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*"I am more certain than ever that inclusive public education is central to our democracy." p. 7*

# Northwestern

FALL 2023

## The Path Forward

President Michael Schill has a vision to take Northwestern to new heights.  
p. 22







**MOMENT**

**Iron Pour**

Using a furnace heated to 2,700 degrees Fahrenheit, students poured molten iron into 3D-printed, sand-casted molds as part of the fifth annual Segal Iron Pour in May. Students in the course Leonardo, Geometry and the Art of Manufacturing spent winter quarter exploring Leonardo da Vinci's artistic processes, then applied their learnings in a public iron pour in a Ryan Field parking lot, using molds inspired by da Vinci's sketches and exploration of geometry. The course, taught by adjunct lecturer Matthew Cummins and clinical professor David Gatchell, is part of the Segal Design Institute at the McCormick School of Engineering.



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Endangered mantled howler monkeys are losing their habitat. Tabor Whitney '22 MA has found an innovative way to support their protection.  
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← **“When I discovered The Mee-Ow Show, [it] felt comfortable to me as a performer. ... I found people who thought and acted like I did in a really great way.”**

— *Ana Gasteyer '89, Broadway, TV and movie star and singer*

MONKEY: GETTY/PATRICK GLISBERS; TELESCOPE: GETTY IMAGES; GASTEYER: NBC UNIVERSAL; GREENLAND: YARROW AXFORD

YARN: ADOBE STOCK; LACROSSE: GRANT HALVERSON/NCAA PHOTOS VIA GETTY IMAGES



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On the cover: Michael Schill. Photo: Matthew Gilson. Back cover: Getty Images.

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Views expressed in Northwestern Magazine do not necessarily reflect the opinions of the editors or the University.

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Talk Back

IN MEMORIAM

I never knew Ned Rorem '44, '77 H personally [In Memoriam, spring 2023]. But I do know that Ned Rorem was gay — openly gay — at a time when that was far more dangerous than it is today. Yet that part of his life was omitted from his obit in the magazine.

At a time when some people are actively trying to rewrite, erase or even outlaw certain people’s history, we have an obligation to tell the full story.

Being gay was not just a part of Ned Rorem’s “private life.” He should be recognized for his public courage.

Jeremy Boxerbaum '84, '85 MS  
New York City

I am the son of the late Professor Amos Sawyer '70 MA, '73 PhD, ex-president of Liberia [In Memoriam, fall 2022]. I wanted to bring to your attention the formation of the Amos Claudius Sawyer Foundation to continue the legacy and work of my late father. The foundation is built on three tenets: democratic governance, the rule of law and peace-building — all subjects that were near and dear to my father.

Frantz Sawyer  
Columbia, Md.

MORE ON SCHILL

It is a great privilege to be an incoming MMM student during President Schill’s presidency [“Schill on Schill,” spring 2023]. Coming from Kuwait, I have always admired the American educational system and the freedom of expression that Americans

enjoy. It is reassuring to have a University president who is a staunch advocate of free expression. I now have one more reason to respect Northwestern University.

Dalal Aldilaimi  
Kuwait

As a Northwestern grad, I appreciated President Schill’s expression of the need to make the University a place where different views are encouraged and heard and that he will strongly defend freedom of speech. There are too many colleges, universities and graduate schools today that have abandoned this essential democratic principle.

Willis Siegfried '62  
Boulder, Colo.

MARIMBA MADCAPS

There’s an interesting synergy between “Remember the Marimba Madcaps?” [‘Cat Tales, spring 2023] and my new position as executive director and curator for the Center for Mallet Percussion Research at Kutztown University and my work as founder and executive director of Heartland Marimba.

We prominently feature the Marimba Madcaps (or Marimba Coeds) in our exhibits at the center, and of course Clair Omar Musser was their teacher at Northwestern from 1942 to 1952. We have an entire exhibit room devoted to his work. He was central to directing and organizing other iconic marimba projects, such as the 100-member International Marimba Symphony Orchestra (IMSO).

And, as a bizarre bit of serendipity, Musser designed a set of marimba mallets for

“It is reassuring to have a University president who is a staunch advocate of free expression.”

— Dalal Aldilaimi

the IMSO project in 1935. The mallets were wrapped in gray yarn, with different colors used in a single row of stitching to distinguish the different articulations in the series. In 2021 I released a set of six signature marimba mallets that were designed with virtually the same concepts and aesthetics. I wasn’t aware of the 1935 mallets until I saw a set in the center’s collection.

Matthew Coley '03 MMus,  
'12 DMA  
Waterloo, Iowa

This is an incredible find. Mr. Musser is my distant cousin, and I was a percussion major 60 years after he taught at Northwestern. We still use Musser instruments today in the San Francisco Symphony.

Jacob Nissly '05  
San Francisco

JUST DANCE

It’s great to learn about some of the dance groups at Northwestern [“Dance Like the World Is Watching,” spring 2023]! I’d love to know when and where I can see them perform and if any of the groups ever host classes.

Chelsea Dvorchak  
Chicago

**Editor’s Note:** Visit links to the featured dance groups via alummag.nu/Dance.

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Voices

ARTIFICIAL INTELLIGENCE

The Threat and Promise of Deepfakes

By V.S. Subrahmanian

In recent years, deepfake videos — seemingly realistic digital representations created with sophisticated artificial intelligence (AI) — have been used to demand ransom, distribute revenge porn and influence elections. With the clamor for AI regulation growing louder every day, it is time to reflect on the threats posed by deepfakes — as well as potential benefits.

In 2019 the app DeepNude allowed users to upload a photo of a fully clothed person. It then automatically generated

a synthetic image of that individual completely nude. Unsurprisingly, some used the app to harm and humiliate their ex-lovers. Many U.S. states have banned such apps, but the threat of misusing this sophisticated technology persists.

In a completely different setting — the May 2023 presidential election in Turkey — deepfakes showed candidate Kemal Kilicdaroglu and Kurdish Workers’ Party militants side by side at rallies. And closer to home, deepfakes were used in the 2023 Chicago mayoral election, when an image and accompanying audio depicted candidate Paul Vallas making racially insensitive comments about police shootings.

More recently, there are reports of criminals demanding ransom from a mother based on deepfake audio of her daughter saying that she had been kidnapped. Imagine the combination of a ChatGPT-powered chatbot with deepfake audio or video that can, in real time, carry on a seemingly real conversation



↑ V.S. Subrahmanian is a faculty fellow at Northwestern’s Buffett Institute for Global Affairs.

in the child’s voice with her mother. The prospects of malicious deepfakes are indeed frightening.

But not all uses of deepfakes are nefarious. Imagine, for instance, a surgery simulator that generates a deepfake model of a patient’s body that can react in real time to surgeons’ actions. Years from now, such simulators could generate realistic 3D models of many different ailments, training surgeons to treat conditions that they have never seen in real life.

Now imagine a company files a patent for an invention, and to prevent theft of its intellectual property, it uses deepfake AI to generate 99 fake versions of its invention documentation. If an outside entity steals this intellectual property, the thief will struggle to determine which of the 100 documents he has stolen is the real thing.

Finally, imagine the CIA trying to destabilize a terrorist network by generating a deepfake of a terrorist leader consorting with a known CIA operative or criticizing other leaders within his group. This might sow distrust and bring down the network. Some of our adversaries are already using deepfakes against the U.S.

The new Northwestern Security and AI Lab (NSAIL), a partnership between the McCormick School of Engineering and the Buffett Institute for Global Affairs, is already developing deepfake techniques that can be used responsibly. The Terrorism Reduction with AI Deepfakes system developed at NSAIL, for example, can generate deepfake video intended to destabilize terrorist networks. NSAIL researchers also have built on existing AI techniques to generate fake documents and fake databases to deter data breaches and intellectual property theft.

A knee-jerk reaction to ban all deepfakes risks throwing out the baby with the bathwater. The innumerable benefits of synthetically generated media objects would be lost. Instead, we must develop tools that can help us defend against malicious deepfakes, such as detection technology and human fact-checking. And existing legislation can and should be used — and adapted when necessary — to prosecute those using deepfakes for malicious purposes.

V.S. Subrahmanian is the Walter P. Murphy Professor of Computer Science in the McCormick School of Engineering.



## SOUND OFF

# The Science of Learning

How does learning happen — and can we get better at it?

**David Rapp, Charles Deering McCormick Professor of Teaching Excellence and professor of psychology and of learning sciences**



Successful learning requires at least two things: incorporating new ideas into your existing knowledge, a process called encoding, and accessing those ideas when they are relevant and useful, a process called retrieval. We spend a lot of time and effort encoding new information by studying, rehearsing and using flash cards. But we don't spend nearly as much time on retrieval. Practicing our retrieval of newly learned knowledge — by answering questions about the topic, debating ideas and considering possibilities — can improve our retention of information.

**Talia Lerner, assistant professor of neuroscience and of psychiatry and behavioral sciences and founder of the Lerner Lab**



My lab examines how habits are learned. How can we build good habits and break bad ones? How and why do we shift from *thinking* about our life goals (for example, wanting to maintain good dental health) to performing an action consistently (for example, flossing every night)? The process of learning habits is largely influenced by dopamine in the brain. My lab records patterns of dopamine release while animals learn new habits, and we see that the dopamine release guides

which neural circuits are strengthened or weakened. Our findings will help us understand the human brain and identify which neural circuits cause disorders such as depression or addiction.

**Elizabeth Norton, associate professor of communication sciences and disorders and director of the Language, Education and Reading Neuroscience (LEARN) Lab**



Our brains are the most plastic, or flexible for learning, early in life, so one of the most important ways we can ensure that children build a strong foundation for their lifelong learning is to identify children who are struggling as early as possible. Most children learn language with relative ease, yet about 10% have substantial difficulty even though they have good hearing, intelligence, social skills and caregiving. Without early intervention, those children are more likely to struggle in school and have long-lasting mental health challenges, such as anxiety. If your child is slow to learn to talk, seek out a free evaluation from the early intervention office in your state.

**Nina Kraus '80 PhD, the Hugh Knowles Chair and professor of neurobiology and otolaryngology**



Sound is at the root of how we make and keep connections. It shapes who we are neurologically by engaging how we think, feel and remember. Noise (or unwanted sound) can get in the way of this. Hearing is our “alarm sense.” We tend to ignore background noise because it is constant. But are we really tuning it out, or are we simply adapting to a perpetual state of low-level alarm? We have all had the experience of noticing a sound only when it goes away — the air conditioner cycles off or the car ignition is cut. Avoiding noise can promote brain health, facilitate learning and allow us to connect more intentionally with others without distraction.

## SOCIAL FEEDS

Alumni share the hottest fashion trends from their student days.

“Bell bottoms. Vintage thrift store finds. Also went through an *Annie Hall* menswear phase.”

Lenore Washington '79 [in](#)



“Preppy all the way! Fair Isle sweaters with turtlenecks, polos or button-down shirts paired with khakis, jean skirts or Calvins. Topsiders and L.L. Bean rubber mocs. Greek apparel [above]! And then there were those Frye cowboy boots I bought after getting a D on an econ exam. I still have 'em!”

Sara Marberry '81 [in](#)

“Big hair, big earrings, preppy, *Pretty in Pink* style. ... There was also the *Flashdance* look: cut-up sweatshirts, leg warmers, long sweaters and tights. Can you feel it?”

Kimberly W. White '86 [in](#)

“Popped collars made an unfortunate comeback during my undergrad years.”

Daniel Solera '06 [in](#)

RAPP: KATIE DEVRIES; LERNER: BETHANY FRITZ/MAYPOLE STUDIOS; NORTON: NORTHWESTERN'S MEDIA AND DESIGN STUDIO



## MY NORTHWESTERN DIRECTION

## Democracy Depends on Inclusive Education

Education holds a special place in my heart, largely due to my parents' influence. My father worked as a math teacher and coach. My mother served on the school board in my mostly white hometown, Jackson, Mich. They taught me to value academic excellence and the transformative power of learning.

