

FLORIDA ATLANTIC

UNIVERSITY MAGAZINE

FAU'S *DIAMOND ANNIVERSARY* USHERS
IN A NEW ERA OF *INNOVATION* AND
STUDENT SUCCESS.

CELEBRATING

YEARS





FAU

FLORIDA ATLANTIC

PRESIDENT'S MESSAGE

UNBRIDLED AMBITION®

Welcome to the first issue of *Florida Atlantic* magazine. This publication is a celebration of the best news from around the university, including groundbreaking research, student achievements, athletic highlights and alumni success stories.

This is a momentous time for Florida Atlantic University. We continue to receive national recognition for changing the lives of traditionally underserved students by providing equitable access to higher education. From its earliest days, FAU has welcomed a diverse body of students, who have come here seeking opportunity through education. Today, we maintain our commitment to diversity and inclusion in a number of ways, such as working to reduce racial disparities in health outcomes for those who are ill, and providing Holocaust and human rights education to build bridges of understanding. Our successes in these areas are highlighted in this publication.

This issue of *Florida Atlantic* commemorates two important anniversaries: the 60th anniversary of the founding of FAU — when the state legislature approved Boca Raton as the site for Florida's fifth public university — and the 50th anniversary of Harbor Branch Oceanographic Institute. Harbor Branch joined the FAU family in 2007 and is a significant contributor to the university's research portfolio.

It's hard to look back at our history without thinking of the challenges we've faced over the past two years due to the COVID-19 pandemic. While it hasn't been easy on any of us, I've watched with pride as Owls stepped up to support our community and one another, and continue FAU's Race to Excellence. You might have seen our researchers featured on CNN or NBC News, discussing their findings about how far coughs can travel or which type of face covering is most effective in preventing the spread of the virus. You can read more about their latest research in the following pages.

I am very proud that, over the past 60 years, FAU has become known as a place where every student — regardless of race, ethnicity, income or first-generation status — has the opportunity to achieve their dreams. Owls are graduating at higher rates than ever, with good-paying jobs and less student debt than the national average. FAU is on an upward trajectory, thanks to our alumni, donors, faculty, staff, elected officials and friends in the community. I thank you all for your support, and I hope you enjoy the inaugural issue of *Florida Atlantic* magazine.

John Kelly
President



© ALEX POLICE



SPRING 2022 CONTENTS FLORIDA ATLANTIC MAGAZINE

ISSUE 1

48

© CARIN SMITH



FLORIDA ATLANTIC
UNIVERSITY MAGAZINE

Executive Editor

Peter Hull, Vice President for Public Affairs

Managing Editor

Amy Haycock, Assistant Vice President, Presidential Communications

Assistant Managing Editor

Cammi Clark, Ph.D., Director, Research Communications

Writers

Bethany Alex, Bethany Augliere, Stephanie Bihr, Carla Brown Lucas, Polly Burks, Amy Butler, Alyse Cooke, Cammi Clark, Ph.D., Gisele Galoustian, Kristine Gobbo, Denise Gravatt, Amy Haycock, Katherine F. Jones, Katrina McCormack, Shavantay Minnis, Wynne Parry, Andy Seeley

Photographers

Kevin Albertini, Bethany Augliere, Chelsea Bennice, Ph.D., Stephanie Bihr, Aaron Bristol, Katarzyna Bytnar, Alex Dolce, Envato, Jultmartin Eugene, Gina Fontana, Aldo E. Frias, Getty Images, Nicodemo Ientile, iStock.com, Brian LaPointe, Ph.D., Bobbie McDuffie, Ryan Moran, Clark Morgan, Mauricio Paiz, William M. Plate Jr., JC Ridley, John Reed, Ph.D., Paige Russo, Shutterstock, Carin Smith, Team USA, Jeffrey Tholl

Design and Graphics

Crystal Bacchus, Katarzyna Bytnar, Craig Korn, Paige Russo

©Florida Atlantic magazine is published twice a year by Florida Atlantic University, 777 Glades Road, Boca Raton, Fla., and distributed free to more than 5,000 nationwide. All rights reserved. No part of this publication may be reproduced without the expressed written permission of FAU.

FAU is designated a Hispanic-Serving Institution, ranked as a top public university by *U.S. News & World Report* and a High Research Activity institution by the Carnegie Foundation for the Advancement of Teaching. For more information, visit www.fau.edu or email FloridaAtlanticMag@fau.edu.

FEATURES



28 Six Decades of Innovation
CELEBRATING 60 YEARS OF FAU

38 From Basketball in Boca to Bronze in Beijing
ALUMNA UPHOLDS FAU LEGACY OF SPORTSMANSHIP,
EXCELLENCE AT OLYMPICS

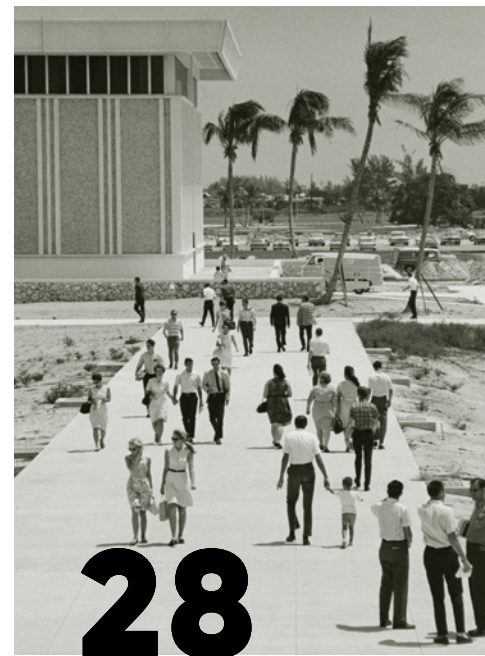
40 Shielding Society
RESEARCHERS DEMONSTRATE IF PLEXIGLASS PROTECTS AGAINST
COVID-19 ON CNN'S 'ANDERSON COOPER 360'

43 Putting Values into Action
\$20 MILLION GIFT HELPS BUILD HUB FOR HOLOCAUST
AND JEWISH STUDIES ON BOCA RATON CAMPUS

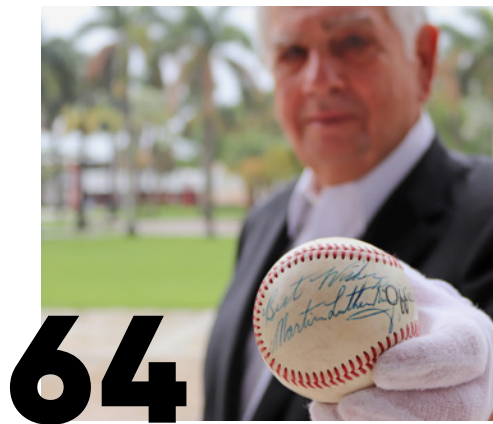
46 Closing the Cancer Gap
IMPROVING CANCER CARE,
FOR EVERYONE

48 Marking Half a Century
FIVE DECADES OF USING OCEAN SCIENCE
TO BETTER THE WORLD

55 Max Brain Power
FAU AND TOP BIOMEDICAL ORGANIZATION TRAINING
THE SCIENTISTS OF TOMORROW



DEPARTMENTS



6 AROUND CAMPUS
University News

68 FOREVER OWLS
Alumni News and Notes

58 WIN COLUMN
FAU Athletics

74 TIME MACHINE
A Look Back

AROUND CAMPUS

UNIVERSITY NEWS



Felipe Rodriguez, business major, class of 2021

FAU FEATURED IN AMAZON'S 'THE COLLEGE TOUR'

Ten Owls share FAU's story with the world in an episode of "The College Tour," a series that showcases colleges and universities across the country. FAU is one of 15 universities featured in the program's third season, which is available now on Amazon Prime Video.

"The College Tour" focuses on each institution's academics, student life and location. FAU's 30-minute episode is driven by student-led segments offering an inside look at what it's truly like to be a student at the most diverse public university in Florida.

"Highlighting Florida Atlantic University on 'The College Tour' is an exciting way to bring our brilliant educational opportunities and incredible location to potential students everywhere," said Maura Flaschner, executive director of undergraduate admissions. "Providing access to education is a key component of our mission, so

offering this tour on so many platforms provides an in-depth look at the FAU experience for all potential Owls, both near and far."

The students and alumni featured in the episode reflect many elements of the FAU experience. Segments include a deep dive into undergraduate research opportunities, student life on and off campus, FAU's coastal location and its many ocean-related programs, student success highlighting first-generation students and alumni, and academics and leadership development to prepare students for a modern workforce.

In addition to Amazon Prime Video, FAU's episode is available for streaming on IMDb TV and The College Tour TV channel on the following platforms: Apple TV, Roku, Amazon Fire, Android TV, and most major smart TVs. It also is available on FAU's YouTube channel.



© ALEX DOLCE/STEPHANIE BIHR

Katie Burke, Ph.D., center, executive director of new student orientation and transfer student services, and Rhoda Hoods, right.



Kennedy McKinney is a junior multimedia journalism major and founder of *The Paradigm Press*, FAU's first Black student-led newspaper.



OPPORTUNITY FOR ALL

FAU is a National Leader in Student Achievement

At FAU, diversity is more than representation. There's no limit to what students can achieve – regardless of income, first-generation status or race. And the numbers are proving it.

Here's a look at some of those achievements.

#36

SOCIAL MOBILITY
U.S. News & World Report

BY THE NUMBERS

NATIONAL RECOGNITION AS LEADER IN STUDENT SUCCESS

At a time when universities across the country are struggling to close completion gaps between historically underserved students and their overall student bodies, Florida Atlantic achieved the nation's fastest jump in graduation rates while eliminating these gaps. In fact, students who identify as Black/African American or Hispanic/Latinx, and those who are Pell-eligible, outpace the overall university graduation rates.

This accomplishment was recognized by the Association of Public and Land-grant Universities when FAU was named one of three finalists in the nation for its prestigious Degree Completion Award. FAU also received the 2021 Higher Education Excellence in Diversity Award from *INSIGHT Into Diversity* magazine, the largest diversity-focused higher education publication. FAU was selected for its high level of achievement and commitment to broadening diversity and inclusion on campus.

"Education has been referred to as 'the great equalizer' and I'm proud that Florida Atlantic is known as an institution where students from all backgrounds have the opportunity to succeed," President John Kelly said. "It's an honor to be recognized as a national leader in racial equity and student achievement."



© ALEX DOLCE



No. 12 Degree Producer for African Americans
 Top 50 Degree Producer for Hispanics
Diverse: Issues in Higher Education

28 ↑
 PERCENTAGE
 POINTS

In Four-Year Graduation Rate



Higher Education Excellence
 in Diversity Award
INSIGHT Into Diversity

ONLINE PROGRAMS BEST IN NATION

Several of Florida Atlantic's programs rank high on the *U.S. News & World Report* list of the Best Online Programs for 2022.

Take a look:

#13 Online master's in educational administration and supervision is No. 13, climbing from No. 19 in last year's rankings.

The online master's in nursing program is ranked No. 20, rising from No. 32 in 2021. **#20**

#41 Online master's in business program (non-MBA) is No. 41 in this year's rankings, up from No. 45 in 2021.

#21 *U.S. News* also ranked two offerings at FAU at No. 21 – the online master's in business program for veterans (non-MBA) and the College of Education's online curriculum and instruction program.



© ALEX DOLCE

The Best Online Programs methodologies are based on several factors, including engagement, faculty credentials and training, expert opinion, and services and technologies provided.

Ranking in the top 20 is especially meaningful for the Christine E. Lynn College of Nursing, given the global fight against the COVID-19 pandemic, said Dean Safiya George, Ph.D. "The recognition of the online master's in nursing programs speaks to the quality of the college's programs and the dedication of our faculty and staff. We pride ourselves on educating the next generation of exceptional health care providers that can help our nation in its continued struggle with the COVID-19 pandemic and beyond."

ADAPTIVE DRIVING MODE

FAU researcher Mehrdad Nojournian, Ph.D., earned two patents related to autonomous vehicles for self-driving cars based on machine-learning and artificial intelligence. One mimics human driving behavior, the other allows an autonomous vehicle to be responsive to its passenger's emotional state.

The technology uses sensors and electronic devices to learn the driving style of the driver when the car is in the semi-autonomous mode or human-driving mode, according to Nojournian, an associate professor in the College of Engineering and Computer Science and director of the Privacy, Security and Trust in Autonomy Lab.

Additionally, he said, the adaptive driving mode system contains real-time machine-learning mechanisms that can continue to learn driving styles over time and even share this information with other vehicles driven by the same person. The profiles can then be used in the car, allowing the vehicle to mimic different driving styles when the car is in the semi- or fully autonomous mode.

The adaptive driving mode can be used in a range of autonomous systems, including self-driving cars, autonomous military vehicles and autonomous public transport systems.



© ALDO E. FRIAS

NEW DEAN AT THE HELM

Leading Neurosurgeon and Physician-scientist to Continue Medical School's Legacy

FAU's Charles E. Schmidt College of Medicine is one of only 155 accredited allopathic medical schools in the nation, and its new dean has big plans for its future.

As a leading neurosurgeon and physician-scientist, Julie G. Pilitsis, M.D., Ph.D., M.B.A., assumed her role as dean and vice president for health affairs in February to spearhead the college's innovative medical education programs, cutting-edge research and clinical practice.

"With Florida expected to be short nearly 18,000 physicians by the year 2035, training and residency programs are imperative to provide care to Florida's population," Pilitsis said. "I am excited to lead the Schmidt College of Medicine during a pivotal time in our history."

Pilitsis, who earned her Doctor of Medicine with distinction from Albany Medical College in New York in 1998 and her doctorate in physiology from Wayne State University in Detroit in 2002, has made significant contributions nationally in medicine, education, advocacy and research. Funded by the National Institutes of Health for more than a decade, she has served as a principal investigator on several grants exceeding \$7 million. She also received more than \$2.5 million in grant funding from industry partners and holds three patents and two filed patent applications.

Before joining FAU, Pilitsis served as division chief of functional neurosurgery and chair and professor of the basic neuroscience department at Albany Medical College – an integral component of the Albany Medical Center (AMC), the only academic center in northeastern New York and western

FACULTY SPOTLIGHT

© KATARZYNA BYTNAR

New England. During her tenure, the department's grant funding increased tenfold; academic productivity, as measured by publications, increased fourfold; and graduate students who self-identify as underrepresented in medicine increased by 40 percent.

As division chief of functional neurosurgery at AMC, Pilitsis developed the service line of functional neurosurgery, a subspecialty of neurosurgery aimed at improving quality of life, which includes multidisciplinary pain/movement disorders teams.

Pilitsis said she supports interdisciplinary collaboration, and together with a colleague, she designed an inter-professional team-based master's degree curriculum in clinical investigation at AMC. She has dedicated her career to mentoring junior faculty in professional and leadership development activities and has mentored more than 150 students through translational research projects.

A national leader across multiple organizations, Pilitsis has served in numerous leadership roles and recently was named president-elect of the North American Neuromodulation Society, which has about 2,000 members. She also chaired two of seven American Association of Neurological Surgeons/Congress of Neurological Surgeons sections. She is a frequent presenter at national meetings and at neurosurgical grand rounds across the country, including a very popular TED Talk titled, "So You Want to be a Neurosurgeon," which has more than 250,000 views on YouTube.

Now, Pilitsis is ready to take the reins at FAU's College of Medicine. "Together with my colleagues, we will build upon the medical school's legacy, grounded in diversity and inclusivity, to provide patient-centered care and pioneering translational research to improve quality of life," she said.



**JULIE G. PILITSIS,
M.D., PH.D., M.B.A.**



CLIMATE CHANGE

SUPPORT IS CHANGING



© AARON BRISTOL

COLIN POLSKY, PH.D.

Over the past two years, FAU's Center for Environmental Studies and Business & Economics Polling Initiative conducted a series of surveys about climate change, which found it has become an increasingly bipartisan issue in Florida. Even though Florida Democrats register a higher belief rate (96 percent) than do residents affiliated with the GOP (88 percent), the latter group's share appears more than sufficient for Republican lawmakers to feel that openly acknowledging the science of climate change will not erode their popular support.

Party affiliation is, however, linked with differences of opinion about the cause of climate change. About half of Florida Republicans, compared to three-fourths of Florida Democrats, believe climate change is largely a human-caused issue.

"This sequence of results begins to paint a picture of Floridians' attitudes during a period of particularly dynamic political, economic and environmental conditions," said Colin Polsky, Ph.D., director of FAU's Center for Environmental Studies, and professor of geosciences in the Charles E. Schmidt College of Science. "During the period of these five surveys, public opinion



GETTY IMAGES

about climate change was likely shaped negatively by the Trump Administration's 2017 decision to retract the U.S. from the United Nations 2015 Paris Climate Accord."

The importance of climate change for the public was likely diminished in response to new, immediate daily concerns associated with the coronavirus pandemic and economic crises it triggered, Polsky said.

As such, these Florida opinion survey results about climate change can be viewed as reflecting public sentiment of at least two significant external and independent influences on public opinion, he said.



JULMARTIN EUGENE

David Navidad, recruiter for ROTC

MOVING MOUNTAINS THROUGH 'MOM'

The Christine E. Lynn College of Nursing received a \$250,000 grant to fund a project called Mind Over Matter (MOM). The project aims to engage veterans with traumatic brain injuries (TBIs) to bolster research that helps identify treatment options that are effective, acceptable and meaningful to the veteran population.

