



arts & sciences

UNIVERSITY OF MIAMI | SPRING/SUMMER 2020



Photo: TJ Lievonen/University of Miami

MEDIA SAVVY Associate Professor of Political Science Joseph Uscinski was interviewed by Fox News in the Otto G. Richter Library's Kislak Center on UM's Coral Gables Campus. Uscinski specializes in the study of conspiracy theories and has been featured in numerous television interviews and print publications from BBC News to *Politico Magazine*, NBC News, and *The New Yorker* magazine.



**NO
LIMITATIONS**
pg. 28

Inside

VOLUME 21 | ISSUE 1 | ARTS & SCIENCES | SPRING/SUMMER 2020

DEPARTMENTS

02

AROUND CAMPUS

Scenes and sites on the Coral Gables campus

04

A&S NEWS

COVID-19 research and other stories concerning the pandemic

12

ALUMNI NEWS

Grammy-nominee Savannah Leaf

14

FIVE QUESTIONS

Q&A with John Gulla from the Office of Emergency Management

15

MAJOR INFATUATION

Students and graduates reflect on their major

16

CLASS SPOTLIGHT

The new world of big data

28

STUDENT DIGEST

Hammond Scholar Landon Coles

30

FACULTY CORNER

Pew grant winner studies reef restoration in the Caribbean

40

END NOTE

Celebrating 70 years of the Lowe Art Museum



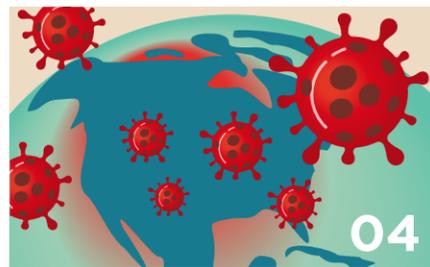
28



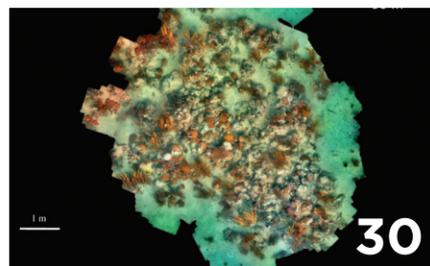
40



22



04



30



18



16

FEATURES

18

DREAMING OF BROADWAY

Theatre Arts seniors prep for their annual showcase in NYC

22

PROMOTING SUSTAINABILITY

A&S faculty promote “green” initiatives and sustainable programming

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FROM THE DEAN

Dear Friends,

As I sit in my home office, I realize how quickly our lives have changed in the past few months. Yet through these challenging and uncertain times, I am incredibly grateful and proud of our students, faculty, staff, and alumni who have come together—as we ‘Canes do—to support each other.

The pandemic has hindered several meaningful events and milestones. Nevertheless, our students and faculty have shown resilience to the challenges. In early May, we honored our 2020 graduates as we set them off onto their paths, ready to lead and contribute to a better world. As a College, we swiftly transitioned to remote learning so that our students can successfully complete the semester, and allowed those staff and faculty members who can telework to do so. Our faculty continue with their scholarship, research, and other services across the different disciplines. And our alumni are helping us build up a valiant and supportive community.

This global crisis has no doubt taught us new ways of thinking and, at the same time, built a new level of cooperation. We will emerge stronger and better prepared to tackle any challenges that we would face in the future. As we live in an interconnected world, it is critical that we act responsibly for the good of our society and the wellbeing of all.

Our commitment to our students is stronger than ever. Every one of us is dedicated to their academic success as well as providing them with an exceptional learning experience. We seek new ways to innovate the classroom



**Leonidas G. Bachas, Dean
College of Arts and Sciences**

experience and provide opportunities to engage them as we are all navigating this “new normal.”

I hope you enjoy our fully online issue of the *arts&sciences* magazine. I invite you to read stories about our world-class faculty from diverse disciplines conducting cutting-edge research related to COVID-19; news about the Art & Art History and Chemistry departments donating much-needed personal protection equipment (PPE) to the University of Miami Health System; and how our faculty are generating programs and projects centered on sustainability initiatives, in and out of the classroom environment, and much more.

I encourage you to visit our website and join us on social media platforms Instagram (@umiamicas) and/or Facebook (facebook.com/umcas) to learn more about our initiatives and programs. Thank you for your continued support to the College of Arts and Sciences.

I hope you and your loved ones stay safe and healthy.

Go ‘Canes!
Leonidas G. Bachas

MAKE A DIFFERENCE. Your gift to the College of Arts and Sciences helps us support student scholarships and retain leading faculty. as.miami.edu/donate

Around Campus



PANDEMIC PRECAUTIONS
University of Miami President Julio Frenk and members of the University's Emergency Operations Center closely monitor the COVID-19 pandemic in March.
Photo: TJ Lievonen/University of Miami



INVESTIGATING THE EFFECTS OF COVID-19

A&S scholars will examine multiple angles of how the current pandemic is affecting society.

H

ow is COVID-19 spreading throughout South Florida and can mathematical models help detect the transmission and containment of the virus? Is the impact of social distancing and community

lockdowns affecting families and elevating anxiety and depression in children? What does the public believe about the virus and are policymakers doing their best to share correct information about COVID-19?

Faculty across many disciplines began answering those questions and many more with the help of internal funding from the University of Miami College of Arts and Sciences.

“There are multiple lessons to learn about how this pandemic is affecting society. The goal in supporting faculty research is to create innovative approaches to difficult and complex problems happening within our community and communities around the world, and how our responses to COVID-19 will help us learn to develop new methods in handling natural disasters,” said Leonidas Bachas, dean of the College of Arts and Sciences.

The eight winning proposals feature projects rooted in the social and natural sciences—mathematics, psychology, political science, sociology—and are presented in methods of analytical study and scholarship addressing the many impacts of COVID-19. Here’s a look at the proposals and the teams behind them:

PSYCHOLOGICAL CONSEQUENCES OF QUARANTINE

Combining the expertise of researchers from the Department of Psychology, this proposal examines if people adhere to social distancing measures. The team is using survey data collection from a sample of participants with diverse sociodemographic backgrounds to find predictors of adherence to social distancing and the risk factors for those who do not follow the COVID-19 social

distancing guidelines.

The team will analyze the psychological symptoms of the COVID-19 pandemic, which is key for planning interventions that will alleviate psychosocial effects and help people cope with social distancing. According to their proposal, self-quarantine and social distancing measures related to the pandemic can cause individuals to experience anger, depression, and post-traumatic stress symptoms.

“The proposed project has significant potential benefit to South Florida. It will provide a basis for developing evidence-based intervention strategies to address the needs of the community affected by the pandemic,” the team wrote in its proposal. The team includes Professor Maria Magdalena Llabre, Professor Patrice G. Saab, and Associate Professor Kiara Timpano.

FAMILIES AND CHILD FUNCTIONING

For this proposal, Psychology Professor Jill Ehrenreich-May is exploring how families and children are being affected by the COVID-19 outbreak. In her proposal, Ehrenreich-May addresses how there is little “research about the impact of community-level social distancing measures and lockdowns on family functioning and, in turn, child anxiety and depression.”

The study is part of a coordinated effort with collaborators in different locations—Toronto, Boston, and Miami. Measurements and data will be taken from surveys assessing family functioning, child anxiety, and depression symptoms as well as media and news consumption habits, social distancing habits, and children’s comprehension of the current situation.

According to the proposal, the study will also address the levels of anxiety and depression experienced by families and children during a pandemic outbreak and establish resources for individuals and families encountering similar experiences.



MODELING THE OUTBREAK

Funding for this project will help Department of Mathematics Assistant Professor Xi Huo and Professor Shigui Ruan analyze modelling approaches to measure the transmission dynamics of COVID-19.

According to their study, social distancing, isolation, and quarantine measures are major health interventions made to contain an infectious disease. Yet, the COVID-19 outbreak has created challenges due to limited testing kits during its early phases, which hindered the detection of cases, caused late healthcare responses, and a depletion of medical supplies.

Using mathematical models, Huo and Ruan will construct simulations to study the impacts of case identifications and early interventions surrounding the outbreak of COVID-19 in South Florida specifically. They will also investigate how the magnitude of an outbreak can affect healthcare resources, as well as the efficiency of novel testing options and isolation strategies.

RESILIENCE AND RISK

Brain functionality during times of crisis is at the core of this proposal submitted by Associate Professor of Psychology Jennifer C. Britton. By using fMRI scans of the brain, Britton will determine the relationship between emotional flexibility, the emotional response during social distancing, and internalizing symptoms such as depression and anxiety.

To find out how the brain is functioning during the pandemic, Britton is using fMRI data to analyze the brain's valence flexibility, which is the ability to effectively switch from negative to positive information. Valence flexibility, according to her proposal, "may be an important factor in determining resilience and/or vulnerability to internalizing disorders like anxiety and depression."

"In this time of uncertainty surrounding the COVID-19 pandemic, cognitive and emotional flexibility are needed," said Britton in her proposal. "Cognitive flexibility, an executive function, allows one to adapt to changing situations. In addition to cognitive flexibility, individuals must also exert emotional flexibility to cope with the negative emotions experienced due to COVID-19-related threats such as fear of illness and social isolation."

PEOPLE OFTEN FORGOTTEN

For this proposal, Assistant Professor of Sociology Kathryn Nowotny is partnering with Dr. Zinzi Bailey, assistant scientist at the University of Miami Miller School of Medicine's Jay Weiss Institute for Health Equity at the Sylvester Comprehensive Cancer Center, to study the effects of the COVID-19 pandemic on the health and wellbeing of adults under community supervision and within community correctional facilities.

"Given the rapid spread of the novel coronavirus COVID-19 within prisons in other countries, U.S. correctional agencies are scrambling to implement strategies to mitigate the spread of COVID-19. Many people under the supervision of the correctional system are in relatively poor health and have chronic health conditions, like high blood pressure, asthma, cancer, tuberculosis, hepatitis C and HIV, making them particularly vulnerable to communicable diseases," the team wrote in their proposal.

By using precise data collection and analytical techniques, Nowotny and Bailey will identify the testing and diagnosis prevalence of COVID-19, and the health and service needs (such as unemployment services and childcare service) of adults under community supervision. They will also characterize how the broad impacts of COVID-19—school closures, food insecurity, stress, social isolation, as well as community corrections, service, and treatment closures—are affecting the mental health and wellbeing of adults under community supervision.