Even so, no one ever encouraged me to teach. But I ended up in the classroom, and my time as an educator opened my eyes in ways I never could have imagined.

Now, as executive director of the Campaign for Our Shared Future, I fight every day to promote inclusive, high-quality K-12 public education for all children by working to keep extreme politics out of classrooms and school boards. Our nonpartisan efforts

include fighting anti-equity legislation, providing support to educators and empowering student activists to make their voices heard.

Northwestern played a crucial role in guiding me here. When I arrived in Evanston, I had a clear goal: to become a print journalist. However, during my sophomore year, I read an article about the creation of Teach For America that shifted my perspective. It underscored the importance of inclusive education — the kind that allows kids to feel welcomed, safe and affirmed in their identities while also learning about people who are different from them. Learning about different identities or values does not threaten your individual liberties or beliefs. On the contrary, it sparks imagination and supports cognitive development — both of which are

By Heather Harding '92

Heather Harding is executive director of the nonprofit Campaign for Our Shared Future.

critical to being well-informed, active members of our democracy.

With this knowledge, I pursued specializations in sociology and African American studies, which fueled my passion for democracy and urban education. My senior year, I joined Teach For America and was assigned to a high school in eastern North Carolina, where I taught social studies and an elective African American history course. I introduced my students to the celebration of Kwanzaa. While the student body was mostly Black, they hadn't learned about their history and were excited to experience a part of their culture.

Initially intimidating, my classroom experience was transformative. It allowed me to witness firsthand how inclusive education can empower young minds. It also gave me the opportunity to witness the richness of Black culture in a way I hadn't experienced growing up in the North. That was just as beneficial for me as it was for my students.

I went on to earn master's and doctoral degrees at Harvard's Graduate School of Education, and then worked my way up to executive director at Teach For America. Later, I served as the founding executive director of the Education Consortium on Research and Evaluation at George Washington University, where we provided researchers with access to student performance data and completed an evaluation of mayoral control of schools, focusing on student performance, educator development and student impact.

As I celebrate my first anniversary with the Campaign for Our Shared Future, I am more certain than ever that inclusive public education is central to our democracy. Earlier this year, we announced the development of an Educator Defense Fund to provide resources for teachers who've faced extremist attacks for promoting inclusivity. Educators need support now, more than ever, from all of us. I am proud to lend my voice as an advocate for public education.

“Learning about different identities or values does not threaten your individual liberties or beliefs. On the contrary, it sparks imagination.”



WHAT I LOVE

# In It for the Long Run

Chicago Marathon medical director keeps runners on the right course.

**George Chiampas, assistant professor of emergency medicine and orthopedic surgery**



George Chiampas keeps a long list of some of the world's biggest sports teams and leagues on his desk — from the Chicago Bears

and Blackhawks to U.S. Soccer. An assistant professor at Northwestern's Feinberg School of Medicine, Chiampas works for these organizations and more as a team physician and medical director, overseeing player and league safety and developing training on prevention of cardiac death.

While he loves all his roles, there's one event that he looks forward to every fall: the Bank of America Chicago Marathon, which attracts approximately 45,000 runners and an estimated 1.7 million

spectators each year. Chiampas, who has volunteered with the Chicago Marathon since 1999 and has served as chief medical and safety officer since 2007, shares what he loves about the 26.2-mile run through the Windy City.

"The Chicago Marathon is probably the greatest celebration of this city. It's a reflection of our community, our neighborhoods and the goals of these individuals who run for some of the most amazing reasons. When you hear someone say that they're running for their wife who passed away from breast cancer, or they're running for their child — there's nothing better than that purpose.

"I've seen firsthand how powerful these races can be. ... I was at the London Marathon with my wife in 2009, and we were sitting at the finish line up in the stands. I had worked behind the scenes for marathons, but I had never been a spectator before. All of a sudden we



↑ The Chicago Marathon's course traverses 29 neighborhoods including the Loop.

started hearing cheers to the right of us. I looked over and there were about 40 individuals who were blind, sitting in the stands. At the same time, I started hearing bells coming across the finish line. For a couple of seconds, I didn't connect the dots, but as the cheers and bells got louder, I realized some runners had bells on their shoelaces, so that those who can't see can hear people running. I couldn't stop crying. The marathon touches your soul."

Milo Yiannopoulos. The word garnered national attention during the 2022 confirmation hearings of Supreme Court Justice Ketanji Brown Jackson, as news outlets used the term to characterize the disrespectful manner in which Jackson was treated. "The real root of misogynoir is how people perceive and treat Black women and understand them to be worthy of respect and care," Bailey says. "I feel very proud that I created something that is useful to people, but ... I'm hopeful for the day when people don't have to use it."

Learn more about Bailey's work at [alummag.nu/Bailey](http://alummag.nu/Bailey).

CHIAMPAS: U.S. SOCCER FEDERATION; CHICAGO MARATHON: GETTY/TRIBUNE NEWS SERVICE; BAILEY: STEPHEN LEWIS

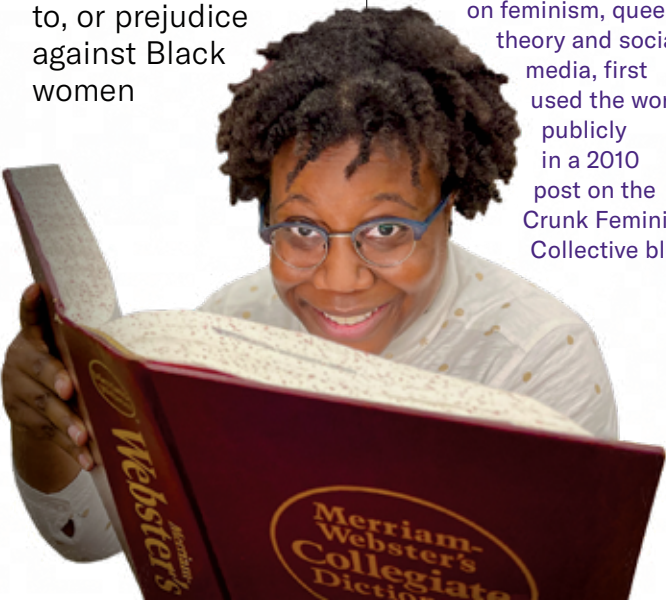
WHAT'S IN A WORD?

## mi·sog·y·noir

noun

hatred of, aversion to, or prejudice against Black women

Merriam-Webster recently added **misogynoir**, a word coined by Northwestern associate professor Moya Bailey, to its English dictionary. Bailey (below), who teaches courses on feminism, queer theory and social media, first used the word publicly in a 2010 post on the Crunk Feminist Collective blog.



A melding of the words misogyny and *noir* ("black" in French), misogynoir gives name to the specific type of oppression Black women experience as a result of both racism and gender discrimination.

The term gained traction after other Black feminists picked it up from Bailey's post and began using it. Over the past decade, major news outlets and TV shows have popularized the word. In one of the first major public uses of the term, singer Katy Perry used misogynoir in a 2016 tweet of support for Black comedian Leslie Jones when she was the victim of an online attack orchestrated by alt-right commentator

BRIANNE VICTOR



# News

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Smart travel tips p. 11

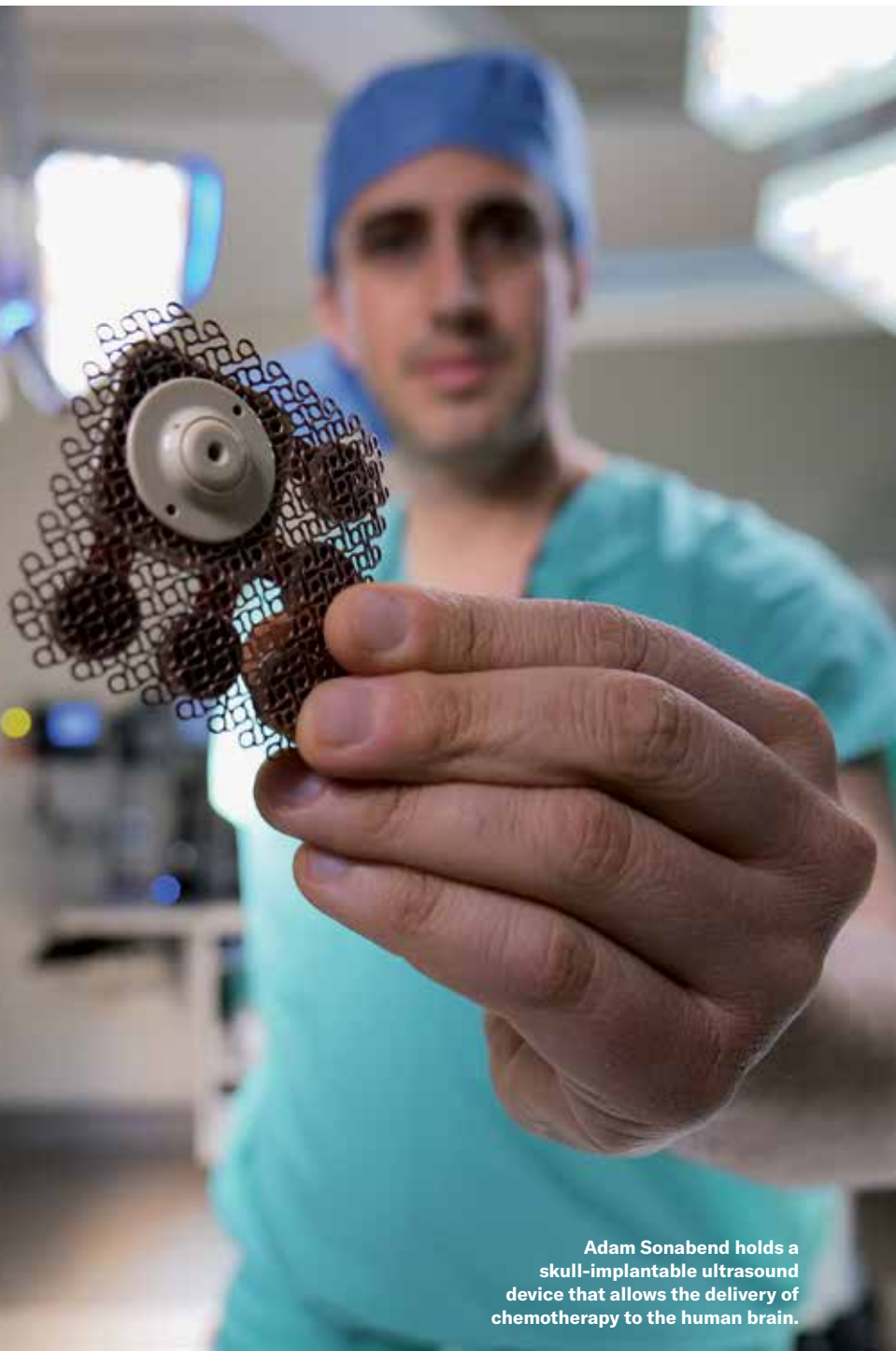
TO YOUR HEALTH

## Powerful New Brain Tumor Treatment

Device opens the blood-brain barrier to treat glioblastoma.

Until now, the blood-brain barrier has been a major impediment to treating the deadly brain cancer glioblastoma. A microscopic cellular structure, the blood-brain barrier shields the brain from the vast majority of drugs that circulate in the bloodstream. The most potent chemotherapy treatments cannot permeate the barrier to reach a brain tumor.

But Northwestern scientists have used a novel,



Adam Sonabend holds a skull-implantable ultrasound device that allows the delivery of chemotherapy to the human brain.



skull-implantable ultrasound device to open the blood-brain barrier and allow intravenously injected chemotherapy drugs to reach large, critical regions of the human brain.

In a recent study, researchers successfully quantified the effect of such a device on the concentrations of chemotherapy in the human brain.