Many veterans suffering from TBIs are less likely to reach out for health care services or engage in research opportunities, contributing to unmet health care needs, according to Cheryl Krause-Parello, Ph.D., MOM project leader. Krause-Parello is a professor and interim associate dean for nursing research and scholarship in the College of Nursing. She also is a faculty fellow of FAU's Institute for Human Health and Disease Intervention.

TBI is a disruption in the normal function of the brain that can be caused by a blunt trauma or improvised explosive devices force to the head, and is an invisible wound of war and a signature injury of military troops, Krause-Parello said. About 30 percent of those who have served in recent military conflicts have suffered a TBI, which often leads to intellectual disabilities sometimes called cognitive disabilities.

Following a TBI, psychiatric problems such as post-traumatic stress disorder (PTSD), often result in an inability to regulate emotions and control impulsive behaviors, as well as an increased risk for suicide, said Krause-Parello, adding an estimated 20 military veterans take their own life each day. Effective management of PTSD may help to reduce this number.

MISSION POSSIBLE: STOPPING ALZHEIMER'S IN ITS TRACKS

Renowned Neurologist and Researcher Provides Tips on Maintaining Brain Health

For Richard S. Isaacson, M.D., an internationally renowned neurologist and researcher, Alzheimer's disease is personal. While he was in high school, his uncle was diagnosed with the disease and later, his cousin. Now, as the number of Americans with Alzheimer's and related dementias rapidly escalates, Isaacson said he's intensely focused on applying a comprehensive approach toward both the prevention of Alzheimer's and, more recently, Parkinson's disease and Lewy body dementia.

As director of the new Alzheimer's Prevention Clinic in the FAU Center for Brain Health, launched through the support of the Harry T. Mangurian Jr. Foundation, Isaacson uses a science-based approach to stop neurodegenerative diseases early in their tracks.

His mission? To identify patients at risk who do not yet have any cognitive decline or other clinical complaints, and design personalized prevention strategies to delay or possibly prevent the onset of these diseases.

Isaacson's method for tackling these devastating diseases provides hope amid many disappointments in drug therapies and other treatment trials over many decades.

Here's a look at Isaacson's tips to keep brains healthy.

Q: Is it really possible to slow down or prevent Alzheimer's disease and other types of dementias?

A: Most people are unaware that Alzheimer's disease and related dementias begin in the brain 20 to 30 years before that first symptom of cognitive decline and memory loss. This leaves ample time to make brain-healthy choices to reduce risk and protect against cognitive decline. About 40 percent of cases of dementia may be preventable based on modifiable risk factors, which is why lifestyle and brain-healthy choices are so important.

Q: Does what you eat affect your brain health?

A: We know how to keep our hearts healthy with lifestyle changes, but what many people don't realize is that you are what you eat when it comes to brain health. The best diet for your brain is the Mediterranean diet, which provides a lot of leafy greens, whole fruits and vegetables, whole grains in moderation, lean protein, fatty fish such as salmon, and healthy fats from nuts, seeds and olive oil.

Q: Can I still consume alcoholic beverages and maintain brain health?

A: The science behind alcohol and Alzheimer's is still evolving, but in my clinical practice I advise that less is more. For women, no more than four to seven servings per week. For men, no more than seven to 10 servings per week. Moderation is essential, and when you're unsure, no or minimal alcohol may be the safest bet.

Q: In addition to a healthy diet, do I also need to exercise?

A: You should aim to exercise at least three or four times a week for a minimum total of 150 minutes and combine aerobic workouts and resistance/weight training. Aerobic exercise, and in particular, high-intensity interval training (HIIT), helps burn fat, while weight training builds muscle, which boosts your metabolism. It's important to keep in mind that as the belly size gets larger, the memory center in the brain gets smaller. Exercise can help reduce

DID YOU KNOW?

Richard S. Isaacson, M.D., is the director of the new Alzheimer's Prevention Clinic in the FAU Center for Brain Health, within the Charles E. Schmidt College of Medicine. It supports basic research, clinical care, education and outreach, with plans to expand the clinical team to begin seeing patients this summer.

His approach for optimizing cognitive function and reducing risk of dementia is available to the public via a free online course called "Mastering Brain Health," accessible at faumedicine.org/alz/course/.



RICHARD S. ISAACSON, M.D.

body fat and be the brain's first defense against amyloid plaque, the harmful sticky substance that builds in the brain of a person with Alzheimer's. In my practice, I personally tailor exercise programs based on a person's body fat percentage, percentage of lean muscle mass, vascular/metabolic risk factors and cognitive function, and often suggest an eventual target of five to six sessions a week.

Q: How many hours of sleep is optimal for brain health?

A: Impaired sleep has been associated with Alzheimer's disease. Evidence shows that quality sleep plays a role in clearing damaging beta-amyloid out of the brain. Most need at least 7.5 hours of sleep every night and you must turn off electronics, like your smartphone and computer, at least an hour before going to bed. Make sure to have a quiet, dark room. The bright blue light from screens can disrupt your circadian rhythm and keep you from producing melatonin, a vital sleep hormone.

Q: Do games like Wordle and crossword puzzles exercise my brain?

A: The important thing is to use your mind often. Activities like Wordle and puzzles are fine as long as you are continuously working on using different parts of your brain. To do that, learn a new skill or take up a new hobby. Learning something new, like a new language, helps to build vital pathways in the brain and stimulates and challenges your mind. There also is a growing body of research on the many benefits of music on the brain. While listening to music may have some benefits, playing it or singing is even better.

Q: What other lifestyle tips are important for maintaining a healthy brain?

A: Managing vascular risk factors, such as high blood pressure (goal 120s/70s or below), high cholesterol and elevated blood sugar, is also essential. Regardless, if I'm talking to a patient, or even giving advice to a cardiovascular surgeon (like Dr. Mehmet Oz), I emphasize that having "borderline" high yet untreated risk factors for cognitive decline is not ideal for brain health. As such, my targets have evolved to focus on optimal levels rather than a wide range of "normal." It's also important to connect with people regularly, which has been especially challenging during the COVID-19 pandemic. For decades, studies have shown that maintaining social connections and relationships helps stimulate the brain and may slow cognitive decline.



ISTOCK.COM

LINKING SLEEP AND BRAIN HEALTH

Carmen Varela, Ph.D., received the Alzheimer's Association's Research Fellowship to Promote Diversity award to investigate the relationship between sleep patterns and overall brain health. Poor sleep quality is associated with Alzheimer's disease and other dementias from early stages and is thought to contribute to the progression of Alzheimer's, Varela said.

Through this award, Varela will develop new indicators to monitor quality of sleep in deep brain structures affected in Alzheimer's.

Varela is an assistant professor of psychology in the Charles E. Schmidt College of Science and a member of the FAU Stiles-Nicholson Brain Institute. Her research focuses on the role of the thalamus, a critical brain hub that regulates sleep-dependent functions, such as the brain's capacity to stabilize memories while we rest.

Alzheimer's is the sixth-leading cause of death in the U.S., killing more Americans than diabetes, and more than breast cancer and prostate cancer combined. More than 6 million Americans are living with the disease, according to the Alzheimer's Association's 2021 Alzheimer's Disease Facts and Figures.

ALMISONN/STOCK



DISCOVERY

PINPOINTING THE TIMING OF DINOSAUR-KILLING ASTEROID

Researchers in the Charles E. Schmidt College of Science led a discovery that determined it was springtime when a catastrophic asteroid crashed into Earth. The event was responsible for the extinction of dinosaurs and 75 percent of life on Earth 66 million years ago.

Results of the study, published in the journal *Scientific Reports*, greatly enhances the ability to trace the first stages of damage to life on Earth, according to authors Robert DePalma, adjunct professor, and Anton Oleinik, Ph.D., associate professor, both in FAU's department of geosciences.



Robert DePalma, left, and Anton Oleinik, Ph.D., at a research site in North Dakota.

SOLAR ENERGY THREATENS FLORIDA PANTHERS

Reducing the energy industry's carbon footprint is impeding a large carnivore's paw print, according to a study by researchers in the Charles E. Schmidt College of Science.

Results of the study, published in the *Journal of Applied Ecology*, show that most often, installation of utility-scale solar energy (USSE) facilities to combat carbon emissions and climate change were on grasslands, pastures, agricultural lands and forests. The findings suggest a substantial bias in locating USSE facilities within rural and undeveloped lands, which will push Florida panthers into less favorable habitat and debilitate corridors to available habitats the panthers rely on to survive. Males need about 200 square miles, and their survival relies on their ability to move from protected area to protected area through wildlife corridors, according to authors Olena V. Leskova, doctoral student, Scott H. Markwith, Ph.D., a professor in the Department of Geosciences, and Robert A. Frakes, Ph.D., an ecologist specializing in panther habitat modeling and conservation.



@SADDAKO /ISTOCK.COM



@SHUTTERSTOCK

BEZOS ACADEMY COMING TO BOCA RATON CAMPUS

FAU will be the first university in Florida, and only the second in the nation, to host a Bezos Academy, a tuition-free, Montessori-inspired preschool for low-income families.

"A lot of people think Boca Raton is only an affluent community, but the need is truly there," said Joel Herbst, Ed.D., superintendent and assistant dean, PK-12 Schools and Educational Programs at FAU.

When you look at the surrounding cities and the thresholds for income that would allow students to attend the academy, there are approximately 3,000 children under the age of 5 that meet these criteria. When coupled with the number of students eligible for Pell grants at the university, which is approximately 9,000 students, there is a real opportunity to effect significant change, Herbst said.

The preschool, located adjacent to FAU's A.D. Henderson University School, will feature six classrooms and offer year-round programming, five days a week.

"A.D. Henderson is a choice Title 1 school district that proves children from all economic backgrounds can excel if given the opportunity," Herbst said. "Considering their mission, I can't conceive of a better partner than Bezos Academy for a preschool program on our campus."

NEW JUSTICE DECISION-MAKING SIMULATION LAB

Faculty in FAU's School of Criminology and Criminal Justice in the College of Social Work and Criminal Justice are collaborating to build FAU's new Justice Decision-Making Simulation Lab (SimLab), which uses software to train law enforcement officers in incident-response techniques.

The SimLab's forthcoming educational programs will expose students to law enforcement decision-making in real time using nearly 700 real-life interactive scenarios to improve their understanding of decision-making, de-escalation techniques and effective approaches to law enforcement training.



NAELYS LUNA, PH.D.



FAU campus police

© ALEX DOLCE

Here's a look at what the new SimLab will offer:

- Training programs that will focus on communication and de-escalation skills, and assess split-second decision making.
- Research activities to better understand de-escalation techniques and the relationship between decision-making and biometrics (heart rate, blood pressure, etc.).
- Educational and engagement programming that helps improve interactions between first responders and individuals in the community.
- Increased awareness and understanding between education professionals and law enforcement to enhance student and school safety, and opportunities to explore careers in law enforcement.

Training and research are already underway with students actively cataloging and coding scenarios to better inform the content used in SimLab programming. In addition to the FAU Police Department and the FAU Center for Autism and Related Disabilities, SimLab faculty also are connecting with interdisciplinary researchers and community experts to develop continuing education and research programs focused on the lab's capabilities.

"The simulator is state-of-the-art equipment that has a tremendous capability to enhance law enforcement training," said Naelys Luna, Ph.D., dean of the College of Social Work and Criminal Justice. "The potential it represents in terms of training, research and education — those outputs could eventually help inform community safety protocols, optimize training procedures for our students and for law enforcement personnel, and lead to much-needed healing in our nation's police-community relations."

NAVIGATING A NEW WORLD

Imagine purchasing a brain chip that gives you superhuman computational power, or one that offers the meditative state of a Zen master. Or, imagine an enhancement bundle that allows you to transfer all of your mental functions to the cloud. These possibilities and more may not be as far-fetched as they sound.

Tesla founder Elon Musk's Neuralink is developing a wireless implantable brain chip, and other companies have worked on similar Brain Computer Interfaces (BCIs) for years. These BCIs are used for treating medical disorders, augmenting human intelligence, and more. But at what point do the computers and the companies that control them take over? And at what point does artificial intelligence (AI) take over for human consciousness?

Members of FAU's Center for the Future Mind consider questions like these and ask: What is the best way to navigate this new world? The center is a collaboration between the Dorothy F. Schmidt College of Arts and Letters and FAU's Stiles-Nicholson Brain Institute, and directed by Susan Schneider, Ph.D., William F. Dietrich Distinguished Professor of Philosophy.

Since its founding in 2020, researchers with the center have collaborated with scholars from across the university and around the world, as well as with FAU's partners at Scripps Florida and the Max Planck Florida Institute for Neuroscience. It is becoming an international hub for analysis of the implications of AI on the future of the mind.

For more information, visit fau.edu/future-mind/.



From left, Kelly/Strul Scholars Virone Devine Jr., Valeria Tineo, Ta'Shyra Johnson, Jacob Browne and Jaireen Ruiz.

PATH TO SUCCESS

PROGRAM TRANSFORMS LIVES OF FIRST-GENERATION STUDENTS

First-generation students — those whose parents have not graduated from a four-year college or university — face unique challenges on the path to a degree. Research shows that the biggest hurdle for these students is finances, followed by a lack of individualized support systems.

That's why Boca Raton philanthropists Aubrey and Sally Strul partnered with FAU President John Kelly and First Lady Carolyn Kelly to create the Kelly/Strul Emerging Scholars Program. The program provides financial support, as well as academic support and mentorship, to help first-generation, low-income undergraduate students attain their degree within four years — free from financial worry and with the ability to devote themselves fully and successfully to academic and co-curricular achievements.

The program was launched in 2017 with an initial investment of \$1 million from Aubrey Strul, an entrepreneur and first-generation graduate. The inaugural class of Kelly/Strul scholars welcomed four students, selected from a pool of more than 60 applicants. To date, the program has admitted 65 scholars. Thirteen have graduated and entered the workforce or are pursuing graduate studies.

Alumni Jacob Browne and Luisana Muñoz share how the Kelly/Strul Emerging Scholars Program was instrumental in achieving their goal of earning a degree.

JACOB BROWNE

At age 9, Jacob Browne knew exactly what he wanted to be when he grew up: a sportscaster. Browne said he was inspired by Joe Buck's play-by-play calls during the 2009 World Series. Browne was able to work toward his goal with the help of the Kelly/Strul Emerging Scholars Program.

As a student at FAU, he served as the voice of FAU baseball and football in 2020 and 2021 on FAU Owl Radio, ultimately becoming the sports director for the station. He also launched his own show, "Strictly Sports" on Owl Radio, which is available on Apple Podcasts, Spotify and iHeartRadio. Browne worked on Radio Row for the Super Bowls in Miami in 2020 and Tampa in 2021, interviewing players and sportscasters. Additionally, he interned at the SiriusXM PGA TOUR Radio channel.

Browne graduated with a bachelor's degree in communication and multimedia studies from the Dorothy F. Schmidt College of Arts and Letters in December 2021 — in just three-and-a-half years. He is now the play-by-play broadcaster for the Forest City Owls in Forest City, N.C. There, he announces every baseball game, hosts pre- and post-game shows, and conducts interviews with players and coaches.



LUISANA MUÑOZ

Luisana Muñoz

Originally from Venezuela, Luisana Muñoz remembers when there was no power, water or food in her home. Her parents said they knew they couldn't fulfill their daughter's dreams in Venezuela and emigrated to the United States.

As a Kelly/Strul Emerging Scholar, Muñoz studied biological sciences and conducted research in two labs, where she analyzed songbirds and studied empathy in children. She also served as an admissions ambassador, leading orientation for new and prospective students. Additionally, Muñoz worked as a pharmacy technician at CVS, where she accrued more than 100 shadowing hours in preparation for medical school.

After graduating with a bachelor's degree from the Charles E. Schmidt College of Science, the first-generation student was admitted into FAU's biological sciences master's program. She plans to begin medical school in 2023.

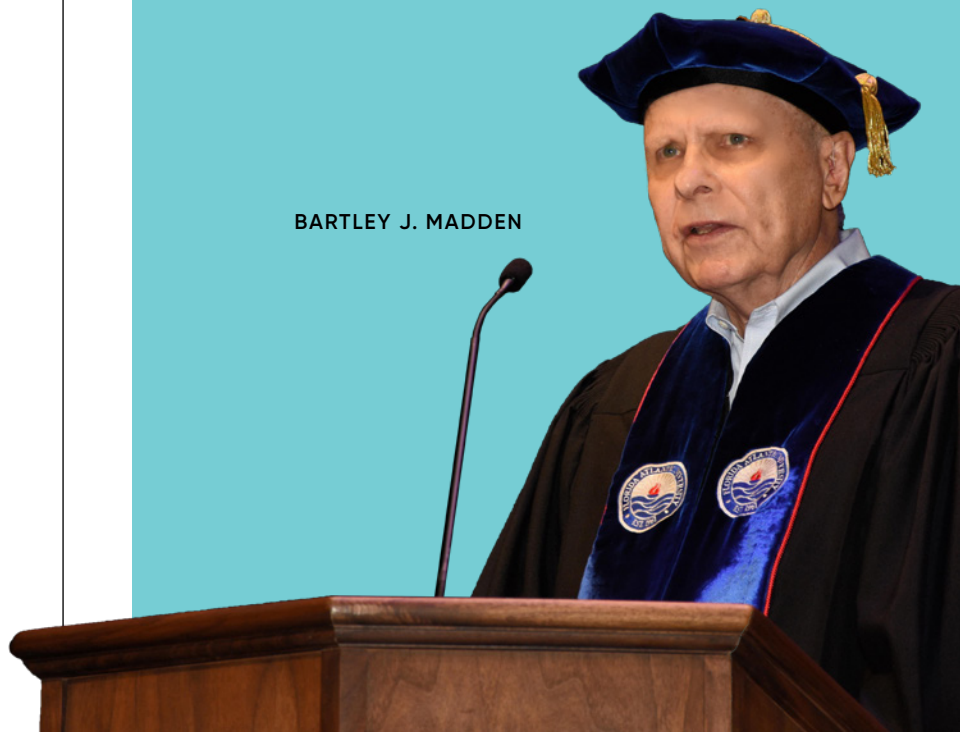
For more information or to support the Kelly/Strul Emerging Scholars Program, visit kellystrulscholars.fau.edu.

