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It is at the intersection of ideas and the crossroads of creativity where future leaders learn to become global game **changers**.



A journalism major, senior forward **Erykah Davenport** has a plan for life after basketball.

Inspired by his nurse-mother and physician-father, **Christopher Castaneda** intends to become a nurse anesthetist.

**Faith Boone** founded a volunteer student group that shows youngsters that college is attainable regardless of ethnicity or socioeconomic status.



# CULTIVATING COLLABORATION

CONNECTING PEOPLE, DISCIPLINES + REGIONS



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**To create or transform anything in life, there must be a connection—atoms to atoms, ideas to ideas, people to people. At the University of Miami, we create new knowledge by making connections between people, regions, and disciplines. What truly drives our progress, however, is the connectedness we feel when every member of our community is invested in our mission.**

**The relationship between our connections and connectedness came to the forefront this fall, as Hurricane Irma ripped through Florida and the Caribbean with destructive force. While Miami was spared a direct hit, the powerful storm displaced almost all of the 31,000 people who live, learn, and work throughout the University.**

Despite our physical separation, the unity of the UM family grew ever stronger through a complex coordination of teamwork. From the efficient assembly of airport shuttles that evacuated residential students well in advance of the storm, to the superbly orchestrated Office of Emergency Management response and recovery efforts, I could not be prouder of the strength and resilience exhibited by our community.

The true definition of resilience is not just the ability to recover from adversity; it is also to become stronger as a result of lessons learned and new bonds formed. The University of Miami is indeed a stronger U, driven by a renewed vigor to bridge the talents of our faculty with the promise of our students and the passion of our dedicated staff. What emerges out of that almost magical mix are graduates who have developed their full potential to serve communities and countries through their own meaningful connections. Each student who walks across the stage at Commencement creates a ripple that transforms all of us in some way.

Throughout the 2016-17 academic year, the University sought to attract leaders who are great connectors—those who have crossed geographic and disciplinary boundaries to work creatively and collaboratively. Executive Vice President and Provost Jeffrey Duerk joined UM this summer from Case Western Reserve University, where he was dean of the School of Engineering and founding director of the Case Center for Imaging Research. A prolific inventor in the field of biomedical imaging, Provost Duerk is adept at uniting people from disparate fields—physicians, engineers,

physicists, computer scientists, and corporate partners—toward the common goal of designing tools that save human lives.

In addition to Provost Duerk, our newest leadership cohort includes Executive Vice President for Business and Finance and Chief Operating Officer Jacqueline Travisano, Vice President for Hemispheric and Global Affairs Lourdes Dieck-Assad, Miller School of Medicine Dean and Acting Executive Vice President for Health Affairs Edward Abraham, School of Business Administration Dean and Vice Provost for Executive Education John Quelch, School of Nursing and Health Studies Dean Cindy Munro, and Dean of Students and Associate Vice President for Student Affairs Ryan Holmes. All are extending our reach into new networks and realms of expertise as we move forward on the Roadmap to Our New Century—our comprehensive plan to become the hemispheric, excellent, relevant, and exemplary university by our centennial in 2025.

The stories in this report highlight connections at the University of Miami, sometimes through partnerships that seem incongruous but truly redefine the parameters of what we thought was possible. Connections like these enable us to pursue our greatest aspirations because they illuminate ways to do things better, to do things differently, and to do different things.

This year, for example, we embarked on a different approach to research in the basic and applied sciences by announcing the Frost Institute of Chemistry and Molecular Sciences as the first of the Frost Institutes for Science and Engineering. Funded by a landmark



\$100 million gift from longtime supporters Phillip and Patricia Frost, the Frost Institutes will encompass a cluster of cross-disciplinary sister institutes focused on problem-based discovery.

We also ushered in a new era in patient-centered health care with the opening of The Lennar Foundation Medical Center on the Coral Gables campus. This beautiful 200,000-square-foot diagnostic and treatment facility has broadened the integrated care that University of Miami Health System physicians and specialists provide to the South Florida community.

Another critical connection we nurtured this year is with the people who have the desire and means to help us achieve our aspirations. In FY17, we raised \$222 million in cash and received the largest single gift in University of Miami Athletics history—a \$14 million commitment from the Soffer family to build the Carol Soffer Football Indoor Practice Facility.

**Other philanthropic highlights from the past year include:**

- A landmark \$50 million commitment from The Pap Corps Champions for Cancer Research to Sylvester Comprehensive Cancer Center, part of UHealth—the University of Miami Health System, to support lifesaving cancer research.
- The rare and historic collection from the Jay I. Kislak Foundation of books and artifacts focused on exploration of the early Americas, valued at about \$20 million and now housed in the Richter Library's Special Collections division.



## MESSAGE FROM THE PRESIDENT

- \$10 million gift from Peggy and Harold Katz to transform the research and treatment of kidney disease in what is now known as The Katz Family Division of Nephrology and Hypertension at the Miller School of Medicine.
- \$5.5 million gift from The Bernard Osher Foundation to create the Osher Center for Integrative Medicine at the Miller School of Medicine, the first center of its kind in South Florida.

The excellence of our institution continues to receive national recognition. The University consistently stands among the top tier of *U.S. News & World Report's* Best Colleges, and we are ranked No. 46 in its 2018 edition. The Wall Street Journal/Times Higher Education College Rankings listed the University No. 44 out of more than 1,000 institutions.

U.S. News rated the Miller School's Bascom Palmer Eye Institute the No.1 eye hospital in the country this year for the 16th time and again listed the Miller School among the top 50 of the nation's best research medical schools. Its Best Colleges for Veterans category listed the University No.18 based on enrollment of and benefits for veterans and active-duty military personnel.

Our physical therapy, tax law, clinical psychology, health care management, and earth sciences programs remain among *U.S. News's* top 50 graduate programs, as do the School of Nursing and Health Studies' M.S.N. and D.N.P. programs. This is a banner year for the school, which opened the five-story, 41,000-square-foot Simulation Hospital on the Coral Gables campus on September 28. A first-of-its-kind facility that replicates the true flow of activities in hospital, clinic, and home health care settings, the Simulation Hospital is an exceptional example of the University's commitment to education innovation, which is a key initiative of the Roadmap to Our New Century.

We are also recognized as a great workplace. Forbes ranked UM No.15 on its 2017 list of America's Best Employers. We are the top university in the country and the top employer of any industry in Florida, according to the rankings, which are based on independent surveys of employees and reflect the pride of our faculty and staff and how they feel valued.

Another important Roadmap initiative is Access to Excellence—ensuring that all qualified students have access to a UM education regardless of their financial abilities. We've come closer than ever

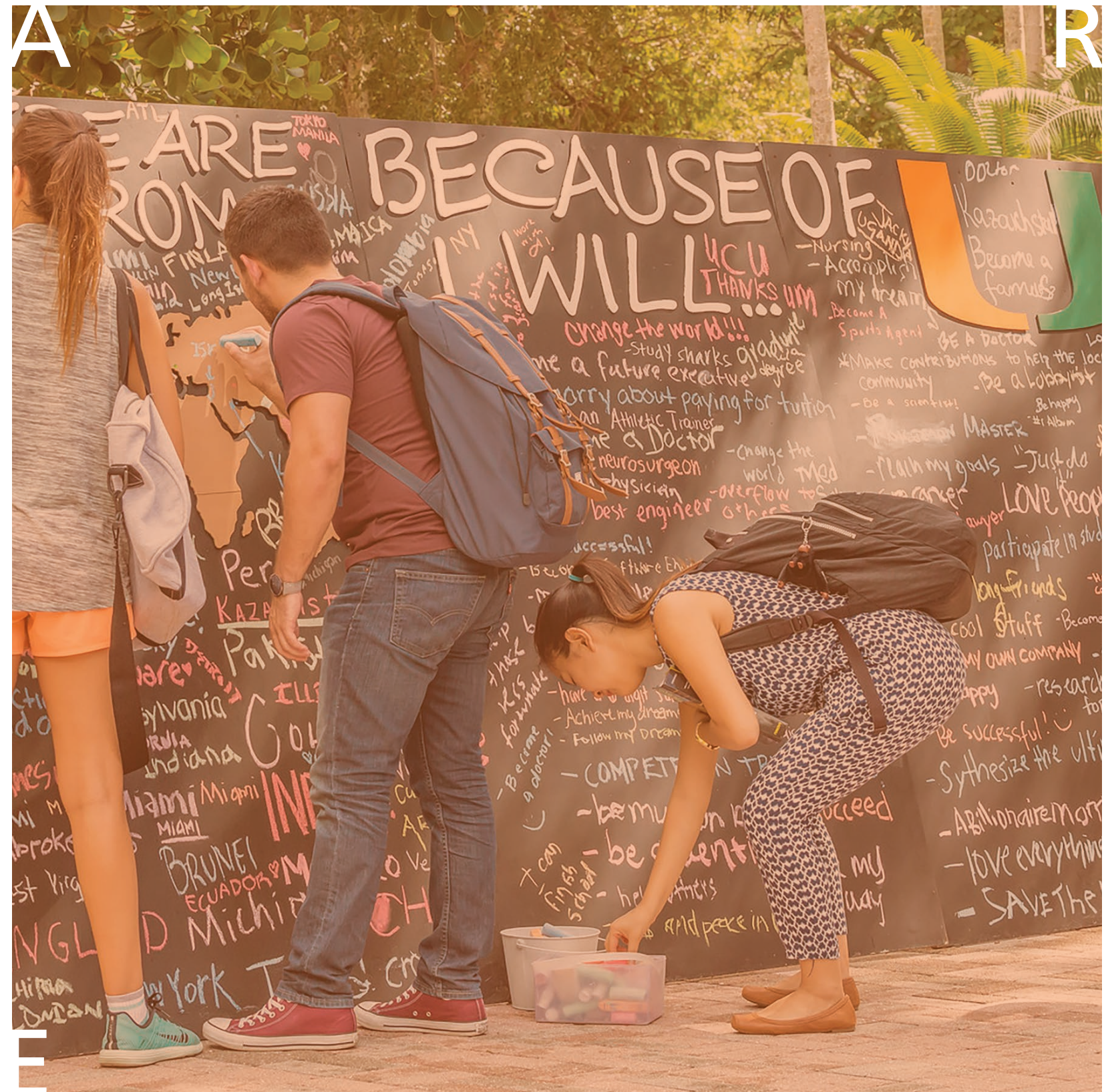
to reaching that goal for the Class of 2021, having met 97 percent of demonstrated financial need among our newest 'Canes. These 2,200 incoming freshmen join our family from 45 states and 53 countries. Fifty-five percent speak more than one language, and 15 percent are international students.

While we are working hard to increase support for students, others have acknowledged our research excellence by awarding \$325.3 million in sponsored grants and contracts for over 2,300 projects. This includes more than \$114 million from the National Institutes of Health (NIH)—again making the Miller School of Medicine and the School of Nursing and Health Studies No. 1 in the state for NIH funding, with the nursing school also clinching a No. 21 spot for NIH funding nationwide.

Our Miami Hurricanes shined during the 2016-17 academic year, with 11 teams reaching postseason play and five student-athletes achieving All-American status. Led by senior sprinter Shakima Wimbley, the women's track and field team won the ACC Women's Indoor Track and Field Championship, defending its title from a year ago. Head coach Mark Richt led the football program to its first bowl victory in a decade. Student-athletes continued to excel in academics. Three teams were honored by the NCAA with awards for being among the top 10 percent in the Academic Progress Rate, seven teams scored 990 or better out of a possible 1,000 points, and all the teams scored at least 965. Director of Athletics Blake James was named chair of the NCAA Division I Council for a two-year term and was selected as one of the winners of the 2016-17 Under Armour Athletic Director of the Year award.

Whether it is in athletics or the rest of the incredible spectrum of endeavors in which our institution is engaged, much of what we have accomplished this year springs from our collaborative approach to achieve the finest in all that we do. Together we are working to transform our University and realize innovations in learning, research, and health care that positively impact our society and world. We are grateful for your partnership and the vital contributions you provide to help us continue moving the U forward.