In the clinical trial, patients underwent surgery for removal of their tumors and implantation of the ultrasound device, which contains nine ultrasound emitters arranged in a grid-like pattern. Once implanted, doctors activated the device to allow chemotherapy treatment to permeate the brain.

Opening the blood-brain barrier led to an approximately four- to six-fold increase in drug concentrations in the brain, the results showed. Scientists observed this increase in two separate powerful chemotherapy drugs, paclitaxel and carboplatin. The drugs are not typically used to treat glioblastoma patients because they do not cross the blood-brain barrier under normal circumstances.

In the past, studies that injected paclitaxel directly into the brain of glioblastoma patients showed promising signs of efficacy, but the direct injection was associated with negative side effects, such as brain irritation and meningitis, says lead investigator Adam Sonabend, an associate professor of neurological surgery in the Feinberg School of Medicine.

Temozolomide, the current chemotherapy used for glioblastoma, does cross the blood-brain barrier, but it is a weak drug, says Sonabend.

The four-minute procedure to open the blood-brain barrier is performed with the patient awake, and patients go home after a few hours. The results showed the treatment is safe and well tolerated.

This study is the first to describe how quickly the blood-brain barrier closes after sonication — the use of sound waves to agitate particles or disrupt cellular membranes. The scientists discovered that most of the blood-brain barrier integrity is restored within one hour after this procedure.

“There is a critical time window after sonication

when the brain is permeable to drugs circulating in the bloodstream,” says Sonabend.

The findings will enable optimization of the sequence of drug delivery and ultrasound activation to maximize drug penetration into the human brain.

These findings are the basis for an ongoing clinical trial in patients with recurrent glioblastoma. The objective of the trial — in which participants receive a combination of paclitaxel and carboplatin delivered to their brain with the ultrasound technique — is to investigate whether this treatment prolongs survival.

The study is also the first to report that using a grid of nine ultrasound emitters opens the blood-brain barrier in an area of the brain that is nine times larger than the initial device (a single-ultrasound emitter implant) is able to open. This is important because, to maximize effectiveness of the treatment, the chemotherapy must permeate a large region of the brain adjacent to the cavity left behind after the removal of glioblastoma tumors.

“While we have focused on brain cancer, this opens the door to investigate novel drug-based treatments for millions of patients who suffer from various brain diseases,” says Sonabend, who is a member of the Lou and Jean Malnati Brain Tumor Institute in the Robert H. Lurie Comprehensive Cancer Center of Northwestern University.

## “This opens the door to investigate novel drug-based treatments for millions of patients who suffer from various brain diseases.”

— Adam Sonabend



**MUSK OXEN, NORTHERN LIGHTS AND INUIT HISTORY**  
Greenland

“Greenland is a spectacular and welcoming place for adventurous tourists,” says professor Yarrow Axford, who studies climate change in Arctic environments. “Share the tundra with musk oxen at Kangerlussuaq, boat to medieval Viking ruins from Narsarsuaq or photograph icebergs the size of skyscrapers in Ilulissat’s Icefjord,” suggests Axford. “Visit in winter to see the northern lights. Above the Arctic Circle, you might need to look south to see them!” While roughly 80% of the country is covered in ice, Greenland is no empty wilderness. It is home to more than 55,000 people, most of whom are Inuit. Learn about Inuit history and culture at the Greenlandic National Museum in Nuuk, Axford says, “and check out every small-town museum you find. They are often the best places to view and buy artwork and crafts made by local artisans.”

GREENLAND, GERMANY AND PERU: GETTY IMAGES  
TICKER ILLUSTRATIONS: LESLIE-ANNE MOCK

### PACK YOUR BAGS

## Pro Tips for Global Destinations

Professors share their favorite activities and sights to see in select international countries.



**ROTATING CAFES, TECHNO CLUBS AND THE BERLIN WALL**  
Germany

Berlin showcases Germany’s history and culture, says professor Ingrid Zeller. “You can see remnants of the Berlin Wall alongside the exquisite and monumental buildings inspired by the Prussian empire in the 19th century,” she says. Zeller recommends a visit to the Brandenburg Gate (above) and a walk under the linden trees, followed by a stop at the Berlin TV tower’s rotating cafe for a piece of strawberry cake and a magnificent view. After that, check out the “dynamic and multiethnic” city center, Mitte, to “visit a techno club or chill in a hip *Strandcafe* [beach cafe].”

### THREE DAYS IN BEIJING

China

Born and raised in Beijing, professor Licheng Gu says autumn is the ideal time to visit China’s capital. To avoid the crowds, he says, visit the Simatai section of the Great Wall of China on your first day. On day two, visit the Forbidden City in the morning and then the Summer Palace. For dinner, Gu suggests a Peking duck restaurant, followed by an opera at Liyuan Theatre. Finally, on day three, start off at the Temple of Heaven and then shop for souvenirs at Pearl Market. “Get ready to bargain,” he says. “You might get a Rolex for \$30.”



CHINA: COURTESY OF LICHENG GU



**BEYOND MACHU PICCHU**  
Peru

While most visitors to Peru head for Machu Picchu, assistant professor Diego Arispe-Bazán says there’s plenty to see in his hometown, Lima, and Cusco as well. Check out the Church of La Merced, built in the 1500s, and the Lima Art Museum (MALI), which showcases the full spectrum of Peruvian art. A walk along El Malecón, a clifftop walkway overlooking the Pacific Ocean, is also a must. Arispe-Bazán, an anthropologist who studies the shared cultural and ethnic heritage of Bolivia, Ecuador and Peru, recommends Coricancha temple (left) in Cusco, where the Spaniards built a church on top of an Incan temple. “It’s like a visual metaphor for colonization,” he says.

### The Ticker

● Northwestern joined the STARS College Network, **an effort to help students from small-town America** enroll in and graduate from college.



● At Commencement, **Illinois Gov. J.B. Pritzker '93 JD, '23 H** offered advice to the class of 2023, drawing inspiration from *The Office*: “Set aside cruelty for kindness. Put one foot in front of the other. ... And always ... try to appreciate the good old days when you’re actually in them.”



● Seven Northwestern professors received a 2023 University Teaching Award, including associate professor of political science Reuel Rogers, whose courses examine racial and political injustices in the U.S. One of Rogers’ students writes: “**I am a greater citizen** because of Rogers’ course.”



● Irena Petryk '23, co-founder of Northwestern for Ukraine, was named a **2022 Rhodes Scholar and a 2023 Truman Scholar**. Having interned with the White House Council of Economic Advisers and the State Department, Petryk plans to pursue “a career in government service, making progress on the issues near to my heart.”





## LOOK TO THE STARS

# The Symphony of the Universe

Darsan Swaroop Bellie says jazz music and gravitational waves have a lot in common.

**J**azz and astronomy might seem worlds apart, but Darsan Swaroop Bellie has found connections that make his heart sing.

Bellie '22, who holds a dual degree in jazz studies and physics from Northwestern, is a fellow at the University's Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA), where he conducts research on gravitational waves, compact objects and cosmology. Merging his seemingly disparate passions, he created the Star Eyes Initiative, which uses original musical compositions to communicate scientific concepts in a digestible way for audiences of all ages.

"Sound is vibration," Bellie says. "Unlike most astronomical observations, which you can detect [using] a telescope, you can't really see gravitational waves. You have to *hear* them. You'll often hear astronomers say that

gravitational waves produce 'the symphony of the universe.'"

An avid drummer and composer, Bellie wrote his first Star Eyes Initiative composition, "Dance of the Black Holes," this year. He assembled a jazz quintet to perform the piece — which portrays the merging of two black holes in space — at a CIERA-hosted conference on gravitational waves in March.

"I never expected that the first Star Eyes performance would be [in front of] an audience of scientists who actually do the science that I'm trying to describe through the music," Bellie says.

He plans to use future musical compositions to explore scientific fields beyond astronomy. "The goal is to get people thinking about the wonders of the universe," says Bellie, who is starting a doctoral program in physics at Northwestern this fall.

Watch "Dance of the Black Holes," composed by Darsan Swaroop Bellie, right, at [alummag.nu/Bellie](http://alummag.nu/Bellie).



BELLIE: FAITH DECKER; YARN: GETTY IMAGES

## HOBBIES WITH A PURPOSE

**Knitting Us Together** Anyone can learn to knit, says junior Abbie Farley. She's president of Knitwestern, a knitting and crocheting club open to Northwestern students and community members. At weekly meetings, members work on two knitting techniques — how to cast on and cast off — and two types of

stitches — knit and purl. The club donates finished pieces, including hats, gloves and scarves, to local organizations such as Students Organizing for Labor Rights, Inspiration Corporation and Howard Brown Health's Broadway Youth Center. Each knitting or crocheting project takes hours to complete, but the payoff is worth it, says Farley. "Our projects bring comfort and warmth, and that's what we want to spread."

## 'CAT TALES

## Donald Adds Ryder Cup Captainship to His Cap

Now known as one of the greatest short game players in the history of professional golf, Luke Donald '01 first made a name for himself with an all-time great collegiate run: four-time All-American, three-time Big Ten Player of the Year, two-time Big Ten Champion and 1999 NCAA individual champion.

After turning pro in 2001, the Englishman won more than a dozen tournaments, held the No. 1 spot on the Official World Golf Rankings for 56 weeks and, in 2011, became the first player ever to top the earnings lists on both the European and PGA tours in the same season.



Today, more than 20 years after he turned pro, he is adding European Ryder Cup team captain to his resume. In late September Donald will lead the European side against the United States in Rome.

LACROSSE: JOHN JOYNER/NCAA PHOTOS VIA GETTY IMAGES



Lacrosse coach Kelly Amonte Hiller hoists the NCAA title trophy.

## ATHLETICS

## Return to the Top

Women's lacrosse caps one-loss season with eighth national title.

**I**t had been 11 years since Northwestern women's lacrosse won the NCAA Championship, but in late May the Wildcats returned to the top of the sport, defeating Boston College 18-6 for the program's eighth title in 18 years.

The Wildcats were led by Izzy Scane '22, '23 CERT, who scored 18 goals in the NCAA Tournament and earned most outstanding player honors. One of the sport's all-time greats, Scane scored a Northwestern record 99 goals

during the season. She was named the Tewaaraton Trophy winner, an honor bestowed on the nation's top player in men's and women's lacrosse. Scane, the fourth Wildcat to win the Tewaaraton, became Northwestern's all-time leading scorer (288 goals) with her goal in the fourth period of the championship game.

Head coach Kelly Amonte Hiller, who joined the program in 2001, is now tied with former Northwestern coach Cindy Timchal, now at Navy, for the most championships

in collegiate women's lacrosse history.

In addition to Scane, four other Wildcats were named to the all-tournament team: Erin Coykendall '23, Molly Laliberty '23 CERT, junior Sammy White and sophomore Madison Taylor.

The Wildcats (21-1) won 21 consecutive games after losing the season opener to Syracuse. Northwestern, the Big Ten regular season champs, also won the Big Ten Tournament for the third time in program history.



LOOK OUT BELOW

Underground Heat Islands Pose Silent Hazard

Northwestern engineers are the first to quantify the effects of subsurface climate change on cities.

Climate change isn’t just affecting our air and water. It’s also deforming the ground below our feet.

In urban areas around the globe, buildings and underground transportation systems continuously emit heat, causing the ground to warm at an alarming rate. Combine this heat with increasing surface temperatures from human-caused climate change, and the shallow subsurface beneath cities is warming by 0.1 to 2.5 degrees Celsius per decade.

Northwestern researchers now are the first to discover a link between this phenomenon (known as “underground climate change” or “subsurface

heat islands”) and ground movements beneath urban areas. As the ground warms, it also moves, the researchers found. And this could be a ticking time bomb for urban infrastructure, which is now, quite literally, on shaky ground.