CONSEQUENCES OF MISINFORMATION

This team brings together researchers in the departments of Political Science and Geography and Regional Studies to determine the causes and consequences of COVID-19 misinformation.

According to the proposal, "recent data suggests that one-third of Americans believe the consequences of COVID-19 have been exaggerated for political gain and that the virus was intentionally created and released to harm people."

The team proposes to assess the public's response to the COVID-19 pandemic by collecting survey data on participants' awareness of the outbreak and their beliefs about the causes and consequences of the coronavirus. They will also measure public perceptions of government responses to COVID-19 to determine how Floridians change their perceptions and behaviors in response to shifting policies and messaging.

The findings will help science, health, and policy communicators develop best practices for sharing information and improving public compliance with safety measures. Team members include Associate Professors Casey Klostad and Joseph Uscinski in the Department of Political Science, and Associate Professor Justin Stoler in the Department of Geography and Regional Studies.

DIGITAL NARRATIVES OF COVID-19

Assistant Professor Susanna Allés-Torrent in the Department of Modern Languages and Literatures is using digital humanities techniques to data-mine the web to compare the academic and social views of the pandemic.

The study aims to explore the social and digital narrative behind the data from humanistic and bilingual perspectives. "Particularly in this time, in which data about COVID-19 seems to be everywhere and overwhelmingly generated in large volumes, digital humanities approaches, methodologies, and tools can help people understand information about it," she wrote in her proposal.

The proposal will focus on gathering data from syllabi, academic articles, and social data to compare the digital academic and social views of the pandemic. This work will collect the data from both English and Spanish online and social media outlets.

SERVING THOSE IN NEED

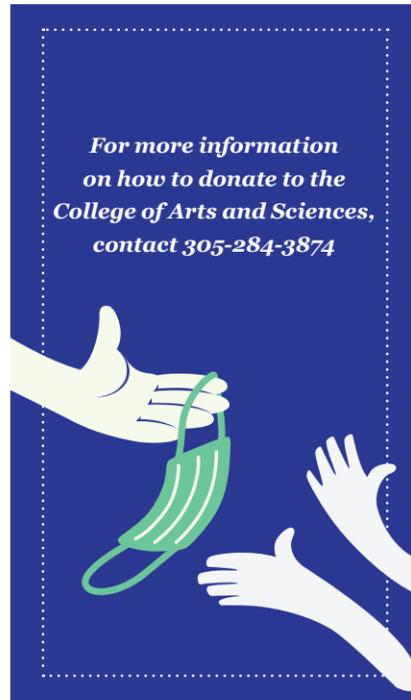
Funding for this project will help Assistant Professor of Psychology Sannisha Dale understand the needs and concerns of Black women living with HIV in Miami, and assess how COVID-19 is affecting an already stressed community.

Dale and her team will conduct phone interviews and share information with a wide selection of HIV-positive Black women to obtain information on their concerns and worries regarding the pandemic and its disruption to their healthcare needs, from canceled appointments to the lack of medication supply or refills. The interviews will then be transcribed to find and decipher prominent issues expressed by the participants.

"The COVID-19 pandemic has and may continue to have far-reaching consequences, particularly for those who are immune-compromised. However, timely research may be beneficial in informing future practices and interventions that could be implemented to sustain the health of immune-compromised individuals, such as women living with HIV," wrote Dale in her proposal.

College Donates Precious Resources

To help doctors and nurses control the COVID-19 pandemic, Chemistry students donated protective gear to the University of Miami Health System.



“With the recent impact of COVID-19, some of our goals have shifted,” said Lake Lige, former Chemistry Club president.

“We have adapted to providing needed materials for the community, instead of solely focusing on encouraging our community’s youth to appreciate the sciences.”

With chemistry labs and art studios devoid of students who are now learning online, the face masks, goggles and gloves they wore when mixing solvents or cutting wood sat idle. But now the protective equipment has a higher purpose.

The equipment is now in the hands of doctors and nurses at the University of Miami Health System who are now prepared for hospital patients with COVID-19. For Leonidas Bachas, dean of the College of Arts and Sciences, donating the gear to the Miller School of Medicine was a no-brainer.

“We extend our gratitude to the hardworking men and women in the medical profession who are diligently doing their best to help fight the spread of COVID-19,” said Bachas. “It’s important for us to share our resources and support doctors and nurses with much-needed goggles and gloves so they can protect themselves and their patients during this public health crisis.”

In all, the Art and Art History Department donated 60 N95 masks

that art class students use when cutting and sanding wood, grinding metals, or mixing plaster or clays. The Chemistry Department donated approximately 1,250 pairs of gloves, and the Chemistry Club provided 180 unused goggles.

“The goggles are all individually packaged and have never been worn,” said Leslie Knecht, the Chemistry Club advisor and a senior lecturer in the department. “We’re really happy to know these materials are going to a good cause. It’s making a negative situation into a positive.”

“We are in a very unique time in history, and it will take the whole community to get through it,” said Vincent Torres, emergency manager for UHealth and Miller School of Medicine. “COVID-19 will forever change how we do everything from education to medicine.” ■



Maintaining Vital Connectivity

Family outreach programs adapt to the new norm by creating virtual resources and tools to stay connected.

Connecting remotely and virtually is the new norm during these days of the coronavirus pandemic, and the changes deeply affect families with special-needs children who receive in-person services. To help families cope and stay connected, University of Miami programs like the Linda Ray Intervention Center and the University of Miami-Nova Southeastern Center for Autism & Related Disabilities (UM-NSU CARD) reevaluated their resources to deliver the best services they can to help families in need during these turbulent times.

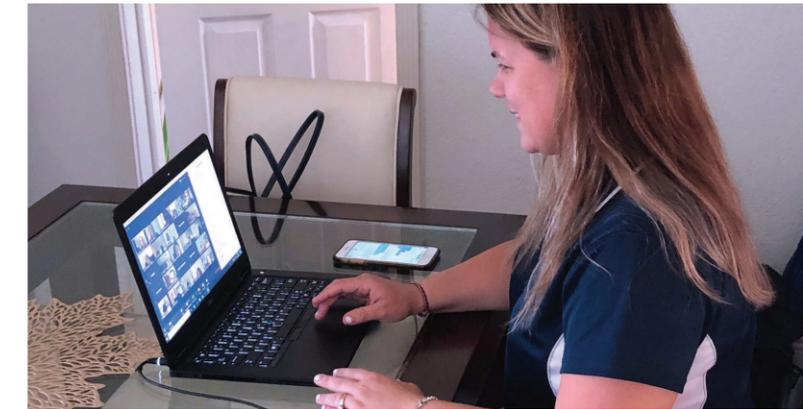
At the Linda Ray Intervention Center, which provides early intervention and collaborative programming for children living in at-risk environments and communities impacted by substance abuse and addiction, teachers, counselors, and service coordinators continue to reach out to families, usually by phone.

“While most families have a cell phone, they may be limited when it comes to educational learning materials at home for their very young children,” said Katz, a research associate professor. “They may not have a computer at home, and many don’t have email or internet access. Our families range from those who are tech savvy using their smartphones to grandmothers who are raising grandchildren and only use their phones to make or receive calls.”

For family caregivers who do have internet, center staff are connecting them to webinars they can watch or listen to from state resource networks and online programming such as

PBS Kids and online platforms such as Conscious Discipline for parents with children who have challenging behavior.

UM-NSU CARD serves more than 13,000 families who utilize the organization’s free autism-related support, clinical care, and educational programs. In mid-March, when public schools began to close, CARD teams in five branch locations across South Florida began to assess service-delivery options



Sara Dajer connects with team members on Zoom.

and ways to remain fully operational while remote.

“Our families are so appreciative of our efforts to stay connected with them during this very difficult time,” said Michael Alessandri, CARD’s executive director and a clinical professor of psychology. “The loss of school and therapy hours have them rightfully worried about regression in their children.”

Numerous online resources are now available to help parents and caregivers with children on the autism spectrum. The resources include virtual chat sessions with CARD board members, fitness and nutrition advice from physical education teachers, and mental health online support groups. **For more information, visit umcard.org and www.fdlrs-um.miami.edu** ■



A Mission to Serve

As the massive ship USNS Mercy neared the Port of Los Angeles at the start of the COVID-19 pandemic, Captain John Rotruck, the chief medical officer of the nearly 900-foot long floating hospital, reflected on his time at the University of Miami.

Rotruck said his experience and training at Ryder Trauma Center at Jackson Memorial Hospital, while a medical student at the University, provided him with confidence and steered him for deployments in Afghanistan, at Walter Reed National Medical Center, and now on the frontline of fighting a global pandemic.

“The supervised independence we received as medical students encouraged me to push my skills to their maximum possible extent,” Rotruck said in a telephone interview in March.

The Mercy, which recently departed Los Angeles, served as a relief valve for Los Angeles hospitals, providing a full spectrum of medical care onboard.

Rotruck grew up in Virginia Beach, Virginia. His father retired from the Navy and moved the family to Orlando, Florida, where Rotruck attended junior high and high school. To pursue his childhood dream to become a doctor, Rotruck applied for and was accepted into the University

of Miami’s then extant Honors Program in Medical Education—two years of undergraduate study toward a biology or chemistry degree, followed by four years of medical school.

He joined the Navy to take advantage of educational benefits that offset the cost of his degree, intending to fulfill the four-year military commitment and then return to civilian life. On entering the Navy, Rotruck completed his internship in internal medicine, followed by an operational tour with the Marine Corps in Southeast Asia and two tours as a flight surgeon. He then completed his anesthesiology residency and fellowship, and following his training served as the chief of cardiothoracic anesthesiology at the National Naval Medical Center.

As commanding officer of the medical treatment facility that features 1,000 beds, including 80 intensive care units, Rotruck is charged with running the hospital services and overseeing the medical staff, which makes up roughly two-thirds of the nearly 1,000 personnel on board.

“For the Navy and the military, a command tour is very different from anything you’ve ever done—you’re ultimately responsible for everything that happens,” Rotruck said. ■

Captain Rotruck is charged with running the 900-foot-long USNS Mercy.



Virtual Diplomats

The Dean’s Ambassadors program is adapting to virtual connectivity and support.

Assisting incoming freshman prepare for college and hosting high school tours on campus are just a few of the responsibilities carried out by the Dean’s Ambassadors, a group of outstanding students who represent the University of Miami College of Arts and Sciences at on-campus receptions and events.