MADDEN CENTER MOLDS 'MILLIONAIRE MINDSET'

FAU's College of Business received \$3 million from the Bartley J. Madden Foundation to create the Madden Center for Value Creation. The Madden Center will engage students through education, research and service regarding value creation as a foundational guiding principle to achieve widespread prosperity.

The center will host a special interest club for students who want to learn about accounting, stocks, affiliate marketing and cryptocurrency. The club, called Millionaire Mindset, will promote valuable life and business skills, such as time management and communication, as well as the power of a positive and passionate mindset. Students will also have access to scholarships and financial assistance to attend and present at research conferences.

BARTLEY J. MADDEN





KATERINA FILIP

GIFTS FOR TENNIS

Philanthropist Kimberly V. Strauss made two large gifts to FAU's tennis programs, one surpassing the other as the largest gifts in FAU tennis history.

The initial \$100,000 gift created the Kimberly V. Strauss Tennis Lounge and supported upgrades to the teams' locker rooms. The second gift, a commitment of \$500,000, names the Kimberly V. Strauss Tennis Center.

"We thank Kim Strauss for her incredible generosity and support of our tennis programs," said Brian White, FAU's vice president and director of athletics. "Her support of the Owls will transform virtually every one of the spaces that impact our tennis student-athletes and coaches. We truly appreciate Kim's recognition of the potential within these teams and her willingness to help us make transformational changes."

Much of the second gift will go toward the addition of state-of-the-art lighting at the center, allowing for even more home competition and practice opportunities for FAU student-athletes. The lighting project is expected to be completed during the 2022 calendar year.

"I cannot begin to describe the impact Kim Strauss and her generous support has made on FAU tennis," said Ricardo Gonzalez, FAU director of tennis. "The new spaces created through her previous gift created a great environment for our student-athletes and gives us a recruiting advantage. Her latest gift will allow us greater flexibility for practice and competition. This will positively impact numerous generations of FAU tennis student-athletes."



ZX @ MAURICIO PAIZ



Alvaro Fernandez Horta, left, and Carles Sarrio



ERIC SHAW, PH.D.

EMERITUS PROFESSOR GIVES \$2 MILLION

Alumnus and College of Business emeritus professor Eric Shaw, Ph.D., donated more than \$2 million to FAU, making him the second-largest faculty donor in university history. The gift will benefit various athletic teams, as well as business, arts and other university programs.

“I am forever grateful to FAU for providing me an excellent education, providing terrific mentors and talented colleagues to work with, exceptional students with bright eager minds to share knowledge, and offering me so many opportunities for personal and professional growth,” Shaw said. “It is a privilege and my great pleasure to give back by making a small contribution to this great university.”

Shaw received a bachelor’s in 1972 and a master’s degree in 1973, both in business administration. He was then invited to join the FAU faculty as an instructor of marketing. Shaw went on to earn a doctorate from Temple University and taught at Rutgers University and the University of Miami.

After returning to FAU in 1982, he served as associate dean of the College of Business, acting director of the School of Industry Studies, and as chairman of the marketing department for 15 years. Shaw is a past president of the faculty senate; a former faculty athletics representative to the NCAA; and a former member of the FAU Alumni Association Board, the FAU Foundation Board and FAU’s Board of Trustees.

“In making this gift, Dr. Shaw continues his legacy of caring and inspiration by supporting the excellence of FAU’s students in perpetuity,” said Chris Delisio, vice president for institutional advancement and chief executive officer of the FAU Foundation. “We are incredibly grateful for his kind generosity.”



DIPLOMACY PROGRAM CLAIMS THIRD NATIONAL TITLE

FAU's Leon Charney Diplomacy Program placed first overall at the National Model United Nations competition in Washington, D.C. in November 2021. The top-place finish followed national titles in 2020 and 2018. Overall, FAU has received 52 national and international awards for academic excellence since the program's inception in 1996.

"These exceptional students work diligently to prepare and train for these diplomatic competitions," said Jeffrey Morton, Ph.D., Pierrepont Comfort Chair in Political Science and director of the Charney Diplomacy Program. "The competition in 2021 was yet another incredible accomplishment for the program and a testament to the excellence of the students."

Morton is the first endowed chair in Harriet L. Wilkes Honors College history. Established in spring 2021 through a gift from the Comfort family, the Pierrepont Comfort Chair in Political Science supports Morton's work as an internationally recognized scholar of political science and foreign policy. The gift also sustains FAU's vision of bringing extraordinary faculty and students to the Honors College.

Named in honor of the diplomatic legacy of Leon Charney, a key player in the 1978 Camp David Accords, FAU's Leon Charney Diplomacy Program trains students in world affairs, dispute resolution and debate. It is housed in the Center for Peace, Justice and Human Rights in the Dorothy F. Schmidt College of Arts and Letters.

SPINE REPLICA

HOW ONE RESEARCHER ASSISTS DOCTORS WITH SPINAL SURGERY

Creating artificial spines could help treat patients with degenerative disc conditions, according to Erik Engeberg, Ph.D., professor in the College of Engineering and Computer Science. Engeberg is director of the BioRobotics Lab at FAU, and a member of the FAU Stiles-Nicholson Brain Institute and Center for Complex Systems and Brain Sciences.

Degenerative disc conditions happen when there is a breakdown in the spinal discs — the spongy cushions that give the spine flexibility and room to move. If this becomes severe, a spine disc replacement and implant usually follow, Engeberg said.

"This is one of those conditions that causes back pain, but can spread and affect other parts of the body, including the nerves," said Engeberg.



ENVATO

Rather than relying on diagnostic images alone, his goal is to enable surgeons to preview the effects of surgical interventions before operating on patients who need a disc replacement.

In his lab, Engeberg developed a robotic cervical spine that imitates the human neck. He used a three-dimensional printer that builds objects and a CT scan of a neck to create the spine's shape. Engeberg then inserts a disc implant embedded with a soft magnetic sensor array into the artificial spine.

"It's the material that makes this work," Engeberg said. "We use soft, stretchable magnets by mixing silicone with magnetic powder, which helps capture the spine's movement more precisely. And since it's highly sensitive and easily integrated into robotic systems, we can create many shapes and sizes that are needed."

As the artificial neck flexes, the soft magnetic sensor array analyzes the spine's posture with four different machine-learning algorithms. Engeberg compares the algorithms to classify five different postures or movements of the human spine, which are mid-flexion, flexion, mid-extension, extension and center.

Flexion is when the neck bends forward and the head points toward the ground, while extension is the opposite, and the spine or neck curves upward. "Each motion the robotic cervical spine makes, whether it's full range or halfway, helps us determine how the human neck will move," Engeberg said.

The results of the study, published in the journal *Sensors*, show that the soft magnetic sensor array has higher capabilities to classify the spine, "which can help predict the different problems of the spine that people experience and allow surgeons access to reviewing and comparing the effects of different surgeries," he said.

Engeberg's robotic spines also could potentially assist people with implants post-surgery, he said.

"After someone has had an implant, they often receive minimal instructions on how to move, lift, or even exercise after their surgery," Engeberg said. "We're hoping that if surgeons can preview the operation with the artificial spine, they can determine how it will function once the procedure is complete, giving patients more confidence during rehabilitation."

Collaborators on the project include co-authors Chi-Tay Tsai, Ph.D., a professor in the College of Engineering and Computer Science, and Frank Vrionis, M.D., director of the Marcus Neuroscience Institute, part of Baptist Health.



ERIK ENGERBERG, PH.D.

© ALEX DOLCE

Restoring Touch

In addition to his work building artificial spines, Engeberg builds robotic parts that allow individuals to regain and feel the sensation of touch.

Engeberg specifically creates artificial intelligence (AI) prosthetics. He uses liquid metal sensors attached to AI fingertips that provide a more realistic and advanced experience of touch. "A feeling that most amputees rarely regain while using traditional prosthetics," Engeberg said.

With custom-fabricated fingertips for a prosthetic hand, Engeberg inserts a liquid metal sensor on each fingertip to collect individual sensory data that can eventually send signals to the entire hand, so it senses what it's touching. The sensors attached to the fingertips send information to a computer software system that trains machine-learning algorithms to predict a recognized pattern of textures.

The material Engeberg uses is a softer, more stretchable material with higher flexibility and it's highly conductive, meaning it has the potential to pick up stronger sensations from the fingertips, he said.

He said he hopes to use the material on an entire prosthetic hand or arm, to give it a closer, more human-like touch.

SUPPORT FOR FIRST-GENERATION TRANSFER STUDENTS

A \$943,000 gift from the Johnson Scholarship Foundation will provide scholarships and support services for FAU’s first-generation transfer students. When combined with state and private matching funds, the gift will have a total impact of \$3.3 million over four years.

“We are grateful to the Johnson Scholarship Foundation for recognizing FAU’s efforts to expand opportunities for the more than 1,000 first-generation students admitted each year,” FAU President John Kelly said. “This generous gift will support our ongoing work to meet the needs of first-generation transfer students, and we look forward to welcoming the first cohort of Johnson Transfer Scholars in fall 2022.”

The Johnson Transfer Scholars Program at FAU aims to improve the retention, matriculation, graduation and career readiness of first-generation transfer students. Transfer students will be immersed in a culture of first-generation-specific community-based programming and high-touch academic and success coaching. Targeted career readiness programs will help to increase their employability upon graduation.

The Johnson Scholarship Foundation has long invested in student success. Prior to this grant, the foundation supported the Office of First-Generation Student Success and provided scholarships for students with disabilities. In 2020, it provided funding for student laptops in response to the COVID-19 pandemic.

“We at Johnson Scholarship Foundation believe it’s important not only to open the doors to education, but to provide the support necessary for students to graduate and become successful in the workforce,” said Robert A. Krause, CEO of Johnson Scholarship Foundation. “The Johnson Transfer Scholars Program contains all the elements to nurture the students to that success, and we’re proud to partner with FAU on this program.”



FAU

FAU is one of the nation’s most diverse public universities and the most diverse public university in Florida.

60%

STUDENTS FROM HISTORICALLY UNDERREPRESENTED GROUPS

40%

STUDENTS ARE PELL GRANT ELIGIBLE

TOP 40

FAU IS RANKED AMONG THE TOP 40 UNIVERSITIES NATIONWIDE FOR SOCIAL MOBILITY BY U.S. NEWS & WORLD REPORT

30%+

FIRST-GENERATION COLLEGE STUDENTS

HELPING BUSINESSES

Start, grow, expand & succeed
with the Florida SBDC at FAU

Register Today



sbdc@fau.edu



sbdc.fau.edu



Through the generous support from Citi Foundation, the Florida SBDC and FAU continues to serve communities, and aid in the collective economic recovery.


Florida Atlantic University®

State designated as Florida's Principal Provider of Business Assistance [§ 288.001, Fla. Stat.]

The Florida SBDC Network is a statewide partnership program nationally accredited by the Association of America's SBDCs and funded in part by the U.S. Small Business Administration, Defense Logistics Agency, State of Florida and other private and public partners, with UWF serving as the network's headquarters. Florida SBDC at FAU services are extended to the public on a nondiscriminatory basis. Language assistance services are available for individuals with limited English proficiency.



U.S. Small Business
Administration

An aerial photograph of a university campus, featuring several large, multi-story buildings and parking lots. The image is overlaid with large, white, semi-transparent numbers '60' that form the background for the text. The text 'SIX DECADES OF INNOVATION' is centered over the '0'. There are decorative horizontal bars in teal and red on the left and right sides of the text.

SIX DECADES OF INNOVATION



Celebrating 60 Years of FAU

BY ALYSE COOKE

From its inception six decades ago, Florida Atlantic University was seen as a game-changer; a new kind of university that would create access to higher education like never before.

In the words of U.S. President Lyndon Baines Johnson when he dedicated the university, FAU represented the beginning of a new era “when education is no longer only for the sons of the rich, but for all who can qualify.”

In 1964, for a sitting president to officiate the dedication of a new university was unusual. Then again, FAU was never fated to be just another university.

Destined to become a hub for higher education and innovation, the history of FAU’s flagship campus is shaped by its origins as the Boca Raton Army Air Field. During its years of active use, from 1942 to 1947, the base served as a revolutionary radar training school operated by the U.S. Army Air Corps.

The pivotal airborne radar technologies and tactics developed at the Boca Raton installation had a direct impact on shortening World War II and saved the lives of countless U.S. airmen. Of course, the activities on the airfield were highly confidential, and measures to protect the Army’s research went as far as ensuring that wires would burn upon crash, preventing the enemy from reproducing its secrets.



Shortly after the war ended, directives changed and the Air Corps' operations moved to Biloxi, Miss. — but the innovation instilled at the site soon would be revived as a transformative new university.

Today, the daring history of the Boca Raton Army Air Field and its service members are not only remembered, but honored, around campus. In May 2021, the university unveiled a Florida Heritage Site historical marker on the spot where, in May 1944, nine soldiers lost their lives during a B-34 training flight crash. The marker is located at the southeast corner of FAU Boulevard and North University Drive. Original WWII-era "T Buildings" also remain on campus and are used by FAU's Reserve Officers' Training Corps.

While the former airfield sat abandoned in the 1950s, the Florida Legislature authorized the establishment of a fifth public university in the state. This time, for the first time, a university would be set in the southeast.

Thomas F. Fleming Jr., a community leader and banker in Boca Raton, stepped in to suggest the vacated airbase as an ideal site for the new university. Using the slogan, "Boca U. in '62," Fleming's campaign delivered success when the Board of Control approved of the location.

Once the federal government agreed to lift land use restrictions, 1,000 acres of the former airfield were designated for the university, and another 200 acres were reserved for the Boca Raton Municipal Airport. Legislation passed on July 15, 1961, and the opening for FAU was set for September 1964.

Although the new university had approval, it did not have funding. Instead, the Board of Control announced that, in order to proceed with the plans, the local community would be required to raise \$100,000 for planning, architectural design and construction.



Thomas F. Fleming Jr., left, and Kenneth R. Williams, first president of FAU

Fleming accepted this challenge and proceeded to create the Endowment Corporation for a University in Boca Raton, which focused on securing contributions from the public. To spearhead the effort, he made the first donation, pledging 1 percent of three years' worth of the pre-tax earnings of the First Bank and Trust Company of Boca Raton, which he headed.

At the close of the campaign, the Endowment Corporation surpassed its goal by raising nearly \$300,000. Today, the organization remains in service as the FAU Foundation, benefiting students through scholarships, fellowships, research endowments and more.

EDUCATION WITHOUT LIMITATIONS

The conception of the new university in Boca Raton was inspired by the 1960s American culture that yearned for societal and technological progress. With the intention to establish a university "different from any educational institution known to the area," drafters of the tentative plans were considered ahead of their time when they



GINA FONTANA

From left, Susan Gillis, curator, Boca Raton Historical Society; Thomas R. Wood, fire chief, Boca Raton Fire Rescue Services; John Kelly, president of FAU; Daniel C. Flynn, FAU vice president for research



U.S. President Lyndon Baines Johnson at FAU in 1964

outlined teaching strategies that included unprecedented access to live telecasting and video recordings.

The drafters also embraced the unique geographical and cultural makeup of Boca Raton and its surrounding areas, recognizing that “the growth of the university [would] require that it become harmoniously blended into the civic and cultural life of the great urban region that Southeast Florida [was] already becoming.” Given these provisions, the founding of FAU reflected a clear understanding that the path to becoming a truly competitive world university would begin with diversity in both people and ideas.

When its doors opened on Sept. 14, 1964 – six days later than scheduled due to Hurricane Cleo – FAU welcomed a charter class of 867 students. In what would become the

most racially, ethnically and culturally diverse institution in Florida’s State University System, FAU’s founding student body included 25 African Americans, seven Hispanics and one Asian student.

A few weeks later, on Oct. 25, the university garnered national attention when President Johnson delivered the keynote address at the dedication ceremony. With 15,000 people gathered to heed the call of higher education, Florida Atlantic University became the place “Where Tomorrow Begins.”

For the next 50 years, FAU would make extraordinary strides to develop a distinct culture of diversity, innovation and excellence that serves as a standard for modern universities today. To activate this growth, new structures and programs were steadily introduced, including the first undergraduate ocean engineering degree in the nation, now a designated Program of Distinction by the Florida State University System.

(CONTINUED ON PAGE 34)



FAU TIMELINE



1960:
The State Board of Education gives final approval to build Florida's fifth public university in Boca Raton.

1961:
The Florida Legislature passes the enabling legislation and granted funding to establish the university on July 15. Tasked with raising \$100,000 to fund the new university, Thomas Fleming creates an Endowment Corporation that solicited contributions from the public under the slogan "Open the Door in '64."

1970:
Pine Jog Environmental Center in West Palm Beach becomes affiliated with FAU's College of Education.

1962:
The Board of Control, which governed public universities in Florida, announces that the name of the new institution will be Florida Atlantic University (FAU).