“Underground climate change is a silent hazard,” says Alessandro Rotta Loria, the study’s lead author and an assistant professor of civil and environmental engineering. “Temperature variations are deforming the ground, and no existing civil structure or infrastructure is designed to withstand these variations. In other words, you don’t need to live in Venice to live in a city that is sinking — even if the causes for such phenomena are completely different.”

“Temperature variations are deforming the ground, and no existing civil structure ... is designed to withstand these variations.” — Alessandro Rotta Loria

To conduct the study, Rotta Loria and his team installed a wireless network of more than 150 temperature sensors throughout Chicago’s Loop, both above and below ground.

They placed sensors in the basements of buildings, subway tunnels, underground parking garages and subsurface streets. For comparison, the team also buried sensors in parts of Grant Park, a green space located along Lake Michigan, where there are no underground structures. Data indicated that

underground temperatures beneath the Loop are often 10 degrees Celsius warmer than temperatures beneath Grant Park. Air temperatures in underground structures can be up to 25 degrees Celsius higher compared to the undisturbed ground temperature. When the heat diffuses, it puts significant stress on materials that expand and contract with changing temperatures.

After collecting data for three years, Rotta Loria built a 3D computer model to simulate how ground

temperatures have evolved — and how the ground itself has deformed — over time. According to the simulations, warmer temperatures can cause the ground to swell and expand upward by as much as 12 millimeters. They also can cause the ground to contract and sink downward — beneath the weight of a building, for example — by as much as 8 millimeters. Although this seems imperceptible, the variation is more than many building components and foundation systems can handle.

“We used Chicago as a living laboratory, but underground climate change is common to nearly all dense urban areas worldwide,” Rotta Loria says. “And all urban areas suffering from underground climate change are prone to problems with infrastructure. In particular, European cities with very old buildings will be more susceptible to subsurface climate change.”

Still, Rotta Loria says no one should panic. Buildings might be slowly sinking but will not suddenly collapse.

And there is time to harvest waste heat from buildings and reuse it to heat indoor spaces. Engineers and urban planners can install thermal insulation in new and existing buildings as well.

“The consequences for infrastructure can be very bad, but it takes a long time to see them,” Rotta Loria says. “It’s very likely that underground climate change has already caused cracks and excessive foundation settlements that we didn’t associate with this phenomenon because, until now, we weren’t aware of it.”



CLEANING HABITS

Put Down the Disinfectant

Many of us amped up our cleaning regimens during the pandemic. This spring, however, Erica Hartmann, associate professor of civil and environmental engineering, and dozens of other scientists issued a warning in the journal *Environmental Science & Technology* about the overuse of certain chemicals often found in cleaning products. Here are some of their findings:



• Quaternary ammonium compounds (QACs) — found in disinfectant solutions and wipes, hand sanitizers, medical instruments and more — are linked to asthma, dermatitis and inflammation and may also be associated with infertility and birth defects.

• Disinfection with QACs often has no benefit over cleaning with plain soap and water.

• QACs threaten to worsen antimicrobial resistance, “which was already contributing to millions of deaths per year before the pandemic,” says Hartmann.

• Levels of QACs in our bodies and the environment have increased since the pandemic began. The scientists recommend closely monitoring these levels, eliminating QAC use when possible and requiring full disclosure of QACs in all products.



# Innovation

BABY TECH

## Digital Fertility Clinic

With backgrounds in law and medicine, Blair Matthews and Giuliana Zaccardelli launched Zuri Fertility to help patients get pregnant.

One in six people worldwide experience infertility. But many in the U.S. struggle to find the fertility help they need, due to high costs, lack of insurance and misunderstandings about medical services.

Two Northwestern alums are working to change that by providing streamlined assistance for those looking to expand their families.

Blair Matthews '22 JD and Giuliana Zaccardelli '22 MD, MBA are co-founders of Zuri Fertility, an app that serves as a personalized digital fertility clinic, with an ovulation tracker, educational resources, financial counselors, access to doctors, at-home fertility testing and more.

Trying to get pregnant when struggling with fertility “is a marathon, not a sprint,” Matthews says. “It’s something that’s going to take time.”

Matthews and his wife, Jasmine, a physician assistant, struggled to get pregnant for more than a year before finally tapping into Jasmine’s professional network to ask for help. “But if you don’t have a medical provider in your family, how are you going to find these answers?” he asks.

That’s where Zuri Fertility steps in. Patients answer a questionnaire to identify potential factors contributing to infertility. Zuri Fertility then sends a panel of tests directly to patients from a CLIA-certified lab — a lab that adheres to the federal standards set by the Clinical Laboratory Improvement Amendments of 1988 (CLIA) for human health-related tests. The results are processed in a CLIA-certified lab as well.

That’s important “because doctors can look at any result from any CLIA-certified lab

and trust that it’s accurate, unlike a lot of home test kits from our competitors,” Zaccardelli says. And because the app provides medical care, such as testing and telehealth, all patient information is protected under the Health Insurance Portability and Accountability Act.

Matthews and Zaccardelli met during their NUvention: Medical Innovation course. They founded Zuri Fertility to make patients’ fertility journeys less stressful, less expensive and more joyful.

“The name Zuri is a play on *nzuri* in Swahili, which means ‘beautiful,’” says Matthews,

who traveled with his wife to Zanzibar before getting pregnant. “That’s what we want everyone to have: a beautiful experience.”

In 2022 Zuri Fertility won second place in its category and placed third overall in Northwestern’s VentureCat competition, run by the Farley Center for Entrepreneurship and Innovation. This summer, Zaccardelli and Matthews completed the startup accelerator program Techstars New York City powered by J.P. Morgan.

See [alummag.nu/Zuri](http://alummag.nu/Zuri) for more.



Giuliana Zaccardelli, above left, and Blair Matthews; bottom right, Matthews’ son, Benji



PREPARE FOR LANDING

**Inroads on the Moon** Northwestern engineering students designed ACRE (Autonomous Casting RovEr), a machine that uses solar energy to melt and cast a mixture of metal lunar regolith, a material that can be used to create landing pads and roads on the moon’s surface. The 20-student team received \$168,000 in funding through NASA’s annual Breakthrough, Innovative and Game-Changing Idea Challenge: Lunar Forge.

ACRE: JULIAN ROCHER; ZURI: VASHON JORDAN

INVENTION

## Re-Boot for Winter

A common pet peeve for parents became the subject of four students’ manufacturing and design engineering capstone project.

Last fall, Joanne Park '23, Callista Sukohardjo '23, Ben Miller '23 and Sarah John '23 surveyed friends and family about everyday annoyances, gathering ideas for an invention. Park’s aunt lamented having to buy new winter boots every year for her young kids.

“The shoe industry is very wasteful,” says Sukohardjo. “Parents end up having to throw out perfectly decent winter boots, as their children quickly outgrow them.”

While some size-adjustable footwear exists, such as sandals and rollerblades, the team noticed a gap in the market for everyday winter footwear. So they designed winter boots that can expand up to three sizes, tentatively called **Sno-Gro Boots**. The team filed a provisional patent and met with manufacturers this past spring to discuss how to optimize the design and manufacturing process. “If we can increase the lifespan of the boot while keeping it at an affordable price,” Sukohardjo says, “that not only saves consumers money, that saves on materials and allows for sustainability.”

KID-FRIENDLY DETAILS

The boot will be fastened with either Velcro or a drawstring, making it easy for young kids to put on and take off the boot.

WINTERIZED MATERIALS

The team assessed boots from competitors including The North Face and Sorel to ensure that Sno-Gro Boots would have comparable performance in weatherproofing, insulation and traction. The sole and lower portion of the Sno-Gro will be made of polyurethane, a durable but flexible material. The inside of the boot will be lined with fleece and the upper outer portion will be made of water-resistant nylon.

ACCORDION-STYLE BELLOWS

A high-strength, fracture-resistant, expandable bellows design allows the boot to extend up to three U.S. shoe sizes, an especially helpful feature for children ages 4 to 6, who typically outgrow shoes every six months. (Younger kids outgrow shoes even faster.)



INTERLOCKING TRACK MECHANISM

A herringbone-shaped track in the outsole allows the user to slide the lower portion of the boot to a new size and lock it into place with vertical push-fit pins that click into the sole. The bellows expands as the user manually adjusts the boot.

Illustration by Remie Geoffroi





RESEARCH

# Accelerating Global Sustainability and Energy Innovation

The Institute for Sustainability and Energy at Northwestern has been renamed for alum Paula M. Trienens.

A transformative grant from the Howard and Paula Trienens Fund will advance global sustainability and energy solutions at one of Northwestern’s flagship research institutes. The grant from the Trienenses’ donor-advised fund was recommended by University Trustee Nan Trienens Kaehler ’79 MS and Thomas R. “Kip” Trienens, siblings

who were inspired by their late mother’s dedication to environmental stewardship. The largest philanthropic contribution ever made to the Institute for Sustainability and Energy at Northwestern (ISEN), the grant will provide critical investment in research, education and engagement for climate science, the energy transition and the development of resilient communities.

In recognition of this extraordinary generosity, the University has renamed ISEN the Paula M. Trienens Institute for Sustainability and Energy. In allocating funds to the institute, Nan and Kip chose to honor their mother’s dedication to the natural world. Paula M. Trienens ’47 cared deeply about conservation efforts, supporting organizations such as the

↑ **Michael R. Wasielewski, center, is executive director of the Paula M. Trienens Institute for Sustainability and Energy, where he leads research on solar energy.**

Peggy Notebaert Nature Museum, Field Museum and Glencoe Garden Club. “Mom was concerned about environmental degradation and climate change,” Nan says. “She would be thrilled to

WASIELEWSKI: SHANE COLLINS

have her name connected to her alma mater and its efforts to find future solutions beyond the constraints of current knowledge.”

The institute has a well-established track record of innovation across Northwestern, including a history of leading federal energy research hubs, an undergraduate certificate and professional master of science degree in energy and sustainability, and a global portfolio of partnerships with corporate, nonprofit and nongovernmental institutions.

“In order to accelerate equitable climate change solutions, we must drive discovery and education across diverse fields of inquiry,” says Michael R. Wasielewski, executive director of the Trienens Institute. “The Trienens grant significantly amplifies our capacity to advance meaningful solutions that support the future of all life on Earth.”

Kip encourages others to join his family in bolstering the Trienens Institute’s work. “Students and faculty alike want the University to lead, and with your support, Northwestern can be the premier academic institution addressing sustainability and energy,” he says.

↓ **Howard and Paula Trienens**



“Together, we can safeguard life on Earth for current and future generations.”

The Trienens family’s philanthropy has benefited numerous areas across Northwestern.

Nan and Kip’s father, the late Howard J. Trienens ’45, ’49 JD, ’95 H, was chair of the Northwestern Board of Trustees. He was awarded the Northwestern Alumni Medal in 1996.

Paula Trienens was founder and president of the Northwestern University Women’s Board and also served on the board of The Alumnae of Northwestern University and the Medill Advisory Board. She received the Northwestern Alumni Association Service Award in 1978.

Nan Trienens Kaehler joined the Northwestern Board of Trustees in 1999 and serves on the Northwestern University Women’s Board. She and her husband, Wallace W. Kaehler, have supported the Weinberg College of Arts and Sciences, Feinberg School of Medicine and The Garage.

Kip Trienens supports areas of Northwestern such as Weinberg College, the McCormick School of Engineering and the Morton Schapiro Northwestern Academy for Chicago Public Schools.

## Science for a Changing Climate



↑ **Precipitation is getting more intense across most of the U.S., consistent with human-caused climate change predictions.**

As concern grows about climate change and its impact on the planet, scientists at Northwestern’s Paula M. Trienens Institute for Sustainability and Energy are asking and answering urgent questions. With support from the institute, Daniel E. Horton, an assistant professor of Earth and planetary sciences, provides research insights crucial for shaping environmental policy.