Yet, these social, in-person responsibilities have dramatically changed for the Dean’s Ambassadors, who have adapted to online learning from home.

“Despite these difficult times, now more than ever our role as Dean’s Ambassadors is to maintain a degree of connection with the University’s different populations, and to serve as a resource that aims to help foster transparency and stress relief for the College’s current and future students,” said Miles Pendleton, a junior majoring in Africana Studies, and one of 12 ambassadors.

Emily Long, assistant dean for student academic services, is thinking broadly and effectively for ways to create cyber projects and virtual meet-ups that help the ambassadors continue to transition to virtual connectivity.

“We have a phenomenal group of Dean’s Ambassadors who are doing their best to stay connected with each other and their classmates,” said Long. “They have stepped into uncharted waters and their roles have definitely changed into a digital one. Although they are not walking around campus giving tours for high

school students, they are now behind a screen answering questions and sharing all the things that are possible at the U.”

Aloki Patel, a junior majoring in biology and criminology, notes that their fundamental role has not faltered. “However, our modes of doing this have transitioned from in-person to virtual outlets. It has been a relatively flexible and rapid transition under Dean Long’s supervision and guidance.”

The new initiatives include scheduled Zoom webinars for the

ing in virtual “Preview the U” events and signing postcards with encouraging and personalized messages to future UM students. Patel adds that the ambassadors are on a rotational, weekly schedule to check and responds to emails.

“What I have learned through this experience is that there are many more ways for us to stay intimately connected—despite physical separation and emotional circumstances,” said Pendleton. “While there is nothing that can fully make up for or replace direct face-to-face contact



Aloki Patel

Future ‘Cane Day event, which is normally held on campus. Dean’s Ambassadors are also using an interactive email account to answer questions from admitted students. The ambassadors are also participat-

and communication, in the times where that is not possible, we have the resources that enable the continuation and growth of a strong and caring community.” ■

The Layers of Savannah Leaf Class of 2014, Psychology Major

She's an Olympian, a photographer, a director, a writer, and most recently, a Grammy-award nominee. Savannah Leaf, '14, sees no boundaries. An accomplished student athlete for the women's volleyball team at UM, Leaf also played the sport at the 2012 Olympics in London. She has worked with well-known artists in the music industry and is currently directing a documentary. In this interview with Arts & Sciences magazine, she talks about her inspirations and her Grammy-nominated project with the artist Gary Clark, Jr.

You dominated in women's sports at UM. Now you're a Grammy-nominated director. What drives you? I genuinely believe that I can accomplish my goals, and that's an exciting thing to have boiling in your spirit. I see myself as extroverted introvert. I like to be by myself a lot and learn when no one is watching. At the same time, I like to compete and be around people who are more experienced than me and who can inspire and teach me.

The cinematography in "This Land" is jarring with a locale reminiscent of the Antebellum South. How did you know that this was the direction you needed to take to create this Grammy-nominated video? When I heard the song and spoke to the artist, Gary Clark, Jr., I knew the cinematography and visuals had to be somewhat surreal. We wanted to bring new conversations to the table. With that in mind, we were able to create a more dream-like space for the camera to live in. The way the camera moves throughout the piece is a reflection of how it feels to dream as a child in the South, affected by society's expectations and the historical landscape.

Do you want your work to change people's perceptions and connections with the world around them? I don't know if I can truly change people

or the way they perceive the world, but I think that I can inspire thought-provoking visuals that can stimulate discussion. That's the goal: To inspire conversation around uncomfortable topics. It's also to make people feel less alone in the world. My films often deal with my personal experiences, so I'm reaching out to others who might be feeling similar.



What inspires you and why? I think the world around me is my biggest inspiration. It's the relationships I have with my family, friends, and partners that have inspired so much of my writing. It's my personal experiences and the experiences of those closest to me that make me want to write. It's the current state of the world and global politics. It's also how I interact with society and the things that affect me on a day-to-day basis.

What's your next big project? I'm releasing a short documentary that I co-directed with my close friend Taylor Russell. The documentary is about women in Sacramento, California, who are raising children in difficult circumstances, whether it be through drug addictions or financial difficulties. The film is close to my heart, because it also talks about adoption and foster care, which Taylor and I have a unique connection to. ■

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JOHN A. GULLA

Classics Major, '11
Emergency Management Coordinator
Office of Emergency Management

1. What were the first few days like for the OEM team when news about COVID-19 began to spread?

Our role was mainly about gathering reliable information and planning ahead. Our OEM team, including my co-worker, Anna Simko, and our Director, Matt Shpiner, began discussing and drafting a document that would ultimately become our University Coronavirus Response Plan. As the situation continued to develop, the plan provided a roadmap for us and for University leadership to be coordinated as to what actions were being implemented and when.

2. How has COVID-19 changed the way OEM prepares for and responds to a threat like this?

OEM's function isn't to respond directly to the emergencies themselves, but about responding to the urgent circumstances and complex issues such emergencies create. With COVID-19, the University was presented with a scenario that left us little choice but to take action in order to protect the community for an unknown amount of time. Our challenge, then, was to help identify ways to safely continue our core mission while most of our faculty, staff, and students were away from campus. This is a different goal than in many other emergencies, where the central aim is to facilitate recovery and a return to normal operations as soon as possible.

3. At this point in your career, what have you learned about disaster preparedness and protecting UM staff, faculty, and students?

Having worked for UMPD for a decade before moving over to OEM (and being a student here prior), I have had the opportunity of seeing campus safety and preparedness from various perspectives. One thing that's become increasingly clear to me over the course of my career is that the feeling of safety and security is absolutely integral to the learning process. While that notion isn't likely to surprise most, I do think there are those within University settings across the globe who haven't associated emergency preparedness as contributing significantly to that overall feeling of general safety. I'm quite proud to work with a University that does.

4. How has OEM handled the distribution of accurate news and info to the UM community in relation to COVID-19?

It's hard to overstate just how harmful inaccurate information can be to the response and recovery processes of any emergency. During this global pandemic, it has been an even greater challenge since so many want to be involved in communicating news around them. At UM, the Emergency Management team works very closely with our UM Communications team, leadership, and other key partners to keep incorrect information

from being distributed throughout the campus community and online. Staying informed is important. Using verified sources is even more important!

5. What has helped you cope during these stressful and uncertain times?

What helps me most is knowing that I have done what I could reasonably do to prepare well ahead. For me, this meant having a supply of the essentials on hand: food, cleaning supplies, medicines, etc., and communicating with my family early and often about how we could best contribute to staying safe. In such times, taking care of the basics and communicating early cuts out a lot of unnecessary stress and uncertainty later on. I would add that we owe it to ourselves to find the time to periodically escape the constant onslaught of news and updates, and to allow ourselves the time to reboot, recharge, and to be ready to work toward rebuilding and recovering as a campus community as soon as we are able to safely do so. ■



Studying English is much more than reading books and writing essays, as these English majors and graduates can attest.

"Majoring in English allows me to travel through literature. I have read works by authors from many genres and their work has broadened my perspective as a scholar and an artist. My professors support my personal growth and passions. Most importantly, majoring in English has reminded me why I love to read!"

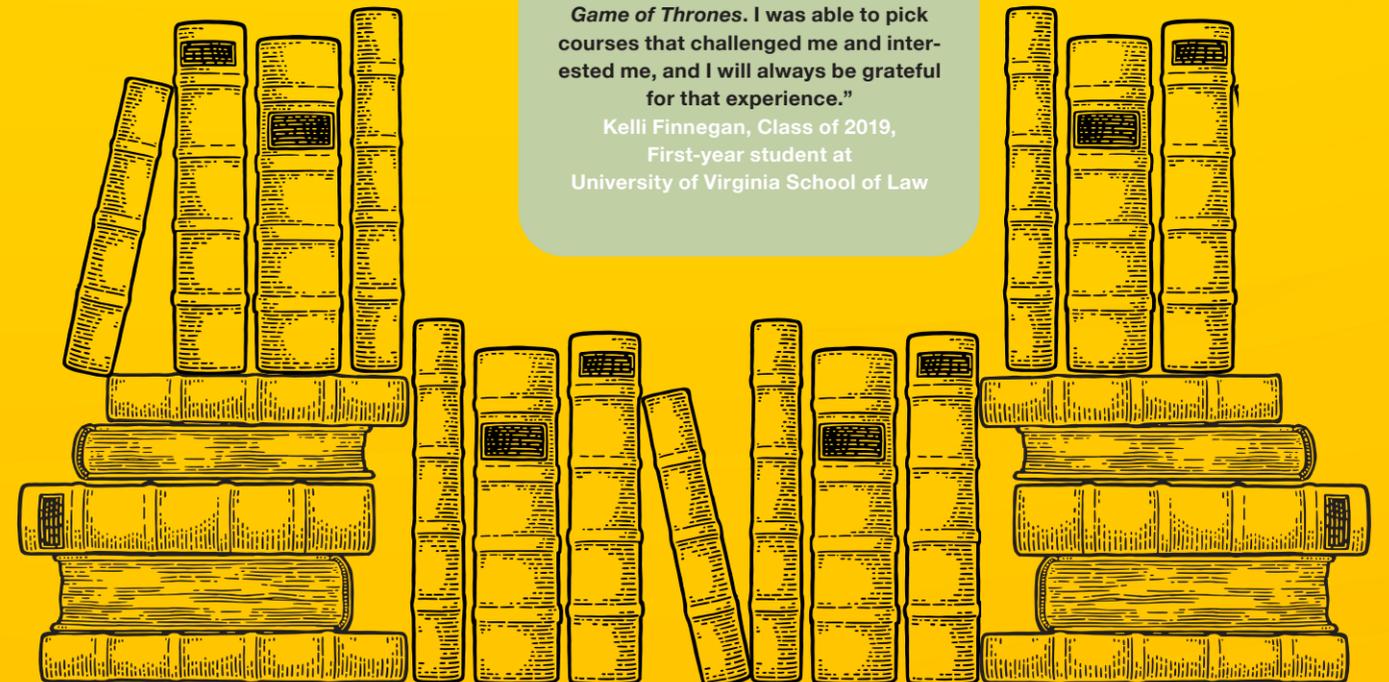
Samantha Hessinger,
Class of 2020

"I had only the foggiest notion of what my future path would be as a freshman, but I did have an insatiable curiosity about the world and how it all worked, propelled by a fascination for the English language, American history, and the cultural diversity I had never experienced growing up in Minnesota. The College of Arts and Sciences was an open door to all of it and I have only wonderful memories and appreciation for my time there."