1966:
The Humanities Building, which includes the 504-seat University Theatre, opens. The Mohave and Naskapi student residence halls open. The Administration Building opens.

1968:
The Alexander D. Henderson University School, a kindergarten through eighth-grade public laboratory school, opens. It was established through a gift from Lucy Henderson Edmondson. The Sekoni and Seminole student residence halls open.

1971:
The Boca Raton campus is designated a burrowing owl sanctuary by the National Audubon Society. This small but feisty bird would later become FAU's mascot.



1964:
On Sept. 14, FAU welcomes its charter class of 867 students – six days later than the scheduled start of classes, due to Hurricane Cleo. The storm caused \$100,000 in damage to the campus. Original buildings include the library, the Learning Resources Building, the Sanson Science Building and General Classrooms South. On Oct. 25, Lyndon Baines Johnson, 36th President of the United States, declares FAU officially open.



1965:
FAU launches the nation's first undergraduate degree program in ocean engineering. Algonquin and Modoc Halls, the university's first two student residence halls, open. All six of the original residence halls are given names that honor Native American tribes. The first commencement ceremony is held on April 24, at the First Presbyterian Church of Boca Raton. Thirty students who entered FAU as seniors receive degrees.

1977:
Fleming Hall, housing the College of Business, is dedicated. Its name honors the memory of FAU founding father Tom Fleming, who died in 1976.

1982:

The Engineering Building opens. The 2,400-seat FAU Auditorium opens at the University Center. The Lullis and Rolland Ritter Art Gallery opens.



1990:

The Davie campus is established to serve students in the western part of Broward County.



1993:

FAU Athletics joins NCAA Division I.

1995:

University Village Apartments, a two-story student apartment complex, opens on the eastern edge of the Boca Raton campus.



1985:

Florida Atlantic Research and Development Park is established on the Boca Raton campus as a center for entrepreneurial activity with the support of the Broward and Palm Beach county commissions.

1984:

FAU offers freshman and sophomore-level classes, redefining itself as a four-year institution and expanding its footprint as a complete academic center in South Florida.



1999:

The John D. MacArthur Campus in Jupiter opens, offering degree programs at the upper-division and graduate levels. The campus is the home of the Harriet L. Wilkes Honors College, the first honors college in the United States to be built from the ground up. The Barry and Florence Friedberg Lifelong Learning Center opens on the Boca Raton campus.

1987:

Reubin O'D. Askew University Tower in downtown Fort Lauderdale opens, expanding FAU's ability to serve Broward County students in their home community.

1989:

Florida Legislature designates FAU as the lead state university serving Broward County.

2000:

The 61,000-square-foot Tom Oxley Athletic Center, then the only coeducational facility of its kind in the country, opens on the Boca Raton campus.



2001:

FAU Football plays its first game on Sept. 1 at Miami's Pro Player Stadium against Slippery Rock University. The team is led by legendary head coach Howard Schnellenberger. Indian River Towers, a 600-bed student residence facility, opens on the Boca Raton campus.

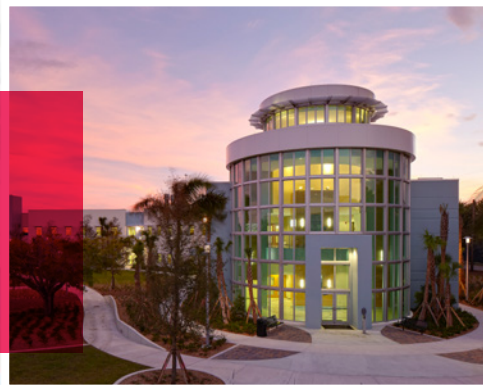


2002:

The Charles E. Schmidt Biomedical Science Center is dedicated on the Boca Raton campus, with Florida Gov. Jeb Bush officiating. The Eleanor R. Baldwin House, the presidential residence and university reception center, opens on the Boca Raton campus.

2004:

FAU High School opens, providing opportunities for students to earn college credits while earning their high school diploma. Heritage Park Towers, a 600-bed student residence facility, opens on the Boca Raton campus.



2006:

Christine E. Lynn College of Nursing building is dedicated.

2007:

Harbor Branch Oceanographic Institute in Fort Pierce joins FAU. Glades Park Towers, a 600-bed student residence hall, opens on the Boca Raton campus. The FAU football team becomes the youngest team in NCAA history to win a bowl game.

2008:

The Marleen and Harold Forkas Alumni Center opens on the Boca Raton campus. The Recreation and Fitness Center is dedicated on the Boca Raton campus.

The first buildings on campus include what is now the S.E. Wimberly Library, the Sanson Life Sciences Building, General Classroom South and the Instructional Services Building, which then was called the Learning Resources Building. It delivered on the founders' dream of a fully equipped studio capable of broadcasting lectures across campus and around the world. An aggressive construction plan by FAU's first president, Kenneth R. Williams, ensured the swift completion of the Administration Building — now named for him — the Breezeway cafeteria and six residence halls.

Several small satellite facilities also were established in South Florida during this time, later developed into five additional campuses: downtown Fort Lauderdale, Davie, Dania Beach (SeaTech), the John D. MacArthur Campus in Jupiter and Harbor Branch Oceanographic Institute in Fort Pierce. Today, the six FAU campuses encompass 110 miles of the Southeast Florida coastline and contribute to worldwide research activities and a multibillion-dollar regional economic impact.

Brought to the university by student demand, intercollegiate athletics was introduced to FAU in 1969, followed by the advent of fraternities and sororities, annual homecoming festivities, and construction of the University Center, known today as the Student Union. These welcomed additions gave FAU students a newfound sense of competition outside the classroom, as well as a new reason to cheer for their fellow Owls.

With the opening of the Tom Oxley Athletic Center and the creation of an official football team in 2001, FAU students entered a new age of sportsmanship and school spirit. The team was led by legendary head coach Howard Schnellenberger, who successfully prepared the team for its eventual move to NCAA Division I and the Sun Belt Conference. Ten years later, in 2011, the fighting Owls stepped onto a field they could call home at the newly constructed FAU Stadium.

(CONTINUED ON PAGE 36)



2011:
The Culture and Society Building opens, which is home to the innovative Living Room Theaters. FAU Stadium opens. The Charles E. Schmidt College of Medicine welcomes its first class of future physicians.

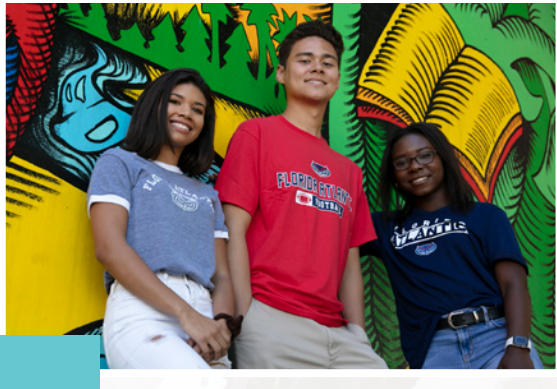
2010:
The Engineering East building opens. It is one of the first university facilities in Florida to be a certified LEED platinum building.

2013:
Parliament Hall, a 600-bed suite-style residence hall for first-year students, opens on the Boca Raton campus.



2015:
The fully accredited Charles E. Schmidt College of Medicine graduates an inaugural class of 54 students, all of whom were matched for a residency program.

2016:
FAU is ranked as the top-performing public university in the state by the Florida Board of Governors.



2017:
FAU earns federal designation as a Hispanic-Serving Institution by the United States Department of Education.



2020:
FAU receives the Carnegie Community Engagement Classification for demonstrating an unwavering commitment to community engagement.



2021:
Atlantic Park Towers, a suite-style residence hall for upper-division students, opens on the Boca Raton campus. Residence Hall 3, a suite-style residence hall for upperclassman opens on the Jupiter campus. The Schmidt Family Complex for Academic and Athletic Excellence opens on the Boca Raton campus.

CELEBRATING 60 YEARS OF FAU

Today, FAU is led by its seventh president, John W. Kelly, Ph.D. Since joining FAU in 2014, he has worked to transform FAU into one of the nation's top public universities, spurring academic, economic and social growth for the university community and its partners.

Achievements during President Kelly's term include the doubling of research expenditures, enrolling an all-time high number of National Merit Scholars, increasing graduation and academic progress rates, setting new records for private gifts to the FAU Foundation, raising the profile of FAU's athletics program, and being recognized as one of the nation's best public universities by *U.S. News & World Report*.

"President Kelly has set Florida Atlantic University on an incredible trajectory of innovation and expansion," said Anthony K. G. Barbar '78, Distinguished Alumnus from the FAU College of Business and chair of the Board of Trustees of FAU. "His leadership and vision have played an indispensable role in advancing the university's reputation while keeping the students he serves at the heart of its progress."

While President Kelly pursues new achievements for FAU with Unbridled Ambition®, he has not forgotten its

foundation. To further the founders' original vision, in 2015 he introduced a 10-year strategic plan titled "The Race to Excellence," designed to build upon the institution's unique strengths and achieve the goal of becoming the country's fastest-improving public research university.

"We're seeing major accomplishments that are changing the course of the institution and its research enterprise," President Kelly said. "Our students, faculty and staff are building bridges to a better future, from addressing the global pandemic to mitigating the impacts of climate change, and from understanding how artificial intelligence will shape our future to finding clinical solutions to the diseases that affect so many of us."

WHERE TOMORROW BEGINS

As FAU enters its seventh decade, it is time to consider once again what the future holds for the university. Throughout its history, FAU has taken a bold and daring approach to education, and this will certainly endure.

FAU will continue to recruit and train world-class talent, Kelly said. Embedded in a culture of achievement, both students and faculty will have the resources and support required to break down barriers and earn national recognition. FAU already has made progress by eliminating



© ALEX DOLCE

equity gaps based on race/ethnicity, income and first-generation status, thus ensuring that achievement is a possibility for all who are willing to work for it.

Across the Southeast Florida coastline, unprecedented research in areas such as artificial intelligence, advanced medicine and environmental science will elicit new understandings of human life and the world around us. As new questions arise, FAU faculty and students are ready to answer them.

However, this vision is not limited to the experiences of an academic program. When students graduate from FAU, they are workforce ready, prepared to step into high-paying jobs or prestigious academic programs with earned confidence. Moreover, top companies seek out FAU graduates for their unmatched skills and leadership qualities.

FAU also is ensuring optimal outcomes for its students by working diligently with business and community leaders in developing new opportunities for graduates. From local trade to national defense, these organizations and individuals have so much faith in FAU students that they choose to invest in them by supporting the institution at large, Kelly said. ❖



On all fronts, Florida Atlantic is becoming a top public university, not just in the state of Florida, but in the nation. As FAU moves forward, its dedicated expansion of inquiry and innovation will serve as a beacon for global attention and progress."

— President John Kelly



BRITTANY BOWE

From Basketball in Boca to Bronze in Beijing

Alumna Upholds FAU Legacy of Sportsmanship, Excellence at Olympics

BY **AMY HAYCOCK**

Epitomizing the spirit of the Olympics, one of the 2022 Winter Games' most talked-about athletes, speedskater and FAU alumna Brittany Bowe '10, became known for a great act of sportsmanship that underscored what it means to be part of a team.

Bowe made headlines in January for giving up her spot in the 500-meter race so teammate Erin Jackson would have a chance to compete in Beijing. Bowe, a three-time winter Olympian, placed first in the 500-, 1,000- and 1,500-meter events at the U.S. Olympic Speed Skating Trials. An unfortunate slip caused Jackson to finish third. Only the top two were guaranteed spots on Team USA for the event.

"It was hard to celebrate my victory knowing Erin might not qualify," Bowe said. "You get one chance every four years to make your Olympic dreams a reality. It would have been a sin for Erin — who is ranked No. 1 in the world in the 500 meter — to not have the opportunity to compete."

Ultimately, Bowe relinquished her spot in the event so that Jackson — who she's known for nearly 20 years — would be able to compete for Team USA. The two grew up in Ocala, Fla., and met through inline skating. Bowe was confident that Jackson was our nation's best chance at a gold medal in that event. She was right. Jackson brought home Team USA's first gold in the women's 500m since 1994 and made history as the first Black woman to win an individual medal in speedskating.

"It was the right thing to do. It was bigger than me — I did it for Team USA. Watching Erin clinch the gold — I've never been happier for another individual in my entire life. I'm so proud to have played a role in the fairytale ending to her story," she said.

Bowe went on to win a bronze medal in the 1,000m. She is the first American to win a medal in the women's event since 2002. "I remember being in Salt Lake City for the games in 2002, when I was 13 years old. Watching Chris Witty win the gold and Jennifer Rodriguez bring home the bronze in the 1,000m was a huge inspiration to me," she said.

A few days before the February start of the Beijing Games, bobsledder Elana Meyers Taylor, who was slated to be one of two Team USA flag bearers, tested positive for COVID-19. Once again, Bowe was in the spotlight, as Meyers Taylor asked Bowe via video to take her place in the opening ceremonies. Bowe received the next-most votes from her fellow athletes, in recognition of her selfless act at the trials.

"It was incredibly humbling to have received the second-most votes for such a huge responsibility," Bowe said.

"Elana is one of our most respected athletes, and it was the honor of a lifetime to be able to carry the American flag for her and her family."

Bowe was a member of the Florida Atlantic women's basketball team from 2006 to 2010. She was the everyday starter at point guard during her last three seasons and is one of only nine players to belong to the 1,000-point club. She trained as an inline skater in the offseason.

"I really miss being part of a team, especially after competing in an individual sport for so many years," Bowe said. "My time on the FAU basketball team created a sisterhood for life. It brought people from many different backgrounds together and we learned that we had more in common than we would have thought. Twelve years later, I still have relationships with many of my teammates. We have an irreplaceable bond and I am so grateful for my time with them."

After graduating from FAU, Bowe's interest in skating transitioned to the ice. She found success early, qualifying for the 2012 World Cup and took silver in the 1,000m. Her ice skating

career hit a milestone in 2014 when she qualified for the Winter Olympics in Sochi, Russia. She finished sixth in Team Pursuit, eighth in the 1,000m, 13th in the 500m and 14th in the 1,500m.

Bowe made her second Winter Olympics appearance in 2018, and returned from PyeongChang, South Korea, with a bronze medal in Team Pursuit. It was Team USA's only medal in speedskating at those games, and the first women's medal in the sport in 16 years. As an individual, Bowe just missed the podium with a fourth-place finish in the 1,000m. She also finished fifth in the 500m and 1,500m.

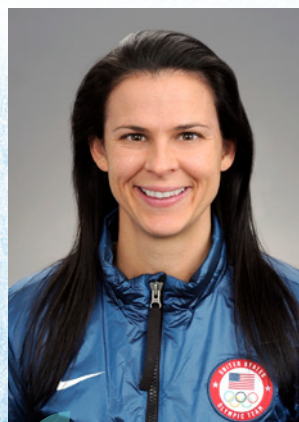
When asked about mentors throughout her life, Bowe said there were "too many to count."

"I'm blessed to have been surrounded by dedicated, powerful women throughout my life — from my mom, who instilled what passion, love and sacrifice mean — to Renee Hildebrand, my inline skating coach, who demanded focus and high performance, but kept it fun — to my FAU basketball coaches, Chancellor Dugan and Shannon Litton, who encouraged athletic and academic excellence, and who are still part of my life today. They were among the first people to text me with congratulations after I won the bronze medal," she said.

When not competing, Bowe uses her platform to inspire, encourage and support others. She said she is a proud ambassador of Right To Play, a nonprofit organization that uses sport and play to educate and empower children to overcome adversity. A member of the LGBT community, she said she also hopes to inspire and encourage those affected by prejudice and exclusion, as a sought-after speaker in the areas of inclusion, leadership, empathy, health and wellness.

