Courage at the Crossroads

President’s Report 2020

UNIVERSITY OF MIAMI
Talent

World-renowned aerosol scientist and engineer Patrim Biswas was named dean of the College of Engineering. Biswas, a member of the National Academy of Engineering, is a pioneer in his field, recognized for applying aerosol science and engineering to multiple areas, such as energy and environmental nanotechnology, solar energy, air pollution control, and medicine. Anthony Eudelo Varona, an attorney and educator who specializes in administrative law, communications and media law, and sexuality and gender law, was named the new dean at the School of Law. Over the past three years, job applicants have increased by 88 percent and reflect a diverse pool, while our staff retention has been steady.

Students

The incoming class is one of the most competitive, selective, and diverse in our history. For the incoming class of 2020, we met 97 percent of demonstrated financial need upon admission—this is an all-time high for the institution. Applications are up 20 percent over the past five years, exceeding 40,000. Our yield rate has risen by more than 30 percent during the same period—meaning those we are admitting are choosing the U at a higher rate.

Philanthropy

We have secured 53 endowment chair commitments, halfway toward our goal of 100 by 2025. The past five fundraising years rank among the 10 best in the University’s history; three of them are among the top five. Since 2015 we have raised more than $200 million each year—a first in University history.

Health System

Even before the coronavirus turned life upside down, the University of Miami Health System and Miller School of Medicine responded—redesigning how to care for these patients, protecting the providers themselves and working on treatments, rapid testing, and a vaccine. By summer, we had started the first of at least two national COVID-19 vaccine trials, for Moderna and Janssen.

In response to Hurricane Dorian, a cadre of faculty from the Miller School of Medicine began working with officials in the Bahamas to provide health care assistance. The Miller School received a record $149.5 million in research grants from the National Institutes of Health in Federal Fiscal Year 2019—a $16 million, or 12 percent, increase over the school’s FY18 total, raising the school to No. 39 of 142 institutions in the national rankings. Bascom Palmer Eye Institute was ranked the No. 1 eye hospital in the nation for the 19th time.

Finances

The University ended FY20 with an operating surplus of $25 million, contributing to the University’s overall financial position of $2.5 billion. This positive year-end operating result was achieved despite significant disruption experienced in the fourth quarter of the fiscal year due to COVID-19, and is attributed to University leadership’s swift financial mitigation actions and federal stimulus support under the CARES Act.

Hemisphere

Launched by the University of Miami in 2018, the Hemispheric University Consortium expanded its membership in 2019 to include 14 universities from throughout the Americas working to bolster collaborative research in five areas: climate change, public health, entrepreneurship, conflict, and technology. The University joined the Puentes Consortium, a binational group of universities in the U.S. and Mexico that support multidisciplinary research by providing resources for visiting scholars, offering grant writing assistance, and convening large-scale conferences.

Inclusion and Belonging

Over the past five years, we have broken barriers with a series of firsts for women, African Americans, members of the LGBTQ community, and other minorities in leadership positions—and have deliberately invested in efforts to support inclusion. This summer, we unveiled a 15-point plan to advance racial justice by building upon diversity and inclusion at the University, including the establishment of new leadership positions; Donald Spivey, distinguished professor of history, was named special advisor to the president on racial justice, and Osamudia James, dean’s distinguished scholar and professor of law, was named associate provost for diversity, equity, and inclusion within the Office of Faculty Affairs. Our efforts are evolving and ongoing to foster a culture of belonging and inclusion at the U.

Message from the President

Courage at the Crossroads

As I write this, we find ourselves at the crossroads of three significant crises—a once-in-a-generation outbreak of a highly contagious and novel disease; the economic emergency triggered by the pandemic; and the unrest and renewed calls for social justice as we reexamine issues of racism and abuse of power.

We could not have anticipated at the start of this fiscal year that the world as we understood it would fundamentally change. We are adapting to massive shifts in our lives. From how we greet a stranger or a friend to how we teach, learn, and build community, nearly every human interaction has been altered during this unprecedented time.

I am proud that we are facing these challenges from a position of strength because of the progress made over the past half-decade on our strategic goals, and because of the dedication of our leadership team to make tough choices, without wavering in its commitment to our mission during times of uncertainty.

In these pages, you will find stories and key metrics on how our community has acted with courage, before we knew what 2020 would bring and now during these very trying times—adapting, evolving, and in many ways accelerating our progress in teaching, research, service, and innovation.

We Are One U,

Julio Frenk
President
Student Success

We continue to attract exceptional students and ensure they succeed and graduate on time. The Task Force for Student Success, established by Provost Jeffrey Duerk, has made a significant impact, as evidenced by our retention and graduation rates. University leadership, including Provost Duerk and Jacqueline Travisano, executive vice president for business and finance and chief operating officer, also made a commitment to revolutionize the student experience through ‘Canes Central—a new integrated student support process and facility, which launched this past spring.

STUDENTS HELP FUEL RECOVERY FOR BAHAMIAN BUSINESSES AFTER HURRICANE DORIAN

A cadre of students with the Miami Herbert Business School’s interdisciplinary action project class met with Bahamian students and local businesses in Freeport to share ideas and inspire hope.

With a warning that Hurricane Dorian was thundering through the Caribbean Sea and bearing down on the Bahamas, Alex Thompson, owner of a retail clothing store in downtown Freeport, rushed frantically with her small staff to shift merchandise off the racks and walls and store it under tables and safeguard it on the floor.

Five months after Dorian crippled the Bahamas in Sept. 2019, Thompson and other small- to mid-sized business owners are struggling to keep their businesses afloat. They need ideas. They need support. And maybe most of all, they need the hope that comes with knowing someone cares.

That caring, along with help and hope, arrived in the form of a group of 18 graduate students from the University of Miami. The students, accompanied by Alex Niemeyer, associate professor of professional practice overseeing the action project interdisciplinary class offered by the Miami Herbert Business School, flew to Freeport for a three-day visit as part of the Bahamas Consulting Project, a collaboration with the University of the Bahamas.