Hayes Roth, Class of 1972, Principal,
HA Roth Consulting LLC

"I loved majoring in English at UM primarily because of my professors. Most of the English courses I took were small and discussion-based, allowing me to form genuine connections with my professors and classmates. I also loved the English department's creativity. Each semester, the department offered new and unique courses, including one on J.R.R. Tolkien and *Game of Thrones*. I was able to pick courses that challenged me and interested me, and I will always be grateful for that experience."

Kelli Finnegan, Class of 2019,
First-year student at
University of Virginia School of Law



New degree prepares students for the new world of big data

Offered this fall, the master of science in data science will tailor its curriculum for multiple fields.

Every field uses data science in some way, which makes the emerging profession one of the most promising career paths today. To help turn University of Miami graduate students into sought-after data mining and programming specialists, the College of Arts and Sciences has established the Master of Science in Data Science.

One of the most interdisciplinary degrees ever offered at the University, it will offer tracks in technical data science, data visualization, smart cities, and marine and atmospheric science beginning this fall.

“We’ve created a degree that’s truly unique,” said Maryann Tatum Tobin, assistant dean of professional education and personalized learning for the College of Arts and Sciences. “Most data science degrees are based on engineering or computer science, and we wanted to go beyond that to make an interdisciplinary program using the diverse resources we have at UM.”

The year-long program consists of 30 credit hours, with four classes in the fall, four classes in the spring and a summer internship.

Three years in the making, the new program was a group effort, spurred in part by conversations between departments about ways to collaborate, and market research showing that most data science employers require masters-level training. The College’s Department of Computer Science

spearheaded the design in coordination with the University of Miami Institute for Data Science and Computing (IDSC), formerly the Center for Computational Science.

The College is collaborating with the School of Architecture, the School of Communication, the School of Education and Human Development, the College of Engineering, and the Rosenstiel School of Marine and Atmospheric Science on the curriculum, which goes well beyond what most institutions offer by tailoring its data science degree toward real-world applications in a range of fields.

The program also stands apart because the University is now home to one of the nation’s fastest super computers. Customized for UM by IBM, the \$3.7 million Triton can process artificial intelligence and machine learning workloads in real time. And in an agreement with AT&T, the University is about to become the first academic institution to deploy AT&T’s 5G+ and Multi-access Edge Computing technology, which will deliver more data, including pictures and videos, from the internet to wireless devices at a faster pace.

“We are very excited about it. It’s the fastest supercomputer in Florida and one of the fastest in the nation. If students in the program are interested, they’ll get experience running a big machine using big data,” said Mitsunori Ogihara, computer science professor and director of the master’s program. ■



Photo: TJ Lievonen



Break a Leg: Theatre Arts senior Noah Vesey prepares for his musical performance in front of his classmates.

DREAMING OF

BROADWAY



For weeks prior to spring break, seniors in the University of Miami Theatre Arts Department were preparing for one of the most important experiences in their academic and artistic lives—a trip to New York City.

But this excursion didn't include a tour of the Empire State Building or Rockefeller Center; it was a chance to perform off-Broadway before an audience of theatre agents, casting directors, and industry managers for what is known as the Annual Senior Showcase in New York City's Theatre Row.

"This showcase in New York is an annual event for our BFA/Musical Theatre majors in their senior year. Besides it feeling like a 'rite of passage' for them as they head out into the world, its major purpose is to literally showcase them to the people who can hire them for professional acting jobs," said Michael Bush, artistic director of the University's Jerry Herman Ring Theatre. "While they have been selecting and rehearsing material to perform all semester, you can easily say that they have been preparing for this since they became 'Canes."

Students didn't anticipate how their lives would change when they returned and the University of Miami made the critical decision to switch to online learning, asking all students, faculty, and staff to remain at home for safety reasons related to the COVID-19 pandemic. Nevertheless, the student showcase was a big success for the seniors and one they will never forget.

A week before their big trip to the "Big Apple," we captured some images of the students in rehearsal mode. Although the classroom was their stage, the seniors performed their best and took advice from their instructors. From singing classic showtunes to performing monologues or scenes from some of the most beloved theatre shows, the dream to make it to Broadway is real for these committed students.

Jamilah Muhammad and Katherine Berger



Jamilah Muhammad and Katherine Berger



Alecsys Proctor-Turner with Michael Harris on piano



3

Noah Vesey



Department of Theatre Arts instructors Michael Bush and David Williams



David Williams with senior Nicole Delsack



Shereen Khatibloo with Michael Harris on piano



Promoting Sustainability

Wide-Ranging Programs Drive 'Green' Research and Education

10 THINGS YOU CAN DO TO PROMOTE SUSTAINABILITY

Promote sustainability activities on social media.

Support natural conservation projects here and around the world. Avoid eating beef on a daily basis.

Get involved with "green" organizations in South Florida.

Use native plants in your yard.

Choose sustainably grown foods in the supermarket.

Go green in your workplace; reduce energy and water consumption.

Join the Green U initiative.

Purchase local fruits and vegetables at farmers' markets.

Use compost for your lawn or garden.

Use refillable water containers rather than throwaway plastic bottles.

Plant performance Michelle Afkhami investigates how microbiomes impact salinity tolerance within mangrove leaves.

F

rom research in the tropical rainforest to hands-on gardening experiences, the College of Arts and

Sciences is promoting environmental sustainability in many ways. Students can study fragile ecosystems, learn about sustainable farming practices, and enroll in a new urban resiliency master's program.

"Sustainability is perhaps the most important issue facing our world today," said Leonidas Bachas, dean of the College of Arts and Sciences. "We are taking a collaborative approach to addressing this challenge in our classrooms, research laboratories, and outdoor settings on campus and throughout the hemisphere. The goal is to educate and inform our students about the need to preserve our limited natural resources for future generations."

There are many ways that University of Miami students, faculty, staff, and alumni can promote sustainability, including recycling waste products, conserving drinking water and managing fuel and electricity to reduce greenhouse gas emissions.

Sustainable Ecosystems

From a biological perspective, important research and education projects on sustainability are underway on the Coral Gables campus, in threatened habitats in Florida, and in the tropical rainforests and mountains of South and Central America.

Kenneth Feeley and Mauro Galetti, associate professors of biology, are “conservation ecologists” whose

research focuses on understanding the effects of humans on the natural environment. For instance, Galetti has studied the impact of forest loss and poaching on tropical ecosystems.

“When you remove monkeys, toucans, tapirs and other large, wild animals from the rainforests, you impact the forest regeneration, because these large animals disperse large seeds that produce large hardwood trees that store more carbon from the atmosphere,” said Galetti, who is also the director of the John C. Gifford Arboretum on the Coral Gables campus. “We tend to think that the problem that is happening far away does not affect us, but everything is connected. The biodiversity in the Amazon rainforest helps to stabilize world climate,” emphasized Galetti.

Feeley is looking at how climate change is impacting South America’s plant life.

He has seen significant changes in

recent years in Peru’s Manú National Park, one of the most biodiverse places on Earth. “In the Andes, the climate ranges from cold and windy in the highlands, to hot and humid in the lowlands,” he said. “We look at the gradient between those two habitats and see what temperatures are preferred by different species. With global warming, we are finding that the seeds of trees and other plants do better higher and higher on the mountain. For many species, there has been a clear directional movement from generation to generation.”

But Feeley says that the space available for plant species is limited at higher elevations. “Unlike the U.S., the Andes supports a large population and their activities, including cattle-ranching and farming, on the tops of mountains. That compresses the potential area for trees to grow as they move up the mountain and try to

survive in a warming climate.”

Feeley added that much of the deforestation of the Amazon is driven by global demand for raising cattle to provide beef. “As consumers, we have power to make responsible decisions about sustainability,” he said. “You don’t have to chain yourself to a tree. Instead, you can change your purchases at the grocery store.”

Students with an interest in biodiversity can sign up for the College’s UGalapagos Program, which includes classes in the Andes, tropical field stations in the lowland Amazon rainforest, and the unique ecosystems of the isolated Galapagos Islands. Both Feeley and Galetti are instructors at the UGalapagos Program. “Many of these students have not previously traveled outside the U.S. and having them spend time with host families in these locations is an amazing educational and cultural experience,” said Wikramanayake. “Everyone who participated has gained a deep appreciation for the diversity of these pristine environments in all their glory. It can be a profound influence on their careers, as well as their lives.”



Green Thumb Students maintain the garden on the Coral Gables campus.



Kenneth Feeley



Richard Weisskoff

Hands-On Campus Programs: Biodiversity is Around Us

UM students don't have to travel thousands of miles to learn about sustainable farming and conservation practices. At the northwest tip of the Coral Gables campus is the John C. Gifford Arboretum, a valuable natural resource that supports several Arts and Sciences initiatives.

“The Arboretum is a great place for students to learn about nature and sustainability,” said Galetti. “It is a place where students have hands-on classes on ecology, botany, ethnobotany, and sustainability. Like a petri dish in a microbiology lab, the Arboretum is ideal to teach students about how Mother Nature works.”

Feeley adds that the Arboretum provides students with opportunities to learn about tropical plant species not found in North America. “There are great examples of many rare and endemic species in the Arboretum, including relatives of the mahogany tree, hundreds of palm trees, and

representatives of the tropic’s amazing diversity,” he said.

Through a partnership with the biology department, a new greenhouse is now under construction in the Arboretum. “This is an important step in advancing the sustainability of our university,” said Michelle E. Afkhami, assistant professor of biology.

The 3,000-square foot greenhouse, expected to be completed this summer, will add a new dimension to the College’s plant biology courses, said Afkhami, whose research focuses on microbiome effects on individual plants and plant population—an issue that’s critical to imperiled species conservation.

Afkhami has studied microbiomes at the Archbold Biological Station in Central Florida, and collaborated with South Florida Water Management District researchers on studies on tree islands in the Everglades. “We need to understand how habitat loss



L-R: Mauro Galetti, Sonia Chao, Shouraseni Sen Roy



Working on the student farm.

Turning Plastic into Art

Next time you're tempted to purchase a plastic bottle of water, consider the long-term consequences to the environment. Far too many of the 50 billion plastic water bottles Americans use annually wind up in the ocean, killing an estimated 1 million marine animals that ingest the synthetic particles every year.

