

Collins' ground-breaking work, published in the Spring 2010 edition of *Southeastern Geographer*, could have implications for predicting future storms. So, too, could her analyses of prior hurricane seasons, like the 2009 North Atlantic hurricane season which was below normal in terms of overall hurricane activity. This work was published in the December 2010 issue of the *National Weather Digest*, with her work on the 2009 Northeast Pacific hurricane season currently in press in the American Meteorological Society journal, *Monthly Weather Review*.

"It's not enough to look at seasonal averages of conditions such as water temperature and humidity. You have to look at intra-seasonal variability," Collins says. "Relationships with hurricane numbers and variables can be masked when averaging the entire season, a methodology some researchers have adopted in the past. Sometimes a clearer picture emerges if one looks in detail at what is going on at a smaller scale – month-to-month."

Long fascinated by hurricanes and other big storms, the London-born Collins joined USF in 2005 after stints at universities in New Hampshire and Pennsylvania and having earned her PhD from University College London. Today she oversees the USF Weather Center, a laboratory where teaching and research is focused on climate and weather conditions ranging from hurricanes, tornadoes and rip currents to global warming and the social aspects of major weather events.

With the start of the 2011 hurricane season June 1, Collins and her team of researchers, including PhD students Charles Paxton and David Roache, are working to improve the predictability of storms - their development and path, as well as how changing global climate conditions affect storm activity. Their research includes:

■ The development of a new integrated ocean-atmosphere modeling system to provide better tracking of weather systems - a joint project with USF's

College of Marine Science and Florida State University.

- A new warning system that links weather warnings with demographic and infrastructure data (see sidebar, facing page).
- Advancing knowledge about the impact of El Niño / Southern Oscillation (ENSO) Neutral conditions (the phase between El Niño and La Niña) on predicting Atlantic hurricane activity.
- Understanding what causes year-toyear variation in hurricane activity.
- Working with Robin Ersing, USF associate professor of social work to understand how people get their information during a hurricane evacuation and how they make the decision to stay or go.

In February, Roache received the Dewey M. Stowers Award for Excellence in Meteorology from the West Central Florida Chapter of the American Meteorological Society, as well as the best graduate

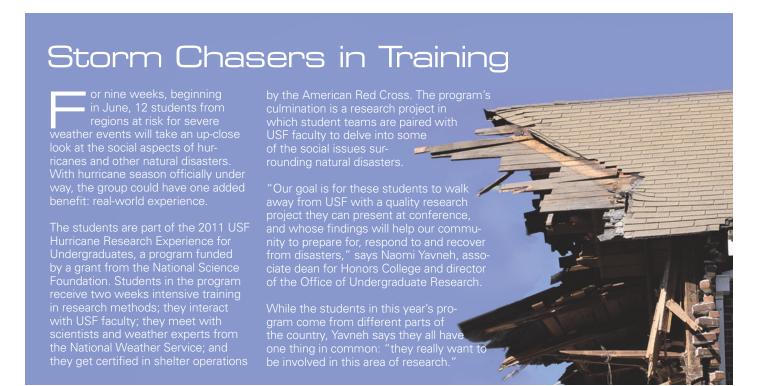
student paper award at the Florida Society of Geographers annual meeting. It was the second year in a row that students from Collins' Weather Center won the award for best paper. Last year, Paxton received the award for his presentation entitled "Modeling Southwest Florida Warm Season Tornado Development."

As Collins and her students look ahead to the 2011 hurricane season, they also look back.

"Every season is unique in some way," she says. "Every season brings us more information, more data to look at. The more we can pin down answers, the more we are able to have more accurate seasonal forecasts."

And while it's still too early to accurately predict what the 2011 season will bring, Roache is certain about one thing:

"If you live on the coast and a hurricane warning is issued, get out of the way."



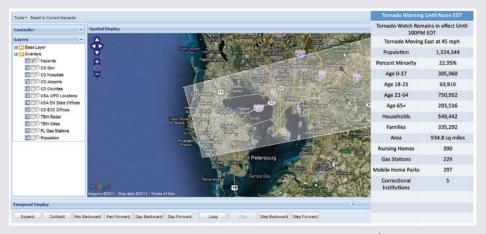
Multidimensional Warning

nowing who lives and what facilities are available in an area under a severe weather alert could help save lives. That's the idea behind a warning system under development by USF assistant professor Jennifer Collins, National Weather Service Science and Operations Officer Charles Paxton and USF undergrad Garret Speed.