“One of the things that we can do is to help the business owners feel like they’re heard, that we’re listening to them,” said Gaby Gallou, a second-year M.B.A. student and native of France. “They have issues, and they need to feel that they have support. We can bring it by doing our research, helping with technology, and reviewing their day-to-day operations to help them get back on their feet and be more resilient for the future.”
KEY METRICS

- Undergraduate applications for the incoming class of 2020 exceeded 40,000 and are a new record, up 20% from 2015.
- Our selectivity rate over the 2015 to 2019 period improved from 38% to 27%.
- Our yield rate over the 2015 to 2019 period improved from 16% to 21%.
- Total graduate/professional students exceeded 6,500 (6,504) for the first time in University history, up 5% since 2017.
- The past two years of first-to-second-year undergraduate student retention (~93%) were two of the three highest years ever.
- For the incoming class of 2020, we met 97% of demonstrated financial need upon admission—an all-time high for the institution.

LAW STUDENTS TEACH LEGAL WRITING AT DADE CORRECTIONAL INSTITUTION

Without a right to an attorney on many post-conviction relief matters, individuals who are currently incarcerated are left to advocate for themselves. The University of Miami School of Law helped provide those at Dade Correctional Institution (DCI) with tools to present their strongest case.

Led by professor of legal writing Shara Kobetz Pelz, in partnership with the HOPE Public Interest Resource Center and Exchange for Change (E4C), a local nonprofit that brings creative and other educational courses to prisons in South Florida, the law-school-level legal writing course met over six sessions and focused on persuasive writing, legal reasoning, legal analysis, research, and citations.

More than 15 students helped Professor Pelz teach the 18 “inside students” (people who are currently incarcerated) enrolled in the course. Guest speakers included professor of legal writing Rachel Stabler and the associate director of the Law Library, Robin Schard, who shared their expertise.

At the beginning of the course, the inside students were assigned to represent either the defendant or the government in drafting a motion to suppress or an opposition to a motion to suppress. Each week, they worked on a different part of the motion, and the course culminated with oral arguments. Some of the inside students who were assigned to represent the government were naturally surprised, but being able to argue both sides of an issue makes any student a more persuasive writer.

From the first session, it was clear that the course was going to be an incredibly moving experience for all participants.

When Exchange for Change started this partnership with HOPE, I don’t think any of us realized how powerful it was going to be,” said Kathie Klarreich, chair of E4C. “It wasn’t just the high quality of instruction from Professor Pelz but the exchange of ideas and connections made between the inside and outside students. Initially, the E4C students were worried about their ability to keep up with a college level course, but once it started, the only complaint I ever heard was that the course was only one-semester long.”

Feedback from School of Law students was equally powerful, as the course did much more than just teach practical skills.

“One of the most valuable things about this program is its ability to shatter stereotypes through experiential learning,” said Angel Sanchez, a second-year law student who assisted in the course.

“Seeing my Miami Law classmates experience this for themselves, inside and out. Sanchez’s willingness to share his personal story throughout the course and the success he has had since being released from prison was an inspiration to all of the students, inside and out.
Imagine this: developing an oral rinse test to quickly detect COVID-19, creating a behavior therapy program for parents so they do not pass the stress they are feeling to their children during the pandemic, and gauging the effects of COVID-19 on pregnant women to determine the impacts on their new babies.

These are just a few of the 24 projects awarded rapid response grants from the University of Miami’s Office of the Vice Provost for Research and Scholarship. The grants, which ranged from $5,000 to $40,000, require faculty members and students to develop and execute research that will somehow broaden our understanding of COVID-19 and begin to mitigate its impacts.

With just 10 days to submit proposals, faculty members across the University flooded the office with applications, and more than 70 ideas were submitted. Each award was reviewed by three individuals, and the awardees were selected based on novelty, potential impact on the effort to combat COVID-19, and whether the study could be completed in short turnaround time.

“The faculty response was inspiring,” said Erin Kobetz, vice provost for research and scholarship. “There was a level of innovation across multiple disciplines that demonstrates an institutional commitment to addressing the COVID-19 pandemic. We look forward to the outcomes of those applications that were funded and imagine that they will lead to positive, measurable impact now and in the future.”

Teams are reporting on their findings as of the publishing of this report.

Research and Relevance

The University of Miami is a top-tier research university with research awards averaging $500 million each year for the past three years in a row—a 13 percent increase since 2015. Our scholars pursue solutions to the world’s most pressing problems with passion and integrity. Adjusting to the impact of the novel coronavirus, students and faculty members found unique ways to keep research projects ongoing.
MAPPING THE GLOBAL HIGHWAYS OF HATE

A team of researchers created the first mapping model of its kind to track how hate spreads and adapts online and, they hope, to thwart it.

Researchers who set out to help social media platforms and law enforcement dismantle online hate groups have developed a model that shows how tight-knit social clusters form resilient “global hate highways” that bridge online social networks, geographic borders, languages, and ideologies.

In a study published in the journal Nature, researchers from the University of Miami and George Washington University found that banning a given hate group from a given social media platform has the unintended consequence of strengthening, rather than weakening, the group because it can quickly self-repair and rewire elsewhere.

“It is essentially a whack-a-mole game. Once you whack one mole, it will show up somewhere else,” said senior author Stefan Wuchty, associate professor in the Department of Computer Science who helped conceive of and supervise the study, funded in part by a Phase I grant from the University of Miami Laboratory for Integrative Knowledge, or U-LINK. “It is counter-intuitive, but pushing hate groups from one platform will show up somewhere else,” said Wuchty. “There are many groups online that cater to your resentments and weaknesses. It is like an all-encompassing flytrap that can quickly capture new recruits who don’t yet have a clear focus for their hate.”