Julio Frenk  
*President*





WE ARE CONNECTING **PEOPLE**

Alumnus **Antonio Junior** is helping UM's first black graduates reconnect with their history.

From residential life to programming to academics, Vice President for Student Affairs **Patricia A. Whitely** advocates for students in many areas.



Groundbreaking, life-changing discoveries rarely happen in isolation—which is why the University is nurturing a culture of collaboration, creating new channels for intellectual and creative exchange among people of all backgrounds, experiences, and insights.





Distinguished Presidential Fellow and Scholar: Cuban blogger Yoani Sánchez and legendary flutist Sir James Galway

### Drawing Stellar Talent from Around the World

She spoke of an 11-year-old boy and his mother’s escape from Castro’s Cuba and their plight to reach the United States by way of Panama’s dangerous Darién Gap. She also spoke of the challenges faced by journalists in Cuba and the state of a free press in the island nation.

**Yoani Sánchez**, a brazen defender of free speech and founder of *14ymedio*, Cuba’s first independent daily digital news platform, enthralled an audience of hundreds at the University of Miami’s Newman Alumni Center in October 2016 with her lecture *The Power to Tell a Story: Daily Life in Cuba through the Lens of an Independent Journalist*. Her talk was a harbinger of what was to come, as UM launched its Distinguished Presidential Scholars and Fellows Program with the promise of attracting world-renowned thinkers from a wide spectrum of disciplines representing the arts, humanities, and sciences.

Part of the Roadmap to Our New Century “100 Talents” initiative, the program allows scholars and fellows to participate in the intellectual life of the University, interacting with faculty, students, and the greater community through lectures, teaching, special performances, and other gatherings. A UM school or academic department hosts each Distinguished Presidential Scholar or Fellow. Sánchez, hosted by UM’s Institute for Advanced Study of the Americas, was the first fellow in the program.

Others have included Distinguished Presidential Scholar **Carlos Bustamante**, Distinguished Presidential Scholar **Sir James Galway**, and Distinguished Presidential Fellow **Susan Meiselas**.

Bustamante, hosted by the Miller School of Medicine’s Hussman Institute for Human Genomics and the College of Arts and Sciences’ Department of Biology, is committed to revealing the mechanisms of disease and improving human health through leading-edge research he has spearheaded at the interface of computational and biological sciences. A professor of genetics and biology at the Stanford University School of Medicine, Bustamante is founding director of the Stanford Center for Computational, Evolutionary, and Human Genomics, and founding chair and professor of the University’s Department of Biomedical Data Science.

Hosted by the Frost School of Music, Galway is a legendary flutist. With more than 30 million recordings sold worldwide, extensive international touring, frequent television appearances, tireless promotion of the arts, and his passionate work in music education, Galway has been a household name for decades.

As a photojournalist, Meiselas has received international recognition for her striking images, which have been seen by millions in newspapers and magazines. Hosted by the College of Arts and Sciences, she is best known for her coverage of the insurrection in Nicaragua and her documentation of human rights issues in Latin America.



The 640,000-square-foot Student Housing Village will be a dynamic center for academic and cultural interaction on campus.

### Much More than a Place to Sleep

The University of Miami has embarked on an ambitious 10-year, three-phase strategic plan to transform student housing for the 21st century.

Phase 1 began with construction of a nearly 640,000-square-foot Student Housing Village encompassing 25 interconnected buildings on eight acres along the southeast corner of Lake Osceola.

“Nothing impacts the quality of life for students who live on campus more than their on-campus housing,” says **Patricia A. Whitely**, Ed.D. ’94, vice president for student affairs. “As the University continues to rise as a top-tier research institution, so do students’ expectations for a comfortable, secure, and supportive living and learning environment.”

Designed to be a vibrant epicenter for academic and cultural interaction on campus, the housing village will be much more than just a place to sleep. Two floors of common space—including music rooms, recreation/game rooms, and large-scale learning environments like an auditorium and a 24-hour study lounge—will be topped by five residential floors able to accommodate more than 1,000 students. More intimate study spaces also will be located on each floor of the living community.

The first floor and mezzanine level of the main structure are planned to serve as retail, event, and office spaces. Features such as a flexible, open-concept exhibition center, outdoor fitness circuit, and “maker space” for budding entrepreneurs will inspire members of the campus community to think in new ways and engage their creative potential. Outdoor plazas will encourage new engagement opportunities among the entire campus community.

“This new facility is being designed to meet the needs and expectations of the next generation of University of Miami students,” says **James Smart**, executive director of the Department of Housing and Residential Life. “It will be an outstanding housing facility for the students of the future.”

The project was designed with the goal of achieving LEED Gold certification for sustainable features and the WELL Building Standard, which addresses lighting, noise, and air quality. Other eco-friendly and quality-of-life features include rooftop green spaces and a rain garden. Construction cost is \$153 million, with an additional \$40 million fundraising goal.

Expected completion for Phase 1 is fall 2019. Phases 2 and 3 will aim to modernize the Hecht, Stanford, Mahoney, Eaton, and Pearson Residential Colleges. The Student Housing Village is the first new student housing to be built on campus since 2006, when University Village opened.



“I remember having a feeling of ‘Wow, this is what you can do with writing!’”

M.F.A. Student Dana De Greff

A young PageSlayer in Opa-locka displays his work.



### On the Same Page

Before she fell in love with writing, University of Miami Master of Fine Arts in creative writing student **Dana De Greff** fell in love with reading. In high school, she says books like *Native Son* by Richard Wright and *Song of Solomon* by Toni Morrison “shook her” to a level of awareness about what she wanted for her future.

“I remember having a feeling of ‘Wow, this is what you can do with writing!’”

Today, as she works to complete her first novel—part political drama, part romance, part historical fiction set in Miami and in Managua and Corn Island, Nicaragua—De Greff is helping to bring the power of the written word into the Miami community as the founder and executive director of PageSlayers.

This June, with a two-year, \$45,000 matching grant she received from the Knight Foundation’s Knight Arts Challenge, De Greff launched the summer creative writing camp in Opa-locka, a Miami-Dade County municipality known for its Moorish Revival architecture and its higher-than-average poverty and crime rates. She partnered with the Opa-locka Community Development Corporation, which allowed PageSlayers to use the Thrive Innovation District building, where City Hall is located, for three two-week sessions. The camp was free, as well as breakfast and lunch, thanks to a grant through FLIPANY that De Greff secured.

The kids supercharged their imaginations daily with free writing and other exercises designed to release their emotions, experiences, and voices onto the page. Award-winning Haitian-American author **Edwidge Danticat** led one workshop encouraging the campers to create a superhero. After discussing things they’d done for others—from making breakfast for their families and caring for siblings to tending to an ill parent and even saving a relative from drowning—“many of them identified themselves as heroes,” recounts teacher **Chioma Urama**, M.F.A. ’17.

It was important to De Greff to bring in writers of color to teach the students, the majority of whom are black, Hispanic, and Haitian. In addition to inviting noted authors like Danticat, De Greff hired emerging writers to teach. She met her inaugural instructors, Urama and M.F.A. student **Andrew Boryga**, as classmates in UM’s Creative Writing Program. Other instructors included UM Ph.D. candidate **Shameka Poetry Thomas**, born and raised in Opa-locka, and writer and visual artist **Itzel Basualdo**.

De Greff wanted a powerful and catchy name for the camp—and “slaying pages” is how she views the act of writing; it can seem a daunting task, but it’s one that empowers those brave enough to take on the challenge.

“The kids are happy, and they don’t want to leave,” De Greff says of the campers. “They’re making their own journals and writing their stories—and they’re sharing those stories. I feel proud and happy for what we’re doing.”



Christopher J. Salgado and Lauren Foster: building a culture of inclusive health care

### Focused on LGBTQ Wellness

Building on its mission to cultivate inclusive health care, UHealth—the University of Miami Health System opened a new, innovative clinic at University of Miami Hospital to meet the comprehensive health and surgical needs of the lesbian, gay, bisexual, transgender, and questioning community.

The LGBTQ Center for Wellness, Gender and Sexual Health is one of the first of its kind in the U.S. Southeast, uniquely located in a hospital setting where a multidisciplinary team of UM physicians, including renowned gender affirmation surgeon **Christopher J. Salgado**, provides comprehensive medical and surgical services.

“The clinic is a major milestone for the University of Miami and will help improve health access and health outcomes for LGBTQ patients,” Salgado says.

At the center, patients receive individualized care, including routine physicals, mental health services, and psychosocial support. The medical team includes adolescent medicine physicians, urologists, gynecologists, and a range of plastic surgeons.

“Gender affirmation surgery is major surgery that needs to be performed in a hospital setting rather than an ambulatory setting,” says Salgado, professor of surgery and editor of the book *Gender Affirmation: Medical and Surgical Perspectives*. “At UMH, physicians and hospital staff provide continuous monitoring and are equipped to handle any situation that may arise. Being in a

full-fledged hospital also helps ensure the best outcomes and recovery from surgery.”

As gender identity, sexual orientation, and alternative lifestyles can pose unique barriers to health care access, the center offers a welcoming and comforting environment where patients receive individual guidance on their journey into gender affirmation and overall care for other health issues.

“When you have a center devoted to the needs of LGBTQ people, we treat you with both respect and compassion in addition to understanding what you are here for, whereas general health care providers may not understand,” says transgender model and activist **Lauren Foster**, who serves as UMH’s director of LGBTQ concierge services. “The clinic was uniquely designed to consider not only the patient’s physical needs but the emotional ones as well.”



“We love you,  
University of Miami,  
and we know you  
love us back.”

George Knox, J.D. '73



The First Black Graduates Project honors those who broke the color barrier at UM.

Reconnecting with History

**Denise Mincey-Mills**, B.B.A. '79, **Antonio Junior**, A.B. '79, and **Phyllis Tyler**, B.B.A. '79, spent four years sifting through *Ibis* yearbooks and University Libraries' archives to learn more about the struggles and successes of UM's black graduates of the 1960s and 1970s. Wanting to dig deeper into this monumental part of UM's history, they formed and co-chaired the First Black Graduates Project, a committee within the UM Alumni Association's Black Alumni Society.

"I realized there was a story that needed to be told that hadn't been told before," Mincey-Mills says. After unearthing documents that were buried in the Richter Library for more than 50 years, the committee members worked with the UM Alumni Association to host UTrailblazers—the University's first-ever celebration honoring those who blazed a trail of diversity and inclusion during the institution's first two decades of racial integration.

Held February 24 and 25, 2017, UTrailblazers featured a campus bus tour and visit to the Otto G. Richter Library's We Were Pioneers exhibit, which showcased archival materials detailing the early years of black life on campus; an opening reception with President **Julio Frenk**; an alumni-student forum; and a keynote address by **Harold Long**, A.B. '68, J.D. '71, who founded United Black Students at the University of Miami in 1967. The event culminated in a grand gala that hosted more than 400 guests at the Shalala Student Center, including several alumni who had not been back to campus in decades.

"The University of Miami helped to educate us and mold us," keynote speaker **George Knox**, J.D. '73, told gala attendees. "We and the University were enriched by the experience. Now we are free to say 'We love you, University of Miami,' and we know you love us back."

In an effort to continue blazing trails of inclusion at the University, donors to the First Black Graduates Project Endowed Scholarship are building a fund that will provide scholarships in perpetuity to students with financial need. UM trustee **Johnny C. Taylor Jr.**, B.S.C. '89, who announced his own \$25,000 pledge at the gala, is chairing the committee's fundraising efforts. The scholarship is a bridge to the mission of the early UTrailblazers, who sought to build permanent pathways to a UM education for qualified black students, regardless of their financial abilities.

From campus archives all the way to The National Museum of African American History and Culture in Washington, D.C., members of the First Black Graduates Project continue to unearth history about the black experience in the nation and at their beloved U. In June, they met up with college friend **Derek Ross**, B.Arch. '81, deputy director of the construction division for the Smithsonian Institution, for a private tour of the museum, which opened to the public in September 2016 as the 19th museum of the Smithsonian Institution.