The system links social data such as population, age, number of homes, and locations of nursing homes, colleges, mobile home parks and gas stations with weather watches, warnings and advisories – critical information for emergency planners, first responders, the media and Florida residents.

"The data for demographics is not a novel idea," says Speed. "But to link warning data with demographics is something that has not been done in Florida."

Speed presented the warning system in April at the 9th Annual Undergraduate Research Symposium. "Using Python and Javascript, and with collaboration with NOAA's Earth System Research Laboratory, we are developing an Internet mapping interface that displays National Weather Service warning and watch polygons (areas) with pop-up menus showing demographic and infrastructure location data for Florida."



The system is easy to use. First, warning/watch polygons are projected onto a map. Then, by clicking on a census tract, users can obtain the age distribution, race/ethnicity distribution and facilities in the area.

The demographic data comes from the United States Census and the Florida Geographic Information System. Speed and his colleagues say the system has the potential to be replicated throughout the United States.

"Each state has a clearinghouse for data like Florida," Speed says. "The information is readily available."

For residents of affected areas, the multidimensional system can improve emergency response – both the speed at which needs are evaluated, and

the matching of resources to the needs of residents in a given area, such as nursing home dwellers

Funding for the research was made possible by a grant from the University

Corporation for Atmospheric Research (UCAR) Cooperative Program for Operational Meteorology (COMET).

Collins and her team hope to have the system ready for use during this year's hurricane season.

MORE KNOWLEDGE

In this March 31 graphic that shows the tornado warning in Tampa Bay, the system links data with demographics.

Steinva

Striking lobby murals, a grand concert hall and an impressive collection of Steinways await visitors at the new Music Building.

By ANN CARNEY | USF News

For nearly 30 years, the USF School of Music held onto the dream of a new building. In April, that dream became a reality when the school, part of the College of The Arts, unveiled its new, state-of-the-art facility. Featuring towering lobby murals, a sophisticated concert hall and the majestic sounds of the state's largest institutional collection of Steinway pianos, the new building is one of the most elegant and acoustically significant buildings in higher learning. Every aspect of the 113,535 square-foot facility, from its foundation to the final touches, was meticulously designed with students, educators, performers and the community in mind.

The new, nearly \$47 million facility houses choral, orchestral and jazz halls, classrooms, faculty studios and student practice rooms. The centerpiece of the facility is a 485-seat concert hall featuring a dramatic, 32-ton floating acoustic cloud suspended above the bamboo stage. Using a system of reflectors and adjustable drapes, the cloud can be lowered or raised to ensure the highest acoustical quality for every performance.

For music students, long-accustomed to outdoor practice fields and shared rehearsal spaces, the new facility represents a giant step forward and new ways to connect with the Tampa Bay community.

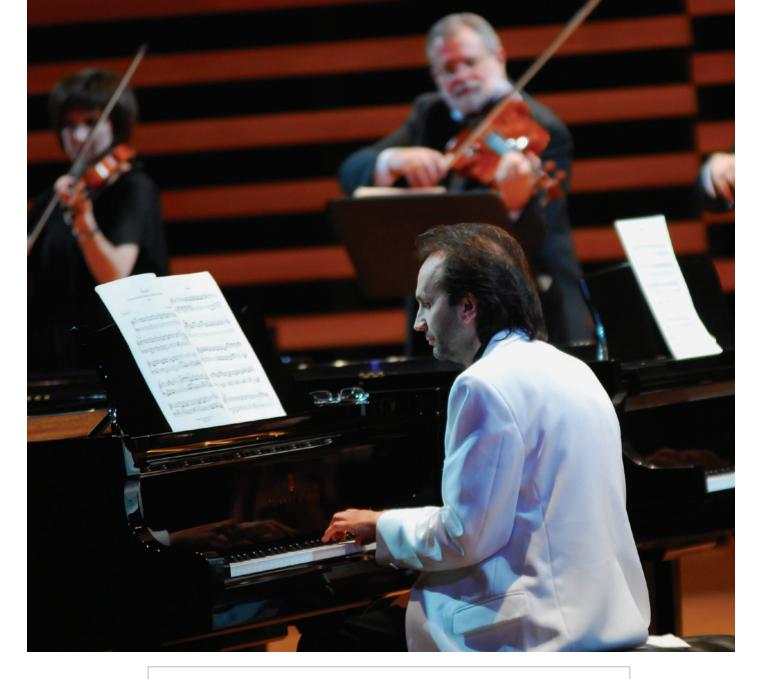
The long-awaited facility officially opened to the public following a ribbon cutting ceremony hosted by USF President Judy Genshaft with special guest speaker, then Tampa Mayor Pam Iorio. Cutting the ribbon on "one of the finest music facilities in the nation," Genshaft called it a "very, very important day for USF."