The study tracked hate clusters on Facebook and its Central European counterpart, VKontakte. The researchers saw clusters that were banned create new adaptation strategies, such as migrating and reconstituting on other platforms, or using different languages to regroup on other platforms or reenter the same platform. This allows the cluster to quickly bring back thousands of supporters to a platform on which they had been banned and highlights the need for cross-platform cooperation.

Using insights gleaned from its online hate mapping, the team developed four intervention strategies that social media platforms could immediately implement based on situational circumstances. Using their map and its mathematical modeling as a foundation, Wuchty and other members of the team are developing software that could help regulators and enforcement agencies implement the new interventions.

In addition to Wuchty, other University of Miami authors on the study, which was supported in part by a grant from the U.S. Air Force, included recent graduates Minzheng Zhang and Pedro Mannique, and graduate student Prajwal Devkota, who was instrumental in data collection.

UNIVERSITY STUDENTS OFFER SOLUTIONS FOR SEA LEVEL RISE IN LOCAL COMMUNITY

Engineering students investigated resilient solutions for one of Miami’s communities that is most vulnerable to sea level rise.

Just a few miles from the beaches and the heart of downtown Miami lies a beautiful community with multimillion-dollar homes and high-rise condos boasting incredible views of Biscayne Bay. But there is one problem. This tiny hamlet, called North Bay Village, was built at sea level. And with climate change prompting water levels to rise, its ability to remain a viable place to live is under threat.

North Bay Village and the University of Miami are working closely together as the community refines its strategic plan to protect its residents’ property into the future. Faculty members from two of the University’s Laboratory for Integrative Knowledge (U-LINK) teams are working to test many sustainable solutions in the village, including resilient seawalls and seagrass structures.

During the spring 2020 semester, the sustainable construction class, led by Edeber Andiroglu, associate professor, graduate and undergraduate student teams researched novel solutions for erosion control and offered ways to emulate coral reefs, which University researchers have found effectively reduce wave energy. These include concrete reef balls that could be submerged on the floor of Biscayne Bay to help protect islands from storm surge and attract oysters that help improve water quality, according to Afeefa Abdool-Ghani, a Ph.D. student in environmental engineering.

Students also proposed that the village use floating seawalls to generate blue energy, or clean renewable energy produced from the currents of the ocean. They explained that many communities are partnering with the Federal Emergency Management Agency and that North Bay Village could do the same. Village leaders seemed interested in the projects and asked for printed copies of the reports.

“Two of the best ways to protect a beach from erosion is to emulate its natural defense mechanisms,” said graduate student Jose Heighes. These reef balls also provide an environment for natural marine life,” he added. “And damaged corals can even be transplant- ed on them. This can be enjoyed by divers, snorkelers, and fisherman.”

The group also suggested that North Bay Village attach tiles along the five miles of seawall that surround its three islands. These textured tiles, which can be 3D-printed, mimic the root structures of mangroves, which protect islands from storm surge and attract oysters that help improve water quality, according to Afeefa Abdool-Ghani, a Ph.D. student in environmental engineering.

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Health care workers’ fear at the beginning of the pandemic gave way to confidence as they successfully took extensive precautions and adapted new procedures to confront a challenge none had seen before. With no visitors permitted at the hospital, communicating with families has been central to the team’s challenge. Doctors, nurses, and patient experience representatives have been calling patients’ families every day, and some families without devices to communicate have been provided hospital iPads in the lobby to talk to their relatives.

The teams on the front line have been adapting as they learn more about the virus and have been doing everything they can to take care of each other and their patients during this challenging time.

Educating patients and providing occupational therapy have made it possible for the Tower to send patients home sooner. Respiratory therapists, physical therapists, and environmental services have all contributed to the hospital’s strength in caring for patients and protecting patients and staff. An added feature was the adoption of teleregression, using TytoCare home health devices that allow providers to remotely monitor and care for some COVID-19 patients, which allowed them to go home and stay out of the hospital.

The health system’s ambulatory operations also had to make fundamental adjustments, as nonessential care was cut back and patients delayed other visits. The acceleration of virtual visits across all specialties provided important, safe options for patients, and telehealth will continue to be a major part of the health system’s medical care moving forward.

The number of COVID patients in UHealth Tower lowered significantly from the summer peak, but the hard-working, now exceptionally experienced health care workers are prepared for any rise in cases—or the next virus.

“It’s a constant state of readiness,” said Joseph Falise, nurse manager for the cardiovascular ICU, neuro ICU, and COVID ICU. “We have learned so much and have adopted processes and procedures that will be with us forever.”

Preeminent Academic Health System

UHealth–University of Miami Health System is South Florida’s only university-based medical system. UHealth delivers leading-edge patient care by the region’s best doctors, powered by the groundbreaking research from the students and faculty at the Miller School of Medicine. Our medical system is the No. 1 NIH-funded institution in Florida.

FRONT-LINE HEALTH CARE HEROES RESPOND TO COVID-19

As it became clear that the global COVID-19 pandemic posed a significant threat to South Florida, our front-line health care teams responded aggressively and innovatively to ensure the safety of patients.

In the early months of the pandemic, every day presented a new challenge—beginning with creating a coronavirus ICU at UHealth Tower. Careful training, specialized monitors, plenty of personal protective equipment, and a raft of new processes succeeded in protecting patients and staff.

UHealth Tower has confronted the pandemic by essentially creating a COVID hospital and a non-COVID hospital within its walls, said Tanira B.D. Ferreira, chief medical officer of University of Miami Hospital and Clinics. Separate floors are designated exclusively for COVID cases, as needed.

“We have a very comprehensive surge plan that allows us to flex up and down depending on the number of patients with COVID and treat non-COVID patients in a completely separate wing,” Ferreira said.