Jenna Efrein, the senior lecturer in glass in the Art and Art History Department, has created interactive installations featuring plastic bottles to bring awareness to this global sustainability issue. By stringing the bottles on fishing line and hanging them in an undulating "waterway" that people can navigate, Efrein hopes to impart a sense of how sea creatures, from the largest killer whales to tiny phytoplankton, feel while swimming in oceans of pollution. "Plastics are not biodegradable," she said. "They are unnecessary trash, as there are plenty of reusable options for drinking water."

Her installations have been featured at several locations, including the Marjory Stoneman Douglas Biscayne Nature Center on Key Biscayne in January. Measuring 54 feet, this "Waterway" was suspended under a walkway for a month, reminding beach-goers not to take plastic bottles to the beach, or carry empty bottles back to recycling containers.

As Efrein says, "We are all responsible for changing our practices. When it comes to plastic bottles, we are all culpable." ■



Jenna Efrein

affects our urban plant and microbial populations in South Florida, so we can better conserve and manage native species," she said. "We also do research on improving crop production and reducing the impact on the natural environment and human health."

With the new greenhouse, Afkhami says students will be able to gain a better understanding of the microbiomes of subtropical species, as well as agricultural sustainability using plant-microbe interactions to pull nitrogen from the atmosphere into the soil.

A Sustainability Garden

In an open area just south of the Arboretum, a sustainability garden allows students to develop a hands-on understanding of subtropical agriculture, recycling practice, and growing their own food.

Terri Hood, assistant director of the Ecosystem Science and Policy Program, calls the garden "a beautiful example" of the College's commitment to conveying the practical aspect of sustainability. "It's easy to lecture about resilience and recycling, but students also need an opportunity to see how it works in practice," she said.

For example, Hood's students collect organic mulch and mix minerals into the soil. "We also bury waste newspapers from the Otto G. Richter Library and fallen branches from trees in the Arboretum into the soil, where they act like a sponge, collecting rainwater and releasing it slowly," said Hood.

Along with soil improvements, students can learn about sustainable practices for suburban yards and urban green spaces, like apartment terraces and rooftop gardens. There are "trial beds" in the garden for class projects that can be rotated each semester. This spring, the focus is on using a

small space to grow a diverse set of crops, such as peppers, tomatoes, herbs, and coneflowers, which produce echinacea, a supplement normally purchased in a store. "We are also focusing on plants that are culturally significant and at risk for extinction, such as Seminole pumpkins, called the 'squash of the Everglades,'" she added.

UM students can take advantage of other kinds of hands-on learning opportunities as well. Richard Weisskoff, professor and chair of International Studies, holds outdoor classes on the "student farm," which showcases subtropical and tropical crops grown in the Caribbean and Central America to develop an understanding of global food policies and products.

"The way you learn agriculture is to work with someone who knows it," said Weisskoff, who spent summers in Puerto Rico, Peru, and Paraguay as a farmhand to guide his economic research. "Along with book learning, students can watch a sprout grow, harvest it and then learn how to cook it."

As Wikramanayake said, "It's a little piece of this campus, but it can have a big impact in terms of developing awareness among our students."

Urban Sustainability

A new Master of Professional Science in Urban Sustainability and Resilience will enroll its first students this fall. Shouraseni Sen Roy, professor of geography and regional studies, will co-direct the interdisciplinary graduate program with Sonia Chao, research associate professor, School of Architecture.

"The purpose of this new interdisciplinary master's degree program is to help our students understand the way global cities operate and how sustainability is necessary to build

and maintain resilient metropolises around the world," said Bachas.

Roy said the new program examines how large cities are coping with challenges through courses in urban management and urban design. Students also will take a look at how population growth and other factors can affect city planning, urbanization, and even health. "We know that there is climate change happening," said Roy. "What is Miami doing to deal with this? How are other cities addressing the problem?"

Students can select electives from other schools and divisions, including the Rosenstiel School of Marine and Atmospheric Science, College of Engineering, Miller School of Medicine's Department of Public Health Sciences, and Miami Herbert Business School. The program is open to students from all disciplines who wish to work in government, NGOs or private industry and devote their time to climate mitigation or adaptation issues, such as in the role of chief resiliency officers.

"What better place to study the impact of climate change than Miami," said Chao. "Students do not have to read about red tide or urban flooding. They just have to go to the beach or one of our low-lying barrier island communities and experience it. But, South Florida is also a testing ground of climate action."

No Limitations

Landon Coles has a long list of notable accolades at the University of Miami, but he is not one to brag about them. In fact, the sophomore class senator for Student Government is quite humbled by his accomplishments, particularly his achievement as a Ronald A. Hammond Scholar.

“Every day I am so grateful,” said Coles, who is majoring in political science and works as an assistant in the Office of Multicultural Student Affairs. “Because of this scholarship, I have been granted self-agency to chart my own path here at the University and beyond.” And chart it he has, thanks to the scholarship named for the University’s first director of minority affairs, which provides full tuition to diverse, academically excellent high school seniors from underrepresented backgrounds.

Coles decided early on to “impact my University community.” He did so, first, by running for the Student Government Senate, during his first semester, becoming one of two senators for his freshmen class, and in the spring earning a Senator of the Year award. He also served as co-chair of the King & Queen Pageant for the 2019 Homecoming Executive Committee.

Now a senator for his sophomore class, he is also a member of the Undergraduate Honor Council and the United Black Students Executive Board, and student ambassador and tour guide for the President’s 100.

But it is at the Office of Multicultural Affairs where he particularly feels at home.

“Everyone at the Office of Multicultural Student Affairs pushes me to be the best version of me and holds me accountable to give my best effort,” Coles said. “They are

like a family to me. I love working here because we celebrate UM’s diversity and understand how it’s a tool, not an impediment, for success.”

The second son of six children, Coles grew up in Tallahassee, where his single mother, Leasha Weaver, showed him how to be a strong role model.

“Growing up, I watched my mom labor every day. She taught me how to be passionate, kind, strong, and courageous,” said Coles, who particularly loves being big brother to his four younger sisters. “Being a big brother has taught me about life. Being a big brother has taught me about responsibility, leadership, and selflessly caring for others.”

Landon also has an impressive list of mentors at UM, including Ryan C. Holmes, associate vice president for student affairs and dean of students; Renee Dickens Callan, executive director of student life; Patricia Whitely, vice president of student affairs; and, of course, the entire Office of Multicultural Affairs.

Which may explain how, as humble as Coles is, he has high aspirations for the future. After graduation, he plans to attend law school and make his way into the public sector, where he vows to “keep helping those who are underrepresented and historically marginalized.”

“I have a passion for social justice, equity, diversity, and inclusion,” Coles said. “I see myself working in the federal government. I see myself as a congressman, a senator, and maybe one day in the White House.” ■



LANDON’S FAVORITES

Book

“Becoming” by Michelle Obama

Movies

“Black Panther” and “Selma”

Actors

Viola Davis and Will Smith

Motto

“You have to pray with your feet, which means to walk in everything that you claim for yourself.”



Landon and other UM students shared their experiences and their humble beginnings at the 2020 Scholarship Donor Recognition Luncheon with UM President Julio Frenk and Hilarie Bass, alumna and chair of the University of Miami’s Board of Trustees.

“At the luncheon, we spoke about the journeys that led us to UM. For several of us, UM was not on our radar because there was a barrier, a barrier of economic opportunity,” said Coles. “It is because of these endowments that we are able to be a part of this University and its academic space.”



Photomosaics to save the ocean's reefs

Arthur Gleason is awarded a Pew grant to study coral reef restoration in the Caribbean

In 2003, when Arthur Gleason was a graduate student, he assembled a team of biologists, geologists, and engineers who developed practical, inexpensive tools to photograph the seabed with thousands of overlapping pictures.

At the time, the technology for underwater photomosaic data collection was too complex, required expensive, specialized equipment, and exhaustive manual labor. But, by extensively researching and publicizing these techniques, Gleason's efforts led to the widespread adoption of photomosaic technology for coral reef conservation around the world—and his recent selection by the Pew Charitable Trusts to join the Pew Fellows Program in Marine Conservation.

"Underwater photographic mosaics are constructed by stitching together thousands of overlapping high-



resolution pictures of the seabed," said Gleason, now a research associate professor in the College of Arts and Sciences' Physics Department. "The clarity and resolution in a wide expansive field of view is a powerful tool that allows scientists to do all sorts of measurements that in the past were difficult to accomplish."

One of eight international scientists and conservationists chosen by Pew Trusts this year, Gleason will receive a \$150,000 grant over three years to address some of the most critical challenges facing marine conservation—the dramatic decline of the Caribbean's coral reefs. He will

provide scientific knowledge to help practitioners better understand the performance of various coral reef restoration approaches and develop more effective reef conservation strategies.

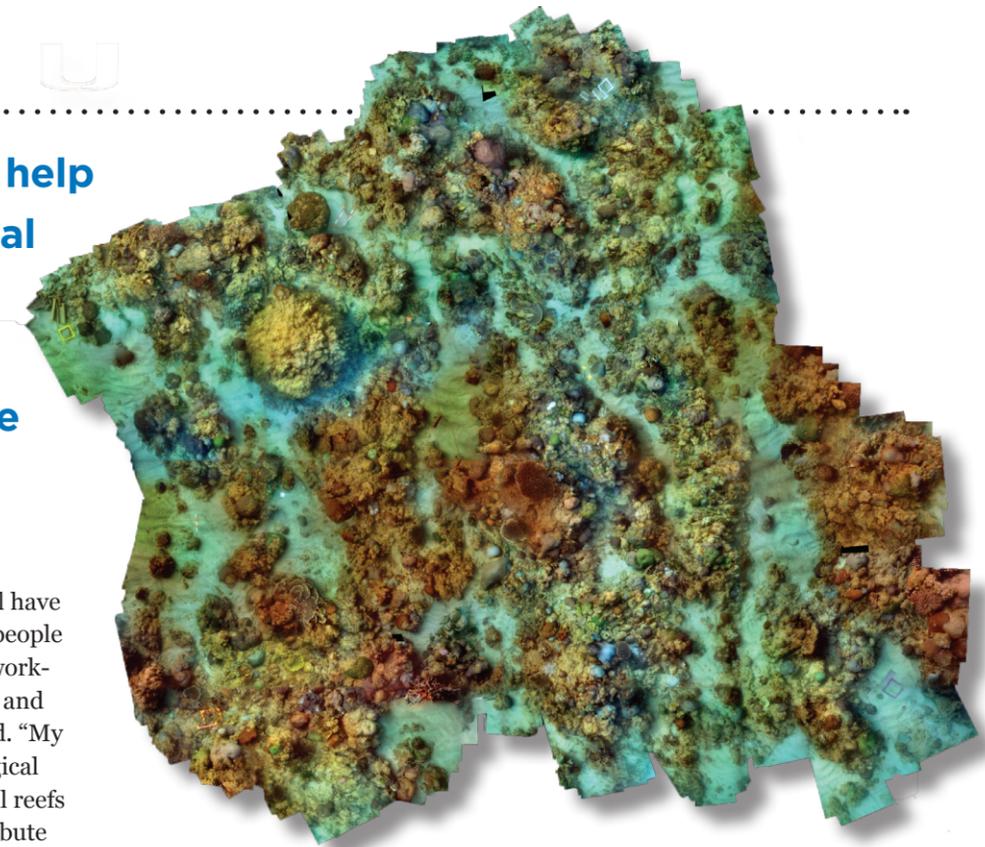
"My research could help secure the ecological function and genetic diversity of coral reefs for future generations."