"Our overall mission was to bring back ideas for the UTrailblazers Legacy Wall on campus," Junior says, referring to a two-story wall that will be constructed at the Memorial Classroom Building as a permanent tribute to the courage and dogged determination of those who changed the course of history at the U.





WE ARE CONNECTING **DISCIPLINES**

Law professor  
**Mary Anne Franks**  
battles internet abuses  
on a multitude of fronts.

**Moataz Eltoukhy**,  
assistant professor of  
kinesiology and sport  
sciences, uses video  
gaming technology to  
help Parkinson's patients  
function better.



**Medicine and music, law and social media, kinesiology and gaming technology—sometimes the strongest academic collaborations are the ones least expected. The University of Miami is focused on revving up the innovation ecosystem by connecting disparate disciplines in transformative ways.**





Christopher Bennett, center, works with UM anesthesiologists Roman Dudaryk, left, and Richard McNeer to improve the medical alarm system in clinical settings.

## Medical Music Reboot

At any given moment in hospitals around the country there are alarms, bells, beeps, and whistles communicating patient needs and vitals through a language of sounds. To patients and visitors, the unfamiliar audible chaos can evoke confusion and anxiety. But to clinicians, the accurate translation of the symphonic noises and alerts could mean the difference between a life or death situation.

According to **Christopher Bennett**, B.S.E.E. '05, M.S.M.E.T. '07, Ph.D. '10, research assistant professor in the Music Engineering Technology program at the Frost School of Music, current research on the standardized alarm system speaks volumes about the need for improvement. "Since the international standardization of medical alarms in 2003, there has been significant literature about the shortcomings of the system and the adverse effects of the sounds on patients and clinicians," says Bennett.

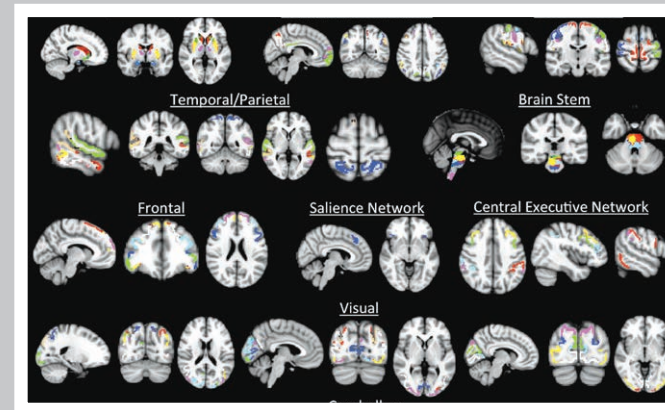
To better understand the complex system from varied professional perspectives—human, semiotics, clinical practice, and patient—Bennett joined a team of multidisciplinary researchers and medical professionals from the University of Miami and other universities around the country. To start, the experts focused on the cognitive and behavioral connections between clinicians and the standardized alarm sounds. Often overwhelmed by the number of alarms and their collective noise, clinicians expressed the need

to minimize alarm frequency without compromising the ability to indicate the level of urgency. To begin testing an improved alarm system, Bennett worked closely with anesthesiologists at the Miller School of Medicine to introduce a system of auditory icon alarms.

"Auditory icons are intuitive sounds meant to mimic naturally occurring sounds," he explains. "A common example of an auditory icon is the sound of crumbled paper when using the 'trash' to delete a document on a computer."

Within simulated operating rooms at the Miller School and the School of Nursing and Health Studies Simulation Hospital, UM doctors **Richard McNeer**, B.S. '91, Ph.D. '97, M.D. '99, associate professor of anesthesiology, and **Roman Dudaryk**, assistant professor of clinical anesthesiology, work with Bennett to test and fine-tune auditory icons as replacements for the standardized alarms.

"Within a clinical setting, the auditory icon for a ventilator alarm could mimic the sound of deep breathing, which eliminates the need for translation and allows the clinician to make a direct connection between the patient and the equipment or treatment being used," Bennett says.



The brain naturally cycles through identifiable patterns of neural connections—sort of like always practicing your favorite songs when learning to play the guitar.

## Making the Connection between Brain Flexibility and Autism

Your brain is never really at rest. Neither is it in chaos. Even when not engaged in some task, the brain naturally cycles through identifiable patterns of neural connections—sort of like always practicing your favorite songs when learning to play the guitar.

"Constantly cycling through brain region connections may make it easier to call to those networks when you need them for high-level cognitive processing, such as memory and attention," says **Lucina Uddin**, assistant professor of psychology in the College of Arts and Sciences and principal investigator in the UM Brain Connectivity and Cognition Laboratory (BCCL).

Uddin and **Jason Nomi**, a BCCL research scientist, work with researchers from New Mexico, California, China, and Germany, as well as other UM scientists and students to learn how intrinsic brain patterns evolve in a person over time—and how differences in these patterns and their flexibility may help characterize autism spectrum disorder (ASD). "ASD is characterized by restricted and repetitive behaviors, where behavior can often be described as inflexible," says Uddin. "It's important to examine the connection between flexible brain function and flexible behaviors in autism to better understand the disorder."

With help from the supercomputing resources at UM's Center for Computational Science, Uddin and Nomi are analyzing data from large, publicly available datasets such as the NIH-funded Human Connectome Project, the Nathan Kline Institute, and the ABIDE database. Their preliminary findings serve as a "proof of concept for how to characterize flexible brain function in a typical adult," Uddin says.

With this better understanding of brain activity in a typical adult population, the researchers are now moving to the next step: testing children with autism to see whether their brains have a natural propensity to spend more time in the more rigid network configurations, making it harder for them to adapt to change as they experience life. Partnering with the University of Miami-Nova Southeastern University Center for Autism and Related Disabilities (UM-NSU CARD), they are halfway through a five-year study on brain connectivity and neural flexibility in children with autism. The final step is connecting the research with practice and determining how to help children with autism enhance flexibility and adaptability in their lives.

"Is there a way to induce a brain state that helps children with autism more flexibly adapt?" poses Uddin. "Are there training programs or behavioral therapies that help them become more flexible? And if there are, do they also help their brains become more flexible?"

Uddin, Nomi, and their fellow researchers who study the connection between neuroscience and behavior are excited about the direction neuroimaging has taken their field. They're applying "dynamic" techniques to study how intrinsic brain patterns change over time, rather than using the more traditional "static" analytic techniques.

"In the field of neuroimaging, before, we would have a snapshot of the brain. Now, we have a movie," Uddin says.



“The humanities can help to break down these walls in medicine. We are here trying to make medicine more humane.”

Benjamin Lemelman, B.S. '09, M.D. '12



The Medical Humanities Summer Institute examined a range of topics that cross disciplines.

Humanities Humanizing Medicine

The increasing complexity of world problems—whether explored under a microscope, through a doctor’s probing questions, or in a novel’s narrative or poem’s pentameter—begs for shared knowledge and modes of thinking that cross disciplines. Linking the humanities with unlikely academic partners to expand human understanding has been the mission of the University’s Center for the Humanities since its 2009 launch. This past May, the center achieved a major goal when it partnered with the Miller School of Medicine to host the Medical Humanities Summer Institute.

The two-day conference convened nearly 100 specialists, health professionals, and students from around the country to explore a panoply of topics, from “Women’s Intimate Health and Sexual Citizenship in the Caribbean” to “The Significance of Humanities for Medical Practitioners.” Four keynote speakers spurred ideas, and three UM alumni delivered presentations on how their educations—and now medical careers—have benefited from interdisciplinary study.

“The conference demonstrated the University’s ongoing efforts to broaden the exchange between the humanities and the sciences,” says **Mihoko Suzuki**, professor of English and founding director of the Center for the Humanities. A member of the Consortium for Humanities Centers and Institutes, Suzuki attended the 2016 consortium conference in London, where she pitched the idea to hold the next Summer Institute at UM.

“I highlighted the thriving med school and that doctors would be talking with us, knowing that the humanities would learn from the practitioners on the ground and the medical participants would benefit from the insights of the humanists,” she notes.

“Co-hosting the meeting was a natural for us,” says **Ken Goodman**, co-director of UM Ethics Programs and director of the Miller School’s Institute for Bioethics and Health Policy, one of only seven World Health Organization Collaborating Centres in Ethics and Global Health Policy in the world. “The institute underscores the broadening mission of the University. It’s part of the effort to show that smart people are not narrowly smart, and that the world will be better if they spread their intellectual wings.”

Alumni **Ashley Lawler**, M.D. '14, **Benjamin Lemelman**, B.S. '09, M.D. '12, and **Kara M. Brown**, B.S. '07, returned to Miami to present at the Summer Institute. Lawler and Brown are both psychiatrists associated with Harvard Medical School, while Lemelman is a plastic surgery resident at the University of Chicago Medical Center.

In 2010, Lawler and Lemelmen were among the inaugural group of eight UM students who lobbied to create what became the Medical Student Pathway in Ethics and the Humanities. The pathway, guided by advisors Goodman and **Jeffrey Brosco**, professor of pediatrics and adjunct professor of history, has continued to evolve and includes core coursework, electives, faculty mentoring, and a final project in at least one area of the humanities the student develops as an expertise.

“Medicine lags behind other fields in recognizing the importance of self-awareness, emotional intelligence, leadership, communication, and caring for ourselves,” said Lemelman in his presentation. “The humanities can help to break down these walls in medicine. We are here trying to make medicine more humane.”

Google now removes searchable information related to “revenge porn” from its platform.



Law Initiative Helps Halt Internet Abuses

It is a strange but oft-true paradox that the suffering of one human being opens the way for the compassion of another. This is indeed the trajectory that helped create the Cyber Civil Rights Initiative (CCRI), a collective of advocates at the UM School of Law that helps victims, heightens awareness, and limits internet abuse on a multitude of fronts.

The initiative was seeded at a 2012 meeting between UM law professor **Mary Anne Franks** and **Holly Jacobs**, a victim of non-consensual porn (NCP) or “revenge porn”—the distribution of sexually graphic images of individuals without their consent. Police told Jacobs there was nothing that could be done, that no laws existed—and they even insinuated she had prompted the situation. She contacted Franks after reading her article “Unwilling Avatar: Idealism and Discrimination in Cyberspace.”

Stonewalled at every turn and struggling for years as a victim, Jacobs launched the End Revenge Porn campaign, initially a website that collected signatures in favor of criminalizing NCP. Backed by Franks and a small team of other supporters, Jacobs incorporated into the nonprofit CCRI.

“Here was a woman who had lost almost everything, who was ready to begin offering interviews, unmasking herself to the public,” Franks recalls. “If she can do this considering what had happened to her, then I have to do my best to help her.”

While revenge porn was the initial campaign tackled by CCRI, the initiative set a broader mission and vision from the start. Wary of abuse and exploitation trends that emerged in the 1960s, CCRI

founders recognized the potential for the internet to multiply these abuses, especially against women and minorities. Franks, now vice president and director of Legislative and Tech Policy at CCRI, wrote the model statute, both state and federal, that served as the basis for NCP laws spreading across the U.S.

School of Law Dean **Patricia White** gave an enthusiastic response to Franks’ request for support and other resources for CCRI to become an affiliated UM organization. CCRI worked with major social media companies to forge pacts to regulate the proliferation of abuse and harassment, and scored what they considered a “tremendous victory” with Google when the internet-based giant agreed to remove searchable information related to revenge porn from its platform.

“Up to that point, Google had made a point of rarely taking any result out of a search. Honestly, for a victim to be able to fill out a form and have them remove the information—this was one of the biggest things that could have happened,” Franks said.