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TRANSFORMATIVE MEDICINE
The Miller School plays a pioneering role in developing novel stem cell therapies.

Investigators across the Miller School of Medicine are taking a transformative approach to medicine, hoping to harness the regenerative capacity of stem cells. Working together to advance this promising field, molecular and cell biologists, neurologists, cardiologists, geriatricians, immunologists, endocrinologists, surgeons, and other specialists are making the University of Miami’s Interdisciplinary Stem Cell Institute (ISCI) a leader in stem cell research, both in the lab and through many of the world’s most robust clinical trials.

From basic science research to leading several clinical trials, ISCI is one of the few centers in the nation that are demonstrating the complete bench-to-bedside approach in this exciting field, testing stem cell treatments for cardiovascular disease, Alzheimer’s, stroke, depression, diabetes, Crohn’s disease, pulmonary fibrosis, and many other conditions. If these scientists can harness stem cells to repair or replace diseased tissues, they could solve many of the world’s health problems.

ISCI scientists are rigorously looking at different approaches. To pursue this strategy, they have collaborated broadly with colleagues throughout the University and at other institutions across the country to conduct clinical trials and test a new idea that mixing different cell types can enhance repair and recovery.

The University has two facilities—one in ISCI and one at the Diabetes Research Institute (DRI)—that manufacture cell products for patients.

ISCI’s facility, which serves as a stem cell production site for local and national trials, provides a comprehensive platform for everything from basic science and pre-clinical research to development and clinical manufacturing under the same roof.

The DRI site was the first facility in the United States to produce advanced cell products that can be shipped long distances—as far away as Australia.

BRAIN POWER
New brain-aided technologies are expanding the reach of medicine and transforming lives.

People with disabilities face a range of challenges every day. Those with spinal cord injuries, for example, often need help eating, bathing, and dressing. But imagine those people now being able to pick up a cup of coffee.

In a clinical trial at the University’s Miami Project to Cure Paralysis, researchers are collaborating with scientists from the Miller School’s Department of Neurological Surgery and the College of Engineering’s Department of Biomedical Engineering to restore hand and arm movement to a 22-year-old man who was paralyzed in a motor vehicle accident several years ago.

The process begins with a strip of electrical contacts that are implanted on the surface of the participant’s brain in the area that controls movement. Those contacts pick up brain activity that sends a signal to a laptop computer. Then, machine-learning algorithms decode the signal and send impulses that activate paralyzed muscles, which enables opening and closing of the patient’s hand.

The researchers are tapping into the intact capabilities of the brain and the arm muscles and using technology to replace the damaged signal pathway in the spinal cord. So, when the participant thinks, “I want to move my hand,” he can initiate movement.

KEY METRICS

- Patient satisfaction for our hospitals, as measured by loyalty and the willingness to recommend, reached its highest performance and is trending in the top 25% of our national peers.

Patient satisfaction has risen to the top 25% of our national peers.
Pride for Our Student-Athletes

University of Miami student-athletes continue to set the example for achievement inside the classroom and on our playing fields. In the 2019-20 academic year, a school record of 237 student athletes made the 2019-20 Atlantic Coast Conference Honor Roll, which recognizes individuals who earned a 3.0 GPA or higher.

This past spring, during an unprecedented pivot to online learning amid a global pandemic, Athletics set a department record for semester GPA (3.49) and cumulative GPA (3.16) as every Hurricanes Athletics team posted at least a 3.0 grade point average. Our women’s tennis team set an Athletics semester record with a 3.78 GPA and our football team’s spring semester and cumulative GPAs set a team record.

Nine of our programs were recognized for perfect single-year scores of 1,000 in the latest Academic Progress Report released by the NCAA. Five of those programs—men’s and women’s cross country, golf, and men’s and women’s tennis teams—earned Public Recognition Awards for finishing in the top 10 percent of their respective sports based on the most recent multiyear APR.

Our student-athletes placed fourth nationally in the NCAA Team Works Helper Community Service Competition, our third consecutive year making the top 10. The rowing, soccer, and men’s track and field/cross country teams each finished second in their respective competitions, while the football team finished third.

Former football coach Jimmy Johnson, who led the Hurricanes to the 1987 national championship, was elected to the Pro Football Hall of Fame’s Class of 2020, and former football coach Dennis Erickson, who led the University to national championships in 1989 and 1991, was inducted into the College Football Hall of Fame’s Class of 2019.

The Hurricane Club raised close to $11 million in 2019-2020. This includes $1.5 million in commitments to support our endowed scholarship fund, 10 new Golden ‘Canes Society members, three seven-figure gifts—one being the largest gift in the University’s baseball history from a former student-athlete, and a record $650,000 raised at the University’s Sixth Annual Celebration of Women’s Athletics, which saw record attendance of more than 550.

STUDENT-ATHLETE HIGHLIGHTS

A Football redshirt freshman defensive end Gregory Rousseau led the conference in both sacks and tackles for loss, earning first-team All-ACC honors and winning the ACC Defensive Rookie of the Year Award.

B Senior forward Beatrice Mompremier earned honorable mention All-America honors and was selected in the second round of the Women’s National Basketball Association Draft.

C Senior David Dinsmore captured the ACC platform diving title, his fourth consecutive gold medal in the conference meet.

D Randy Ableman was named ACC Men’s Diving Coach of the Year for the fourth time in six years.

E Debbie Ajagbe won the shot put and weight throw titles at the ACC Indoor Track and Field Championships and was named ACC Indoor Track Scholar-Athlete of the Year.

F The NCAA awarded track and field standout Brittny Ellis a $10,000 NCAA Postgraduate Scholarship for both her academic and athletic achievements. Ellis was also a Top 30 honoree for 2020 NCAA Woman of the Year.