"Brittany is a great representative of the values we strive to uphold here at FAU, including character, service and academic excellence," said President John Kelly, who met Bowe when she was inducted into the FAU Athletics Hall of Fame in

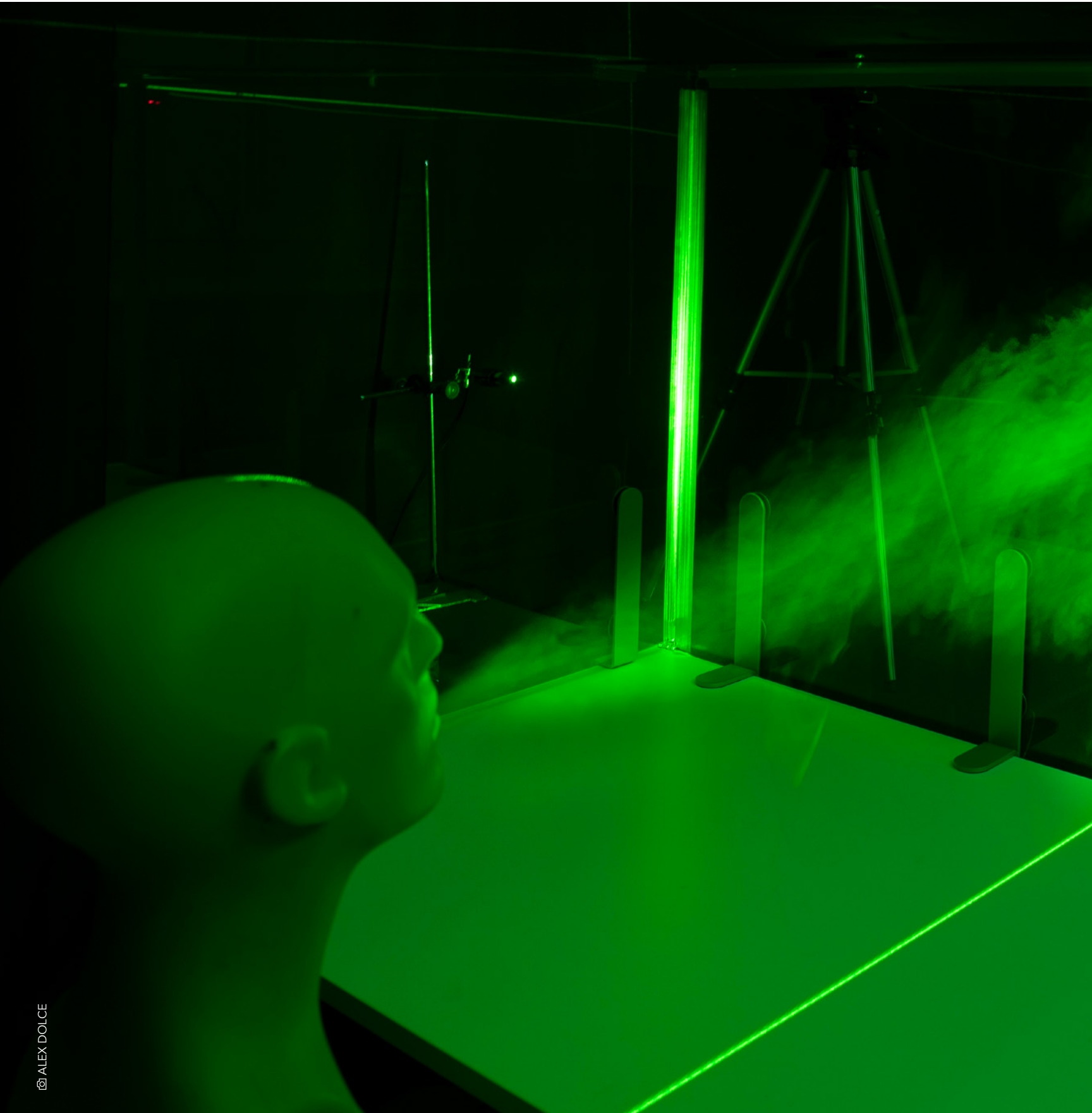
2019. "Not only has she excelled in basketball and skating, but she did it right, with the highest level of integrity. Brittany is a shining example to current and future students. We are very proud to call her an Owl." ❖



@TEAM USA

Being a student-athlete was a dream come true for me, but it was not at all glamorous. I was juggling two very different things — basketball and school — and I wanted to be the very best at both. It seemed impossible at times, navigating student life and juggling my responsibilities, but I found a way to get everything done. It created a sense of resilience and taught me that no task is too hard or too big."

— Brittany Bowe



© ALEX DOLCE

Shielding Society

Researchers Demonstrate if Plexiglass Protects Against COVID-19 on CNN's 'Anderson Cooper 360°'

BY GISELE GALOUSTIAN

With a grant from the U.S. Centers for Disease Control and Prevention, FAU engineering professors are testing and quantifying how effective various protective measures are in preventing the spread of COVID-19 and its variants in the workplace. They are specifically focused on mitigating airborne viral transmission of aerosolized droplets.

Their research, which has received national and international media attention, has demonstrated how aerosolized droplets projected by a cough from a mannequin in the lab can travel more than 12 feet from the source. They have also illuminated how airborne transmission of virus-carrying saliva droplets from infectious coughs, sneezes and exhalations range in size, with the larger droplets generally falling to the ground and much smaller droplets remaining suspended in the air for a significant amount of time.

In their lab at FAU's SeaTech campus in Dania Beach, Manhar Dhanak, Ph.D., chair and professor, and Siddhartha Verma, Ph.D., assistant professor, Department of Ocean and Mechanical Engineering, College of Engineering and Computer Science, put their research to the test for CNN's Randi Kaye on "Anderson Cooper 360°." The objective was to demonstrate if plexiglass shields commonly used as barriers in retail, airports and offices ensure a safer workplace environment.



Manhar Dhanak, Ph.D.

For the CNN experiment, Dhanak and Verma used a mixture of distilled water and glycerin to generate a synthetic fog to simulate a cough mechanically emulated from the mannequin's mouth. The process they've developed and published in the journal *Physics of Fluids*, generates puffs of air containing aerosolized droplets representing smaller droplets typically present in respiratory exhalations. To visualize the particles from the exhaled air in the mannequin and film the cough jet, the researchers used LED and laser lights. The visualization highlights the structure and motion of the jets and provides the distances over which the jets extend from the source.

Their CNN experiment showed that a single plexiglass shield captured most of the particles from a direct hit, however, the smaller aerosolized particles, which are of most concern, still escaped over the top, bottom and sides of the barrier. Even with the screen, lighter aerosolized particles accumulated in the air and lingered for about seven or eight minutes.

"The plexiglass doesn't stop the particles 100 percent, but it does reduce the droplet concentration by about 80 percent so that the viral load is much lower and the cough stream may not go as far because of the barrier," Dhanak said. "While these shields can help protect you, it's also important to point out that too many of them in one room can block the airflow and place people at risk. Poor ventilation could result in a backdraft effect."

The researchers also tested a three-sided plexiglass shield at a desk workstation in their state-of-the-art lab. Results revealed that it protected against the initial force from the simulated cough. However, the aerosolized droplets or



Siddhartha Verma, Ph.D.

2X @ ALEX DOLCE

"virus" circulated within the workstation placing those behind the desk at risk from the droplets moving in a backward motion.

To provide an extra measure of protection, Dhanak and Verma also showed Kaye how adding a face mask along with the plexiglass shield can help. It turns out that quality is key. With the cloth mask, most of the aerosolized particles got through. However, with an N-95 mask, all the droplets were contained except from a small gap at the bridge of the nose. The researchers say that this upward stream is much more desirable than one with a forward motion.

Dhanak and Verma are building on their prior research using flow visualization for coughs, sneezes, social distancing and the efficacy of face masks and face shields, which has been featured by "TODAY," "Good Morning America," CBS National News, NBC National News, CNN, CNN International, Telemundo, "Dr. Oz," *The New York Times*, *People*, "Inside Edition," NPR, *United Press International*, among others. Media generated from their research on face shields and face masks has resulted in more than 445,000 views of their journal article in *Physics of Fluids*, placing it in the top 5 percent of all research outputs by Altmetric, used as an impact factor for scholarly and scientific publishing.

The researchers continue to test and quantify the effectiveness of various protective measures under new American Society for Testing Materials standards and best safety practices in the workplace. In addition to evaluating face masks and other personal protection equipment and physical safety barriers, Dhanak and Verma are investigating interior designs of spaces, air filters, humidifiers, safe seating arrangements in a classroom setting and queuing at checkouts, as well as other measures.

"Our research on preventive measures for mitigating airborne transmission of viral infections has important implications not only for COVID-19 but for other potential emerging infectious diseases that could impact our society locally as well as globally," Dhanak said. ❖

PUTTING Values INTO Action

\$20 Million Gift Helps Build Hub for Holocaust and Jewish Studies on Boca Raton Campus

BY KRISTINE GOBBO

For Kurt and Marilyn Wallach, the Holocaust is personal. Family members were lost during this horrific event, which led them to share a lifelong commitment to ensure its lessons remain relevant today and in the future.

Thanks to a historic \$20 million gift — the largest in FAU’s history — from the couple in November 2020, FAU will become a key location for intercultural dialogue and education in South Florida, and will empower the next generation of change-makers.

The Wallachs’ transformational gift includes \$10 million to construct the Kurt and Marilyn Wallach Holocaust and Jewish Studies Building, a distinctive facility on FAU’s Boca Raton campus that will serve as the hub for Holocaust and Jewish studies, human rights education and leadership training. It also will memorialize the 6 million Jews and other victims of the Holocaust, honor its survivors, and offer educational programs that champion social justice, compassion and understanding through enhanced collaborations.

The Wallach building will bring together signature FAU programs, including the:

- Arthur and Emalie Gutterman Family Center for Holocaust and Human Rights Education
- Raddock Family Eminent Scholar in Holocaust Studies
- Herbert and Elaine Gimelstob Eminent Scholar in Jewish Studies
- Jewish Studies Program
- Center for Peace, Justice and Human Rights
- Leon Charney Diplomacy Program
- Barb Schmidt Fellowship in Cultivating Community Involvement, Advocacy and Social Change

(CONTINUED ON PAGE 44)



We speak for those who cannot speak, and we remember all the victims, including our family members, who perished needlessly. No one should ever be subjected to such horror. We hope that through the education we can provide, that lives will be saved and history will not be repeated.”

— the late Kurt Wallach

PAST Events



Holocaust Memorial Museum Event

The second half of the Wallachs' donation is a \$10 million estate gift that establishes the Wallach Institute for Holocaust and Jewish Studies. It will fund faculty and staff, visiting scholars, lectures, educational outreach, scholarships and fellowships, study abroad opportunities, research, programming, equipment, capital expenditures or building improvements, and related activities with a mission to deter hate, bias and discrimination.

In September 2021, Kurt Wallach passed away. However, the Wallach Building and Institute will carry on his legacy and desire to educate the community about the Holocaust and its atrocities.

"We believe education is our best hope against hatred," said Michael J. Horswell, Ph.D., dean of the Dorothy F. Schmidt College of Arts and Letters. "The philanthropy that the Wallach family invested in FAU and the greater South Florida community will ensure that the lessons of the past are relevant today and into perpetuity, providing the resources to teach the importance of understanding history, speaking up, and acting against all forms of bigotry and prejudice."

The Wallachs' gift builds on FAU's traditions of excellence. The Raddock Family Eminent Scholar Chair for Holocaust Studies was the first Holocaust chair established in Florida. It is held by Alan L. Berger, Ph.D., whose research and teaching have impacted our region for decades. The Herbert and Elaine Gimmelstob Eminent Scholar in Jewish Studies Chair is another scholarly resource that enriches the university and community through research, public lectures and international conferences. Additionally, the Arthur and Emalie Gutterman Family Center for Holocaust and Human Rights Education has provided teachers with training for the teaching of the Holocaust for the past 25 years.

FAU's Center for Peace, Justice and Human Rights is a university-wide effort that brings together scholars, students, practitioners and community leaders who are engaged in the themes of social justice, human rights, peace and nonviolence. Within the center, the Leon Charney Diplomacy Program offers students interested in international affairs opportunities to enhance their diplomatic skills in areas such as speechwriting, public speaking, negotiation, dispute resolution and research. Also, the Barb Schmidt Fellowship offers high school students a platform to develop the essential skills for driving social change.

"We are honored and grateful for Kurt and Marilyn Wallach's enormous generosity," FAU President John Kelly said. "This historic gift will ensure that, through education, we continue to build bridges of understanding and empathy for generations to come." ❖

From left, Alan L. Berger, Ph.D.; Linda Medvin, director of FAU's Center for Holocaust and Human Rights Education; Laurie Carney, senior director of development and outreach; and Michael Horswell, Ph.D., dean, Dorothy F. Schmidt College of Arts and Letters



© JULTMARTIN EUGENE

Dalai Lama



@JEFFREY THOLL

Jane Goodall



@WILLIAM M. PLATE JR.



Barb Schmidt Fellowship Event

CONTINUING THE CAUSE

FAU invites you to expand on the Wallachs' vision. To join the fundraising campaign that will impact the reach of programs, ensuring FAU continues to play a significant role in coordinating Jewish and Holocaust studies, human rights education and leadership training, contact Laurie Carney at lcarney@fau.edu.

Closing the **Cancer** Gap

Improving Cancer Care, For Everyone

BY WYNNE PARRY

Cancer remains one of our most challenging health issues, affecting people regardless of race or ethnicity. However, studies show that those very characteristics can influence a person's risk of developing certain types of cancer, and how well they fare against it.

These disparities have arisen in part because research hasn't historically included enough minority participants. A new collaborative project seeks to change that.

"Cancer research, like the rest of medicine, faces a major challenge right now," said Gregg Fields, Ph.D., executive director of FAU's Institute for Human Health and Disease Intervention (I-Health). "We know certain diseases, including cancer, hit some groups harder than others, and that some treatment strategies aren't equally effective for everyone."

PAIGE RUSSO

Researchers at FAU and Memorial Healthcare System's cancer institute intend to address this deficit by collecting tissue samples and information from a pool of primarily Black and Hispanic patients. Their contributions will provide the raw material for studies to understand the disease's biology and develop new treatment strategies.

This project leverages the combined research and medical expertise of Memorial's Cancer Institute and FAU (MCIFAU), which is recognized by the state's Department of Health as a Florida Cancer Center of Excellence.

The collection will represent most solid tumors, a category that includes all but blood, bone and lymphatic malignancies. Teams are preparing to collect two types of solid tumors, breast and pancreatic cancer. The partners, along with Tampa General Hospital and the University of South Florida, are seeking funding to broaden their effort. Once collected, samples will be housed in FAU's Clinical Research Unit on the Boca Raton campus.

BIOLOGY MATTERS

South Florida is a natural location for more inclusive research. At MCI, which serves Broward and Palm Beach counties, 19 percent of patients are Black and another 19 percent are Hispanic. These demographics make promoting equity in care a priority for the institute, said Luis Raez, M.D., MCI's medical director and chief scientific officer.

"For many years, we assumed 'If a treatment works for whites, it works for everybody,'" Raez said. "We were wrong, because there are tremendous disparities between whites, Asians, Blacks and Hispanics."

A small study at MCI found that minority lung cancer patients fared more poorly than white patients after being treated with a drug that helps the body's immune system fight the disease.

Social factors, such as income level or access to health insurance, do not fully explain disparities like this, Raez said. "There are biological determinants that need to be addressed."

REACHING OUT

To begin to correct this long-standing bias, researchers must make a concerted effort to reach out to people who are traditionally underrepresented in medical research.

Thanks to a \$220,000 grant from the Community Foundation of Broward to focus on breast cancer, a team from MCI has begun seeking out such women. Those who participate receive screening and treatment. They have the option of contributing blood — and if they have breast cancer, tumor tissue — to support the research effort.



*For many years, we assumed
'If a treatment works for
whites, it works for everybody.'
We were wrong."*

— LUIS RAEZ, M.D.

Once samples are collected, researchers at FAU will step in. They plan to search for genetic differences, such as changes in a single letter of the DNA code, unique to Black and Hispanic women. By creating genetic profiles of patients and following how the women fare, researchers hope to better understand how genetic factors can play into disparities.

The findings could help explain a racial paradox within this field: While Black women develop breast cancer slightly less frequently than white women, the disease is more deadly for them. The reasons appear quite complex, but research has implicated biology, including ancestry and the control of gene expression.

REPLICATING TUMORS IN THE LAB

Researchers also are preparing to recruit patients with pancreatic cancer, which is among the deadliest forms of cancer. For this project, FAU and MCI have joined forces with Cold Spring Harbor Laboratory in New York. At this lab, scientists are taking their studies of patients' cancer cells a step further, by growing them into small, spherical replicas of tumors called organoids.

They are using these organoids to lay the scientific groundwork for a much-needed screening test for early-stage disease, and a method for determining the most effective treatment for a particular patient. Samples from South Florida will diversify the collection.

There's still much to be done in establishing the collection, but Fields said he is optimistic about what patient contributions today could mean for the future. "What we've learned is that using samples from patients gives us much more accurate information, especially when it comes to treatment strategies," he said. "This could lead to breakthrough discoveries in treatments and technologies that will benefit this region's diverse patient population." ❖



Marking Half a Century

WATERCOLORS PAINTED WITH PRIMARY PRODUCTIVITY

The surface colors of the estuary outflows through a manmade inlet in St. Lucie County paint a beautifully painful picture of the intersection of natural and anthropogenic forces. First, we see the turquoise blue waters of the warm subtropical Atlantic Ocean, with a harsh line discerning the tidal flux of nutrient-packed inshore waters. The nutrients contributing to primary productivity of plankton at the base of the food chain are marked with the runoff of human development. However, streaks of orange and red suggest that life-supporting processes also are occurring in the mix of stratified sediment.

Five Decades of Using Ocean Science to Better the World

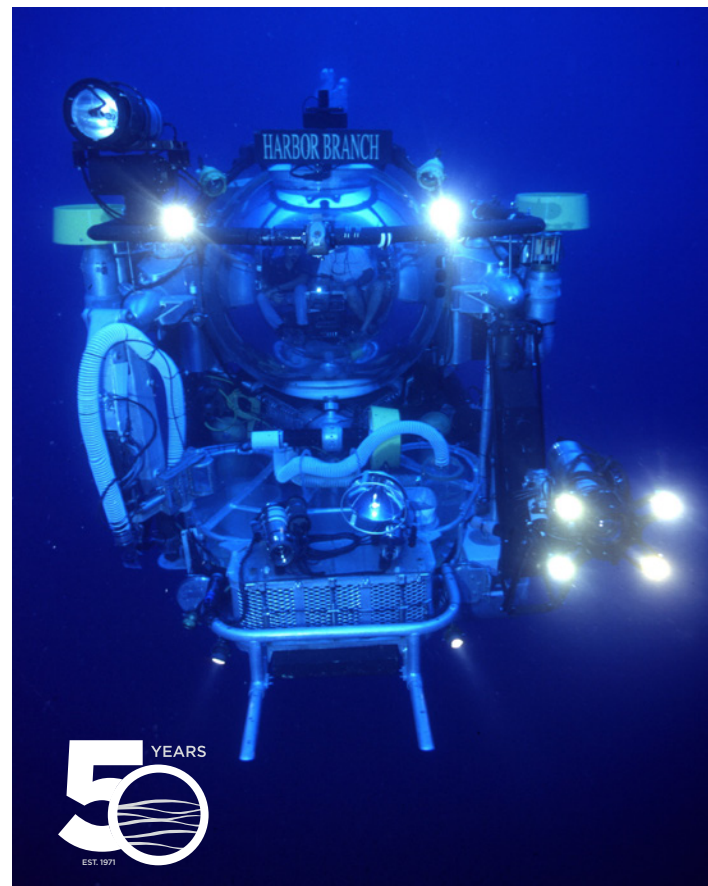
BY **BETHANY AUGLIERE**

In 2021, FAU Harbor Branch Oceanographic Institute turned 50, marking a half-century of groundbreaking research and exploration. From searching for new cancer therapies, to working on cutting-edge aquaculture techniques for global food security, the mission of FAU Harbor Branch is simple: Ocean Science for a Better World®.