In 2022 Horton and co-author Ryan Harp published a study documenting how rainfall events have increased in intensity across the contiguous U.S. Warmer air holds more moisture, so “when it rains now, it rains more,” Horton says. Using daily precipitation observations, the researchers found that precipitation over the past three decades was about 5% more intense on average compared with previous decades.

Horton, the principal investigator of Northwestern’s Climate Change Research Group, also has looked at the benefits and trade-offs of moving toward electric vehicles (EVs) in the U.S. With Trienens Institute funding, he co-authored a 2020 study showing that the air quality, public health and climate benefits would be significant, especially if EVs were charged with emission-free energy sources.

“With this work, we hope to inform mitigation and adaptation policies and bring the predictive power of modern Earth system science to one of society’s most profound challenges,” Horton says.

Policymakers, the media and the science community are taking notice of Horton’s research. In 2023 he received the prestigious Faculty Early Career Development Award from the National Science Foundation.





LAW

# Gift Bolsters Legal Services for Immigrant Communities

Donor support helps to expand services at Northwestern Pritzker School of Law’s immigration law clinic.

A generous gift from Harry J. Seigle ’71 JD will strengthen Northwestern Pritzker School of Law’s immigration law clinic, which represents children, young adults and parents in immigration court proceedings. The gift will name the Seigle Clinic for Immigrant Youth and Families and provide ongoing support for programming and operations as well as staff recruitment, retention and professional development. The immigration law clinic has long been part of the Children and Family Justice Center at the Law School’s Bluhm Legal Clinic,

which assists those seeking humanitarian protection due to violence, persecution or torture in their countries of origin. The clinic also works to keep families together by representing parents facing deportation and separation

**“My mother’s life experiences inspired me to make this gift to improve legal services for immigrants.”**  
— Harry Seigle

from their U.S. citizen and noncitizen children. Law students play a vital role at the immigration clinic by interviewing clients, conducting investigations, drafting pleadings and motions, preparing legal briefs, and representing clients at hearings before the U.S. Justice Department’s Chicago Immigration Court and various agencies within the U.S. Department of Homeland Security. Through Seigle’s gift, the clinic intends to increase the number of immigrants it represents, especially in states that fall within the jurisdiction of the Chicago

← Uzoamaka Emeka Nzelibe, clinical professor of law, directs the Seigle Clinic for Immigrant Youth and Families.

Immigration Court. It also plans to advocate for immigration reform and to improve access to services that help immigrants become more self-sufficient while they wait for their cases to be adjudicated. “We are extremely grateful to Harry Seigle for this impactful gift endowing the Seigle Clinic for Immigrant Youth and Families,” says Hari Osofsky, dean of Northwestern Pritzker Law and the Myra and James Bradwell Professor of Law. “His generosity will make a critical difference in the Law School’s efforts to assist immigrants and provide our students with important learning and service opportunities.” The Seigle Clinic for Immigrant Youth and Families is directed by clinical professor of law Uzoamaka Emeka Nzelibe ’96, whose areas of expertise include asylum and other forms of humanitarian status; removal defense; and unaccompanied child migrants. The gift also will provide funding to hire a second immigration attorney to increase the clinic’s capacity for handling cases. Seigle made the gift in memory of his mother, Lora H. Seigle, who was born in Germany and immigrated to the United States as a Jewish refugee in 1936. “My mother’s life experiences inspired me to make this gift to improve legal services for immigrants,” Seigle says. “The idea behind *e pluribus unum*, ‘out of many, one,’ is central to my family’s heritage. Immigrants have helped make this country what it is today, and we are better for it.”

ALEX GARCIA '89

MEDICINE

# Classmates Generate Support for ALS Research

Kellogg School of Management alumni raise funds in honor of a friend for Northwestern Medicine’s Les Turner ALS Center.

Esteban Bullrich ’96 MBA has made a profound impression on the people he has met around the world, both during his time at Northwestern’s Kellogg School of Management and throughout his career as an education advocate and respected political leader in Argentina, his home country. When describing Bullrich, friends note his dedication to public service, passionate drive for social justice and generosity of time and spirit to support those in need. So when Bullrich was diagnosed with amyotrophic lateral sclerosis, also known as ALS or Lou Gehrig’s disease, in 2021, a band of former Kellogg classmates sprang into action, led by Peter Schmitz ’96 MBA and his wife, Bronwyn Poole ’96 MBA. “He’s just a really great guy, and everybody says that about their friends, but I always knew he would dedicate his life to improving the lives of others,” says Schmitz, who, along with Poole, has maintained a close friendship with Bullrich over the past 29 years. ALS is a progressive and fatal neurodegenerative disease with an average survival rate of three years. There are an estimated 350,000 cases of ALS

worldwide, and the symptoms and progression of the disease can vary greatly by person. The degeneration of neurons leads to muscle weakness and impaired speech, swallowing and breathing. The disease eventually results in paralysis and death. “This disease does not define me,” Bullrich announced in April 2021, when he was serving in the Argentine Senate. “I live a happy and wonderful life, and this challenge confronts me with the need to do more things and to do them better.” After his diagnosis, Bullrich began to search for ALS medical experts and

turned to the Les Turner ALS Center at Northwestern Medicine, which for more than 40 years has been accelerating leading-edge research while providing life-enhancing treatment to people living with ALS. Bullrich learned early on that, given the disease’s rapid progression, he was unlikely to bear witness to a cure — but that didn’t deter him from using his platform to steer resources toward ALS research so that others might one day experience brighter outcomes. In 2021 he established the Esteban Bullrich Foundation to fund ALS research and help

families and ALS patients access medical support, advanced research and diagnostic tools. “We are grateful for and inspired by those fundraising on behalf of Esteban Bullrich,” says Robert Kalb, director of the Les Turner ALS Center and the Joan and Paul Rubschlager Professor of Neurology in Northwestern’s Feinberg School of Medicine. “This devastating disease does not discriminate, and with every new case, we are acutely aware of the urgency to find a cure. Support for our research ensures our scientists and clinicians can continue to work tirelessly to find a way to end the suffering of ALS patients and their loved ones.”

*Want to support the Esteban Bullrich ALS Endowed Discovery Fund at Northwestern? Visit [giving.nu/Bullrich](https://giving.nu/Bullrich). Email [andrew.christopherson@northwestern.edu](mailto:andrew.christopherson@northwestern.edu) for other giving options.*



TERESA CRAWFORD

→ Robert Kalb is director of the Les Turner ALS Center at Northwestern Medicine.



# Building

## on the Best of Northwestern

An energetic leader who prizes academic excellence, Michael Schill is poised to lead the University into an era of greater eminence.

BY SEAN HARGADON

T

The first thing to know about Michael Schill, says Carleton College president emeritus Steven Poskanzer, is that he has relentless energy.

“Every place he’s been, he has taken something that was good and made it measurably better, more prominent and more distinctive,” says Poskanzer, who has known Schill since their undergrad days at Princeton University. “My friends tell me that I am a workaholic, but Mike Schill makes me feel like a slug laggard.”

Schill’s prior appointments reflect this constant drive toward excellence. As president of the University of Oregon (UO), he set out to improve the four-year graduation rate by 10 percentage points within five years. UO did it in four. As dean of the UCLA School of Law, he nearly doubled alumni participation in

annual giving. And when he was dean at the University of Chicago Law School, 97% of grads obtained full-time employment within 10 months of graduation.

That unfailing energy and laser-sharp focus on institutional improvement proved invaluable as Schill, Northwestern’s 17th president, helped the University address hazing allegations that stunned the community in late summer. Just 10 months into his presidency, Schill found himself facing one of the most significant and unexpected challenges of his career. And now, in addition to maintaining the University’s high academic standards, he has a clear goal: building Northwestern’s athletic

department into a national model for integrity and student well-being.

Schill has a reputation for such turnarounds — and for making tough decisions that result in significant positive change. University of Wisconsin–Madison Chancellor Jennifer Mnookin saw that when she served as Schill’s vice dean at UCLA Law.

“Mike takes ownership,” she says. “He doesn’t push hard or painful decisions onto others. As a leader, Mike is authentic, he’s high-integrity, and he’s not afraid to admit that he can learn from others. What happened at Northwestern this past [summer] has been tough all around, but I admire that Mike is a leader who isn’t afraid to say when he thinks

EDITOR’S NOTE: *Northwestern Magazine* went to press in August, shortly after Michael Schill relieved head football coach Pat Fitzgerald ’97 of his duties following an independent investigation that found evidence of hazing in the football program. The University put in place significant actions to address and prevent hazing within the program and Northwestern Athletics going forward.

MATTHEW GILSON





he's made a mistake. Some folks double down and get defensive. Mike listens, he learns, and he's willing to reassess when necessary. That isn't easy to do.

"Mike is exactly the kind of principled leader who will take these issues incredibly seriously," Mnookin adds. At the same time, "he also won't let the whole university or the student experience be defined by this significant challenge."

When Schill was introduced as Northwestern's president on Sept. 12, 2022, it came as little surprise to Mnookin that his first order of business was a nine-month get-to-know-Northwestern listening tour.

He has an incredible ability to listen, says Mnookin, Schill's longtime friend. "Mike takes a real interest in people and tries to understand who they are and what makes them tick."

On June 2, the day Northwestern celebrated his inauguration, Schill revealed what he'd learned during his listening tour — and what lies ahead as he steps into "the role of a lifetime."

"[This is] an extraordinary academic community, proud of its accomplishments but hungry to do much more," he said on a picturesque early summer day in Evanston. Northwestern's "rapid and steep" ascent to become one of the top universities in the country, he acknowledged, is due in no small part to the contributions of his immediate predecessors, Henry Bienen '09 H and Morton Schapiro '23 H.

Schill plans to continue that trajectory — both deepening and expanding the University's impact in Evanston, Chicago and the world. And with an open mind and decades of university leadership experience under his belt, he's ready to get started.

### IN THE BEGINNING

Mike Schill and his sister, Margo, grew up in blue-collar Schenectady, N.Y. Their father, Simon, worked in a clothing factory, and their mother, Ruth, was a nurse. Neither of their parents went to college. But in one of his earliest memories, Schill recalls his father telling him he'd one day go to Harvard.

Well, Harvard wait-listed Schill, but Princeton accepted him — and provided a generous scholarship. Still, going to Princeton was a bit of an adjustment.

"Princeton is a highly selective private school, and I really didn't know that world," he says. "It took a little bit for me to feel comfortable. But I think there's something formative about the relatively modest circumstances of my upbringing."

"Having been a first-generation student at a university that isn't terribly unlike Northwestern allows me to empathize with our first-generation students here," Schill adds. "I understand some of the 'fish out of water' feeling. But I also know that what makes them perhaps not fit in initially is also something that's going to give them strength."

Schill studied public policy, graduated summa cum laude in 1980, took a year off to co-write a book (*Revitalizing America's Cities*) with his thesis adviser and then earned his law degree from Yale Law School.

"He loved the learning. He ate it up," says Sarah Gerecke, who met Schill in 1978 during their junior year at Princeton. "There's so much about him that is still the same. He's hilariously funny. He is one of the most loyal people I've ever met. And he's candid in a remarkably helpful and not hurtful way, which is a bit of a gift."

After a judicial clerkship, Schill joined the Wall Street law firm Fried Frank. But he disliked the unpredictability of responding to client needs. And he missed getting lost in research. "I like to go very deep into issues," he says, "and clients aren't going to pay for someone to learn everything they want to learn before giving an opinion."

While working for Fried Frank, Schill taught a weekly class at Yale University on real estate transactions and unexpectedly discovered that students loved his teaching. A career in academia seemed like a natural fit. In 1987 he joined the faculty in law and business at the University of Pennsylvania, the start of a 36-year, coast-to-coast academic career that includes nearly 20 years as a dean or university president.