"With the help of the Pew grant, I'll have a chance to share this resource with people across the Caribbean by scheduling workshops, meetings, and creating guides and instructional materials," Gleason said. "My research could help secure the ecological function and genetic diversity of coral reefs for future generations and will contribute to that goal by enabling regional, long-term effects of active coral reef interventions to be understood."

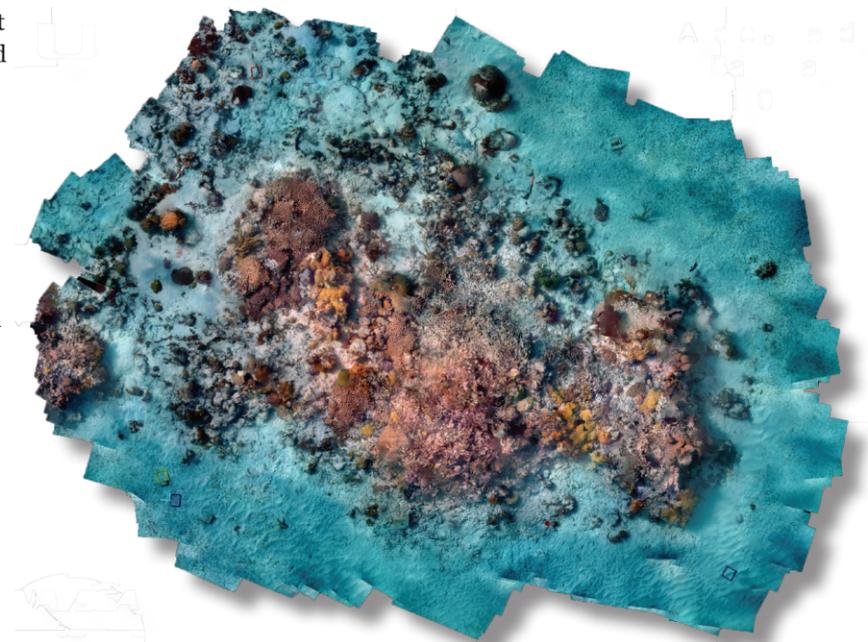
His research also could transform coral reef conservation by determining how to best scale up active reef restoration initiatives and create conditions favorable to natural coral reef rehabilitation.

"The bigger picture here is why coral reefs have seen such a dramatic decline, particularly in the Caribbean regions where we have seen the most degradation," Gleason said. "It's important to create solutions and design technology and proper data collection to assist in monitoring and quantifying the scope of the problem and understanding the solutions to these problems."

Gleason joins Pew's active community of 180 fellows in over 39 countries. Selected by an independent international committee composed of senior professionals in marine science and conservation, each fellow is recognized for his/her record of applying high-quality, evidence-based research to protect marine ecosystems and wildlife. ■



Western Australia Patch Reef 225 m²



Andros Island, Bahamas 150 m²

STARTING OUT VERY, VERY SMALL



To explain the science of manipulating molecules on a nanoscale, Jean-Hubert Olivier, an assistant professor in the Department of

Chemistry, likes us to imagine that molecules are LEGO pieces, those small, plastic construction toys kids have been playing with for nearly a century.

“You can take the LEGOs and, piece by piece, build a castle. But if I take a bag of LEGOs and throw them on the ground, I have a scattered mess,” Olivier said. “What chemists like me are pioneering are reliable tools that manipulate those LEGO pieces so when we throw that same bag of LEGOs, we don’t get a scattered mess. We spontaneously form a castle.”

It would, however, be an infinitesimally small castle because Olivier investigates and manipulates organic materials made of carbon, nitrogen, and oxygen on the nanoscale. Such materials are one billionth of a meter—so tiny that a million nanometers would fit on the head of a pin.

But Olivier, who was recently awarded the prestigious National Science Foundation (NSF) CAREER grant of \$650,000 over five years, isn’t looking for tools that will manipulate molecules so they reassemble into castles. He’s laying down the molecular technology to, in essence, teach organic materials to organize into pre-programmed shapes and interact with light in the most efficient way possible.

It’s as if Olivier is changing the molecular makeup of each LEGO piece to reconstruct a new kind of LEGO from the inception. “If we can do that, then we open new avenues to optimize solar energy capture and conversion and that’s a big deal,” said Olivier.

“We’re not talking about engineering solar cells,” he added. “My work looks at the steps before that can even happen by focusing on establishing innovative tools to precisely

control the interaction between molecules and manipulating the materials at the nanoscale. The end goal is far reaching and expands beyond solar energy capture and conversion.”

In addition to his light harvesting application, Olivier aims to develop soft, bendable materials that, down the road, could be used for quantum computing, for example.

Because researchers cannot see molecules with their eyes, they rely on analytical techniques to see what molecules are actually doing. His lab group in the Cox Science Building uses electrochemistry techniques to probe the electronic properties of the molecules as well as spectroscopy to see how light interacts with new material conformations.

“In essence, light and electrochemistry are our eyes, and if we know where and how to look, we can truly understand how molecules



interact at the nanoscale level,” Olivier said.

Olivier will use his CAREER grant, which supports early-career faculty who have the potential to serve as academic role models and leaders in research and education, to launch a Science Discovery Program for middle and high school students. His idea is to introduce young minds to the world of molecular chemistry. He is partnering with the Johnson & Johnson 3D Printing Center of Excellence Collaborative Laboratory in the College of Engineering, where students can create and build their own 3D molecules. ■

Science for young minds

Children are natural explorers, both curious and motivated to discover the world around them. Research shows that humans learn best when physically, mentally, and collaboratively engaged in goal-directed learning experiences. Placing science at the core of early learning embodies these learning principles and helps young children develop critical thinking and language skills, math comprehension, and social and emotional skills in a context that is social, meaningful, and relevant to them.

Hands-on and minds-on exploration and investigation in the service of early childhood learning are at the heart of the Early Science Initiative (ESI), a foundational support system for children, families, teachers, and leaders that promotes learning through science.

Led by Daryl Greenfield, a professor of psychology and pediatrics at the College of Arts and Sciences, ESI creates comprehensive learning materials, guides, and face-to-face online and technology-based training methods to assist families and teachers with the tools they need to effectively and intentionally support the natural, goal-directed motivation of infants, toddlers, and preschoolers to discover and understand the world around them.

“Young children are primed to engage in the behaviors of scientists: observing, asking questions, making predictions, and planning and carrying out investigations to learn fundamental concepts such as cause and effect, structure and function, and patterns,” said Greenfield. “This hands-on learning occurs in an engaging, goal-directed social context on topics in Life Science about animals, plants, and their own growth and development; in Physical Science, investigating what’s hard, soft, bounces, rolls, sinks or floats; and in Earth & Space Science, exploring water, dirt, rocks, weather, and wondering about the sun, clouds, moon, and stars.”

Funding and support for ESI are backed by Acceleration grants from the Buffet Early Childhood Fund (BECF) and a second foundation that makes grants to support and nurture high-quality teaching and learning in early childhood settings. Eva Roberts, director of strategic

For more information about ESI, visit:

<http://project1.earlyscienceinitiative.org/> and the Facebook page, <https://www.facebook.com/TheEarlyScienceInitiative/>.



initiatives for BECF, says the Acceleration grants were launched in 2015 “to promote innovation and harness the collective energy and talent that exists at every level across the Educare Learning Network.”

According to Roberts, the Educare Learning Network (ELN) is one of BECF’s largest investments featuring 25 early learning schools across the U.S. that collaborate and work with philanthropic partners, advocates, and researchers to create and share best practices with the broader early childhood field.

“Five years into these projects, we are delighted by the ideas, solutions, and products that are emerging from these partnerships and frequently cite the Early Science Initiative as a standout due to the strong leadership by Dr. Greenfield and his team and the quality of the project materials,” said Roberts. “The Early Science Initiative is the result of what happens when researchers, teachers, and families work together to develop solutions for young children and the adults in their lives.”

Greenfield is hoping continued support and collaborations will advance ESI and its mission to transform young minds through scientific exploration and development. His long-term vision is to establish an ESI institute at the University of Miami that focuses solely on early childhood learning through program development and transformative initiatives for children, adults, and educators.

“The content of children’s interest, curiosity, and goal-directed behavior is fundamental within the topics of science, and we want children to learn by doing and investigating and solving problems, setting them on a strong foundation for life-long learning,” said Greenfield. ■

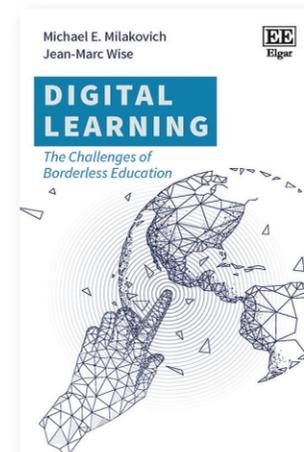
RECENT A&S FACULTY PUBLICATIONS

A personal view

MARK ROWLANDS PHILOSOPHY **Can Animals Be Persons?** (Oxford University Press). To this question, scientific and philosophical consensus has taken the form of a resounding, ‘No!’ In this book, Rowlands disagrees. Not only can animals be persons, many of them probably are. Taking, as his starting point, John Locke’s classic definition of a person, as “a thinking intelligent being, that has reason and reflection, and can consider itself the same thinking thing, in different times and places,” Rowlands argues that many animals can satisfy all of these conditions. A person is an individual in which four features coalesce: consciousness, rationality, self-awareness and other-awareness, and many animals are such individuals.