“We want to help the world,” said Jim Sullivan, Ph.D., executive director of FAU Harbor Branch. “More than 70 percent of the world is ocean. Our weather, our food, our very lives are dependent on the ocean.”

During its five decades, Harbor Branch has undergone many changes — transforming from a small independently funded outpost to a critical component of FAU’s research portfolio. Despite the changes, many researchers have worked with Harbor Branch since the beginning, conducting invaluable long-term research spanning decades.

Founded in 1971 as Harbor Branch Oceanographic Institution, the 144-acre campus along the Indian River Lagoon became a part of FAU in 2007 to expand the university’s research, education and outreach efforts. Now, FAU Harbor Branch conducts about one-third of FAU’s research activity, in four key areas: ocean and human health, aquaculture innovation and food security, technological innovation and national defense, and marine ecosystem conservation. It employs more than 200 scientists, engineers, educators, staff and students.





1971 J. Seward Johnson Sr., right, and longtime friend Edwin A. Link.



1971 Engineering Division founded to improve safe ocean exploration and research.

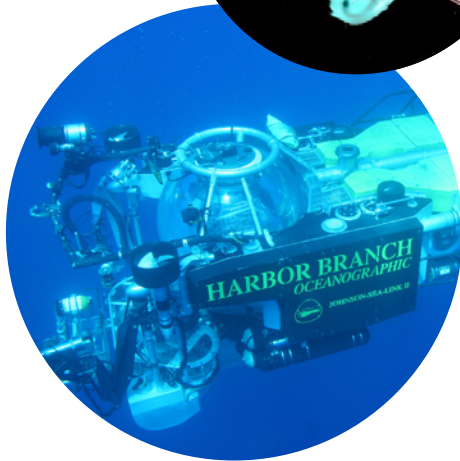
Part of Harbor Branch's mission includes outreach and education efforts to foster the next generation of ocean stewards, as well as train future scientists through pre-collegiate, collegiate and graduate programs.

Harbor Branch was founded by J. Seward Johnson Sr., heir to the Johnson & Johnson pharmaceuticals fortune, who had a passion for sailing and the ocean. He teamed up with Edwin A. Link, the inventor of the flight simulator, who furthered the founder's vision with his passion for sea exploration and engineering expertise. The two met while serving on the board for Woods Hole Oceanographic Institution in Massachusetts.



1971 Marine Science Division founded with focuses on deep-sea biology.

This partnership revolutionized deep-sea exploration, spawning the Johnson Sea-Link submersibles, built in 1971 and 1975. Their large, acrylic spheres allowed scientists a near-360-degree view of life up to 3,600 meters under the sea. Harbor Branch was one of three organizations in the nation, and six in the world, that ran manned deep-sea submersible research vehicles along the ocean floor. Together, the subs were used in more than 9,000 dives around the globe led by more than 3,000 scientists.



1971 Built in 1971 and 1975, the Johnson Sea-Link Submersibles revolutionized the field of deep-sea exploration with their large, acrylic spheres which allowed a near-360-degree view of life under the sea. These submersibles were in commission for nearly 40 years, and together conducted more than 9,000 dives worldwide, led by more than 3,000 scientists.

These subs helped John Reed, a research professor at FAU Harbor Branch and principal investigator for the institute's Robertson Coral Reef Research & Conservation Program, discover the deep-water *Oculina* (ivory tree coral) coral reefs off Florida's east coast, which exist nowhere else on Earth. That discovery directly resulted in the protection of fragile deep-water coral habitats, including the world's first marine protected area for deep-sea corals.

"Every time we dived the sub we saw things no one had ever seen before, discovered new reefs, new species, new bioactive compounds," said Reed, who joined Harbor Branch in 1974. "Every dive was thrilling."

Now, Reed continues to explore the reefs using advanced technologies thanks to remote sensing and automated underwater vehicles. Just like rainforests, deep-water reefs are biological hotspots, providing critical habitat for marine life. "For 40 years, I've been trying to protect these deep-water *Oculina* reefs," he said, adding that they may contain organisms that could hold compounds used for treating cancer and other diseases, or could be used to combat antibacterial resistance.

In 1984, Harbor Branch launched the Marine Biomedical and Biotechnology Research (MBBR) Program to collect marine organisms, including deep-sea sponges. Since then, scientists have amassed 30,000 samples of marine life and 19,000 microbial cultures to find possible disease-fighting chemicals, many of which were collected by scientists while diving the submersibles.



An Atlantic goliath grouper swims on the M/V Castor wreck located in South Florida.

© NICODEMO IENTILE

TRACKING GIANTS

Custom Tags to Open World to Goliath Grouper Behavior in the Wild

Reaching lengths of up to eight feet and weighing close to 800 pounds, the Atlantic goliath grouper is a top predator at many of Florida's offshore reefs. While a crucial component of a healthy ocean ecosystem, little was known about the behaviors of these fish in the wild – until now.

Researchers from FAU's Harbor Branch Oceanographic Institute and College of Engineering and Computer Science are gaining new insights into the underwater behavior of goliath groupers through the development of a novel multi-sensor tag, which includes everything from a three-axis accelerometer – like that found in your smart phone or watch to measure activity – to a video camera and a hydrophone for monitoring underwater sound. The findings were published in the journal *Sensors*.

The scientists applied the minimally invasive tags to six groupers to record data on movement and activity, and identified 13 behaviors. They applied both machine-learning and deep-learning methods to classify nine of the 13 behaviors. The most common behaviors were hovering, forward swimming and resting. More sporadic behaviors, including vocalizations, were captured and classified as well.

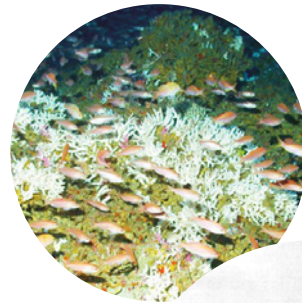
According to Lauran Brewster, Ph.D., first author and senior research fellow in Harbor Branch's Fisheries Ecology and Conservation Lab, the new customized tags can inform more about the day-to-day activity of goliath groupers and similar species in the wild. They also can show how behavior might differ between habitat types, such as natural versus artificial reefs, or be affected by human activity, like fishing and diving – ultimately helping us make more informed management decisions.



1973 Beginning of the Indian River Lagoon Coastal Study, the first major research project.



1974 Former Coast Guard cutter named "R/V Johnson" joins Harbor Branch fleet.



1975 Deep-water *Oculina verrucosa* reef discovered off Florida's east coast.



1976 Link Engineering Laboratory building and Marine Shipping Railway built.



1978 Sampling mechanism "Critter Gitter" installed on Johnson Sea-Link for collecting organisms.

1984 Marine Biomedical Program founded to discover medicines from the ocean.



2004 Harbor Branch was hit by two back-to-back hurricanes—Category 3 Francis and Category 4 Jeanne—causing nearly \$60 million in damage. These events led to the restructuring of the institute and the construction of several new, state-of-the-art laboratory buildings.

So far, scientists with the MBBR program have found sponges that show activity against the deadly antibiotic-resistant Staph bacteria (commonly known as MRSA), as well as a lesser-known bacterium that causes problems for people with cystic fibrosis and other diseases, known as *Pseudomonas aeruginosa*. One compound, discodermolide, is a natural product from a Caribbean sponge that attacks cancer cells and has made it to a phase 1 clinical trial. Researchers also have discovered compounds from sponges that selectively target triple-negative breast cancer cells when grown as small tumors in the lab.

Sponge expert Shirley Pomponi, Ph.D., a research professor in the MBBR program, was recruited in 1984 to help identify specimens in the collection. She has worked for FAU Harbor Branch for more than 35 years. “I have been part of a team that has discovered marine-derived chemicals that will benefit human health, and that’s been most fulfilling,” she said.

Many of the researchers and staff have stayed at FAU Harbor Branch because of the opportunities and collaborative nature of the institute. Brian Lapointe, Ph.D., has published groundbreaking papers due to long-term data collection. Most recently, with 30 years of unique data from Looe Key Reef in the lower Florida Keys, he determined that the problem of coral bleaching is not just due to a warming planet, but also because of excess nitrogen in the water. “Working at FAU Harbor Branch has afforded me the opportunity to do really unique, long-term research,” Lapointe said.

A PHARMACY IN THE SEA

FAU Scientists Culture Marine Sponges in 3D for Human Health Applications



Shirley Pomponi, Ph.D., dives to collect marine invertebrate specimens for her research.

The institute's first postdoctoral researcher was Dennis Hanisak, Ph.D., who started in 1977. He is now a research professor and director of the Indian River Lagoon Observatory, specializing in marine plants, like seagrasses and seaweeds.

Like Lapointe, Hanisak has seen the natural world change before his eyes faster than he ever thought possible. He too worked on the Florida reef and "it died before my eyes," he said. Throughout Hanisak's career, he has seen new fields emerge that weren't around when he started, like restoration ecology and conservation biology to address threats due to human activity.

The work of scientists like Lapointe and others is critical for marine ecosystem conservation. Results from their studies help inform policy makers as they develop sound conservation, management and restoration strategies to protect and save our oceans.

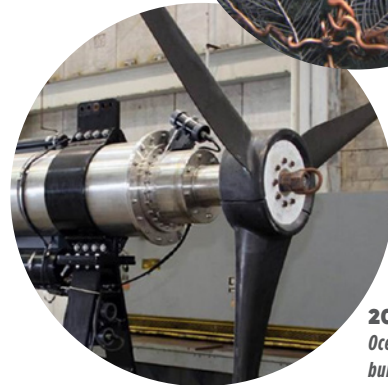
"Now more than ever, there is a critical need to understand the ocean, and how to best manage this complex ecosystem for the benefit of society," Sullivan said. "FAU Harbor Branch was founded in the spirit of ocean exploration to unveil the mysteries of the deep. To this day, the institute relentlessly pursues innovative ocean research, while providing top-tier educational programs that will lead us to solve the most pressing issues facing our oceans." ❖



2004 Eye-in-the-Sea created to document behaviors of deep-sea animals.



2010 FAU Harbor Branch assesses the impact of the Deepwater Horizon Oil Spill.



2014 FAU Harbor Branch Oceanographic Institute builds world's first ocean energy turbines for offshore testing.

In 2019, Shirley Pomponi, Ph.D., accomplished a 30-year goal: creating the first cell line from marine sponges. She and her students have now taken that work one step further and cultured those cells in 3D, paving the way for new human therapeutics and sponge conservation.

More than 9,000 species of marine sponges exist worldwide, many of which contain promising chemical agents that may be useful in treating diseases such as cancer, COVID-19 and antibiotic-resistant *Staphylococcus* bacteria. But those pharmaceutically relevant natural products aren't found in enough quantities to be economically or ecologically feasible to develop a drug. That's part of the reason why Pomponi wanted to establish a sponge cell line.

"We are applying this technology to scale up production of sponge-

derived chemicals with human health applications, and to establish a nursery of sponges that can be used to restock habitats in which the sponges have been killed due to extreme weather events, harmful algal blooms or impacts of climate change," Pomponi said.

Growing the cells in 3D means they behave more like they would in a normal intact sponge, said Pomponi, senior author of the new study published in the journal *Marine Drugs*. Pomponi's group chose the marine sponge *Geodia neptuni* for this study to demonstrate proof-of-concept of the 3D culture method.

Finding a gelatin medium to grow the sponge cells wasn't without its challenges, she said. Marine sponges grow in salinities that are about three times greater than mammalian cells.

Many of the off-the-shelf 3D substrates – called matrices – are developed for the culture of mammalian cells and will not solidify at the higher salinity. First author of the paper, Elizabeth Urban-Gedamke, one of Pomponi's former graduate students and now research technician, had to modify how she made the gelatin, which was instrumental in the progress of the research.

Once it worked, "I wasn't surprised, but I was happy," she said. "I knew that once we got the cells to divide, it was just an issue of selecting the most appropriate 3D matrix."

For lifelong work like this, Pomponi has one message: "Do not give up, especially if you're making incremental improvements, and surround yourself with students and staff who think out of the box and will propose different approaches."

A manatee enters Fanning Springs on Florida's west coast to escape the cooler ocean and river waters during a cold snap.



SAVING STARVING MANATEES

Researchers Answer Sea Cows' SOS

One of Florida's most iconic marine mammals – the manatee – is in trouble. These gentle giants are starving. But FAU scientists are doing their part to help the manatees and their habitats.

In 2021, more than 1,000 manatees died in the state, mostly from starvation. This is nearly double the five-year average, according to a report from the Florida Fish and Wildlife Conservation Commission (FWC). The number of deaths is so unprecedented that the U.S. Fish and Wildlife Service (FWS) has classified the surge in deaths as an unusual mortality event, meaning that the issue demands immediate response.

Manatees inhabit the shallow rivers, bays, canals, estuaries and coastal areas of Florida, with seagrass an important part of their diet, along with other submerged aquatic vegetation. They can eat up to 15 percent of their body weight a day. A 1,000-pound manatee, for example, might eat 100 to 150 pounds of seagrass daily.

Poor water quality leading to harmful algal blooms has led to widespread seagrass die-offs, including in the Indian River Lagoon (IRL), a 156-mile-long estuary along the state's east coast. FAU Harbor Branch Oceanographic Institute researcher Dennis Hanisak, Ph.D., is investigating the cause of this seagrass loss and contributing to important

restoration efforts in the lagoon. He has more than 30 years of experience studying marine plants.

In a study published in *Frontiers in Marine Science*, Hanisak and his co-authors found that about 7,400 acres of seagrass were lost between 1943 and 1994. Another 58 percent was lost between 2011 and 2019. The loss was due to harmful algal blooms blocking out the available light for the plants to grow, Hanisak said.

To help with recovery efforts, Hanisak and his team are experimenting growing seagrass in large tanks and then transplanting it into the IRL. This seagrass nursery technology project recently received a grant from Florida Power & Light (FPL) through its charitable arm, the NextEra Energy Foundation Inc. The FWC is funding the expansion of the seagrass nursery while FPL is providing the funding to operate the nursery for at least three years.

While Hanisak grows seagrass to help the ecosystem, the manatees need help now. Although it's illegal to feed manatees under regular circumstances, FWS and FWC began an experimental effort to supplement the malnourished mammals' diets with lettuce and cabbage, according to FWC officials. The experimental feeding began in January in the warmer waters discharged from an

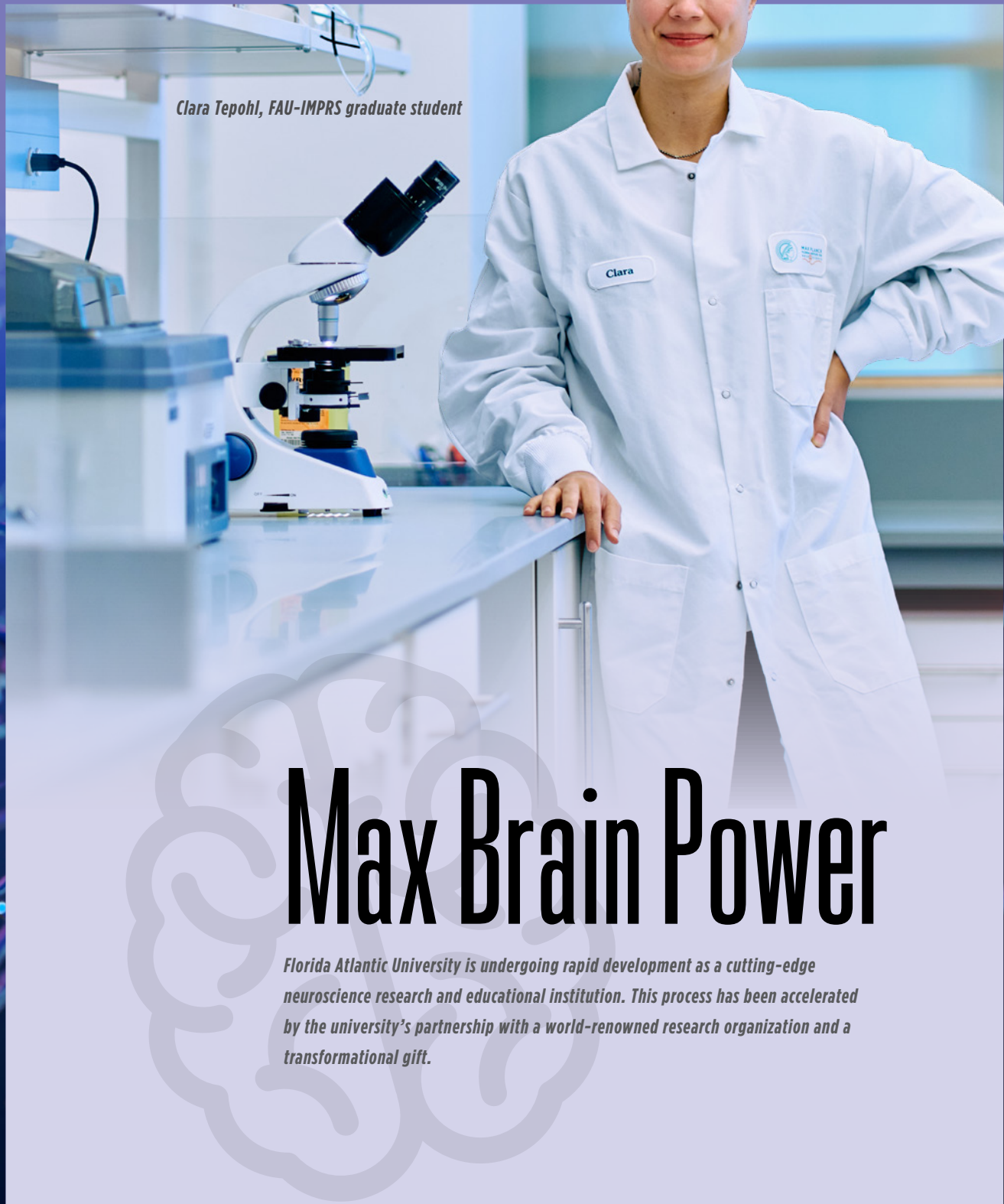
FPL power plant near Cape Canaveral. During the winter months, manatees travel from the coast to warmer waters around the state, including the outflow from power plants.