Schill became an expert on housing policy, immigration, and race and poverty



Mike Schill's portrait in the 1980 *Nassau Herald*, Princeton University's senior yearbook

in U.S. cities. After Penn, he joined the faculty at New York University (NYU), where in 1995 he founded the Furman Center for Real Estate and Urban Policy, a much-needed place for "thinking theoretically and academically but also practically and economically about housing policy in New York," says Gerecke, an adjunct professor of urban planning at NYU.

In 2004 Schill left NYU to become dean of UCLA Law. There, he increased the diversity of the student body and led a successful \$100 million fundraising campaign.

"He was able to wildly break all previous fundraising records," says Mnookin. "He built relationships with people who had not given the university a dime and convinced them to make their first gift — in seven figures. And he did that by being authentic, clear, transparent and caring."

Schill became dean of the University of Chicago Law School in 2010. During his five-year tenure, he enhanced research excellence, increased public interest opportunities for students who wanted to work with nonprofits and government agencies, and improved faculty hiring and retention.

Up in Evanston, Northwestern president Henry Bienen took note. Schill had studied urban politics in a course co-taught by Bienen at Princeton, and Bienen had kept tabs on him ever since. They reconnected in Chicago.

"I was always struck by the fact that Mike cares ... about institutions ... about people and good work and excellence and fairness," Bienen recalled in his introduction of Schill at inauguration. "Early on it was clear to me that Mike would someday be president of a major academic institution if he wanted."

That opportunity arrived in 2015, when Schill became president of the University of Oregon. But the opportunity did not come without challenges. He took the reins of an institution that had recently experienced a sexual violence case involving three student-athletes. UO also faced the prospect of reductions in state funding

amid increased costs for public pensions and medical insurance. What's more, Schill's two predecessors had been forced out, and the institution had experienced stagnant research investment and a loss of faculty confidence. "The broader reputation of the institution was on the line, certainly in the academic world," says Association of American Universities president Barbara Snyder.

When he started at UO, Schill became the sixth person to serve as president in seven years. "It was a revolving door," says Snyder, who first met Schill during his time at the University of Chicago, via her involvement as an alum of the university's law school. "Because of the crisis of leadership, Mike had to spend time in those early years earning people's confidence, both inside and outside the institution. And the changes that he put in place made an enormous difference."

Schill focused on academic excellence: He increased research funding by more than 60%, and the university hired more tenure-track and research faculty. Schill

worked closely with Nike founder Phil Knight to secure support for the Phil and Penny Knight Campus for Accelerating Scientific Impact, a \$1 billion initiative to fast-track scientific discoveries and innovations. Schill also launched the Ballmer Institute for Children's Behavioral Health at a new campus in Portland, Ore.

"He was committed to doing the hard things," says Snyder. "The experiences he had [at UO] prepared him well for the challenges at Northwestern. ... The ultimate compliment for any leader is [to answer the question], 'Did the person make the place better?' ... And it's resoundingly 'yes' at Oregon."

Schill's strong suit, Mnookin adds, is his ability to understand an institution's strengths, find opportunities to build on them and then develop a few important projects that can really move that institution forward. He sees a university "in its best present and future light," she says. "I have every confidence that he is going to take Northwestern's many strengths and build them further."

### FORWARD MOMENTUM

"As I was learning about the unique nature of the University in preparation for my inauguration, I came to fully understand that at Northwestern we truly believe in both breadth and depth," Schill said in his inaugural address. "We embrace the full range of knowledge and creativity. It's that linkage that makes Northwestern so strong and distinctive."

He also acknowledged Northwestern's interdisciplinary excellence. "Innovation happens at the intersection of disciplines — and Northwestern is like a city filled with those intersections," he said, pledging to "create the conditions for even more intersections and more innovation."

Schill then laid out several major priorities for his presidency. He pledged to make Northwestern a leader in the biosciences, a place that will "create new treatments, cures and health delivery systems." He committed to research in decarbonization, renewable energy and sustainability, "because little else matters if we cannot ensure a future for our



On his second day as Northwestern president, Mike Schill welcomed new students and their families at March Through the Arch in September 2022.

COURTESY OF STEVEN POSKANZER

SHANE COLLINS



students.” And he promised to support research that harnesses the power of data analytics and artificial intelligence. Finally, he pledged to bring together — in a newly renovated Jacobs Center — Northwestern’s interdisciplinary strengths in the social sciences and global studies. He also plans to bolster the University’s position in the creative and performing arts.

Following the hazing allegations this summer, Schill also made a series of statements that clarified his ongoing commitment to the wellness of student-athletes — and his plans to make Northwestern Athletics stronger than ever. Student welfare is his absolute priority, he said, and Northwestern remains as committed as ever to its student-athletes and athletic programs.

Schill, who has experience with high-level collegiate athletics as former chair of the Pac-12 CEO Group and a former member of the NCAA Board of Governors, backed up those statements with a series of immediate actions, including the installation of new staff to monitor the football locker room, additional anti-hazing training for all student-athletes and the enhancement of the University’s online reporting tools. Northwestern also hired former U.S. Attorney General Loretta Lynch to conduct an independent review of the accountability mechanisms in place to detect, report and respond to potential misconduct in the athletics programs and an examination of the culture of Northwestern Athletics to ensure it is consistent with the University’s mission and values. The review will be conducted with engagement from faculty, staff, alumni and students, and the results will be made public to ensure full transparency and so that other universities may learn from it.

“For many years our student-athletes have been examples of what it means to be exceptionally talented in the classroom and on the field in Division I sports,” Schill says. “We must now also become a model for supporting student-athletes’ well-being, for rooting out and preventing hazing, and for creating an environment where all can truly thrive.”

Northwestern Athletics, he says, will be a program that all faculty, staff, students, alumni and fans can be proud of.

Beyond athletics, Schill’s goals also include prioritizing faculty and staff



“As I was learning about the unique nature of the University in preparation for my inauguration, I came to fully understand that at Northwestern we truly believe in both breadth and depth. We embrace the full range of knowledge and creativity. It’s that linkage that makes Northwestern so strong and distinctive.”

retention and supporting students’ mental health and sense of belonging. Schill has praised the University for its record enrollment of underrepresented students and Pell Grant recipients and has promised to maintain that commitment to diversity. “Regardless of where you were born, what skin color you have, all individuals of merit should have the opportunity to get a world-class education,” he said in his inaugural address. “The benefits of diversity accrue to everyone on our campus and the larger society.

“With diversity comes difference,” he added. That creates opportunity for dialogue and learning. And the University “is well equipped to create models for engagement across difference.” In that endeavor, Northwestern will prioritize free speech and academic freedom, said Schill, who plans to create an academic center at the Kellogg School of Management to teach students “how to engage with each other across difference” while also developing “data-driven research on what works and what doesn’t.”

Schill plans to better connect Northwestern’s Evanston and Chicago campuses as well — and to collaborate more regularly with the University of Chicago and other local institutions. “We will have the greatest ability to serve [our nation and our world] if we also focus on serving our own community ... and partner [with] — rather than just compete with — our academic neighbors in Hyde Park,” he said.

INAUGURATION: SHANE COLLINS; COMMENCEMENT: JIM PRISCHING

## TOWARD GREATER EMINENCE

Northwestern Faculty Senate president Ceci Rodgers appreciates that Schill is “making no small plans” as he begins his presidency. “His vision for Northwestern isn’t static,” says Rodgers, a journalism professor and director of global journalism learning.

She also appreciates his openness to hearing and responding to faculty concerns regarding the reports of hazing in the football program — including following through on recommendations for a full assessment of the athletic department’s culture and a commitment to greater accountability measures.

“I have supported the message of institutional integrity that President Schill has sent with key personnel changes in Northwestern Athletics,” Rodgers adds, “including the firing of former head football coach Pat Fitzgerald ’97, in spite of tremendous opposition.”

Eli Finkel ’97, who moderated the inauguration week panel discussion “Free Expression, Academic Freedom and Higher Education,” liked what he heard in Schill’s inaugural address. “I felt like, ‘Oh, captain, my captain!’” says Finkel, a professor of psychology and of management and organizations. “President Schill is a forceful and consistent advocate for intellectual freedom. I get the sense that he is going



Mike Schill, right, waves to students during the 2023 Commencement procession in June, alongside Illinois Gov. J.B. Pritzker ’93 JD, ’23 H, the keynote speaker.

## The First DOG

**GROWING UP,** Mike Schill always wanted a dog, but his parents said no. When he became president at the University of Oregon, he says, “I had this picture in

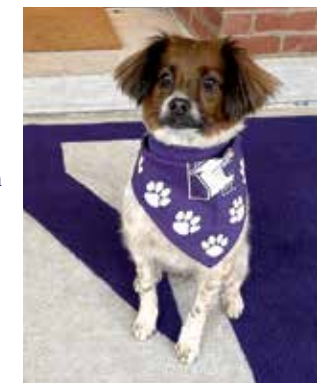
my mind that the president should walk through campus and have students come up and pet the dog.” But his staff vetoed the presidential pooch. His chaotic schedule and frequent travel, they reasoned, would not be fair to a pet.

Then the pandemic halted travel, and remote work meant Schill was often at home, alone in the presidential residence.

Enter Max! Adopted through Raining Dogs Rescue in Eugene, Ore., Max is a spaniel mix who came from a shelter in Texas. He’s become an instant celebrity at Northwestern, going for walks along the lake and occasionally accompanying Schill to on-campus events.

“He’s the popular one,” Schill admits. “Our students absolutely love him.”

Keep up with Max and Mike’s latest adventures on Instagram @northwesternpresident.



to prize robust intellectual exchange, even if that gets controversial sometimes.”

And Schill doesn’t shy away from controversy. Early in 2023, political science professor Alvin Tillery and several colleagues sent the president a letter regarding their concerns about Florida’s ban on African American studies curricula.

Tillery didn’t really expect a response, but within three days, Schill invited him to his office to talk. Tillery wanted the

University to “review its relationship with the College Board in light of its complicity with Florida’s censorship of African American studies,” Tillery says.

“He didn’t agree with what I was asking to be done,” Tillery adds, “but he gave me a well-reasoned response.”

While they didn’t agree on a response to Florida’s ban, Schill asked Tillery to appear on his free expression panel.

“For me, that’s a real hallmark of leadership,” says Tillery, director of the Center for the Study of Diversity and Democracy. “It’s easy to find people who are going to blow smoke and tell you that they agree with you. But that’s debilitating for making good decisions. Mike wants to hear every viewpoint.”

With a little more than a year under his belt, Schill says leading Northwestern remains the challenge and honor of a lifetime. And with his trademark enthusiasm, Schill is ready to do the hard work of guiding the University to further excellence.

“I wouldn’t be here if I didn’t think I could make Northwestern better,” he says. “I’m not a caretaker president. ... Everyone at the University is incredibly ambitious to grow, to achieve even more excellence, more eminence. My job is to lead that process and bring Northwestern into a new era of even greater impact.”

Sean Hargadon is editor in chief of Northwestern Magazine.