Photo pg 33: ANTHONY MORRISON | Courtesy of the College of The Arts

TIVE DONORS

Artist's Welcome Two striking murals created by contemporary global artist Janaina Tschäpe greet visitors to the new Music Building. The towering wall paintings, titled "Forest Spirits," were influenced by Florida's lush greens, heat and humidity, as well as Tschäpe's own memories and experiences. USF MAGAZINE | Summer 2011 33



Selecting the Steinways

When USF President Judy Genshaft announced the university would become an All-Steinway School – using only Steinway & Sons pianos throughout the School of Music – Svetozar Ivanov got the assignment of a lifetime. It was Ivanov, associate professor of piano and chamber music, who was given the task of visiting the Steinway factories in New York City and Hamburg, Germany to choose the coveted Steinway grand pianos that would grace the new facility.

Ivanov, performing above on one of the school's newest Steinways, has been playing piano since age seven. He has appeared on stages throughout the world and serves as artistic director of the Steinway Piano Series at USF.

As an All-Steinway School – the largest in Florida, and among the largest in the southeast – USF joins a prestigious list of conservatories, colleges, universities and other institutions including The Julliard School, Yale School of Music, Carnegie-Mellon University, George Mason University and the University of London, whose students and faculty practice, compose and perform exclusively on Steinway pianos.



acility

- The new Music Building features a 485-seat concert hall; a 116-seat recital hall; separate instrumental, choral and jazz rehearsal halls; and a percussion suite.
- Every performance or practice room in the new facility is built separate from the foundation - in each case creating a "floating" room within a room.
- To eliminate the possibility of any unwanted sound reverberations, no two walls in performance or rehearsal spaces are parallel.
- The building's custom-designed HVAC system is one-of-a-kind. It includes more than 200 sound attenuating devices and a dual ductwork system that completely eliminates noise from the air flow and stops sound from traveling room to room.
- There are 49 practice rooms of varying size in the new facility, each wired for the Internet.
- 32 studios with adjustable acoustics for performance faculty and 25 offices for scholar faculty are included in the new building.
- The new building includes four "smart" classrooms; two libraries with compact storage to house performance scores and parts; a dedicated music education classroom; and a composition lab containing 20 work stations, each with an 88-key keyboard interfaced with a high-end computer and a full teacher station.



A New Chapter in Music Education

After nearly five decades of cramped rehearsal spaces, shared facilities and lackluster acoustics, music students like Mary-Cathryn Zimmer, Ryan Salazar (above) and Nevena Pehar (right) will get the opportunity to learn in one of the finest and most acoustically significant buildings in higher education.





Photo: Aimee Blodgett | USF News

Jampaign

GIVING THANKS

By ANN CARNEY | USF News

At the entrance to the home of Drs. Antonina and Shaukat Chowdhari is a colorful ceramic tile inscribed in Arabic, "God bless our house."

It is a home rich with blessings. And a life that subscribes to the Islamic philosophy of sharing what you have with others in need.

In May, USF Foundation Board Member Dr. Shaukat Chowdhari and his wife. Dr. Antonina Chowdhari, announced a \$1.3 million gift to the USF: Unstoppable campaign. The money will be used to build a golf clubhouse and training center for student-athletes. It will feature locker rooms, a putting lab, a swing simulator and offices for coaches and staff.

"The new facility will be state-of the art," says Shaukat. "It will allow USF to be competitive with top golfing programs and to attract the best golfers."

The gift isn't the Chowdhari's first to the university. Drs. Chowdhari committed \$250,000 to the College of Medicine in 2008 to renovate its Gross Anatomy Lab. In 2009, the family gifted \$130,000 to Honors College to ensure that students with financial need would have access to a free Medical College Admissions Test (MCAT) prep course. Wanting to do more, the couple established a second endowed scholarship in the college to help students with funding for textbooks.