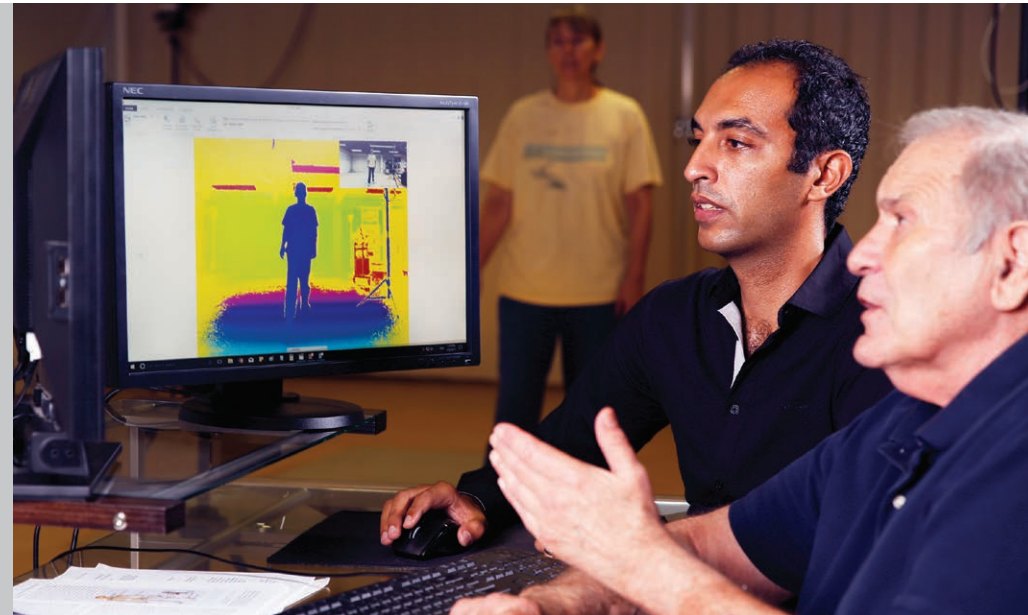
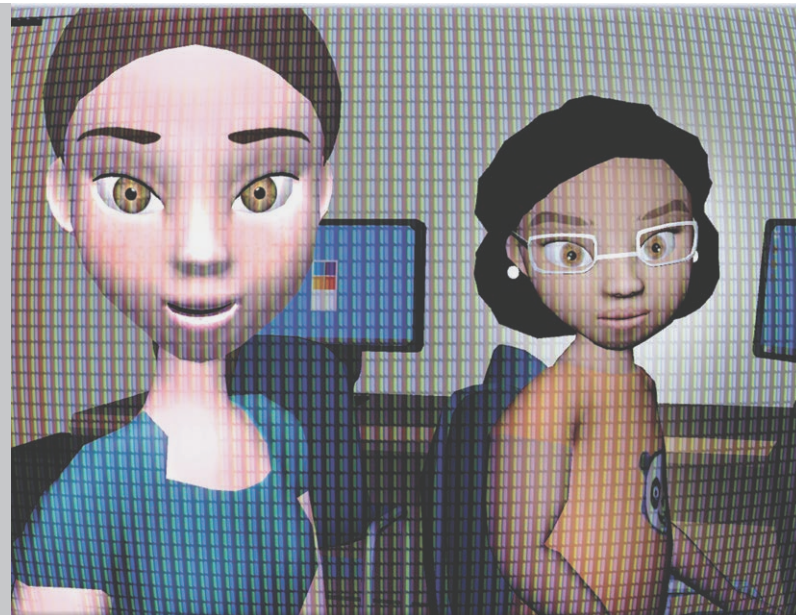
Another partnership emerged with the Miami office of K&L Gates Law to offer pro bono services to NCP victims through its Cyber Civil Rights Legal Project.

As an extension of her involvement, in 2017 Franks developed a new course, “Law, Policy and Technology,” to explore the uncharted interchange. Six students from the class to date have opted to perform their practicums at CCRI, and student research through class projects continues to generate new understanding.



“When you bring people from different fields together, you get multiple areas of expertise and different perspectives on a problem that enriches the solution-finding process.”

Professor Anne Norris



Moataz Eltoukhy, left, and Joseph Signorile study the gait pattern of a Parkinson's patient.

## Partnership Powers Mighty Girls

When School of Nursing and Health Studies (SONHS) Professor **Anne Norris** years ago conceived of a pregnancy prevention program for at-risk teen girls that utilized a tech-based gaming design, she knew she would need some help. Norris was intimately familiar with her subject population through years of clinical studies with college and teen girls from Detroit to Boston to Orlando. Yet there were components of the program she envisioned that were outside her expertise.

What emerged was Mighty Girls, a muscular model of connectivity across disciplines that convenes specialists in communication, psychology, theatre, and technology. The program combines interactive classroom sessions with DRAMA-RAMA, a video game that uses avatar-based, mixed-reality technology to empower early adolescent girls, especially those of Hispanic and Brazilian heritage, with skills to resist peer pressure and remove themselves from risky situations. A team of undergraduate and graduate students from the SONHS, School of Education and Human Development, and College of Arts and Sciences helps Norris deliver and evaluate the program. Twenty middle schools implemented Mighty Girls as part of the Miami-Dade Public School's JUEGA! (PLAY!) study.

“When you bring people from different fields together, you get multiple areas of expertise and different perspectives on a problem that enriches the solution-finding process,” explains Norris.

Norris first began brainstorming the idea with **Eileen Smith**, director of the E2i Creative Studio at the University of Central Florida Institute for Simulation and Training. With the help of project manager and designer **Alexia Mandeville**, the program's cartoon-like characters and virtual world began to emerge. Actors with expertise in interactive performance helped Norris create the game stories and provided the physical poses and facial expressions for the characters.

Norris also tapped community members for insight. She partnered with **Roxana Delcampo Thalasinis**, a Chilean mother of middle and elementary school girls, who continues to help ensure all aspects of the study ring true for the girls and parents it impacts. **Jeff Temple**, an associate professor and psychologist at the University of Texas, brought expertise on dating violence to the project. **Michael Hecht**, distinguished professor of communication arts and science and a nationally recognized drug abuse prevention researcher at Penn State University, served as the study co-investigator.

Data from a Mighty Girls feasibility trial indicated that the program has had a powerful impact on reducing risky sexual behavior in its target population, results that led the National Institute of Nursing Research of the National Institutes of Health to award Norris a \$3.3 million, five-year grant in 2014 for further testing.

## A Step Ahead of the Game

Short shuffling steps. Difficulty starting to walk and difficulty stopping. Trouble maneuvering turns and corners. A forward or backward lean that can cause falls. The loss of mobility is a classic symptom of Parkinson's disease. But now, patients with the chronic and progressive movement disorder, especially those who are elderly, could be getting much-needed help from an unlikely source—video game technology used by their grandchildren.

Two researchers in the School of Education and Human Development's Department of Kinesiology and Sport Sciences have been using a \$100 Microsoft Kinect, a motion-sensing device for the Xbox video game system, to record the gait patterns of Parkinson's disease patients at a fraction of what it costs to conduct the same tests using expensive motion-capture technology.

“We can capture movements, analyze them, and generate all kinds of data on joint angles, walking patterns, and ground-reaction forces,” says Assistant Professor **Moataz Eltoukhy**, who holds a joint appointment in UM's College of Engineering.

Analysis of the gait patterns of Parkinson's patients is crucial because clinicians use the data to prescribe medications that improve motor function. But too often such data are culled from questionnaires or from tests that are conducted sporadically

because of the exorbitant costs and time-consuming techniques of traditional motion-capture technology.

Using Kinect, gait patterns can be recorded daily and viewed live by clinicians from another location, if so desired. It's as simple as having patients walk down a hallway—sans the multiple cameras, full-body suits and markers used in \$100,000 motion-capture testing. The ultimate goal is to have Kinect in nursing homes, clinics, and even in the homes of Parkinson's patients to determine the severity of their disorder.

“Placing it in the home gives us the probability of providing proper exercises directly based on the quantification of movement,” says Professor **Joseph Signorile**, who collaborated with Eltoukhy on the study. “So the machine itself becomes a clinical advisor, with the clinician always looking on, of course.”

While other researchers have used video games as intervention tools, Eltoukhy and Signorile's study is different, producing hard data used by doctors. “You can put somebody on a Wii board and let them use the system to practice changes in body position,” explains Signorile. “But that's not what we're doing. We're using a tool from gaming to get actual data that can be used for clinical analysis. It's one step beyond.”



WE ARE CONNECTING **REGIONS**

**Adib Cure,**  
School of Architecture  
assistant professor in  
practice, uses drones  
to map informal  
settlements to better  
understand these often  
forgotten cities.



**Sallie Hughes,**  
associate professor in the  
School of Communication,  
examines tactics used by  
Mexican journalists to  
avoid becoming victims  
of violence.



The University of Miami is leveraging its geographic endowment at the Gateway to the Americas to foster the international exchange of ideas and serve as an incubator for solutions to the world’s most pressing challenges.





Shane Elipot and Lisa Beal's research on the Indian Ocean's Agulhas Current has implications for global climate change.

## Current Discovery Broadens Climate Change Insight

The world's western boundary currents, including our Gulf Stream, are warming three times faster than the rest of the ocean. Why isn't clear, but oceanographer **Lisa Beal** is upending a critical assumption about these oceanic dynamos that moderate our climate by transporting warm water from the tropics toward the poles.

When Beal, associate dean of research at the Rosenstiel School of Marine and Atmospheric Science, set out to measure the strength of the Indian Ocean's Agulhas Current, she expected to find it intensifying. That was the going theory, based partly on the fact that, along with sea surface temperatures, westerly winds are increasing.

But, according to the December 2016 study Beal and associate scientist **Shane Elipot** published in *Nature*, the Agulhas, which flows south along Africa's east coast, is not growing stronger; it is growing wider. This would suggest that intensifying winds in the region are increasing the current's turbulence, rather than its flow.

"To a student trying to prove a hypothesis, that may be disappointing," Beal says of the findings, garnered from 22 years of satellite data and three years of measurements from an array of moored instruments she and her UM research team deployed. "But to me it's exciting because nobody was thinking the warming rate could be due to broadening. Now they will."

The implications for a changing climate are as uncertain as they are profound. Were western boundary currents intensifying, Beal says, the poles would grow warmer and the tropics cooler. But by broadening and thus weakening, currents become more porous, allowing more heat, as well as coastal pollutants and fish larvae, to cross them and escape into the open ocean.

"The oceans have sucked up 90 percent of the excess energy humans have produced, so they act as a buffer to climate change," Beal says. "So changes in western boundary currents, which move that heat energy around the globe, could exacerbate or mitigate future climate change."

That's why the international community is developing a global ocean observing system to augment atmospheric observations and help predict climate season over season. And why Beal, who has been principal investigator on six expeditions to the Agulhas, is now taking on her biggest challenge yet—partnering with Dutch and South African scientists to develop a sustained observing system for one of the most dynamic currents in the world.



How does extreme violence targeting the press affect the way journalists practice their craft?

## Tracking Danger and Influence among the World's Journalists

How does extreme violence targeting the press affect the way journalists practice their craft? What are the roles journalists can play to support honest government? These are some of the questions two University of Miami School of Communication professors seek to answer by crossing national borders. Professor **Sallie Hughes** has focused her recent work on Mexico, while Professor **Jyotika Ramaprasad**'s recent work has taken her to Botswana and India. Both are expanding the impact of what they learn by contributing to the Worlds of Journalism Study (WJS), which aims to shed light on the changing practice of the craft in 67 countries.

Hughes worked with her Mexican partners **Mireya Marquéz-Ramírez** of the Iberoamerican University in Mexico City and **Marco Lara Klahr** of the Media and Violence Program of the Instituto de Justicia Procesal Penal in Mexico City to measure journalists' attitudes as they face overwhelming violence and death in that country. Between 2000 and 2014 in Mexico, 81 journalists were murdered and 18 disappeared, according to British human rights organization Article 19, with the numbers continuing to increase.

Hughes' research team surveyed 380 Mexican journalists about the measures they use to reduce the risk of reprisals and direct threats against them for covering certain news stories. Nearly 68 percent of those surveyed had practiced self-censorship, more than 64 percent abandoned street reporting, and over 57 percent adhered to their media organization's censorship policies.