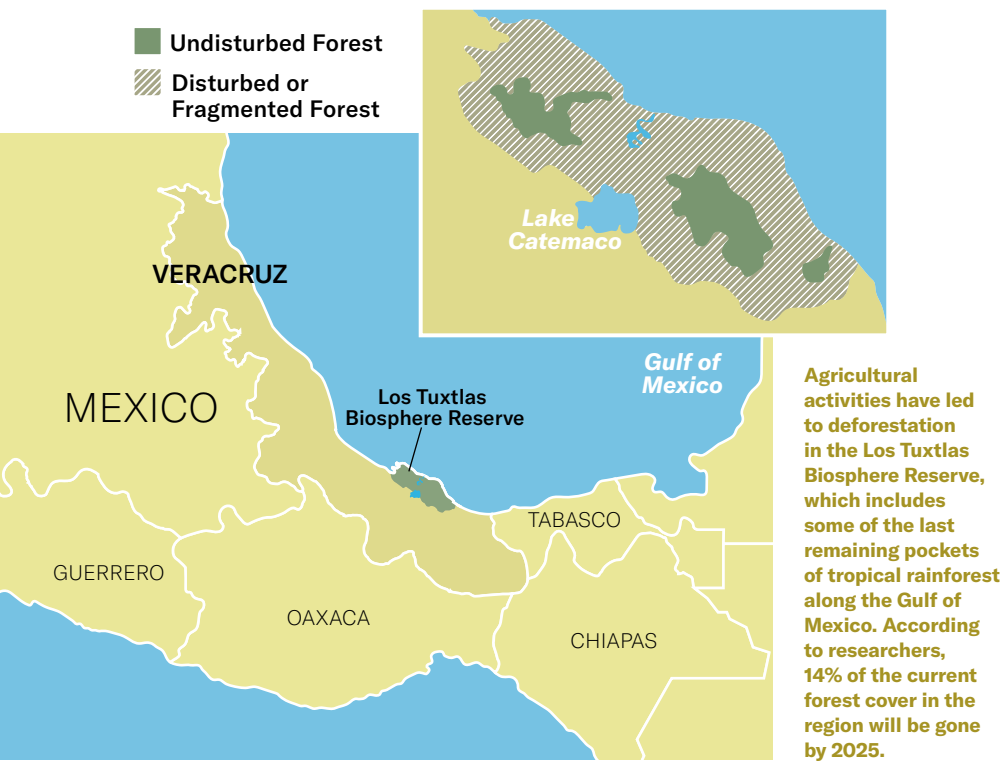
# monkey business

Doctoral candidate Tabor Whitney is collecting feces from endangered monkeys with the goal of creating new health metrics for conservation.

BY CAROLYN WILKE



Pink, yellow and blue hues paint the early-morning sky over the Gulf of Mexico. Just a few miles inland from the coast in Veracruz, Mexico, three researchers take in the sunrise as they trek through a pasture and along a river, hauling stuffed backpacks. It’s damp, humid and verdant. They pass grazing cattle and hear the calls of distant birds — toucans, parakeets and chachalacas — and listen for the earsplitting cries of mantled howler monkeys.



The team is studying the health of these endangered primates and will trek until they see them. Some days it takes hours romping through the rainforest’s underbrush to find the animals. But today, after an hour of hiking over level grassland, the team reaches a patch of trees where they spot five or so mantled howlers, shiny and black, hanging out in the branches. Then the researchers hunker down for a bit, eat some breakfast and wait for the monkeys to do their business.

The mantled howlers continue their own morning routine. Eating is their primary waking activity. They munch on leaves, flowers or fruit and then settle down to nap. When they rouse a couple hours later, it’s go time for the scientists.

“The second they wake up is when they’re going to poop,” says Tabor Whitney ’22 MA, a fourth-year doctoral candidate who is studying biological anthropology at Northwestern. Whitney has been studying these monkeys since 2021, with Northwestern primatologist Katherine Amato.

The feces may contain clues about the monkeys’ physical condition and could aid Whitney in developing a “health index welfare assessment,” a tool that provides metrics that conservationists can use to make decisions about the endangered creatures. The mantled howler monkeys in this region, which includes the Los Tuxtlas Biosphere Reserve in southeastern Mexico, have lost about 75% of their habitat since the 1960s, as people have converted forests to crop fields, pastures and quarries.

In the time that she’s been working in Los Tuxtlas (she has visited for several months each year since 2021), Whitney has witnessed changes to the monkeys’ habitat firsthand. She recalls walking through a patch of rainforest cover near an expanding rock quarry and seeing a new break in the forest: The quarry operation had downed trees, splitting a forest that had been connected the year prior. She knew human activity was swiftly changing the forest, but to see it with her own eyes was surreal.

“[The monkeys are] experiencing a major shift in habitat,” Whitney says. They’re living in smaller fragments of forest and with reduced access to the foods they prefer, including the fruits of ficus, cecropia and jobo trees. Climate

MAP: MICHAEL NEWHOUSE

change is exacerbating the problem by causing shifts in the seasonal availability of various foods. And human activity — including the noise from people and their dogs and machinery — also encroaches on the monkeys’ turf. As their habitats have fragmented and degraded, the primates’ numbers have declined — by an estimated 50% since 1993 — but their populations haven’t been snuffed out just yet.

They’ve survived in part because mantled howler monkeys can adapt their diets to what’s available. They prefer fruit (and play an important role in the ecosystem by spreading seeds) but can get by on leaves, including mature ones that are difficult to digest. However, humans’ influence on the howlers’ habitat could be triggering health problems that are hard to spot and may ultimately affect the subspecies’ ability to survive. Studying the molecules and microbes contained within fecal matter may provide a noninvasive way to snoop on the stress levels, presence of inflammation and overall health of the primates.

Whitney plans to use the data she collects from the mantled howlers’ feces “to form conservation and management strategies for them.”

Back in the forest, as the monkeys in the trees above begin to stir, the researchers train their eyes on the primates’ posteriors. When a monkey looks like it’s got a deposit to drop, Whitney or one of her research assistants gets ready to track the trajectory. If the scientists are lucky, the plop of poo lands on a rock or leaf, leaving it uncontaminated by soil, which contains lots of other microbes. To retrieve the sample, the researchers scour the thick vegetation until they find the prize. Then they drop it into a vial of ethanol and log the emitter’s identity. (Researchers can identify particular monkeys based on patches of lighter fur and markings on their paws.) The samples are shipped back to a lab on the Evanston campus, where Whitney and her colleagues will investigate their microbiomes. (See “What’s a Microbiome?” on page 32.)

Whitney works with Amato, her adviser and an associate professor in Northwestern’s Department of Anthropology in the Weinberg College of Arts and Sciences. Amato’s interest in primates and fieldwork stemmed from a second-grade lesson on primatologist Jane Goodall. “I never thought I would actually do [what Goodall did],” Amato says. “It seemed like such a far-off reality.” But during her undergraduate studies in biology at Dartmouth College, Amato studied abroad in Costa Rica, doing a 10-week field ecology boot camp where one of her projects compared the behavior of howler, spider, capuchin and squirrel monkeys. After college, she spent a year studying two species of

WHITNEY: DIANA CHRISTIE

**Tabor Whitney, right, holding a fecal sample, spends two to four months each year doing fieldwork in Mexico. Once she finishes her doctorate, likely in 2025, Whitney hopes to pursue a career in science communication and conservation policy. She’s wanted to work in animal welfare ever since she learned as a child that logging in Colorado, her home state, altered habitats and displaced animals. As an undergraduate at the University of Oregon, she studied the microbiome of colobus monkeys in Ghana and understood that her research could affect conservation efforts.**



howler monkeys in Mexico, observing their feeding behavior and examining their feces to compare the variety and amounts of seeds they spread.

In 2008, when Amato was beginning her doctoral program, research into the microbiome, including that of the gut, was gaining traction. Working with mice that were reared without any microbes, researchers had recently discovered that a transplant of gut microbes from a person who was overweight caused the mice to develop obesity. Likewise, microbes from people who were lean led to leaner mice. Amato started to think about how microbes could contribute to the biology and health of their hosts in the wild, too.

Scientists also were discovering key roles that gut microbes play in processing food and providing energy to their hosts. Amato wondered whether the gut’s microbial community could help wild primates get enough energy when food was scarce or when nutritional needs were high, such as during pregnancy. Amato investigated this question, studying black howler monkeys in Palenque National Park in southern Mexico and tracking how their microbiome shifted with seasonal changes in diet.

Like the mantled howler monkeys, black howlers will eat leaves when fruit is unavailable. “That’s a pretty big change,” Amato says. While fruit is loaded with sugar and easy to digest, leaves contain a lot of fiber — making them harder to digest — and may also contain toxins. Still, even when the monkeys had to swap fruit for leaves, they were able to maintain the same level of activity. Amato’s data suggested that the monkeys’ microbiome helped them get enough energy from leaves.

Amato wondered whether the monkeys’ microbiomes would help them weather changes in



available foods when their habitats were degraded. To explore this question, Amato collected fecal samples from monkeys in different forest fragments. “And the answer was no: The howler monkeys had microbiomes that were very different in fragmented forests, and different in ways that suggested that microbes were producing less energy,” she says. Monkeys living in smaller, fragmented forests also seemed to have more pathogenic microbes, suggesting a link between impoverished habitats and health risks. “These fragmented forest environments look like they may be causing the microbiome to be less resilient and less able to help hosts buffer themselves nutritionally.”

Whitney is building on her adviser’s findings with her work on the mantled howler monkeys of Los Tuxtlas. On her most recent visit in fall 2022, Whitney and her team collected samples from about 100 individual monkeys from 10 different forest fragments to study health metrics. So far, the team has documented a dip in the diversity of the monkeys’ gut microbiomes as their habitats’ quality has declined. But it’s not yet clear if and how those changes are linked to poor health.

In addition to surveying the makeup of the monkeys’ gut microbiomes, Whitney is analyzing the fecal matter for other markers of health. One such marker, lipocalin-2, is associated with intestinal inflammation and found in people who have irritable bowel syndrome. So far, researchers have seen a link between this molecule and inflammation in lab animals, but Amato and Whitney would be the first to find this link in a wild animal population.

Whitney is also measuring glucocorticoids, a set of steroid hormones. If monkeys have relatively high levels of these molecules across fecal samples at different times, they are likely experiencing chronic stress. Whitney’s co-adviser, Pedro Américo Duarte Dias, a primatologist at Universidad Veracruzana in Xalapa, Mexico, and his colleagues reported an uptick in monkeys’ glucocorticoids, which they linked to high levels of human activity near the animals’ habitat. The bump in glucocorticoids didn’t correspond with other potential explanations, such as aggression against other groups, but seemed to be a result of nearby human activity and its noise.

• • •

If Whitney, Amato and their colleagues can draw out the connections between the mantled howlers’ gut microbiomes and health markers such as inflammation and stress hormones, it may provide a new, noninvasive way to track the monkeys’ health that’s simpler and faster than the current methods. Information on the monkeys’ conservation status is typically gathered via decades-long population surveys. These counts can take 30 to 60 years to show generational

**LET’S TALK SCIENCE**  
**A New Collaborative Program**  
**Brings STEM and Journalism Together**

When biological anthropology doctoral candidate Tabor Whitney tells people that she studies monkey poop, it often triggers a double take. “Even my family and friends don’t really know what I do,” she says. But through classes that train science communicators, Whitney has found ways to make her work approachable.

She’s one of hundreds of Northwestern students who have taken classes in the new Medill Media and Science Communication certificate program, which offers STEM doctoral students a path to develop skills in writing and communicating about science to the public. A partnership between The Graduate School and the Medill School of Journalism, Media, Integrated Marketing Communications, the program helps scientists explain why their research matters.

“That you can pursue communications training in tandem with your PhD is a special opportunity,” says Patti Wolter,

the Helen Gurley Brown Magazine Professor at Medill. Such training would typically require a separate master’s degree, she says, but this program allows doctoral students in STEM fields to learn from the expertise of Medill faculty. Wolter launched the certificate program last fall, building on nearly a decade of experience training STEM doctoral students about writing. Students can enroll in a five-course certificate or three-course cluster.

One course is taught by climate scientist Yarrow Axford, professor of Earth and planetary sciences. In Axford’s Communicating Science Beyond Academia course, Whitney made a series of TikTok videos about her howler monkey research. The course, Whitney says, has improved her ability to break down her research into digestible bits.

“Creating more of a connection between academic science and the rest of the world is so vital,” Axford says. “There are so many issues that affect our day-to-day lives that involve science.”