G Four Hurricanes—linebacker Shaquille Quarterman, running back DeeJay Dallas, wide receiver K.J. Osborn, and defensive end Jonathan Garvin—were selected in the 2020 National Football League Draft. In addition, four Hurricanes (Trajan Bandy, Romeo Finley, Michael Pinckney, Jeff Thomas) signed as undrafted free agents.

H The University’s baseball team, ranked seventh in the country when the season was shuttered, had three players—pitchers Slade Cecconi and Chris McMahon and shortstop Freddy Zamora—selected in the first two rounds of the Major League Baseball Draft.

I Estela Perez-Somarriba, the reigning NCAA women’s singles tennis champion, earned the Intercollegiate Tennis Association Southeast Region’s Arthur Ashe Leadership and Sportsmanship Award as well as its Senior Player of the Year accolade.

J Renate Grimstad won the 2020 Dinah Shore Trophy, awarded to the top collegiate female golfer who has made an impact both on the golf course through her leadership and on society through charitable endeavors.
ENGINEERS, ARCHITECTS, NURSES, AND DOCTORS TEAM UP TO PROTECT HEALTH CARE WORKERS

In May 2020, as the worry of limited personal protection equipment loomed and the threat of COVID-19 continued, a host of personal protective equipment was 3D-printed and fabricated by a team of engineers, architects, nurses, and doctors at the University of Miami to safeguard medical personnel.

Looking like something out of a Hollywood horror film, smoke billowed from the patient simulator’s mouth and nose, filling a pyramidal-shaped acrylic chamber that encased the mannequin’s head.

Standing nearby was Richard McNeer, an anesthesiologist at the University of Miami Miller School of Medicine.

The chamber, he observed, was working flawlessly, preventing the smoke—in this case, theatrical fog used to mimic COVID-19 respiratory particles—from reaching him and the team of other health care experts who had gathered to test the device as part of a mock intubation procedure.

But then, McNeer had one of those “aha” moments. He discovered that a Yankauer, a special suctioning tool used in many medical procedures, could actually evacuate most of the aerosol particles if it were positioned—prior to intubation—strategically near the opening of the simulator’s vocal cords.

“It was a serendipitous discovery,” McNeer recalled. “Suction has been used to remove everything from stomach contents to blood. But this is perhaps the first time it’s been considered for use in suctioning out aerosols. This is something that can be done upstream of just about any of the other strategies and safety measures to prevent exposure to the virus during intubation.”

A formidable one-two punch, the chamber, or intubation box, and suction tubing are part of a broad University of Miami initiative to 3D-print and fabricate devices and personal protective equipment (PPE) for medical personnel on the front lines of the war against COVID-19.

From low-cost ventilators and powered air-purifying respirators to surgical helmets, filter caps for N95 masks, and even nasal swabs used to test for the coronavirus, a multitude of products are either in the design and testing phase or, as is the case with the intubation box, in actual use.

Departments and divisions from across the University were involved in the endeavor, helping to ramp up stockpiles of medical supplies at a time when demand has outpaced supply.

‘Canes Take Action

These stories of impact highlight efforts of students and faculty from across the schools and colleges.
CINEMATIC VOYAGE ACROSS THE GLOBE’S OCEANS CAPTIVATES AND EDUCATES

Ocean Health Voyage, an online educational platform produced by a University of Miami filmmaker, offers members of the Hemispheric University Consortium an innovative learning opportunity.

For two years, Ali Habashi, an award-winning filmmaker and assistant professor at the University of Miami School of Communication, set off to meet with 10 world-renowned marine biologists in 10 remote locations around the globe in order to unearth stories about the health of the world’s oceans.

Even as Habashi moved from country to country, through thrilling helicopter rides and deep-sea dives, his goal always remained clear. The project had to be more than just a visually pleasing production; it had to leave a lasting impression on his audience.

“As a filmmaker, you always have to think about who is going to watch and the type of impact your work is going to have. There’s no point in creating something that’s going to be forgotten in a day,” said Habashi.

“When it comes to addressing challenges such as environmental or global public health issues or climate change, we need to find ways to reach all the students no matter if they’re studying at the School of Communication, College of Engineering, School of Education and Human Development, or Miami Herbert Business School. They all need to have that essential education,” he added.

“So,” Habashi continued, “part of the innovation here is to create a sustainable framework where we as communicators and filmmakers can incorporate our cinematic skill set to capture the inspiration that drives a distinguished researcher dealing with such issues in a distant location and bring that global experience to our students across the hemisphere. The new generation of students is hardly willing to settle for anything less.”

With funding from the Herbert W. Hoover Foundation, the hundreds of hours of footage Habashi collected on his journey culminated in the making of Ocean Health Voyage, an innovative educational online platform that weaves a modular syllabus with adventurous documentary-style films.

As Habashi explained, the educational cinematic experience features marine researchers on-site from field locations, above and underwater, as they teach fundamental ocean science and shine a light on the real-life complexities of working with stakeholders, finding solutions for balancing resource consumption, and conservation.

This educational platform is available to the 14 university members of the Hemispheric University Consortium (HUC). Initiated by the University of Miami in 2018 and led by President Julio Frenk, the HUC aspires to be a platform where unique partnerships among equals, subject accountability, and where knowledge is co-constructed and research and innovation are shared.

The course presents opportunities for students in different countries to collaborate remotely on group discussions, assignments, and capstone projects specifically designed to help them develop awareness of the marine conservation issues.

HEALTH CARE CURRICULUM TAKES ON HUMAN TRAFFICKING

The University of Miami School of Nursing and Health Studies is bringing the widespread crime of human trafficking to the forefront of health education.

“Every nurse needs to have the ability to respond in an appropriate way to someone in trouble,” said Dean Cindy L. Munro, noting that the Florida Board of Nursing now requires continuing education on the topic of human trafficking.

The school is raising the bar on such education by working with stakeholders to create a simulation-based curriculum that addresses in real time the complexities health providers face in recognizing and responding to patients enslaved by traffickers.