Half report hiding sensitive information from "suspicious people or untrustworthy colleagues in their own newsrooms." Professor Ramaprasad, who was born in India, collected data from 186 journalists in Botswana and 527 journalists in India. Both countries enjoy political freedom and have partly free news media. She also is coeditor of a forthcoming book from Columbia University Press that will report findings from all 67 WJS countries.

In Botswana, government-owned media dominate. Journalists report considerably high influence from media laws/policy and from editorial policy but less direct influence from government and politicians. They tend to be ethical absolutists, believing that one must always adhere to ethical codes. They are influenced by the idea that media have a role to play in the nation's development and in advocating for social change.

India has a very large private news media system, but the private media are not allowed to do radio news, which is under the control of the government to reach the illiterate population. Indian journalists report that ethics are a strong influence, which is interesting considering the prevalence of paid news—news or silence for money—particularly during election times and largely from politician-owners. Indian journalists also rate their role as high for supporting national development and advocating for social change.



“When these sites that are literally off the map are documented and studied, you begin to not only understand them but get a much clearer picture of potential opportunities.”

Associate Professor Carie Penabad, B.Arch. '95



Adib Cure and Carie Penabad have developed an innovative method to map informal settlements.

### Activism with Architecture Puts Cities on the Map

It was left off official maps, but School of Architecture faculty members **Carie Penabad**, B.Arch. '95 and **Adib Cure**, B.Arch. '97, saw nothing but potential in Las Flores. While lacking sewage, water, and electrical systems in some parts, the 5-square-mile Colombian informal settlement is a sustainable community of hardworking people who toil in nearby factories and hotels, and create micro-businesses to provide the services residents need.

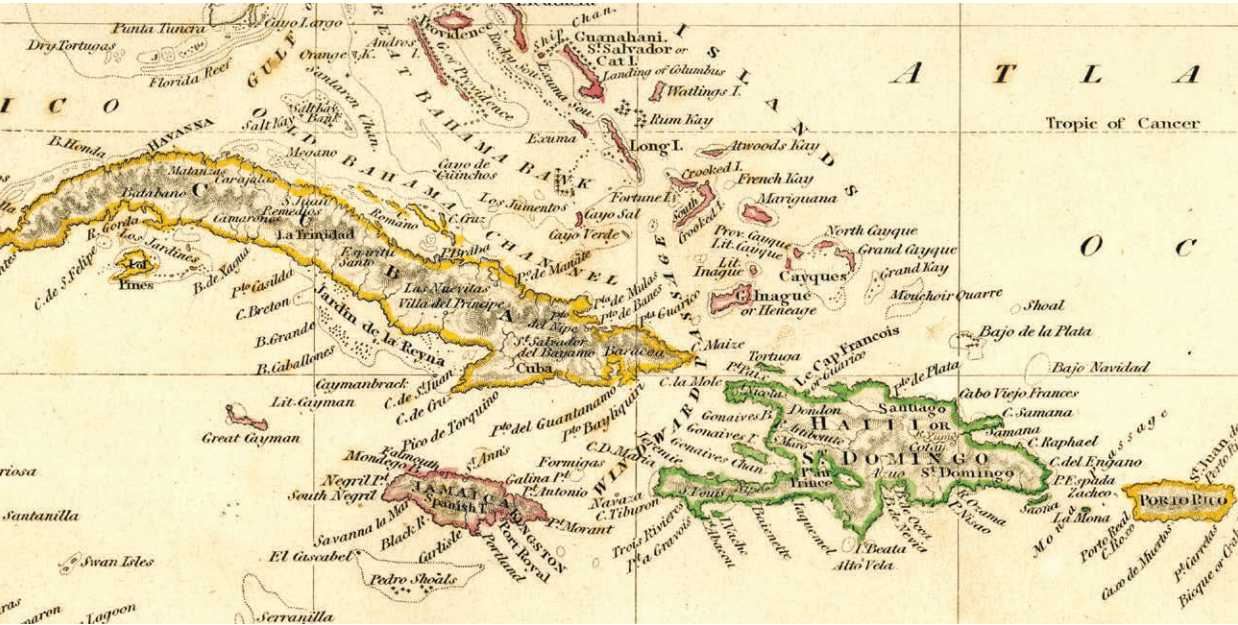
So the husband-and-wife team set out to better understand the settlement through traditional and digital cartographic techniques. Teaming up with technicians from UM's Center for Computational Science, including **Chris Mader**, director of software engineering, **Amin Sarafraz**, and **Timothy Norris**, they used camera-equipped drones to map Las Flores' seven barrios, composed of 75 neighborhood blocks. The effort was part of a 2015 School of Architecture upper-level design studio funded by Tecnoglass.

On the ground, students took photographs and created elaborate drawings to document existing conditions in Las Flores. They also interviewed some of the settlement's 10,000 residents. The on-site investigation provided the necessary groundwork to be able to return to Miami to design more informed architectural and urban design solutions for the settlement. Moreover, the drawings produced during the investigations were provided to the local government so that Las Flores could be integrated into the overall map of the city of Barranquilla.

Penabad and Cure believe that mapping these sites is the first step in better understanding the complex patterns of settlement. “When these sites that are literally off the map are documented and studied, you begin to not only understand them but get a much clearer picture of potential opportunities,” says Penabad. “Where would it make the most sense to bring in water and sewer lines? Where are they disconnected in terms of transportation? Where would it make the most sense to build a medical clinic? The potential for progress becomes more tangible and possible when you can see everything mapped out.”

Las Flores is not the only informal city they have documented. In 2015 they used drones to map the most densely populated island on Earth—Santa Cruz del Islote, where more than 1,200 people inhabit a piece of land off the coast of Colombia that is roughly the size of a baseball field. Their efforts paid off.

Call it activism mixed with architecture. Whatever the case, their goal is to make UM a center for the collection of data on informal settlements throughout Latin America. “We’ve found a distinct way to map these sites,” Cure explains. “We’d like to acquire enough funding to deploy this toolkit more systematically and make it entirely open-sourced.”



### Hemispheric Flow of Knowledge

Those who founded the University of Miami in 1925 envisioned a Pan-American university to educate students throughout the hemisphere. In the decades that followed, bonds with our neighbors to the south have grown stronger and more interwoven, supporting a multidirectional flow of people, ideas, art, culture, business, health care, and technology. For example, Miller School of Medicine doctors have been working for more than 20 years to improve health care in Haiti. UM marine scientists have been exploring the rich waters of the Caribbean since the 1930s. And the University's academic relationship with Cuba—both past and present—is undeniable, complex, and fortifying.

To dive deeper into the scope of scholarly exchange taking place between the University and the region, University Communications this year launched the Cuba and the Caribbean Special Report, a comprehensive, multimedia, multilingual site ([cuba.miami.edu](http://cuba.miami.edu)) comprising nearly 80 articles and over 40 videos. The content is organized into seven channels—The Environment, The People, Business and Economy, Health Care, Politics and Policy, Arts and Culture, and Centers and Institutes. Stories are told in various formats, including long-form features, Q&As, audio, first-person and blog, and interactive tools such as social media, a poll, and a comment feedback section. All 11 schools and colleges and six centers and institutes at the University are represented.

Environment stories range from shark ultrasounds at Tiger Beach in the Bahamas to a decades-old Marine Invertebrate Museum with 93,000 specimens, nearly all collected from the Caribbean Basin and tropical Atlantic. The People channel showcases research on the culture and perspectives of people and communities, from the sociolinguistics of Caribbean Creole languages to the black LGBTQ experience in Cuba and the Caribbean.

Other topics across various channels include an innovative composite material that can assist structural restoration in Cuba, a partnership between Miller School of Medicine trauma doctors and their counterparts in Havana's Calixto Garcia Hospital, a collaboration between the School of Nursing and Health Studies and the Pan-American Health Organization/World Health Organization to strengthen the workforce of nurse educators in Guyana, and the analysis of storm risk to life and property in the Bahamas.

UM News Special Reports are standalone websites that showcase the depth and breadth of work being done across the University on topical themes or geographical regions. In addition to Cuba and the Caribbean, University Communications has done Special Reports on Climate Change, Zika, and Haiti.



“The exposure to market research provides globally minded students firsthand experience on gathering data in countries without accessible comprehensive data.”

Student Altair Larbi Dahrouch



The CIBER Innovators for the Americas program aims to solve pressing problems facing underrepresented populations in Latin America.

Students Pitch Startup Solutions in Latin America

UM's Center for International Business Education and Research (CIBER), based at the School of Business Administration, has been creating participatory learning and research experiences through more than 40 interdisciplinary and cross-cultural programs for students and faculty since its establishment in 2010. Led by Professor **Joseph Ganitsky** and partially funded by a Title VI grant from the U.S. Department of Education, CIBER enables students to develop language, technical, and entrepreneurial competencies to succeed in emerging markets—and to enhance U.S. competitiveness.

One of these CIBER programs is Innovators for the Americas (IFTA), an undergraduate experiential learning course. During the spring 2017 semester, six UM undergraduate students partnered with 17 other undergraduate students from universities in Chile, Colombia, Mexico, and Peru to form five teams. Their mission: solve some of the most pressing problems of underrepresented populations in Latin America. In January, the 23 students met at UM to get acquainted with each other and define their projects' scope, followed by a series of in-person and virtual meetings throughout the semester.

“The IFTA program gave me the opportunity to conduct in-country market research for our project, which we presented to executives at Peruvian airlines,” said **Altair Larbi Dahrouch**, a UM entrepreneurship and marketing major whose team created a business plan for an alliance of low-cost Peruvian airlines to improve their operations, marketing, and customer relationships. “The exposure to market research provides globally minded students firsthand experience on gathering data in countries without accessible comprehensive data.”

Other 2017 IFTA teams developed and presented solutions such as an e-commerce platform for Chilean artisans to sell their wares, drone technology and software to boost agriculture productivity in Peru, an online platform to assist eco-tourism in Colombia, and a collaborative strategy to enhance the eco-tourism and luxury camping industry in Mexico's Yucatan Peninsula. This is the second consecutive year that students across the hemisphere have connected innovative efforts through UM CIBER'S IFTA, which is now a learning model that will revolutionize how business schools design their students' international experiences.





# School and College Highlights



## SCHOOL OF ARCHITECTURE 1

A commitment to tradition and innovation and the interplay of culture, environment, and technology have positioned the School of Architecture as a transformational institution for leading-edge architectural solutions. The 2017 Inaugural Smart Cities Conference, co-led by UM’s Center for Computational Science (CCS), brought industry visionaries, technology experts, start-up innovators, and the public together to explore the “disruptive effect” that new technologies will have on our cities and lives. A daylong workshop introduced “Zenciti,” a smart city in the Yucatan designed by an interdisciplinary team led by Dean Rodolphe el-Khoury.

In another partnership with the CCS, faculty members Carie Penabad and Adib Cure used drones for informal mapping projects, aiming for a more efficient management and delivery of municipal services to “forgotten places.” The school has been mapping settlements around the globe since 2007 in places

like Mumbai, India, Cape Town, South Africa, and more recently in Caribbean and Latin American countries, with an ambition to become a resource for the collection of data on informal cities.

The school broadened its international network this year by establishing a partnership focused on sea-level rise with Delft University of Technology in the Netherlands and by teaming up with Tsinghua University of Beijing, China, to mount international design studios and other collaborative teaching and research activities. A joint traveling studio set in Colombia launched the partnership in spring 2017.

Construction began in the spring on two new facilities. The B.E. & W.R. Miller BuildLab, designed by Professor Rocco Ceo, will provide a permanent home for the Design Build program and state-of-the-art equipment to facilitate construction of full-scale prototypes for not-for-profit groups and underserved communities. The Thomas P. Murphy Design Studio Building,



designed by renowned firm Arquitectonica, will accommodate 120 students in a co-working studio environment, faculty offices, a fabrication lab, and IT infrastructure that enables advanced digital production.

## COLLEGE OF ARTS AND SCIENCES 2

The College of Arts and Sciences, led by Dean Leonidas Bachas, continues to shape undergraduate and graduate education with its rigorous and comprehensive curricular, research, and outreach activities. In 2016, the UGrow program was created to expand the professional development of graduate students. The new ASPIRE program collaborates with and complements the services offered by the University’s Toppel Career Center by arranging meaningful internship opportunities for students. It also introduced two new professional master’s programs during the 2016-2017 academic year: Criminology and Criminal Justice and Applied Behavioral Analysis.