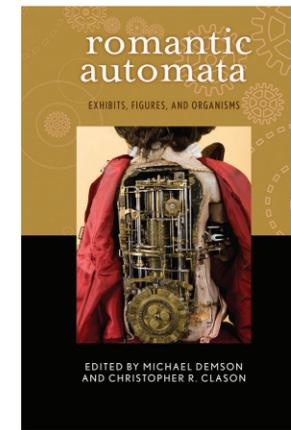
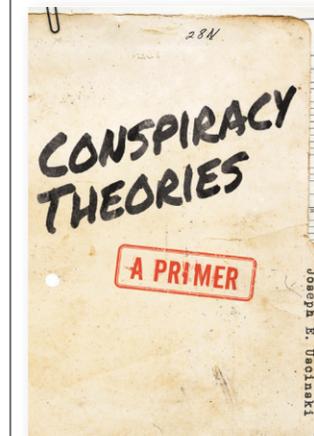
Can Animals Be Persons?

MARK ROWLANDS



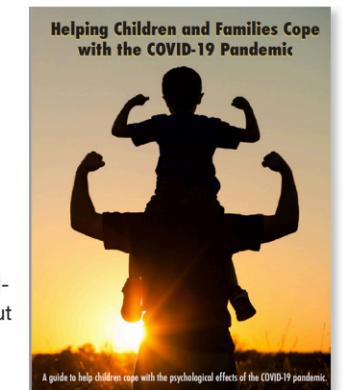
MICHAEL E. MILAKOVICH POLITICAL SCIENCE **Digital Learning: The Challenges of Borderless Education** (Edward Elgar Publishing Limited). Information and communication technologies are affecting every aspect of human life. With faster lifestyles, online learning is becoming more prevalent and education is now less about the mode of instruction or the institutional reputation but more on how instructors understand and apply digital learning. This book reveals the technologies behind successful implementation of online learning and teaching and introduces the most important concepts and relationships in plain language.

JOSEPH USCINSKI POLITICAL SCIENCE **Conspiracy Theories: A Primer** (Rowman & Littlefield). Everyone believes at least one conspiracy theory. They are just reminders that people disagree about many things, including truth. We have to live with conspiracy theories and with the people who believe them. The only way to do this is to have compassion and tolerance for others while holding our beliefs to a higher standard. Uscinski introduces students to the research into conspiracy theories and those who propagate and believe them. He analyzes the most current arguments and evidence while providing real-world examples so students can contextualize the current debates.



KATHRYN FREEMAN ENGLISH **“A little earthly idol to contract your ideas: Global Hermeneutics in Phebe Gibbes’s Zoriada, or, Village Annals (1786).”** Freeman contributes an essay in the book, *Romantic Automata: Exhibits, Figures, and Organisms*, which examines the rise of cultural suspicion of the mechanical imitations of life. During the 18th century, automata was considered a celebration of human ingenuity, but among the Romantics, feelings of apprehension rose around the use of science and engineering threatening spirituality. This collection addresses approaches to understanding human interaction with technology.

ANNETTE LA GRECA PSYCHOLOGY **Helping Children and Families Cope with the COVID-19 Pandemic.** This is a resilience-enhancing activity book to help children and families cope with the psychological effects of the COVID-19 pandemic. The material is highly interactive and designed for adults to work on together with children. It was developed by Annette M. La Greca, Distinguished Professor of Psychology, and Scott Sevin, President of 7-Dippity, Inc. Copies of the book can be downloaded for free, please visit: www.7-dippity.com.



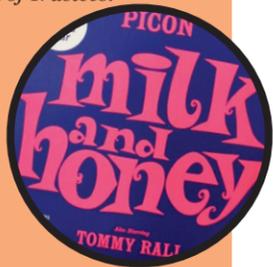


“His songs were light personified. Melodic and positive, they glorified the best human instincts in all of us. Unabashedly sentimental, he believed that life was to be celebrated. Even in a dark and troubled world, his work, to quote one of his songs from ‘La Cage aux Folles,’ insisted that the best of times is now.”

– Michael Bush, assistant professor of practice and artistic director of the Jerry Herman Ring Theatre.

“Whatever small part the University of Miami played in helping to develop the genius of Jerry Herman, it makes me feel wonderful to think that hundreds of millions of people around the world have had their lives benefited by his contribution to the arts.”

– Hilarie Bass, alumna and chair of the University’s Board of Trustees.



In Memoriam



Jerry Herman, the heralded, award-winning Broadway composer who penned uplifting and inspirational musicals like “Hello, Dolly!” and “Mame,” and is one of the University of Miami’s most distinguished alumni, passed away in December. He was 88.

Herman’s brilliant work earned him two Tony Awards for best musical for “Hello, Dolly” and “La Cage aux Folles,” and two Grammy Awards for “Mame” and “Hello, Dolly!,” which opened in 1964 and at the time became Broadway’s longest running musical with more than 2,800 performances. Over his career he wrote 10 Broadway shows, and is considered a legend among his peers for his simple and heartfelt messaging and melodies. In an interview with the Associated Press in 1995, Herman said that “critics have sort of tossed me off as the popular and not the cerebral writer, and that was fine with me. That is exactly what I aimed at.”

Herman graduated from the University

in 1953 with a Bachelor of Arts degree in drama and received a D.F.A. degree in 1980. The University awarded him the Order of Merit in 1971, the Alumnus of Distinction in 1975, and the New York Alumnus of Distinction in 1992.

After graduation, the New York native returned home. In 1961 he received his first Tony nomination for the score of “Milk and Honey.” His most revered musical,

“Jerry Herman’s talent and creativity left an indelible legacy at the University of Miami, where we will always treasure his many memorable compositions.”
- UM President Julio Frenk

“Hello, Dolly!” premiered in 1964, followed by “Mame” in 1966, “Dear World” in

1969, “Mack and Mabel” in 1974, “The Grand Tour” in 1979, and “La Cage aux Folles” in 1983. Herman was inducted into the Songwriter’s Hall of Fame in 1981 and the Theatre Hall of Fame in 1986.

The Jerry Herman Ring Theatre on the Coral Gables campus bears his name and first opened in July 1951. The theatre was renovated and rededicated to Herman in 1966. More than \$1.7 million in renovations to the 14,589-square-foot complex included a new stage and seating area, which was named in honor of the Alvin Sherman Family. ■

50s

Sandra Inson Reiseman, A.B. ’56, is retired after 47 years of working in the field of insurance and securities. Reiseman now enjoys taking classes at Osher Institute for Lifelong Learning (OLLI), going to the gym, and traveling. She also enjoys attending UM reunions, including the Annual Golden Ibis Society Celebration.

Richard H. Plager, A.B. ’51, has retired as a police captain in the Miami-Dade Police Department, was chief of police in the Sanibel Florida Police Department, and captain in the U.S. Coast Guard Reserve. Plager also served in WWII in the U.S. Navy.

Carl Cohen, A.B. ’51, recently retired from the University of Michigan in Ann Arbor, MI, as a Professor of Philosophy. He earned summa cum laude from UM with a major in philosophy. He fondly remembers studying with past professors Gerrit Schipper, Edith Schipper, and Paul Vonk.

60s

Sally Diamond Cohen, A.B. ’61, was honored by the Livingston Town Council for her long-time stewardship of the Livingston Advisory Committee for Disabilities (LACD) and her role as a founding member. For more than forty years, Cohen made significant contributions to the special-needs community and improved quality of life for thousands

of people in Livingston, New Jersey. While projects started to tackle physical accessibility, the LACD has expanded to include recreational and social issues, including setting aside exclusive swim time at the town pool for people with special needs and their families—a program that still exists today.

Edward F. Searing, Ed.D. A.B. ’67, received the Albert Nelson Marquis Lifetime Achievement Award for 2020. The award honors demonstrated leadership, excellence and notable accomplishments within the honoree’s profession and work experiences.

70s

Wendy Unger Schapira, A.B. ’70, retired in April 2019 from her position as Membership Director at the Miami Beach Chamber. She is now operating Wendy’s Angels Fund, a small but mighty breast and ovarian cancer fund that provides breast reconstruction for women without medical insurance. They partner with the Lotus House, a domestic violence shelter in Miami, by providing transportation to treatment centers for their guests who have breast cancer.

Ida O. Abbott, M.A. ’71, is a professional consultant focusing on the power of mentoring relationships to guide, support, and transform professional careers from the beginning of practice through retirement. She has been a leader in the field of talent management, mentoring, sponsorship, and the advancement of women into leadership. Abbott has

been elected a fellow of the American Bar Foundation and the College of Law Practice Management. She was a co-founder of the Hastings Leadership Academy for Women and the Professional Development Consortium. Abbott is a sought-after speaker and the author of several seminal books, including *The Lawyer’s Guide to Mentoring, 2d Edition*; *Sponsoring Women: What Men Need to Know*, and most recently her new workbook, *Retirement by Design*, is helping individuals prepare for retirement whether it’s right around the corner or decades away.

Michael Sweeney, A.B. ’73, recently retired from Library of Congress network of libraries for the blind and disabled. His first job was a three-year work/study position at Otto G. Richter Library.

Dave Hinkes, A.B. ’79, is an Assistant Professor-Faculty of the Practice in Marketing for the Worldwide Online Division of Embry-Riddle Aeronautical University. Hinkes is also an Adjunct Professor of Marketing, Management & Leadership for Miami Dade College. He is CEO of Hink, Inc., a professional consultancy since 1991. A native of Miami Beach, he now lives with his wife of 38 years, Deb, in the Pinecrest area. They have three grown children: Jen who lives in Coral Springs, FL, Melissa in Chicago, and Steve in Boca Raton, FL.

80s

Gregg Matous, A.B. ’81, is a former Air Force C-130 and U2 pilot (1981-1990) and has been an international pilot for Delta Airlines for 29 years. He and his wife, Kathy, are worldwide travelers having visited more than 90 countries.