In addition to supplementing the manatees with food, a multi-agency research effort is underway to study their body condition, and find and rescue critically ill manatees, using drones. The FAU HBOI Stranding and Population Assessment team, led by Steve Burton, will assist with this project by flying drones at the Harbor Branch basin and other locations where manatees gather.

"Our team members, Lydia Moreland, Brooke Davis and Shanen Cox, are Federal Aviation Administration certified drone pilots, and they will be flying weekly as needed, to collect video footage which will be submitted to the permit holders of the project for review," Burton said. "Our team is honored to be participating in this research to understand more about this threatened marine mammal and their health during this trying time."

Note of Collaborators

"The collaboration amongst a group of organizations, including Save the Manatee Club, University of Florida, Mote Marine Laboratory, Clearwater Marine Aquarium, Blue World Research Institute, New College of Florida, Hubbs-SeaWorld Research Institute, Florida International University, and more, allows for quality data collection and extensive geographic coverage," Steve Burton said.



Clara Tepohl, FAU-IMPRS graduate student

© KEVIN ALBERTINI, COURTESY OF MAX PLANCK FLORIDA INSTITUTE FOR NEUROSCIENCE

Max Brain Power

Florida Atlantic University is undergoing rapid development as a cutting-edge neuroscience research and educational institution. This process has been accelerated by the university's partnership with a world-renowned research organization and a transformational gift.



FAU and Top Biomedical Organization Training the Scientists of Tomorrow

BY BETHANY ALEX AND BETHANY AUGLIERE

A partnership on FAU's John D. MacArthur Campus in Jupiter is shaping the world's next generation of neuroscientists — those who will answer the most critical questions in brain science.

Since 2015, FAU has collaborated with the Max Planck Florida Institute for Neuroscience (MPFI) to offer world-class education and research opportunities for high schoolers, college undergraduates and graduate students. MPFI, a not-for-profit research organization, is part of the world-renowned Max Planck Society, Germany's most successful research organization with more than 80 institutes worldwide. Since its establishment in 1948, 29 Nobel laureates have emerged from the society's ranks of its scientists. The Max Planck Society has been recognized as the top biomedical nonprofit organization in the world by Nature Index.

At FAU High School - Jupiter Campus, in partnership with Max Planck Academy, high school juniors and seniors simultaneously pursue a free bachelor's degree and their high school diploma. Students have unique opportunities to work alongside leading FAU and MPFI researchers, including Nobel laureates, and pursue independent neuroscience-related research projects in state-of-the-art laboratories.

"This extraordinary program allows high school students to integrate with the thriving, world-class scientific environment on the Jupiter campus," said Daniel Flynn, Ph.D., FAU's vice president for

research. "And it creates a pipeline to funnel these extraordinary students into our undergraduate and graduate programs right here at FAU."

Beginning this year, graduates will have the opportunity to earn an academy designation with a Max Planck Academy seal on their FAU High School diploma, followed by acceptance to the FAU Max Planck Honors Program. They also receive diverse study abroad opportunities and accelerated completion of degree programs at FAU's Harriet L. Wilkes Honors College or Charles E. Schmidt College of Science.

The partnership between FAU and Max Planck also led to the creation of several successful graduate degree programs: the doctorate program in integrative biology, offering a concentration in integrative biology and neuroscience (IBNS); the International Max Planck Research School (IMPRS) for Brain and Behavior; and the newest graduate program, the International Max Planck Research School for Synapses and Circuits (IMPRS-SC). It is the only IMPRS-SC program in the United States and will welcome its first students in the fall.

"The launch of this new program emphasizes the seamless collaboration between Max Planck Florida and FAU," said FAU President John Kelly. "This program will thrive on our Jupiter campus, which also is home to FAU's Stiles-Nicholson Brain Institute. The combination of these assets makes FAU a premier, global destination for neuroscience research and education." ❖



DAVID J. S. NICHOLSON

GIFT BOLSTERS THE FUTURE OF BRAIN SCIENCE

\$9.22 Million in Unprecedented Neuroscience Opportunities in Jupiter

Driven by a recent contribution of \$9.22 million from local philanthropist and wealth manager David J.S. Nicholson, FAU's Stiles-Nicholson Brain Institute will contribute to the breadth of neuroscience discovery taking place at the John D. MacArthur Campus. The gift expands on the Florida Legislature's initial investment of \$35 million to establish a 58,000-square-foot neuroscience building on the Jupiter campus.

"The multimillion-dollar investments in brain research at FAU, the Max Planck Florida Institute for Neuroscience, and at Scripps Florida have resulted in the MacArthur Campus becoming a powerhouse hub for neuroscience research and education," said Randy D. Blakely, Ph.D., executive director, FAU Stiles-Nicholson Brain Institute. "Mr. Nicholson's gift is a catalyst for the progress of brain science in our area and will ensure for years to come that we can attract the world's brightest scientists and students to Palm Beach County."

The new building, which is currently under construction, will house more than 100 researchers, six new research centers and support facilities, further promoting a transcontinental and transatlantic network of brain science experts and state-of-the-art technologies. The expanded space also brings additional opportunities for collaborative research,

leading to increased opportunities for federal funding from entities such as the National Institutes of Health and the National Science Foundation, along with private entities looking to provide research grants and gifts to impact brain science and health.

Nicholson's gift also establishes:

- The David J.S. Nicholson Distinguished Professorship in Neuroscience to be held by Blakely,
- The David and Lynn Nicholson Center for Neurodegenerative Disease Research, which focuses on better understanding and treating Parkinson's and Alzheimer's, among other brain disorders, and
- The Stiles-Nicholson STEM Teacher Academy to provide STEM training to educators.

Additionally, Nicholson gave \$780,000 to support the Institute's ASCEND (Advancing STEM Community Engagement through Neuroscience Discovery) program, which introduces middle schoolers to brain science and health concepts. This brings the total value of his gift to \$10 million.

For Nicholson, this gift contributes to the understanding of the world's most complicated computer – the brain –



CONCEPTUAL RENDERING

while also addressing a major shortfall in education as it relates to STEM fields, he said.

"Science is really the stem of all improvements in the quality of our lives and the brain is one of the last unsolved frontiers of science," Blakely said.

Nicholson's dedication to improving and enhancing the lives of students – and scaling that work to impact our world at large – mirrors the university's efforts, said President John Kelly. "FAU is well on its way to making a significant contribution to the field of neuroscience," Kelly said. "Thanks to David's generosity, I'm confident that some of the most important discoveries of the future will take place at the Stiles-Nicholson Brain Institute."

WIN COLUMN

FAU ATHLETICS



NICHOLAS TONEY

Hitting a Home Run

The Secret to the Success of FAU Baseball

BY **KATRINA MCCORMACK**

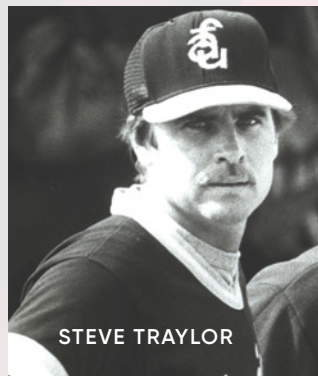
When searching for the secret that makes Florida Atlantic University baseball a perennial top-30 team, three powerful qualities are evident — knowledge, hard work and family — and all three run through 42 years of FAU baseball.

The program was founded in 1981 on the principle of hard work by Steve Traylor, FAU’s inaugural head baseball coach and future FAU Athletics Hall of Fame member. It grew by creating a sense of community among the players and alumni, and it continues to flourish due to the dedication of current head coach John McCormack, who has been part of the program for 32 seasons.

KNOWLEDGE

Traylor was 15-16 that first season playing under the National Association of Intercollegiate Athletics (NAIA) umbrella. That was his only season below a .500 winning percentage. Through the next six seasons he would win more games each year than the total games played in that inaugural season (31).

Traylor built a 268-102-2 all-time FAU record. After only three years of existence, FAU jumped from the smaller NAIA level to the NCAA Division II level, earning more prestige as a program. The team finished the 1984 season ranked eighth in the final NCAA Division II poll.



“Steve did a great job recruiting, and he didn’t have anything to recruit to,” McCormack said.

In 1986, Kevin Cooney stepped in as head coach. He is a member of the FAU Athletics and Palm Beach County Halls of Fame. Cooney would amass a 748-480-5 record and take FAU to the NCAA Division II regional round in 1993. That same year, FAU declared its intentions to move to the more competitive NCAA Division I, comprised of the biggest schools and budgets to support their athletic programs.

While Cooney worked to usher FAU baseball through its continual growth, the quest for excellence never wavered. McCormack said Cooney achieved this by creating a baseball family.



JACOB JOSEY



FAMILY

“Steve held the guys to a certain standard and made FAU baseball a special time in their lives. Coach Cooney [also] did a masterful job with that,” McCormack said. “I learned from him and have now put my spin on it with #OTF (Only the Family). We take care of each other, pay attention to details and I hope take good people and make them into better people.”

FAU and the baseball program grew together. As the university opened its doors to freshmen and sophomores in 1984, housing, food services and underclassman classes were added, all allowing FAU baseball to entice nearby athletes to stay local and develop.

From 1991 to 2009, Cooney and McCormack put in the hard work, fostered the family atmosphere, and built a program that climbed to No. 7 nationally. Along the way, the program tied a national record with 34 consecutive wins, while also seeing more players reach their potential through the ranks of Major League Baseball. FAU would build six NCAA postseason-bound teams, including a trip to the Super Regional in 2002 after capturing the Alabama Regional title.

After serving as Cooney’s top assistant, associate head coach and recruiting coordinator for 18 seasons, McCormack was elevated to head coach starting the 2009 season. He, too, is a Palm Beach County Hall of Fame member and a member of the FAU Athletics Hall of Fame. McCormack has tallied a 443-274-2 record in 13 seasons as head coach and has taken his team to six NCAA regionals.



COACH JOHN MCCORMACK

BOBBIE MCDUFFEE

HARD WORK

Above all, McCormack said, he continues the hard work and effort of evaluating talent and personalities that will blossom while at FAU. As the university grows, athletics continues on an upward track.

McCormack has been in uniform for 1,761 of the team's 2,320 games – or 76 percent of the program's total. He knows the character a player needs to represent FAU.



MIKE MCBRIDE, LEFT, AND COACH KEVIN COONEY

JC RIDLEY

This year, he welcomes the program's first legacy, Dom Presto. Presto is the son of FAU Athletics Hall of Fame member Nick Presto and his wife Melissa, also an FAU graduate. His brother, Nicholas, has worked with the FAU football program for the last four seasons as a student. McCormack anticipates welcoming the second FAU baseball legacy, Tyler Murphy, in 2023. He is the son of Tommy Murphy, an FAU shortstop/pitcher and eventual major leaguer, and mother Debra, who met while they were students at FAU.

"I'm fortunate that I have a lot more tools at my disposal than either Coach Traylor or Coach Cooney," McCormack said. "I hope to just keep moving it along."

In the fall of 2021, FAU Athletics announced an anonymous \$1 million gift to the baseball program. In the coming months, the university will break ground on an indoor cage/mound facility that will be an added tool for McCormack and his staff. This gift allows the program to grow, as players and coaches can work in a clean, dry environment. It will allow the student-athletes to work on their craft year-round and will prevent the team from losing valuable practice time due to inclement weather.

"Coach Cooney did a really nice job when the players needed help, other than baseball, and that is hard to find in the coaching profession. I have tried to continue with the things that Coach Traylor and Coach Cooney put in place," McCormack said. "FAU baseball players need to have talent, be a good teammate and be a good person. We use this formula when recruiting student-athletes." ❖

Room to Grow

The Schmidt Family Complex for Academic and Athletic Excellence is Helping Students Achieve Their Potential

BY KATRINA MCCORMACK AND ANDY SEELEY





6X @ ALEX DOLCE

Although COVID-19 delayed the official opening of a new state-of-the-art building on FAU's Boca Raton campus, the space became a safe haven for the football team, which practiced and worked through the pandemic.

The Schmidt Family Complex for Academic and Athletic Excellence, supported by a \$16 million gift from the Schmidt Family Foundation, opened for full use in fall 2021.

"I would be lying to myself if I didn't admit that this place absolutely changed my life for the better, and I know my teammates and fellow student-athletes feel the same way," said John Mitchell, FAU senior, football player and medical school candidate. Mitchell said his daily schedule began at the Schmidt Family Complex at 5 a.m. to prepare for the MCAT, followed by 7 a.m. pre-practice meetings, then practice and an extensive rehabilitation session due to an injury. "To the Schmidts and to everyone else who had any sort of impact on making this building come together, to you I say from the bottom of my heart – thank you," Mitchell said.

The complex, which is adjacent to FAU Stadium, houses private tutorial space, a computer lab, the largest weight room of any public university in Florida, administrative offices, football position rooms, and classrooms. It also is home to the Bobby and Barbara Campbell Academic Success Center, the Christine E. Lynn Sports Medicine Center, the Eleanor R. Baldwin History and Tradition Hall, the Debbie Lindstrom and Bob Sheetz Owl's Perch, and the Moabery Family Leadership Wing.

In addition, the College of Business' Executive Education program is located in the complex, increasing the allure to potential students such as volleyball/beach volleyball player Christine Jarman. Jarman graduated from the University of Virginia in May 2020 and returned home to Boynton Beach, where she is completing her collegiate competitive career while furthering her education at FAU.

"The continued presence of FAU in sports news and academic journals proves FAU is a force that cannot be ignored," Jarman said. "I couldn't be prouder to be an Owl. The continuous support of the Schmidt family and all the philanthropic gifts improves the student experience as well as the lives of all those impacted by FAU's College of Business." ❖



A Collection Like No Other

BY POLLY BURKS

With more than 1,200 pieces, the Avron B. Fogelman Sports Museum at FAU is one of the largest private sports memorabilia collections amassed and owned by an individual.

Donated to FAU by former Kansas City Royals owner and longtime Boca Raton resident, Avron B. Fogelman, the exhibits inside the 3,500-square-foot space offer visitors an intimate and visual progression of American sports and vignettes of the country's growth. Together, the collection provides historical context, opportunities for intergenerational connections and unique storytelling.

The exhibit begins with a display of Olympic torches, including those from the Olympic Games of 1936 in Berlin, 1948 in London and 1972 in Munich. In another display, World War II is illustrated using game-worn pants from baseball player and spy Moe Berg. The pants hang near items signed by crew members of the Enola Gay, the B-29 bomber that dropped the atomic bomb on Hiroshima, Japan. These are adjacent to baseballs signed by politicians, entertainers, sports legends and historical figures dating to the early 1900s.

The collection also includes golf memorabilia from legends such as Ben Hogan, Arnold Palmer, Jack Nicklaus and Tiger Woods; a 1930s-era football signed by Jim Thorpe and a helmet autographed by Bronko Nagurski; and an array of pieces from Muhammad Ali. Another section showcases racial integration through artifacts from Jackie Robinson, the first African-American Major League Baseball player; Emmett Ashford, the first African-American Major League Baseball umpire; the scouting report for Hall of Fame player Willie Mays; and equipment from the Negro Leagues. Perhaps the most valuable item in the museum is the 13 original rules of basketball penned by James Naismith.

"Sports are so ingrained in our identity that a great deal of our collective history could be shared through famous athletic moments," Fogelman said. "To serve as stewards of that story, we have to share our knowledge with the next generation and keep the passion for sports alive." ❖



IF YOU GO

The Avron B. Fogelman Sports Museum at FAU, managed by the Dorothy F. Schmidt College of Arts and Letters, is free and open daily, except Mondays.

For more information, visit fau.edu/fogelmanmuseum.



5X @ALEX DOLCE

Avron B. Fogelman, left, and President John Kelly





FAU Levels Up

Membership in the American Athletic Conference Provides National Exposure, New Rivalries

BY KATRINA MCCORMACK



Oct. 21, 2021, signifies a milestone in FAU's history. It marks the day FAU President John Kelly, along with Board of Trustees Chair Anthony Barbar and Vice President and Director of Athletics Brian White, announced that the university had entered into a membership agreement with the American Athletic Conference.