Aiming to build bridges between the humanities and the sciences, our Center for the Humanities hosted its first-ever Medical Humanities Summer Institute, which drew participants from all over the world. The college welcomed the first cohort of master’s students in Mathematical Finance, a program that provides students the analytical skills necessary to excel in the areas of quantitative finance and risk management.

Through discoveries in the laboratory, by expanding creativity in the studios, and by studying and contextualizing the human condition, the college’s impact is worldwide. Arts and Sciences faculty have developed a mathematical model that describes the progression of fatal terrorist and insurgency attacks around the world. The study identifies ways for governments to address these kinds of conflicts. During the threat of the Zika virus, faculty developed a scientific model to address various ways this virus proliferates and suggested methods to manage the virus threat. Recognizing that children diagnosed with autism and



related disabilities might need support into their adulthood, efforts are expanding at the UM-NSU Center for Autism and Related Disabilities to address this vulnerable population.

## SCHOOL OF BUSINESS ADMINISTRATION 3

Under the leadership of its new dean, John Quelch, who joined UM from Harvard Business School in July, the School of Business Administration is building bridges across borders, tackling fundamental business and social challenges, and fostering entrepreneurship. Business students learn in more places than ever, with experiential opportunities around the world. During spring break 2017, graduate business students studied business and culture in China and India as part of a two-credit course, Global Learning Opportunities in Business Education. And during the summer break, undergraduate students went to Peru to consult with socially minded local businesses after spending the spring semester brainstorming ideas for them.

The 2017 launch of a new Master in Health Administration program addresses the growing demand for highly trained business leaders who can successfully navigate the changing health care sector. Several of the school’s master’s programs, including the M.B.A., which marks its 70th anniversary

in 2018, are now offered fully online.

The school engaged the business community with its annual conferences on the business of health care, real estate, accounting, and behavioral finance, drawing hundreds of professionals to hear from distinguished leaders in business and government. The school awarded nearly \$50,000 in its annual Business Plan Competition and hosted several events focused on women in leadership, including its first “Showcasing Women in Finance” conference, designed to boost the presence of women in the finance field. Students, faculty, staff, and alumni also heard about leadership and politics from MSNBC’s Chris Matthews at the Cobb Leadership Lecture Series and from former Colombian President Álvaro Uribe in an informal talk, among many other opportunities that provide unique learning opportunities outside the classroom.

## SCHOOL OF COMMUNICATION 4

The School of Communication, under the direction of Dean Gregory Shepherd, is a leader in educating the communicators of tomorrow through its world-renowned professors, dynamic facilities, and innovative experiences. Last fall, the school dedicated two state-of-the-art centers: the Koenigsberg & Nadal Interactive Media Center and the Robert & Lauren Mann Broadcast



Center. Spearheaded by alumni and parent giving, the two centers encourage collaboration among students and provide hands-on experience with the latest technology.

Adding to the gamut of experiential educational opportunities, the school established Orange Umbrella Student Consultancy last spring, a student-run agency offering professional services, including design, branding, content development, public relations, and interactive media to clients. Housed in the Koenigsberg & Nadal Interactive Media Center, the agency employs students from academic areas across the school, breaking down silos of education while showcasing students’ creativity.

The school hosted several events throughout the academic year, bringing world-class speakers and a diverse set of experiences to campus. Students participated in such events as FilmGate Interactive Media Festival, the ACC Debate Championship Tournament, and the Communication Meet-Up. Leonardo DiCaprio, who screened his documentary, *Before the Flood*, and Gary Pruitt, president and CEO of the Associated Press, were among several high-profile guest speakers.

Communication students were recognized with top awards for their work. The 2016 *Ibis* yearbook and *Distraction* magazine earned coveted



Crown Awards from Columbia Scholastic Press Association. Students working for UMTV were awarded individual Suncoast Student Production Awards for their news packages. The UM Debate Team won the Coastal Division in the ACC Debate Championship Tournament. Rounding out the academic year, Motion Pictures students traveled to the ‘Canes Film Showcase in Hollywood to screen their films to an audience of film industry professionals and alumni.

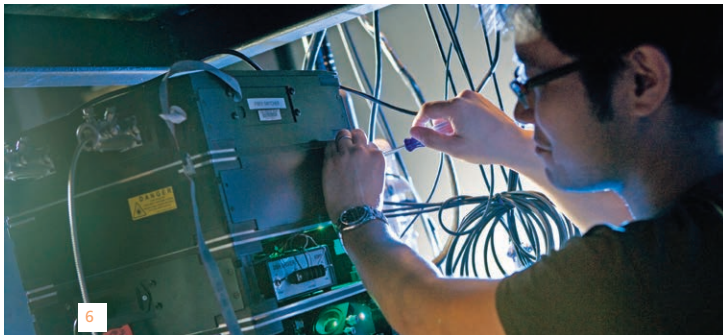
## SCHOOL OF EDUCATION AND HUMAN DEVELOPMENT 5

Over the last year, the School of Education and Human Development intensified its commitment to psychological, physical, and educational well-being in multicultural communities.

The three departments formed interdisciplinary workgroups of faculty, staff, students, and other stakeholders to determine how the school can support initiatives of the Roadmap to Our New Century. This yearlong, intensive effort culminated in the school-wide adoption of three strategic goals and actions specifically related to: Education Innovation, Culture of Belonging, and Global Health and Wellness.

To promote education innovation, the school designed an online program in Applied Learning





Sciences to help professionals in all fields develop their expertise in the design, analysis, and evaluation of varied learning environments. The program, which was approved this spring, will offer Ed.D., M.S.Ed., and certificate credentials.

A new cognate, Belonging in a Diverse Society: Intersections of Culture, Identity, and Social Justice, was developed to promote dialogue about belonging among students. The cognate, which draws from various disciplines, includes courses related to diversity, inclusion, belonging, and related topics. Additionally, a course promoting intergroup dialogue is under development and will be offered to students, faculty, and staff across campus.

A major effort related to global health and wellness involves an innovative UM/Tel Aviv University research collaborative spearheaded by Dean Isaac Prilleltensky.

During an intensive meeting in Tel Aviv, interdisciplinary teams from both universities began designing an international center

of excellence that would advance physical and psychological wellness in natural settings through science, innovation, and community engagement. The teams include physicians, psychologists, learning scientists, researchers, technology experts, and kinesiologists. A follow-up meeting will take place in Miami this fall to continue progress.

## COLLEGE OF ENGINEERING 6

The College of Engineering, led by Dean Jean-Pierre Bardet, launched a strategic plan that closely aligns with the University's Roadmap to Our New Century, endeavoring to “nurture excellence in research, redefine engineering education, become the innovation hub of Miami, implement an agile and transparent administration, and create a culture of belonging.” Key to that plan is the dedication of the Johnson & Johnson 3D Printing Center of Excellence Collaborative Laboratory, where students and faculty create prototypes using advanced 3D printers and fabricating equipment, as well as high-tech additive manufacturing equipment.

The college has implemented active classrooms that foster interaction through hands-on team projects and reshape the future by developing students’ intellectual curiosity and engagement. The college no longer trains graduates for jobs but rather educates engineers to create jobs to solve global issues.

The college joined several large-scale collaborations that support problem-based interdisciplinary inquiry. The Biomedical Engineering department assists the Miller School of Medicine Neural Engineering Institute to build on the achievements of The Miami Project to Cure Paralysis. The Mechanical and Aerospace Engineering department helped

create UM's Green Aviation Lab to develop electric aircraft with more flight range and payload capacity. The Industrial Engineering department partnered with the Clean Energy Manufacturing Innovation Institute and joined the REMADE research team, which won a \$70 million National Network for Manufacturing Innovation award.

Other projects include: Designing the Future: Resilient Coastal Cities, which is developing an integrated framework for surveying, modeling, simulating, and online optimization of resilience for coastal cities; the Personalized Diagnosis and Therapeutics project, which explores the development of a lab-on-a-chip platform to integrate novel electronic, acoustic, and magnetic components for comprehensive biophysical studies through cell interrogation; and Bridging the Gap: Innovations in Bridge Design, which examines ways to eliminate corrosion from bridges by using composite materials.

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## ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE 7

The Rosenstiel School of Marine and Atmospheric Science, led by Dean Roni Avissar, continues to publish research to connect disciplines, regions, and people. Research conducted with the Miller School of Medicine suggests restricting consumption of sharks may have positive health benefits for consumers and for shark conservation, since several of the sharks analyzed are threatened with extinction due to overfishing. Researchers found high levels of neurotoxins in the fins and tissue samples from 10 shark species in the Atlantic and Pacific oceans, suggesting that humans who consume shark parts are at risk for developing neurological diseases.

The National Science Foundation-funded research in the Indian Ocean's Agulhas Current, one of the strongest currents in the world, revealed the current had widened rather than strengthened, an important discovery with implications for global climate change.

Research two years prior to and after last year's devastating Category 5 hurricane, Matthew, revealed it may be one of the many past examples of a tropical storm fueled by massive rings of warm water that exist in the Caribbean Sea. The mission measured ocean temperature,

salinity, and currents to understand the structure of these warm water eddies—important research because for past hurricanes, tropical cyclone intensity forecasts were under-predicted. Matthew was one of the strongest hurricanes in Atlantic basin history, devastating portions of Haiti, Cuba, and the eastern United States. According to the researchers, more ambient and in-storm, upper-ocean observations in this basin are needed to improve forecast models for the region.

The Aquaculture Program signed a three-year collaborative research agreement with New York-based Aququa LLC US to advance aquaculture technology with an investment of approximately \$1.5 million, targeting high-value marine fish such as tuna and hiram (Japanese flounder) at the Experimental Fish Hatchery.

## SCHOOL OF LAW 8

The School of Law, led by Dean Patricia White, was the only U.S. law school included this year as a “leader in learning” in Cambridge University's 800th anniversary publication, *Innovation 800*. *Billboard* magazine recently recognized Miami Law as one of the 12 leading law schools for music, recognizing its unique Entertainment, Arts and Sports Law LL.M., administered with the Frost School of Music.

The school inaugurated its 12th interdisciplinary joint degree, a J.D./M.A. in Latin American Studies, and continues to offer the nation's only all-university, all-graduate student course, Hospitals, Health Care Services, and Access. For the first time, it expanded the all-university course idea to the undergraduate level with Vice Dean Osamudia James’ course, Race, Class, and Power: University Course on Ferguson and the #BlackLivesMatter Movement.

Miami Law students hail from every continent and compete with distinction in English and in Spanish in moot court competitions around the world. This year UM law students earned Best Oralist at The Hague International Criminal Court Moot, Best Oralist at the International Criminal Court Regional for the Americas and Caribbean, and Best Oralist in the Moot Madrid International Competition. The part-virtual, part-live LawWithoutWalls program now includes 30 premier law and business schools from around the world and has expanded its active international exchange programs to 22.

Deeply connected to the community, the school's class of 2017 alone contributed over 20,000 hours of legal-related community service. Its 12 clinics provide much-needed legal services to the underserved.

The Children and Youth Law Clinic, in collaboration with the School of Education and Human Development and Our Kids of Miami-Dade/Monroe, joined First Star Academy, a national model, to include 30 rising ninth-grade foster youth in programming each summer over four years. The Immigration Clinic advocated on behalf of unaccompanied minors and won a landmark decision terminating court proceedings for constitutional violations by police.

Now in its 11th year of advocating for the underserved and disenfranchised, the Health Rights Clinic has served over 2,000 clients and provided experience to over 200 law students who have worked to secure over \$4 million in benefits. In its first full year, students in the Larry Hoffman/Greenberg Traurig Startup Practicum represented 42 different new businesses and entrepreneurs on 76 matters, including intellectual property, entity formation, and regulations. The Heckerling Institute on Estate Planning, the largest CLE program in the U.S., celebrated its 50th anniversary with over 3,000 attendees.