Scott F. Atwell, A.B. ’83, was selected as Executive Vice President and Chief Executive Officer of the Greater Key West Chamber of Commerce Board of Directors, and was the only one of more than 180 candidates for the job who submitted with his resume a detailed business plan for the chamber’s future. Atwell’s experience includes leading a 30,000-member organization while working as president and CEO of the Florida State University Alumni Association. Most recently, Atwell was a Senior Vice President for the worldwide consulting firm Grenzebach Glier and Associates.

Virginia “Ginny” Rorby Oesterle, A.B. ’85, is the author of six MG/YA novels: *How to Speak Dolphin*, *Lost in the River of Grass*, 2013 winner of the Sunshine State Young Readers Award; *Hurt Go Happy*, 2008 winner of the Schneider Family Book Award; *The Outside of a Horse*, *Dolphin Sky*, and *Freeing Finch* (2019), the inspiring story of a transgender girl and a stray dog who overcome adversity to find love, a home, and a place to belong. Oesterle is a past director of the Mendocino Coast Writers’ Conference and its current president. She can be reached at ginnyrorby@mcn.org or www.ginnyrorby.org.

Kristine Ross de Haseth, A.B. '84, M.B.A. '85, was recently elected as Mayor of Ocean Ridge, a small, beachside community along Florida's east coast. She is only the second woman to serve as mayor of the town. De Haseth also teaches the importance of local government to 7th graders as a way to inform and educate them about the importance of community involvement. She encourages fellow elected officials to do the same for their local schools.

Eileen Vargas, A.B. '86, released her first book, *Parallels - Surviving the Legacy of Pain* in 2019, and she is a candidate for State Representative District 84 of St. Lucie County, Florida.

Michael W. Weissberg, A.B. '89, published an article on the National Institute of Justice website. In this article from NIJ's "Notes from the Field" series, he presented the benefits of private and publicly-funded grants. Weissberg has been accepted to the Law Enforcement Advancing Data and Science (LEADS) Scholars program Class of 2019. The National Institute of Justice (NIJ) has collaborated with the RAND Corporation, the Police Executive Research Forum (PERF), and the International Association of Chiefs of Police (IACP) to establish an annual award of 10, three-year scholarships for research-oriented law enforcement officers. NIJ LEADS Scholars are pioneers in the evidence-based policing movement and present and publish frequently about their research and finding.

90s

Roxanne Greitz Miller, B.S. '90, was named the Vice Provost for Graduate Education at Chapman University where she is the Attallah Endowed Professor of Education. She is married to Steven Ross Miller, PhD '89, who is the Chief Operating and Chief Scientific Officer at Catalyst Pharmaceuticals.

James G. Vickaryous, Esq. A.B. '90, won election to the Florida Board of Governors, Two-Year Terms for 18th Circuit, Seat 1 and was recognized by the Brevard Bar Foundation with the 2019 Community Leaders of the Year award.

Manisha Singh, A.B. '91, is to be nominated as the representative of the United States of America to the Organization for Economic Cooperation and Development, with the rank of Ambassador. Singh is currently the Assistant Secretary of State for Economic and Business Affairs at the State Department. She previously served as the Acting Under Secretary of Economic Growth, Energy, and the Environment and as a Deputy Assistant Secretary in the Bureau of Economic, Energy and Business Affairs at the State Department. Singh also previously served as Deputy Chief Counsel to the United States Senate Foreign Relations Committee and was also the Senior Fellow for International Economic Affairs at the American Foreign Policy Council. Her private sector experience includes practicing law at multinational law firms and working in-house at an investment bank.

Annette M. Sanjurjo-Lizardo, A.B. '92, published an article that affects the disability community and caregivers. The article was published on *EP* magazine's annual issue Healthcare titled, "The Next Step for Inclusion: State CME Requirements on Disabilities."

Sean M. Sullivan, B.S. '98, an accomplished environmental attorney, has joined Robinson Bradshaw's Research Triangle office. He has received accolades from award publications including Chambers USA, The Best Lawyers in America, North Carolina Super Lawyers and Business North Carolina's Legal Elite. Sullivan advises clients throughout the country regarding all major federal environmental programs, with a particular emphasis on hazardous waste, Brownfields redevelopment, the Clean Water Act, the Clean Air Act and emerging contaminants.

Bradley R. Johnson, A.B. '99, M.F.A. '01, was the winner of the 2018 Wheelbarrow Books Poetry Prize for Poetry (Established), for his collection, *Smuggling Elephants Through Airport Security*, and was published by MSU Press in 2020. His first full-length poetry collection, *The Happiness Theory*, was published in 2013. Johnson's work has appeared in the *Atlanta Review*, *Hayden's Ferry Review*, *J Journal*, *Nimrod International Journal*, *Permafrost*, *Poet Lore*, *Salamander*, *The South Carolina Review* and *Southern Indiana Review*.

00s

Elicia Nademin, A.B. '02, is a board-certified psychologist in Arizona. She recently published a book on skills for interacting more effectively with strangers entitled, *Don't Be A Stranger: Creating Connections & Memorable First Impressions in Everyday Life*. Nademin says her book is an invaluable source for students as they prepare to transition to graduate interviews, job interviews, etc., or anyone pursuing business and marketing careers to enhance first impressions and potential for profitability through relationship-development. Nademin earned degrees in psychology, criminology, and Spanish.

Morgan F. Mouchette, B.A.I.S '06, was elected Partner of Blank Rome LLP's firm in New York. Mouchette represents clients in all aspects of matrimonial and family law, including divorce, child custody, property distribution, spousal support, prenuptial agreements, postnuptial agreements, cohabitation agreements, and international child abduction. She also settles complicated custody and high net worth financial matters, and has experience litigating matters in New York Family and Supreme Courts as well as federal courts. Morgan serves as co-chair of BR United, the firm's attorneys of color affinity group, and is a member of the New York office's Hiring & Recruiting Committee.

Nathalie B. Galde, A.B. '09, completed filming a lead role on a web series, "Real American," a supporting role in a feature, "Driftless," and begun production as the lead of a feature, "The Pleasure Matrix." Galde was a nominee for ALTA, the Alliance of Latinx Theater Artists of Chicago: Best Improv Group - ImproviSEXaction - Creator, Director, and Performer. Galde sold out at Second City for "La Carne Asada #2: The Seasoning," and was featured in a national ad for Top Golf.

Amanda K. Sussex, B.S '09, feeling inspired by Dr. Donna Shalala's United States Healthcare System course, went on to study Health Policy, which led her thereafter to Washington to implement the Health Reform under the ACA for Health and Human Services (HHS). After nearly seven years in Federal and local government building and deploying the health insurance marketplaces across the US, she decided to head to San Francisco and delve into health tech with former alumna, Carly Winokur at Carrum Health.

Jane E. Pryjmak, A.B. '11, has joined Fox Rothschild LLP in Seattle as an associate in the Corporate Department. She advises clients in a variety of corporate matters, including entity choice, business sales and acquisitions, real estate transactions, and seed financings.

Jacob Rudolph, A.B. '17, is the Executive Director at The Pride Network offering LGBTQ leaders opportunities for personal transformation and professional development to create change within themselves and in the community. Recently, Rudolph was named "30 Under 30" in the Law & Policy Category for *Forbes* magazine.

Sydney Beal, B.S. '18, was promoted to "Engineer 2, full stack" on December 1, 2019. She started at Comcast NBC Universal in November 2018.

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The Lowe Art Museum celebrates 70 years

On February 22, 1950, in three connecting rooms at the east end of the second floor of the Merrick Building, an art gallery opened at the University of Miami. With a collection of just 30 modern American paintings, the space served as the first public arts institution in Miami. These were the beginnings of what is now the Lowe Art Museum, which has grown its collection extensively, housing nearly 19,300 works that span 5,000 years of human creativity on every inhabited continent.

“Over the course of the past seven decades, the Lowe’s vast network of supporters and talented staffers have developed a world-class academic art museum for the benefit of the University community and greater South Florida,” said Jill Deupi, Beaux Arts director and chief curator of the Lowe.

The call to create the “University Art Gallery” (as the Lowe was originally named) dates back to the tenure of Bowman Foster Ashe, when UM’s then-President was urged by a group of engaged citizens to create a professional art space in our community. The Lowe, which was recognized in

1985 by the State of Florida as a “Major Cultural Institution,” was the first museum in Miami-Dade County to receive this designation.

In 1991, 13,000 additional square feet of temporary and permanent exhibition gallery space were added to the Lowe. Another 4,500 square feet of exhibition space was added in 2008 with the opening of the Myrna and Sheldon Palley Pavilion for Contemporary Glass and Studio Arts.

Deupi also credits the Beaux Arts Festival of Art for the Lowe’s continued growth. The Beaux Arts Festival launched in 1952 as a way to give young artists a chance to meet the buying public. Throughout the years the festival has grown into one of our country’s most significant art fairs, which—not incidentally—raises funds in support of the museum.

To celebrate its 70th anniversary, the Lowe Art Museum featured iconic works of art from fifteen different leading Miami collectors beginning February 22 through December 6, 2020. **For more information, visit: lowe.miami.edu/**

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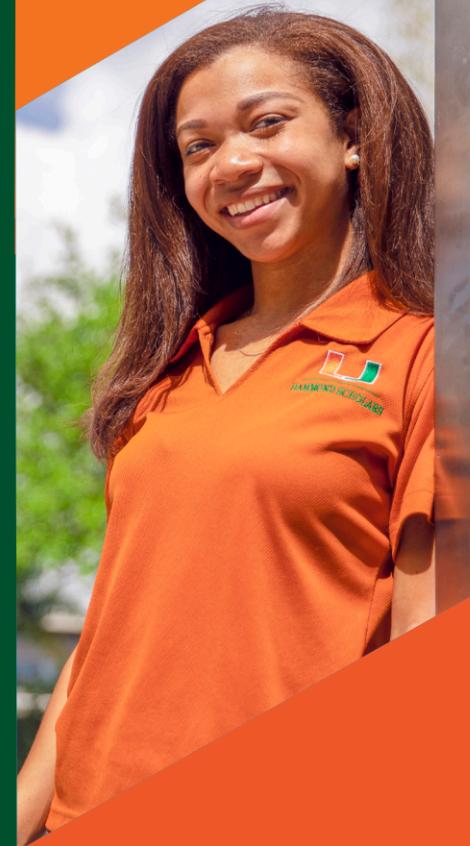
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