It is giving that has come full circle.

"You give back to those who helped you succeed," says Antonina. "It was USF that gave Shaukat his break."

USF: UNSTOPPABLE

To date, the *USF: Unstoppable* campaign has raised more than \$406 million of its \$600 million goal. To learn more about the campaign and opportunities for giving, visit www.unstoppable.usf.edu

In 1996, Shaukat completed a specialized fellowship in pain management at USF. Today, he is president and medical director of University Pain Management Center and a former faculty member in Anesthesiology in the USF Health College of Medicine.

He isn't the only family member with ties to the university. The couple's oldest daughter, Mariam, is a second-year, pre-med major in Honors College. Their eldest son, Adam, will begin his first year at USF in the fall.

"It was USF that gave Shaukat his break." - Antonina Chowdhari

In addition to USF, Shaukat and Antonina have generously supported Independent Day School in Tampa, where their younger daughter, Sara, is currently enrolled and their younger son, Sean, recently graduated. Sean is a freshman at Jesuit High School. They have also lent their support to University Community Hospital where Shaukat worked for three years before starting his own practice.

"Satisfaction comes when you give to others," says Antonina, a board certified pediatrician, who gave up her practice to raise the couple's four children. It is a lesson they teach by example.

"We hope our children are inspired by us to give back once they have achieved their own financial stability," says Shaukat, who came to the U.S. from Pakistan in 1984 with "two suitcases, plenty of medical books and a couple hundred dollars."

While Shaukat and Antonina have been blessed with good fortune to share, the couple believes that giving isn't about the amount one can give.

"Nothing is too small," says Antonina. "Every act of giving, even volunteering your time, makes a difference."



GIVING BACK

Drs. Antonina and Shaukat Chowdhari's latest gift to USF will build a long-awaited training facility for the golf program.
The couple's Temple Terrace home honors Shaukat's Pakistani heritage and cultural values.

Season Highlights

By MIKE HOGAN | USF Athletics

GOLF

The USF men's and women's golf teams both finished their seasons strong at the 2011 BIG EAST Championships with the men tying for fourth and the women placing third. Sophomore Shena Yang (facing page) and senior Robby Carl were the top individual finishers at the conference tournament as Carl tied for fourth and Yang placed fifth.

TENNIS

The USF men's and women's tennis teams both demonstrated they were among the best in the BIG EAST during the 2010-11 season. The women's team finished as the league runner-up and the men placed third. The women's squad earned its fifth NCAA Tournament bid in the last six seasons, traveling to Miami, Fla. for regional competition, and senior Irene Rehberger was selected for one of 64 spots in the individual draw.

TRACK & FIELD

The USF men's and women's track and field teams finished fourth and eighth, respectively, at the BIG EAST Championships. The men's fourth-place finish was its top finish since 1995. Derrick Hopkins (100m), Antillio Bastian (200m), David Aristil (400m hurdles) and Denise von Eynatten (pole vault) won individual titles.

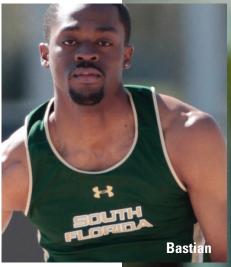
FOOTBALL

The USF football program produced three NFL Draft picks in the most recent edition. Terrell McClain was taken with the first pick of the third round by the Carolina Panthers, while Mistral Raymond (Minnesota Vikings) and Jacquian Williams (New York Giants) were selected in the sixth round. The Bulls' eight NFL Draft picks over the last two seasons are the most for any team in the BIG EAST.