## FROST SCHOOL OF MUSIC 9

The Frost School of Music, led by Dean Shelton Berg, is a highly acclaimed music school where students build themselves into musicians with the artistic,

technological, and entrepreneurial skills to thrive in the 21st century. Undergraduate students develop their musicianship utilizing the groundbreaking Frost Method, which replaces large lecture-based classes with small experiential ensembles, in which students compose, arrange, improvise and perform across all genres.

Several programs and departments celebrated key accomplishments this year, including the Music Business and Entertainment Industries Program, named one of *Billboard's* Top 12 Elite Music Business Schools Shaping the Industry's Future. The Department of Music Media and Industry proposed eight new Graduate Online Certificates—four in Music Business and four in Arts Presenting—designed for individuals who are not current Frost School graduate students.

The Department of Instrumental Performance launched a revised Master of Music degree in Instrumental Performance, requiring students to take courses from a menu of Artist Development courses designed to help them initiate and sustain successful careers as performing artists.

Artist Development courses are also required for students pursuing master's degrees in jazz, keyboard, or vocal performance. The L. Austin Weeks Recording Studio, home to Music





Engineering Technology, is one of the most advanced academic and professional recording studios in the world. The studio recently unveiled its \$1 million renovation, making it the first of its kind to house three full-size integrated mixing consoles with digital and analog capabilities.

Sir James Galway, the internationally acclaimed flutist, joined Frost as one of the University's Distinguished Presidential Scholars.

Frost students continued to earn high accolades, including a first-place win for Jordan Rattner in the Wilson International Guitar Competition. Students took home 15 DownBeat Awards in 2016, followed by another eight in 2017. The Frost Opera Theater's production of *Mavra and Ainadamar* was named No. 3 in Top Ten Performances of 2016 by *South Florida Classical Review*.

#### MILLER SCHOOL OF MEDICINE 10

The Miller School of Medicine set a bold course for the future with the selection of a new dean, the introduction of a new model for patient care, the evolution of transformational treatments and procedures, and an expanded commitment to medical education. Following a nationwide search, Edward Abraham, dean of the Wake Forest School of Medicine, was named dean and chief academic officer of the Miller School and physician executive of the University of Miami Medical Group.

Under the interim leadership of Laurence B. Gardner, the Miller School again placed among the top 50 medical schools as ranked by *U.S. News & World Report*. The publication also named the Department of Physical Therapy No. 10 in the U.S., and its "Best Hospitals" edition ranked Bascom Palmer Eye Institute the No. 1 eye hospital in the country for the 16th time. The Miller School's 1,701 research proposals set a record, with sponsored research expenditures totaling \$230.7 million. The school also continued its rise in the National Institutes of Health research rankings, reaching No. 39 nationally, at \$111.2 million—the highest in Florida.



The newly accredited Human Research Protection Program supervised 1,900 researchers conducting 3,500 active human research studies. Our Zika virus researchers garnered attention for their efforts to develop faster, less-expensive diagnostic and immunization treatments. And Sylvester Comprehensive Cancer Center's physician-scientists continued their steady progress in increasing cancer survivorship.

The opening of The Lennar Foundation Medical Center—a premier outpatient facility on the Coral Gables campus—launched a new patient care model that improves access to our world-class University of Miami Health System specialty physicians. Off campus, more than 350 faculty physicians, residents, and medical students participated in dozens of health fairs, clinics, and volunteer missions throughout South Florida, the Caribbean, and Latin America.

At our hospitals and clinics, UHealth's 1,400 physicians had 2 million patient encounters. To further improve patient care, we created the nation's first independent department of interventional radiology, a specialty that uses minimally invasive guided-imagery procedures to diagnose and treat almost every organ in the body. We recruited a first-year class



with a 63 percent increase in underrepresented minorities, and we continued planning a new state-of-the-art center for medical education.

#### SCHOOL OF NURSING AND HEALTH STUDIES 11

The School of Nursing and Health Studies welcomed new Dean Cindy Munro, a renowned health care researcher and innovator in the nursing field. She arrived just prior to the opening of a five-story, 41,000 square-foot Simulation Hospital. This transformative facility will serve as a resource for the school, for the University, and for national and international health care communities. It will convene students, faculty, scientists, health professionals, disaster preparedness experts, and technological partners to improve quality patient care and catastrophic event preparation, leading the way in education and innovation.

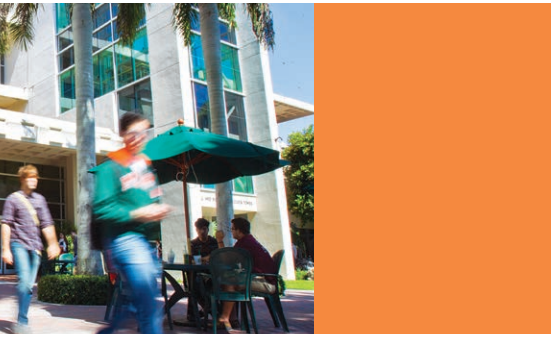
*U.S. News & World Report's* Best Graduate Schools 2018 guidebook ranks the school's master's programs 38th and Doctorate of Nursing Practice programs 46th nationwide. The inaugural cohort of B.S.N.-to-D.N.P. track nurse anesthetists graduated from the first such degree program in Florida with



a 100 percent certification rate. Nurse practitioner graduates' certification rates are more than 90 percent, and B.S.N. graduates' first-time pass rates remain above state and national averages. A growing reputation as a world-class health care education program has led to the highest student enrollment in school history.

Redesignated as a nursing-related Pan American Health Organization/World Health Organization Collaborating Centre, one of 10 in the nation, the school collaborates with global partners to capacitate nursing education, research, and health care workforce development in the Americas. The longstanding Haiti program went high-tech, incorporating telemedicine to advance health care delivery and workforce training. The international exchange program expanded to Ecuador and India, now offering students health care experiences in 10 countries on five continents.

Highlights of strong community-academic partnerships include a series of large-scale disaster simulations implemented at the school with University and community partners, as well as the extension of our clinical partners' network to provide telemedicine practice placements to nurse practitioner students.



The growing health studies programs attract high-caliber students, as exemplified by public health student Kristiana Yao receiving the first Truman Scholarship awarded at UM in 33 years.

#### UNIVERSITY OF MIAMI LIBRARIES 12

The theme of renewal through building connections with students, faculty, and the community-at-large surged through the University of Miami Libraries this year, fostering new and deepened partnerships aimed at improving library spaces and programs.

Construction began on the Learning Commons at the Otto G. Richter Library, a major renovation of the library's first floor to offer students convenient access to co-located academic service providers in the heart of the Coral Gables campus. The Commons features an inviting and technology-rich environment in which students can work individually and collaboratively, learn from peers and experts, discover and explore resources and ideas, and feel encouraged to create and experiment.

Construction of the Kislak Center at the University of Miami, slated to open in early 2018, is also



underway at Richter to house the donation of the Jay I. Kislak Collection of the Early Americas, Exploration and Navigation. With a grand reading room, lecture hall, and galleries, the state-of-the-art center will spark a mutually sustained dynamic between University programs and the communities of South Florida.

Ongoing scholarly work with the rich resources of the Cuban Heritage Collection inspired the Goizueta Foundation to provide two \$1 million gifts to the University. The first gift endows a Goizueta Foundation Graduate Fellowship Program; the second endows a Goizueta Foundation Cuban Heritage Collection Fund to build and preserve collections.

As a result of the efforts of the Libraries and the Lowe Art Museum to more closely align their teaching, collection building, preservation, and digitization programs, the Andrew W. Mellon Foundation awarded a four-year, \$500,000 grant to the University to sustain that collaborative effort. The Mellon grant establishes two new faculty fellowships, a new programming fund to incentivize faculty engagement with library and museum collections, and support for public programs that highlight these collections.



# Net Assets Reach \$2 Billion and Operational Transformations Begin

The University's net assets grew by \$261.5 million in fiscal year 2017, driven by investment returns of 13.5 percent, enhanced philanthropic activity, and a favorable pension valuation.

The increase in net assets is the largest in over a decade, and total net assets surpassed \$2 billion for the first time. This result was achieved even as operating activities produced a slight decrease in net assets, primarily as a result of a one-time charge related to a multi-year settlement accrual and with the medical enterprise investing millions in enhanced services and capabilities for the future. The year's financial results provide an outstanding platform in strengthening the medical enterprise and enabling progress on the University's strategic Roadmap to Our New Century.

Total operating revenue increased by \$112.6 million, or 3.9 percent, to almost \$3.0 billion.

Tuition revenue, net of increased scholarship and fellowship costs, increased by \$1.6 million, or .3 percent, through increased graduate enrollment and a modest tuition increase, offset by the University's commitment to providing financial assistance to its students.

Grants and contracts revenue increased by \$10.4 million, or 2.0 percent. Medical service contracts revenue increased by \$8.0 million, or 5.0 percent, with the remainder of the increase attributable to scientific research. The value of research proposals submitted increased 8.4 percent to \$1.8 billion, creating a pipeline for future growth.

Patient care revenue across UHealth-the University of Miami Health System, including medical professional practice revenues, specialty hospitals and clinics, and the University of Miami Hospital (UMH), increased by a robust \$74.7 million, or 4.8 percent, due to expansion of facilities and patient access throughout South Florida.

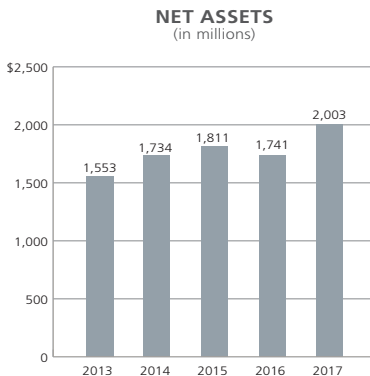
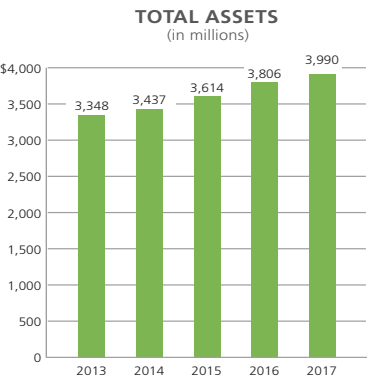
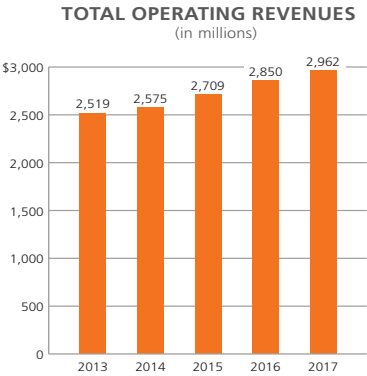
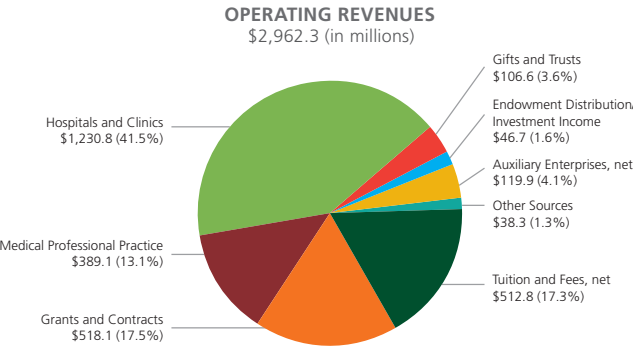
The University made significant progress toward its plan to reorganize its three hospitals into a single operating license. Planned outcomes from the reorganization include enhanced coordination of patient care, more efficient use of clinical space, a streamlined administration, and reduction in overhead. In conjunction with this effort, UHealth began a transformational and complex project to convert all of its information technology systems, including those related to patient care, to a consistent platform. These efforts will come to fruition in the coming year and further UHealth's position as a dynamic force in the regional health care market.