One example: The school’s Simulation Hospital Emergency Department created a simulated scenario: A “patient” being trafficked by her “boyfriend” grows increasingly agitated after being transported to the emergency department against her will while unconscious.

The nurse practitioner on duty (a student) is suddenly faced with assessing a scared and uncooperative patient in real danger of further harm. Munro emphasized that to avoid re-traumatization, only specially trained standardized patients must portray the human trafficking victims in such scenarios, never human trafficking survivors themselves.

This scenario represents an ongoing collaboration between assistant professor of clinical and director of Simulation Hospital special projects Susana Barroso-Fernandez, and JoNell Potter, who runs the THRIVE (Trafficking Healthcare Resources and Interdisciplinary Victim Services and Education) clinic at the Miller School of Medicine.
EXPANDING VOICES

Twenty-four ‘Canes are tapped to join national initiative to dramatically increase the public impact of women and underrepresented minorities.

An ethnomusicologist who specializes in African American and Caribbean music at the Frost School of Music, Melvin Butler has written extensively about music’s relevance to many personal, social, and political issues. Yet the associate professor is rarely called upon to publicly share his insights.

“‘In my case, ethnomusicology touches on race, religion, gender, class, and all these areas that are in the news, that are concerns for everyday people,’” the acclaimed saxophonist said. “Yet I don’t have a role in the public discourse that I’d like to have. As romantic as it sounds, I want what I publish to make the world a better place. But it gets trapped in this academic bubble.”

An archaeologist and associate professor in the College of Arts and Sciences, Pamela Geller has similar feelings about sharing her expertise on what it means to be human in the midst of what she calls the “Plastics Age.”

“Unlike ceramics or stone or even metal, plastics don’t biodegrade and are shifting humans in a way that is hard to gauge because we are in the middle of it,” Geller said. “But it will have a dramatic, long-term impact on humanity and the planet, so it’s crucial to figure out a way to talk to the larger public about this really important topic.”

Both Butler and Geller are about to get some expert help sharing their own expertise. They are among the 24 thought leaders the University of Miami recently selected to participate in the Op-Ed Project’s Public Voices Fellowship, a national initiative now rolling out at top universities to dramatically increase the public impact of women and underrepresented minorities who usually aren’t on the go-to list for commentary or influential forums.

CONFRONTING ANTI-SEMITISM AND RACISM

The Holocaust Studies Institute at the School of Education and Human Development educates teachers on how to help their students go beyond the ‘we’ versus ‘they’ mentality.

Teachers can play a major role in addressing the rising incidence of hate crimes in the United States, according to Mary Johnson, senior director, Facing History and Ourselves. “We need to help students feel comfortable with living in our diverse society.”

Educating students about the horrors of the Holocaust and the continuing threats of racism and anti-Semitism in America today is vital for maintaining a healthy democratic society, added Johnson. She also encouraged teachers to reach out to emotionally isolated students who may be vulnerable to the recruiting of white nationalist hate groups.

Her remarks were part of a professional development session with more than 75 Miami-Dade County Public School teachers held during the 2019-20 academic year.

Miriam Klein Kassenoff, a child of the Holocaust and founding director of the University of Miami Holocaust Teacher Institute Team, led the annual professional development institute, sponsored by the University of Miami School of Education and Human Development and the Miami-Dade County Public Schools Division of Academics, Department of Social Sciences.

Kassenoff, told attendees the dramatic story of her escape from the Holocaust in June 1941 with her family. She and other survivors from the community—including Peter Tarjan, professor emeritus from the University of Miami—gave testimony of their coming to America and asking teachers to tell and retell their students about the survivors’ stories of hope, resilience, and survival.

In her talk, “The Persistence of Hate in America: Anti-Semitism and Racism,” Johnson said the ideology of white nationalism dates back more than a century to the discredited “eugenics” concept of the late 1800s. “The central idea is that a pure, white America is somehow stronger than a society with mixed races,” she said. “Somewhere, they also blend their racism with anti-Semitism.”

“The real question for today, is how do we challenge the ideas that drive these hate groups and continue decade after decade,” she said. “We need leaders in government with high ideals who believe in equality. We also need teachers who promote critical thinking, encourage their students to ask questions, and talk about human rights in their classrooms.”
One month later, what began as a love story between two University of Miami undergraduates some 60 years ago—Patti, B.B.A. ’57, and Allan Herbert, B.B.A. ’55, M.B.A. ’58—culminated in a transformational gift to support the University’s trajectory as a global leader in business education. In honor of their $100 million lifetime giving to their alma mater and the largest gift ever to the business school, the school was named the University of Miami Patti and Allan Herbert Business School. Patti passed away in July 2020, yet her and Allan’s legacy lives on through the Herbert Challenges they created as part of their landmark gift to encourage support from other philanthropists and alumni.

Then came a global pandemic, followed by an economic fallout and outcries for social justice. And, with the same resilience and generosity that has defined the University of Miami for 95 years, Hurricanes around the world responded. Alumni from coast to coast headed to New York City, the early epicenter of the COVID-19 crisis, to volunteer their services in hospitals citywide.

Financial and in-kind contributions to support student needs, accelerate research, enhance patient care, and provide medical supplies to frontline health care workers totaled nearly $8 million—including a $933,000 gift from the Marcus Foundation for COVID-19 clinical trials, a $100,000 gift from the Dr. John T. Macdonald Foundation for the development of a quick, inexpensive diagnostic test to accelerate early detection of the coronavirus, and more than $120,000 to provide a tassel and a note of encouragement to graduating students.

When Hurricane Dorian devastated the Bahamas last September, the University of Miami stepped forward, establishing The U Responds disaster relief fund to help the nation of islands recover. With a $1 million lead gift from the Lennar Foundation, the fund enabled the deployment of teams from the Leonard M. Miller School of Medicine, the School of Nursing and Health Studies, and other areas to the Bahamas to provide medical care and infrastructure repairs, while on campus, student groups came together to support their Bahamian colleagues.