SOFTBALL

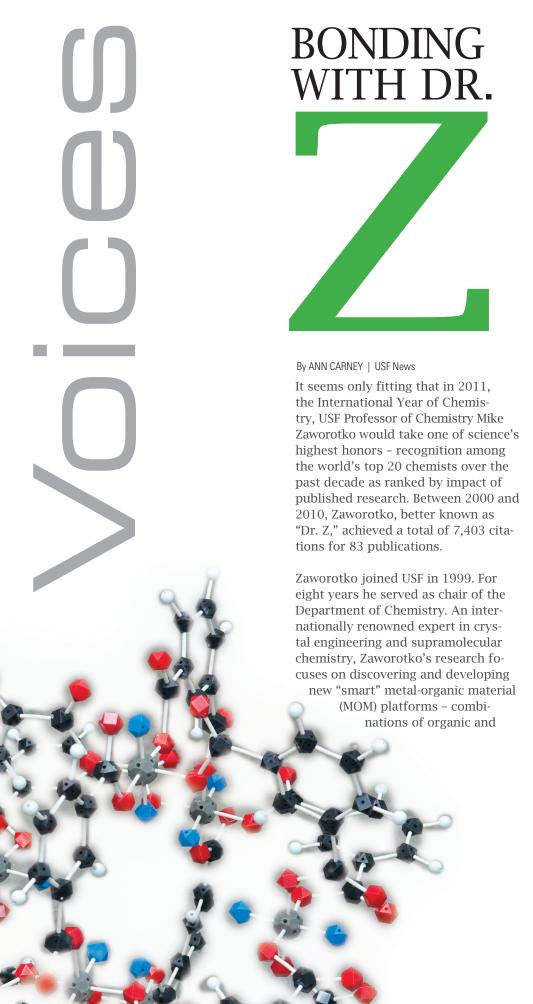
The USF softball team wrapped up its 2011 campaign and has shown that the future is bright for Ken Eriksen and the Bulls. The team, which reeled off a 10-game winning streak at one point in the season, finished 33-21 and 13-5 in BIG EAST play, good for fourth in the league. The Bulls also relied on a group of five freshmen, including Sara Nevins, who contributed in a major way, who will look to lead the Bulls to the promised land in 2012.











inorganic molecular building blocks – to achieve energy sustainability and improved human health.

The Welsh-born Zaworotko says it was "complete random coincidence" that brought him to the U.S. in 1977. An undergraduate student at the time working on his thesis, Zaworotko followed his professor back to the states from London. "I left London for Alabama in 1977. It was pure culture shock," he says.

And the start of his academic career.

USF: What brought you to USF? I responded to an advertisement for an external chair. An ad like that doesn't happen too often. I was aware of the huge growth at USF and the huge upside potential. The glove fit perfectly.

USF: How did you first become interested in chemistry?

Geography and math were my two best subjects; chemistry was more of a struggle, but I felt intuitively attracted to chemistry and I loved the idea of making new things.

USF: Describe your teaching style. Traditional, at the undergraduate level. At the graduate level, I expect students to participate and learn without a textbook. I particularly like to find a paper published last week and ask students to lead the discussion.

USF: What is the most important thing you teach your students? The message I relentlessly pursue is: "Don't prejudge the outcome of your experiment." If we knew the outcome before conducting the experiment, then it would not be research.

USF: You hold a patent, correct? Actually, several over the years and several pending that could have impact. I've had quite a lot of experience in dealing with the patent office and patent attorneys.



USF: What has been your greatest discovery?

It's not a single discovery, but rather that eureka moment when you realize you can design new materials rather than accept them as they are.

USF: Is there anything that would surprise people about academic science? Being an academic scientist, you join something like a priesthood. You go through rituals and then you become part of a club. Science is global and cuts across all cultures.

USF: If only I could discover... The perfect metal-organic material (MOM) for hydrogen storage or carbon capture – before a researcher in China, our main competitor, does. That would be the ultimate challenge in my field, and would forever change the world.

USF: Is there one thing in particular you hope to come from your research? For my students to propagate *The Gospel of Crystal Engineering According to Z.* ■

QUICK TAKES

You in One Word: Persistent
Classroom or Laboratory: Both
Articles Published: 299 and counting

Hobby: Chemistry
Hero: Nelson Mandela

WORLD CLASS STUDENTS

Dr. Z's 11 graduate research students hail from four continents. Pictured in his lab are students from (L-R) Egypt, Germany, Singapore, China, Tampa and India. Two of the students work on pharmaceutical applications of solidstate chemistry, while others work on porous metal-organic materials for environmental applications.



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Impressions

Mounted on the exterior of the Natural and Environmental Sciences building, "Tampa Wind" is a wind-activated rendering of a section of the Hillsborough River as it passes through the eastern edge of campus. To view other creative photos sent in by our readers, http://magazine.usf.edu or use your smart phone to scan the QR code using a QR reader app.