Net operating revenues at the Sylvester Comprehensive Cancer Center/University of Miami Hospitals and Clinics (UMHC) increased by \$87.4 million, or 13.9 percent. Leading-edge treatments, growing outreach and education activities, and expanding basic and transdisciplinary research provide a platform for success for Sylvester's pursuit of National Cancer Institute designation.

Net operating revenues at the Anne Bates Leach Eye Hospital increased \$11.8 million, or 8.9 percent. Bascom Palmer Eye Institute continued its standing as the No.1 ophthalmology program in the nation as recognized by *U.S. News & World Report*. This is the 16th time Bascom Palmer has received the nation's top ranking from the media company. Work continues on Bascom Palmer's 70,000-square-foot ambulatory care facility in Abu Dhabi, United Arab Emirates, scheduled to open in 2018.

Net operating revenues at UMH decreased \$8.2 million, or 2.1 percent. The decrease resulted from strategic changes in physician composition in anticipation of single licensure and the deliberate decanting of outpatient surgical volume to the new Lennar Foundation Medical Center to increase the availability of surgical time for intensive inpatient surgeries. The hospital also enjoyed a rebound in its quality ratings for which significant time and resources were employed. In the recently issued *U.S. News & World Report* rankings, UMH was ranked the fourth best hospital in the Miami-Dade metropolitan market and the 12th best in the state of Florida.

The state-of-the-art Lennar Foundation Medical Center, a 200,000-square-foot ambulatory care facility, opened in December 2016 on the Coral Gables campus. The facility brings together the best of the faculty practice, Bascom Palmer Eye Institute, and the Sylvester Comprehensive Cancer Center, and was designed to provide



a superior patient experience. Clinical volumes through the first few months of operation have met or exceeded projections. UHealth will further optimize the services available at this premier facility in the coming year.

In addition to the three hospitals, UHealth continues to expand its presence in the Miami-Dade market with the opening of two additional urgent care centers in partnership with the Jackson Health System and its collaboration agreement with Walgreens to manage and provide health care at 17 of its pharmacies throughout the tri-county area of South Florida.

Faculty practice plan revenue grew \$14.8 million, or 3.6 percent, before a one-time charge related to a multiyear payor settlement accrual. After the charge, revenue decreased \$18.2 million, or 4.5 percent.

Auxiliary enterprise revenue, which is derived from housing, dining, and athletics, increased \$6.6 million, or 5.8 percent. The increase is primarily attributable to football operations.

Total operating expenses for the University increased by \$193.2 million, or 6.9 percent.

Compensation and benefits increased \$93.5 million, or 5.5 percent, while supplies and services increased \$69.5 million, or 10.2 percent. A significant portion of these increases are related to the opening of The Lennar Foundation Medical Center.

Depreciation, utilities, and interest increased by \$3.0, \$4.9 and \$3.6 million, respectively. These increases were expected based on new construction and the 2016 bond issuance.

Other expenses increased by \$18.7 million, or 9.8 percent. Insurance increased by \$15.3 million; however, this was due largely to an \$11.3 million credit in the prior fiscal year related to an insurance recovery. The change in unrestricted net assets from non-operating activities was \$20.1 million, a \$61.2 million increase. Investment income, net of distributions, increased \$21.5 million due to investment returns. Investment return on the University's Growth Pool was 13.5 percent compared to last year's loss of 4.4 percent.

The change in unrestricted net assets due to post-retirement related changes other than net periodic benefit costs was \$75.9 million, an increase of \$141.7 million. The defined-benefit pension plan, which has been frozen to new participants since June 2007, was positively impacted by a change in the interest crediting rule that lowered the pension obligation and investment returns. At year-end, plan assets were \$777.8 million, and the plan's unfunded liability was \$166.7 million, a decrease of \$89.5 million.

For the fiscal year, total donations for operating, non-operating, and restricted uses totaled \$284.2 million, an increase of \$110.6 million, or 63.7 percent. Dr. Phillip and Patricia Frost's transformational gift of \$100 million

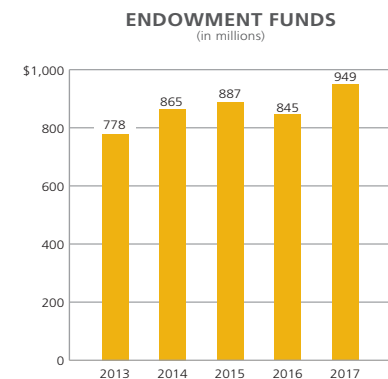
in spring 2016 to support basic and applied sciences and engineering set the stage for an outstanding year of fundraising. Gift revenue to the University increased in every net asset classification.

With regard to the University's ongoing investment in its facilities, we opened the 41,000-square-foot School of Nursing and Health Studies Simulation Hospital. The facility includes classrooms, exam rooms, and simulated operating rooms, as well as regular and neonatal intensive care units to replicate a hospital setting. At the School of Architecture, the Miller BuildLab opened and the 13,500-square-foot Murphy Design Studio is scheduled to open in spring 2018.

Permitting and site work began on the Carol Soffer Football Indoor Practice Facility, an 81,800-square-foot facility that will feature two field-turf fields—one 80 yards long and an additional 40-yard field. The facility, scheduled to open in fall 2018, includes a football operations center with a mezzanine level that will house football coaches' offices and meeting rooms. We are grateful to the Soffer family for the \$14 million lead gift for this facility, which is vitally needed for our football program.

Construction began on phase one of a multiyear plan to expand, replace, and/or renovate on-campus residential housing. Phase one will add 1,100 beds to the existing inventory of 4,200 beds and is expected to open in fall 2019.



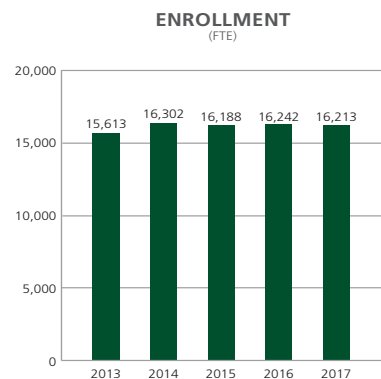


The project includes unique programming elements on the ground level, both indoor and outdoor, that will energize the campus area across Lake Osceola from the Shalala Student Center and contribute to an improved living and learning environment for all students.

Over the last year, the University of Miami's Information Technology department (UMIT) implemented a variety of security tools, including conversion to a single virtual private network and improved firewalls to secure the clinical applications environment. In addition, network operations and security operations centers were created, which will work together to monitor network performance and identify, investigate, and resolve security threats in real time.

Continuing UMIT's work in advancing administrative systems excellence, the Workday Finance project continued with phase one implementation on September 1, 2017. The first phase of the project includes financial and property accounting, procurement, reimbursements, and grants management.

To better meet faculty and student needs in a rapidly changing technological environment, the Academic Technologies (AT) team hosted the 2017 Faculty Showcase, which brought together 110 faculty to discuss their use of technology to enrich teaching and learning. The AT team has launched the new Cognate Search Engine to help students find cognates



that match their academic interests. In addition, AT has taken a leadership role in the Educational Innovation Roadmap Initiative, focused on faculty development programs and new learning spaces to transform the way we teach.

Nothing is more important than the safety of our University community. The University of Miami Police Department, which is committed to ensuring on-campus safety through its program of proactive, comprehensive efforts, reported a 17.6 percent decrease in crime in 2016 based on incidents tracked by the FBI's uniform crime reporting system. This was on the heels of a 17 percent decrease in crime the previous year.

The main focus of the University's Human Resources division during the past year was enhancing the foundational employee experience. Two major programs, orientation and performance feedback, were completely redesigned. I Am the U, a creative and highly engaging orientation program for new faculty and staff, focuses on our traditions, values, and service standards, and creates excitement about being a part of our vibrant community. The new TALK for Success program leverages Workday technology to facilitate ongoing productive conversations between managers and employees about performance goals and career development while driving accountability for cultural attributes. The University placed No. 15 on the 2017 Forbes

list of America's Best Employers—the highest-ranked university in the nation and the highest-ranked organization in Florida. We are honored to receive this recognition, which is based on independent surveys of employees and reflects the pride of our faculty and staff and how they feel valued.

President Frenk has laid out a challenging and ambitious course for every segment of the University's mission: education, research, and patient care. The Division of Business and Finance met the challenge this fiscal year and will continue to support the University's strategic vision while embracing transformation and administrative excellence to continue to move the U forward.

**Jacqueline A. Travisano**  
*Executive Vice President  
for Business and Finance  
and Chief Operating Officer*

## REPORT ON THE ENDOWMENT

# Prudent Changes Foster Strong Year for Endowment

Thanks to a strategic shift in managers, reduction in costs, and strong investment returns, fiscal year 2017 was very successful for the University of Miami's Endowment Growth Pool (GP). Highlights for the year included:

- 13.52 percent investment return
- Outperformance seen in nearly all core asset class benchmarks
- Reduction in real asset allocation ahead of asset class underperformance
- Multimillion-dollar reduction in fees paid to managers
- Conclusion of a comprehensive review of GP portfolio that resulted in transitioning the majority of assets to new managers

In addition to relative returns, a key indicator of performance is relative to benchmarks. For the 12 months ending May 31, 2017, the GP returned 13.52 percent compared to its total portfolio and 60/40 benchmarks of 13.75 percent and 10.93 percent, respectively. This is the largest outperformance of the 60/40 benchmark in the past five years and the first year where the portfolio nearly matched the total portfolio benchmark.

Individual manager performance is reviewed on a regular basis, and all managers are subject to the University's rigorous due diligence process. As a result of a comprehensive review, the GP transitioned the majority of its assets to new managers.

The Board of Trustees Investments Committee annually reviews the asset allocation for the GP. During fiscal 2017, the portfolio's strategy was shifted toward a global allocation that optimizes risk-adjusted returns (net of fees paid). At May 31, 2017, some core asset classes were slightly above or below policy targets due to manager redemptions that were not yet received because of holding period restrictions (specifically in absolute return) or committed capital that had not been called (private equity).

The University's GP strategy is to ensure that current and future spending requirements are supported while preserving purchasing power through asset growth. Performance is measured over the long term and is based on meaningful asset class diversification, access to top active managers, and significant exposure to index funds. We are confident that the prudent changes implemented in fiscal year 2017, which helped realize significant gains, will provide a strong foundation for the future of the GP.

**Charmel Maynard**, Associate Vice President and Acting Treasurer

## HISTORICAL GP PERFORMANCE vs BENCHMARKS

	Actual <sup>1</sup>	Benchmarks	
		Total Portfolio	60/40
2013	16.73%	19.71%	15.41%
2014	12.92%	14.43%	11.29%
2015	3.42%	5.00%	4.36%
2016	-4.40%	-2.71%	-1.87%
2017	13.52%	13.75%	10.93%

<sup>1</sup> Net of Fees

## POLICY PORTFOLIO TARGET AND RANGES

	Range	Target	May 31, 2017
Public Equity	55-65%	60%	64%
Absolute Return	5-20%	13%	18%
Private Equity	5-10%	8%	3%
Real Assets	0-15%	4%	1%
Fixed Income	5-15%	13%	12%
Cash	0-5%	2%	3%

## ENDOWMENT GROWTH AT MARKET (in millions)

	One Year	Five Years	Ten Years	Fifteen Years
Beginning Balance	\$ 844.6	\$ 678.7	\$ 741.4	\$ 427.0
Return, including unrealized appreciation (depreciation)	107.2	302.7	276.7	547.9
Distributions to operations, etc. <sup>1</sup>	(43.1)	(189.2)	(349.6)	(467.3)
Gifts and other net additions	39.9	156.4	280.1	441.0
Net increase (decrease)	104.0	269.9	207.2	521.6
Ending Balance	\$ 948.6	\$ 948.6	\$ 948.6	\$ 948.6

<sup>1</sup>For most endowments, this is pursuant to the University's Endowment Spending Policy.



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*\*As of October 10, 2017*

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<sup>1</sup> Member of Executive Committee

<sup>2</sup> Member of Finance Committee

<sup>3</sup> Member of Audit and Compliance  
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