In a year contrasted by extraordinary generosity at one end and unimaginable heartache at the other, once again, the very best of the human spirit prevailed.

With Gratitude to Our Donors and Alumni
For the 10th year in a row, the Miami Dolphins teamed up with Sylvester Comprehensive Cancer Center at the Miller School of Medicine for the 2020 Dolphins Cancer Challenge. The record 6,000 participants who rode, ran, and walked in this signature event, many of whom are cancer survivors, helped raise $6.2 million to support Sylvester's efforts to conquer the disease. Since its establishment in 2010, the DCC—the NFL’s No.1 fundraiser—has attracted more than 30,000 participants and raised more than $39.2 million to fight cancer. This year, the event was chaired by our own Jacqueline Travisano, executive vice president for business and finance and chief operating officer.

The New York-based Simons Foundation, whose mission is advancing the frontiers of research in mathematics and the basic sciences, made a $2 million grant to the College of Arts and Sciences’ Department of Mathematics to support the piloting of a new Institute of Mathematical Sciences of the Americas. By strengthening mathematical ties between the University of Miami and Latin America through a series of collaborative partnerships, the new institute promises to be a powerful factor in the future of the discipline across the hemisphere.

Thanks to the vision and generosity of our donors, the University has secured 53 new endowed faculty positions toward our goal of 100 Talents by our centennial in 2025. These include the Oscar de la Renta Endowed Chair in Cancer Research, made possible by a gift from the family of the late Oscar de la Renta, one of the world’s leading fashion designers. Stephen D. Nimer, director of the Sylvester Comprehensive Cancer Center, was installed as the inaugural holder of this prestigious appointment, which will be used to propel innovative research that impacts more lives.

Miami baseball alumnus and President’s Council member Thomas “Tommy” Adams, A.B. ’57, made the largest gift in support of the baseball program by a former University of Miami baseball student-athlete, donating $1 million toward the University of Miami’s Baseball Facility Enhancement Campaign. In recognition of his generous gift, the home plate entrance to Alex Rodriguez Park at Mark Light Field will be renamed the Tommy Adams Main Entrance. Adams played for the Hurricanes from 1953-1957 before joining the major leagues.

Loyalty to his alma mater and a desire to help LGBTQ students prompted John I. McKinstry, B.B.A. ’69, to commit $250,000 to establish the LGBTQ Endowed Emergency Assistance Fund and the LGBTQ Student Center Endowed Program Fund. The gift, the first of its kind to the University, will respectively provide short-term emergency assistance to self-identified LGBTQ+ students experiencing financial or emotional difficulties, and will support their pursuit of volunteer opportunities with community service organizations.

With more than $310 million in commitments, our endowment is at its highest level ever at $1.1 billion.

Since 2015 we have raised more than $200 million each year—a first in University history. The past five fundraising years rank among our top 10 best fundraising years ever.
Report on Business and Finance

As the University entered into its fourth quarter of fiscal year 2020, it faced a ‘once in 100 years’ event—the global coronavirus pandemic (COVID-19). This public health crisis had an immediate impact on our community and across all economies and industries worldwide and the University responded swiftly.

The result was a series of rapid changes to all areas of our operations: teaching modalities, health care delivery, safety measures, financial mitigation actions, and more.

Through a team approach led by President Julio Frenk, and with solution-oriented determination and resiliency, the University community demonstrated a devotion to its core mission and principles, and its profound commitment to care for the community it serves.

The University’s well-executed and rapid response to COVID-19, combined with stimulus funding provided under the CARES Act and the generous support of our donors, led the University to end fiscal year 2020 with an increase in total net assets of $98.8 million.

Despite the significant operating disruption experienced as a result of COVID-19, the University ended the fiscal year with a 0.7 percent operating margin, contributing to the University’s overall financial position of $2.5 billion.

The financial disruption caused by COVID-19 has been experienced in all industries across the world, and its financial impact on the higher education and health care industries has been felt with equal force. The pandemic brought forth terms never before considered at this magnitude, such as: domestic and international travel bans, mandatory stay-at-home orders, mandatory suspension of elective medical procedures, and social distancing requirements.

The University moved aggressively to evaluate multiple scenarios of financial impact and simultaneously identified measures to offset them. Thanks to the determined actions taken by leadership in this unprecedented event, the University was able to mitigate additional losses related to COVID-19 and end fiscal year 2020 with an operating surplus of $25 million.

The operating performance of fiscal year 2020 represents an understandable contrast from prior fiscal years. However, the University remains fully committed to its academic and clinical missions, as it continues to increase the strength of its financial position.

Net assets increased $98.8 million, or 4.1 percent, to a record high of $2.5 billion. The increase in net assets experienced in fiscal year 2020 was achieved despite the financial disruption and operational challenges resulting from COVID-19.

Operating revenue growth of $109.8 million, or 3.1 percent, to $3.7 billion was outpaced by the year-over-year growth of operating expenses due to the effect of COVID-19 on revenue generating lines of business, resulting in an operating surplus of $25 million.

Tuition revenue, net of scholarship and fellowship costs, increased by $27.2 million, or 4.9 percent,
attributed to an increase in undergraduate enrollment and a modest tuition increase, offset by the University’s commitment to providing financial assistance to its students.

Net patient service revenues decreased by $28.5 million, or 1.4 percent, due to a decline in outpatient surgery volumes and additional services temporarily suspended due to mandatory government shutdowns related to elective surgeries related to the COVID-19 pandemic.

Grants and contracts revenue increased by a robust $52 million, or 26.7 percent of total operating expenses, grew by $56.4 million, or 5.6 percent, due to planned personnel and compensation growth and benefit costs.