The move to The American will help reinforce FAU's position on a national stage, from more expansive media coverage to further opportunities for student-athletes. The American's partnership with the ESPN family of networks includes 40 conference-controlled football games and 60 conference-controlled men's basketball games airing on ESPN linear outlets each year.

For FAU's president, the announcement marked another key achievement.

"As we enter a new era of academic and athletic excellence, the university — and especially our

student-athletes — will benefit greatly from the additional resources and exposure afforded by membership in a Power 6 conference," Kelly said.

FAU also has the opportunity for exposure in four of the top 10, seven of the top 25, and 12 of the top 51 Nielsen media markets. The Owls will face four teams from Texas, two from North Carolina and one each from Louisiana, Tennessee and Alabama. Additionally, for the first time, the Owls will face conference foes in Pennsylvania, Maryland, Oklahoma and Kansas, and will compete against in-state rival, the University of South Florida.

FAU's membership in The American also gives more fans around the country the opportunity to visit South Florida and will contribute to the region's economy.

"We look forward to welcoming our new conference rivals and their fans to Boca Raton as we continue our tradition of Winning in Paradise," Kelly said. ❖



IMAGINE

BUILD

GROW

EXPAND

THRIVE

FAU INNOVATION AND BUSINESS DEVELOPMENT

FAU has the resources and guidance you need on your journey to turn ideas into success.

We've built the pipeline for your growth.

WWW.FAU.EDU/INNOVATION-AND-BUSINESS-DEVELOPMENT



The New Face of E-commerce

FAU Alumnus Builds Success with Shipping Company

BY CARLA BROWN LUCAS

Czech Republic native Jan Bednar '14 moved to the U.S. at age 17 to learn English and pursue his dream of becoming an entrepreneur. He wasn't sure what kind of company he would launch until family, friends and his experiences at FAU pointed him in the right direction.

Bednar was fielding requests from family and friends back home for products that were either too expensive or not available in the Czech Republic. Realizing the demand for American products overseas could make for a profitable venture, he started his own business with guidance from FAU faculty and other mentors.

"Companies wouldn't send to an overseas address, so I would buy and ship the items from my address," said Bednar, founder and CEO of ShipMonk, a tech-enabled fulfillment center that helps e-commerce companies ship orders internationally.

As a college student with a fledgling international packaging service, which he originally named BedaBox, Bednar said he recognized his business venture needed help to grow. He took advantage of FAU's resources for start-up companies, including entering — and ultimately winning — the Business Plan Competition sponsored by the Adams Center for Entrepreneurship in the College of Business. The competition is designed to fuel the innovation needed to create new venture opportunities in the ever-changing global marketplace.



JAN BEDNAR

One of the benefits of winning the competition was securing a spot in the venture class program at FAU Tech Runway®, a hub that helps incubate startups and accelerate technology development. Tech Runway’s 28,000-square-foot collaborative workspace provides entrepreneurs with opportunities to grow, train, mentor, fund and scale their companies from concept through early-revenue stage.

“I was part of Tech Runway’s first group of companies to go through the program,” Bednar said. “Not only did I have a team of five mentors who helped with any issues that came up, I also had free workspace.”

“When you have a lot of inventory and products like I did, that space was invaluable,” Bednar said. “It was like being in your parents’ garage – safe, comfortable and rent free.”

By 2016, BedaBox evolved into ShipMonk and the company moved to a larger facility. Through its custom application programming interface integrations, ShipMonk’s software directly syncs with a company’s online shopping cart to automatically import orders. After that, ShipMonk picks, packs and ships each order. The company’s process is customizable and scalable, making it possible to get the same service for every order. Today, ShipMonk has grown

to 2,300 employees stationed at various locations around the U.S. and Europe, with about 400 based at its headquarters in Fort Lauderdale. Its revenue is more than \$300 million. Even though the company has experienced phenomenal growth, Bednar said he has no plans to move.

“Keeping the core team in place is important, and the way to do that is to stay headquartered in South Florida,” he said.

His success is turning heads in the business world. In 2018, Bednar was named to the *Forbes* “30 Under 30” list for retail and e-commerce, and ShipMonk was named to the *Inc.* “500 Fastest-Growing Private Companies in America” for the last four years.

From a concept that started in an FAU residence hall room to a company that now processes 2 million orders in an average month, Bednar found a solution for e-commerce companies to manage their supply chains and ship orders to customers.

“I had the idea,” he said. “FAU gave me the confidence to move forward with it.”



Jan Bednar with his crew at ShipMonk.

© COURTESY OF SHIPMONK

Lighting the Way

FAU Alumnus Created a Safe Place for Students To Hang Out

BY **AMY BUTLER**

In 2016, alumnus Akbar Cook '99, was vice principal of West Side High School in Newark, N.J., a city plagued by gun violence.

"I had enough of losing kids to gun violence," Cook said. "I needed to do more."

He created a program called Lights On to help protect children when they are most susceptible to crime — Friday nights — by creating a safe place at the school where they can hang out.

"I'm a Boys & Girls Club kid, and I wanted to create a similar atmosphere at my school," said Cook, who became principal of West Side in 2018. "It makes sense for schools to serve as pillars within the community."

Today, Lights On offers a range of indoor activities, plus hot meals and laundry facilities. The program averages 350 to 400 students nightly from different local neighborhoods.

AKBAR COOK

SHERIDAN ANDREWS COOK

ALUMNUS AKBAR COOK'S

Advice for
Students

“We get kids of all ages from all over the city,” he said. “We also expanded the program to operate three nights a week during the summer.”

Lights On has attracted national attention from leaders and celebrities. Cook was twice featured on “The Ellen DeGeneres Show,” each time receiving \$50,000 to support the program, and Oprah Winfrey visited West Side to announce a donation of \$500,000.

Cook’s passion also was noticed by CBS. He and his wife, fellow FAU alumna and educator Sheridan Andrews Cook ’00, were invited to participate in season 33 of the adventure reality game show “The Amazing Race.” Although the couple did not win the race — they finished sixth — Akbar said it was important for his sons and students to see someone who looks like them travel around the world.



HERE'S WHAT AKBAR COOK SAID ABOUT FAU, HIS LIGHTS ON PROGRAM AND MORE:

Q: Have other principals reached out to you to ask how they could start something similar to Lights On?

A: They have, and it makes me so happy. During COVID-19, I asked my mentor, ‘How can I get this program in other schools?’ He put a Zoom together, and he called it Off School Grounds. We’re a group of principals, celebrities, musicians and senators. Now I’m in 17 schools across the country and the Virgin Islands setting up Lights On programs.

Q: You played basketball for FAU. Are you still involved in the sport?

A: I still coach. I’m a championship coach at my high school. We won three out of four championships in a row, and I’ve won multiple Coach of the Year awards.

Q: What skills or knowledge did you learn at FAU?

A: I learned the value of friendship and the value of hard work. I was on an athletic scholarship. As a coach, your players literally become your business. Brian Lane, former assistant men’s basketball coach, took a chance on me, and he didn’t give up on me.

Q: How did FAU impact you and your career?

A: I wouldn’t be here without FAU. I lost my aunt and uncle during my last year of college and I wasn’t doing well. I ended up on academic probation. I’ll never forget Keva Anderson-Konsker in the retention department. She helped keep me in school. FAU was there for me and they fought for me. I take a lot of that fight [with me] today. I don’t give up on a kid.

Don't get a job just to work to pay bills.

Give Back
to the less fortunate.

Stay Hungry
– don't settle for less.

Live
every day.

Try to change the world.

Never
give up on your dreams.

Always give your time, your talent
and your treasures.



PARADISE

IS



FOOTBALL

SEASON TICKETS AVAILABLE NOW!

FAUTICKETS.COM



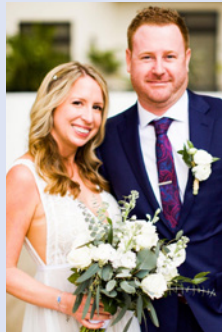
CLASS NOTES

1990s

Celeste Murphy Greene, Ph.D., public administration '97, is the author of "Environmental Justice and Resiliency in an Age of Uncertainty," published by Taylor & Francis, available June 2022. Greene is faculty and program coordinator for business and professional studies at the University of Virginia.

2000s

Robin Blewis, English '04, married Jeffrey Koslick on Dec. 4, 2021, in West Palm Beach, where the couple resides. Blewis is senior manager of copywriting at CITY Furniture.



Vladimir Bozovic, Ph.D., mathematical sciences '08, was named the acting rector/president of the University of Montenegro. Bozovic's mathematical research interests include

graphs and graph theory, discrete mathematics, combinatorics and pure mathematics.

2010s

Clifford Spulock, music education '15, designed lighting for the national Broadway tour of "Buddy: The Buddy Holly Story" in September 2021. A South Florida-based lighting designer, Spulock also designed "Kinky Boots" at the Broward Center for the Performing Arts.

2020s

Emmanuel Fleurantin, Ph.D., mathematical sciences '21, was awarded a three-year fully funded National Science Foundation ASCEND (Advancing STEM: Community Engagement through Neuroscience Discovery) postdoctoral fellowship, which began in January 2022. The award supports outstanding future scientists with a focus on achieving excellence through diversity. It will support Fleurantin's work at the University of North Carolina at Chapel Hill.



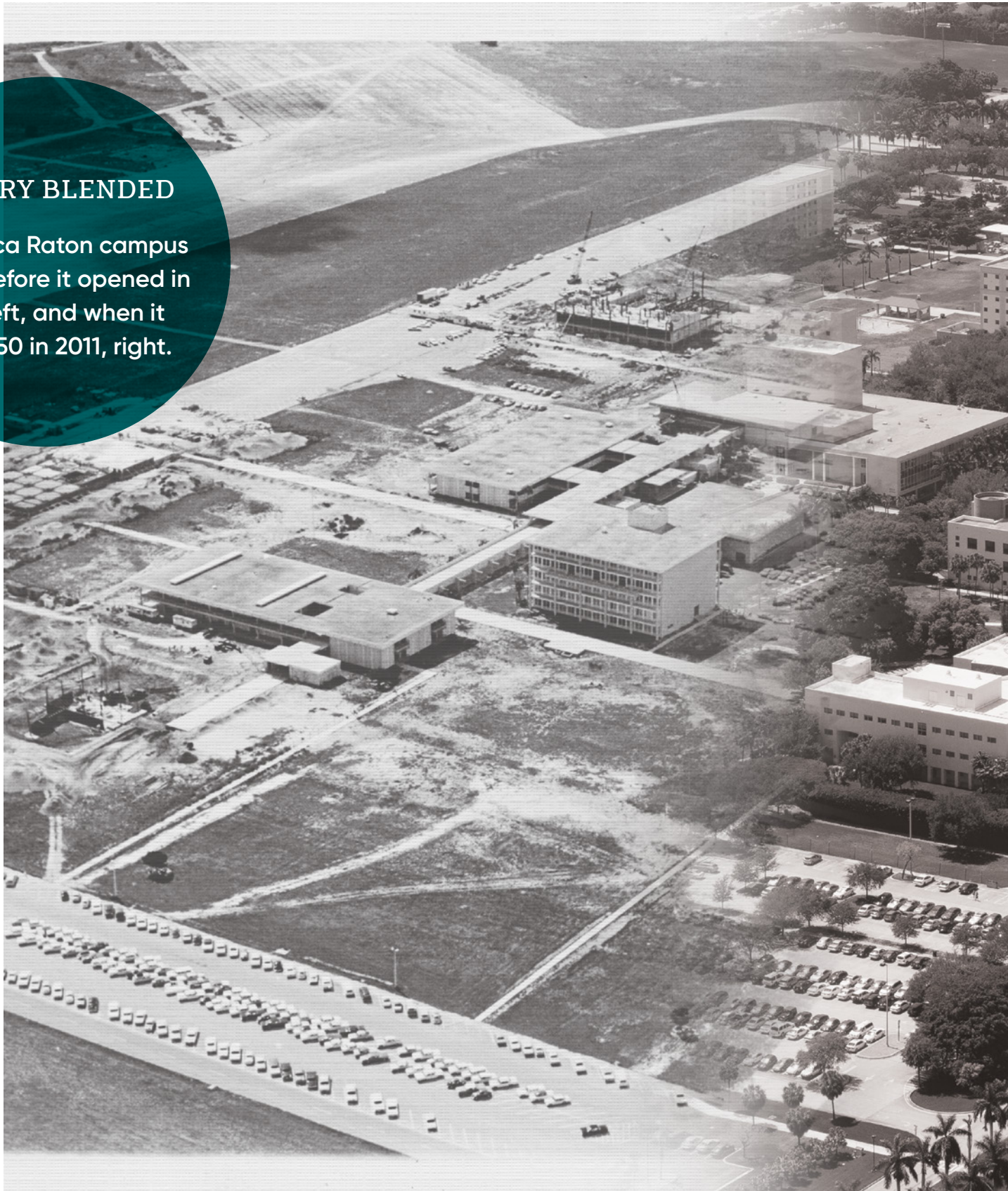
Did you get married, have a baby, receive an award, or experience some other big life moment or personal victory recently? We want to hear about it! Please send your information, including full name, graduation year, college or major, and high-resolution photos (at least 300 dpi) to FloridaAtlanticMag@fau.edu.

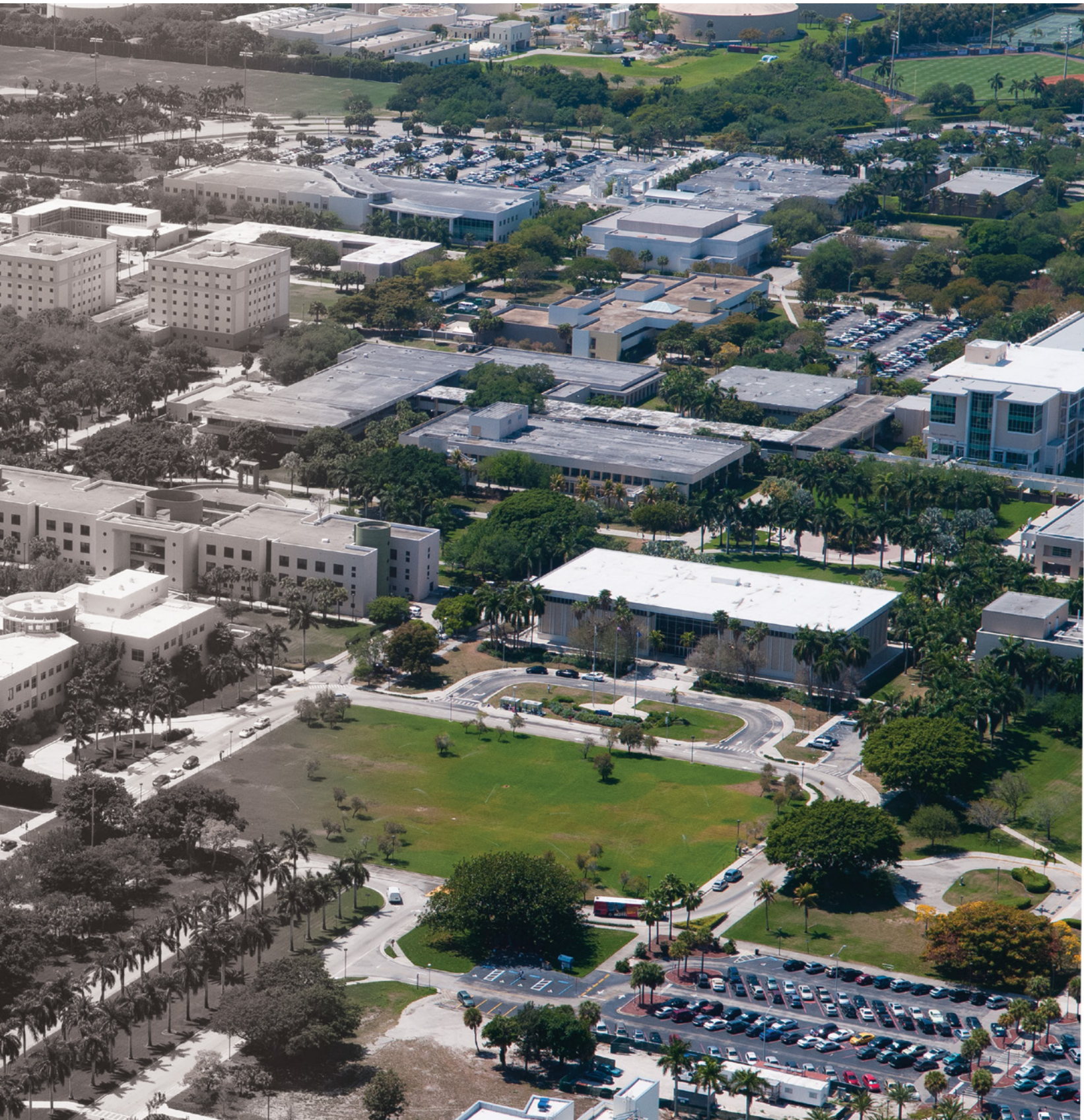
TIMEMACHINE

A LOOK BACK

HISTORY BLENDED

FAU's Boca Raton campus shortly before it opened in 1964, left, and when it turned 50 in 2011, right.





Division of Public Affairs
Florida Atlantic University
777 Glades Road, Ad. 10, Suite 101
Boca Raton, FL 33431