Supplies and services, comprising 26.7 percent of total operating expenses, grew by $56.4 million, or 6.1 percent. The majority of the increase is associated with medical supplies and other fees for services. The increase in medical supplies was primarily due to higher patient activity through February and increased costs related to COVID-19.

The change in net assets without donor restrictions totaled $122.7 million, a decrease of $146.1 million from 2019.

The University’s total assets increased $383 million in fiscal 2020, or 4.6 percent, primarily contributed by increases in cash and cash equivalents of $714.1 million, resulting from proceeds from the drawdown of the University’s line of credit totaling $700 million. Accounts payable and accrued expenses increased $23.6 million mainly due to the overall increase in payroll related liabilities driven by the $18.8 million deferral of employer social security payments as provided for under the CARES Act. Accrued pension and postretirement benefit costs decreased by $23 million, and contributing to this is the $12.6 million contribution to the University’s defined benefit plan.

Total liabilities increased by $797.5 million, or 35.4 percent, primarily contributed to the drawdown of the University’s line of credit totaling $700 million. Accounts payable and accrued expenses increased $23.6 million mainly due to the overall increase in payroll related liabilities driven by the $18.8 million deferral of employer social security payments as provided for under the CARES Act. Accrued pension and postretirement benefit costs decreased by $23 million, and contributing to this is the $12.6 million contribution to the University’s defined benefit plan.

We continue to monitor our forecasts on a daily basis and are adjusting as needed to achieve these commitments. As One U, we are navigating through the impact of the COVID-19 pandemic. I am confident that our determination and resilience will lead us to a stronger tomorrow.

Jacqueline A. Travisano
Executive Vice President for Business and Finance and Chief Operating Officer
Report on the Endowment

Fiscal year 2020 represented two contrasting themes—sustained momentum in capital markets consistent with much of the last decade for the first three quarters, followed by unprecedented volatility across asset classes during the last quarter. The societal and economic disruption caused by the COVID-19 pandemic abruptly ended the longest bull market in history, which started in 2009.

Despite investors being wary of the “late-cycle” market prior to the pandemic, very few in the investment industry accurately predicted March’s swift drawdown. In many respects, the University of Miami was prepared. The allocation of capital was anticipated and the investment industry accurately predicted March’s swift drawdown. In many respects, the University of Miami was prepared. The allocation of capital was anticipated and the University’s discipline to rebalance asset classes to their targets proved fruitful, given the quick rebound the market has experienced since the March drawdown.

In response to the pandemic, the University performed deep dives into all investment managers to better understand the impact on their portfolios and any resulting strategy updates. Additionally, the University increased the share of dollars to active managers to ensure investments are made into companies positioned to win in this new economic environment. Strengthening investments in high quality credit and treasuries provided additional protections to the portfolio in the event of more volatility. The University’s discipline to rebalance asset classes to their targets proved fruitful, given the quick rebound the market has experienced since the March drawdown.

Divestment, equity, and inclusion also remained a central theme this past year. Aligning with wider University values regarding equality and social justice, we continue to hold ourselves and our investment partners accountable to give this matter its due emphasis. Just as in the workplace, we believe diversity leads to better investment outcomes and performance—our primary objectives as stewards of University gifts.

While this past year has been unprecedented, we are confident that the strategies put in place have increased the through-cycle profile of the Growth Pool, positioning the portfolio to generate long-term returns in excess of spending and inflation without undue reliance on a favorable economic backdrop.

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Charmel Maynard
Associate Vice President, Chief Investment Officer, and University Treasurer

The Growth Pool’s balanced asset allocation and partnerships with best-in-class investment managers contributed to a positive 2.2 percent return for the fiscal year despite the strong headwinds of the last quarter.

HISTORICAL GP PERFORMANCE VS. BENCHMARKS

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<tr>
<th>Year</th>
<th>Total Portfolio</th>
<th>60/40</th>
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<tbody>
<tr>
<td>2017</td>
<td>13.52%</td>
<td>14.10%</td>
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<tr>
<td>2018</td>
<td>9.40%</td>
<td>9.13%</td>
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<tr>
<td>2019</td>
<td>0.04%</td>
<td>-0.07%</td>
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<tr>
<td>2020</td>
<td>2.20%</td>
<td>4.40%</td>
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*Net of Fees

POLICY PORTFOLIO TARGET AND RANGES

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<tr>
<th>Range</th>
<th>Target</th>
<th>May 31, 2020</th>
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<tbody>
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<td>Public Equity</td>
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<tr>
<td>Absolute Return</td>
<td>5-20%</td>
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<tr>
<td>Private Equity</td>
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<td>Real Assets</td>
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<td>Fixed Income</td>
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<tr>
<td>Cash</td>
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ENDOWMENT GROWTH AT MARKET (IN MILLIONS)

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<tr>
<th>Period</th>
<th>One Year</th>
<th>Five Years</th>
<th>Ten Years</th>
<th>Fifteen Years</th>
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<tr>
<td>Beginning Balance</td>
<td>$997.4</td>
<td>$887.3</td>
<td>$618.2</td>
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<tr>
<td>Return, Including Unrealized Appreciation (Depreciation)</td>
<td>27.6</td>
<td>181.5</td>
<td>498.8</td>
<td>574.4</td>
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<tr>
<td>Distributions to Operations, etc.¹</td>
<td>(41.9)</td>
<td>(212.0)</td>
<td>(378.0)</td>
<td>(530.2)</td>
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<tr>
<td>Gifts and Other Net Additions</td>
<td>67.7</td>
<td>193.8</td>
<td>311.7</td>
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<td>Net Increase (Decrease)</td>
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<td>163.4</td>
<td>432.5</td>
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<tr>
<td>Ending Balance</td>
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<td>$1,050.8</td>
<td>$1,050.8</td>
<td>$1,050.8</td>
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¹For most endowments, this is pursuant to the University’s Endowment Spending Policy.