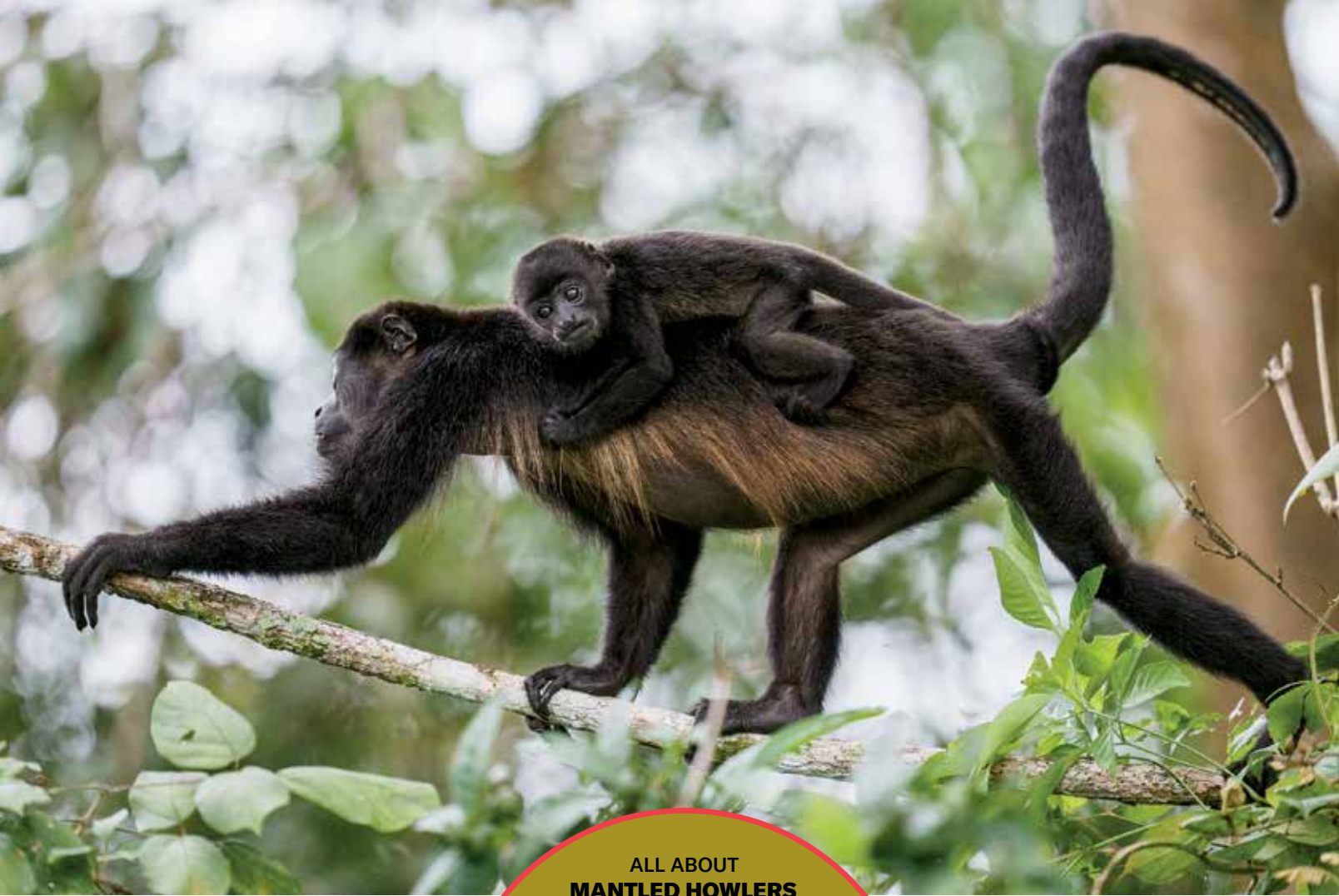
**What’s a Microbiome?**  
A microbiome is the assortment of microbes — bacteria, fungi, viruses and other microorganisms — that live in and on our bodies. Different parts of the body, such as the skin, nose and gut, vary in the makeup of their microbiomes. The gut microbial community helps its host metabolize food. But researchers have also unveiled how the gut microbiome in humans influences other bodily systems, for instance, by helping the immune system respond to disease.

differences — a long time to wait in a rapidly changing forest. But fecal samples, which are easy to collect from wild primates, could provide metrics that can be monitored every couple of years.

“This work has great potential to advance our ability to use the microbiome as a conservation tool,” Amato says, noting that this monitoring methodology could be applied to other species as well. “So many of the world’s primate species — upward of 60% — currently are threatened or endangered.” Trying to manage so many threatened species is like trying to extinguish many fires at once, so the new welfare assessment tool may help conservation groups prioritize the primates facing the greatest risk.

Whitney is already working on this. She is developing a database for the primatology community to share adaptations to her methods for gauging fecal indicators of health. Because primate species have different diets, the makeup of their feces will vary, with different concentrations of microbes or hormones to measure. A database of methods would foster communication about methodological choices among scientists, Whitney says.

In Los Tuxtlas, Whitney also has completed land surveys and tree counts to measure the size



ADOBE STOCK/CAVAN

**ALL ABOUT**  
**MANTLED HOWLERS**

Mantled howler monkeys (*Alouatta palliata*) live throughout Central and South America, with a range that stretches from Mexico to Colombia. Most active during the day, the arboreal monkeys typically live in groups of 10 to 20 in the treetops. About the size of a medium dog, the monkeys weigh as much as 30 pounds and can live for two decades or more. They use their long tails to hang from branches, and their calls can be heard up to 3 miles away. The International Union for Conservation of Nature lists the species as vulnerable. The Mexican subspecies, the subject of Tabor Whitney’s research, is endangered.

of the forest and map the monkeys’ food availability. Ultimately, she and Amato want to understand the combined effect of deforestation and habitat loss, diminished food sources and human interaction on the health of these monkeys.

Whitney hopes to identify targets in the fecal samples that could be easily monitored to help policymakers conserve the mantled howlers. For instance, if conservationists are able to link a specific stressor — such as noise from dogs or lack of a particular food — to changes in one of the health metrics, they could track the metric in fecal samples for years to come. That might reveal whether potential solutions — such as installing fences to keep dogs out or planting fruit-producing trees — would lessen monkeys’ chronic stress or inflammation levels. Meanwhile, researchers could look to the monkeys’ gut microbiomes to detect whether shifts in bacterial species and their abundances might help the animals digest certain foods.

Whitney is looking forward to sharing the results of her work with communities in Veracruz, including the lakeside city of Catemaco, where she stays during her fieldwork, and other nearby

towns. She plans to return to Catemaco in January to connect with nongovernmental organizations, landowners and community members to discuss what she’s found — but also to hear their observations about the monkeys’ behaviors and diet.

Whitney is also eager to get back into the forest. While her fieldwork is fun, it isn’t exactly a walk in the park — long days of tracking the howler monkeys can be grueling and sometimes fruitless.

Snakes, bugs and mud are regular features of her treks. And “getting pooped on is 100% going to happen by the end of the project,” she says. “But it’s so worth it.”

*Carolyn Wilke ’18 PhD is a Chicago-based freelance science writer and editor. Wilke studied environmental engineering at Northwestern, investigating the potential effects of nanoparticles on bacteria. She was in the first section of the University’s Skills and Careers in Science Writing course and, while earning her doctorate, reported on research as an American Association for the Advancement of Science Mass Media Fellow at The Sacramento Bee. Her work appears in The New York Times, National Geographic and Scientific American.*



# MAKING A POSITIVE IMPACT

The 2023 recipients of the **Northwestern Alumni Medal**, the Northwestern Alumni Association's highest honor, are leaders in philanthropy, business and health care.

By Daniel P. Smith



## Transforming Global Learning Roberta Buffett Elliott '54

Roberta "Bertie" Buffett Elliott calls her Northwestern undergraduate experience "life-changing."

The Omaha, Neb., native credits the University's broad liberal arts education with exercising her mind in invigorating new ways. A history major who was drawn to Northwestern's sophistication and Midwestern locale, Elliott recalls courses in psychology, sociology and anthropology that enlightened her, stretching her understanding of people and society. She remembers famed English professor Bergen Evans proclaiming, "Love doesn't always turn out to be a good thing" — a startling comment that ignited Elliott's critical thinking. And she discovered an interconnectedness between seemingly disparate subject areas that stimulated deeper knowledge and perspective.

"Northwestern was the university I chose, and I'm always glad about that because it expanded my world in a way that nothing else would have," says Elliott, the daughter of former U.S. Rep. Howard Buffett and younger sister of business magnate Warren Buffett.

Elliott's Northwestern experience laid the foundation for her wide-ranging civic and philanthropic interests in the arts, science, education, health and more — from

spearheading the creation of a youth mental health center at the Community Hospital of the Monterey Peninsula in Monterey, Calif., to driving the growth of the Carmel Bach Festival into a world-class, 15-day music celebration in Carmel, Calif.

"My life opened up intellectually so much at Northwestern," says Elliott. She counts four grandchildren as fellow alumni, and two grandchildren are current students.

Over the last two decades, Elliott has provided similar mind-opening opportunities for others at Northwestern, where her longtime support of international programs has transformed global learning and research. After serving as co-chair of her 50th reunion class gift committee in 2004, Elliott made a gift to bring internationally recognized professors to teach and study

at Northwestern in the fields of international and comparative studies. In 2005 that nascent effort expanded into the creation of the Roberta Buffett Center for International and Comparative Studies, which supported research, speakers, seminars and travel awards.

"International studies was an important piece for Northwestern to have because the world had changed a lot since I was in college in the 1950s," Elliott says.

In 2015 Elliott amplified this work through a visionary \$101 million gift to Northwestern that created the Roberta Buffett Institute for Global Affairs.

Founded on the idea that critical challenges such as climate change, human rights violations and antibiotic resistance cannot be solved from a singular disciplinary or geographic perspective, the Buffett Institute bolsters opportunities for interdisciplinary dialogue, transnational research, cultural exchange and global education. Elliott's support has created 20 scholarships for international students at Northwestern through the Buffett Matching Challenge for International Student Scholarships.

Much as Northwestern opened her eyes to a broader world and inspired unexpected connections, Elliott hopes her philanthropy uplifts the lives of others.

"I would hope the effect my philanthropy might have on the world is that people learn a different way of thinking about our biggest problems ... [and] that we continue to survive and prosper as the human race," Elliott says.



## Supporting Innovation

### Chris Galvin '73, '77 MBA

Innovation and entrepreneurship are in Chris Galvin's DNA.

His grandfather Paul Galvin founded Motorola in 1928, just before the Great Depression. From the 1950s through the '90s, Chris' father, Robert, steered the Chicago-based company's growth into a global telecommunications powerhouse, introducing innovations such as car radios, the cable modem and the first commercial handheld cellphone.

"The underpinning strategy for Motorola when the Galvins ran it for 75 years was to not just create products but actually invent new industries," says Chris Galvin, a Chicago-area native who spent nearly four decades at the company and served as its CEO from 1997 to early 2004.

Galvin's own enterprising business pursuits have extended far beyond Motorola with other "high-risk, high-tech" investments, he says. He chaired boards at Navteq, a groundbreaking provider of digital mapping databases, and Cleversafe, a digital storage company later acquired by IBM for more than \$1.3 billion. In 2005 he co-founded Gore Creek Asset Management and Harrison Street Real Estate Capital, a private equity firm.

At every professional turn, Galvin embraced his alma mater's culture as motivation. "Northwestern's emphasis on collegiality and sharing ideas ... was always an inspiration," he says.

Galvin brought his industrious spirit to Northwestern's Board of Trustees as a young alumni trustee from 1980 to 1982 and was re-elected to the board in 1988.

Galvin served as a member and co-chair of the steering committee for We Will. The Campaign for Northwestern. The effort raised \$6.1 billion to strengthen the University's trajectory, funding scholarships and fellowships to attract promising students, endowing professorships to attract top faculty, and supporting the creation of new physical spaces to expand the research enterprise and enhance the student experience.

The Galvin family contributed more than \$18 million through the "We Will" Campaign, including a \$10 million gift to the Kellogg School of Management, on whose Global Advisory Board Galvin has served since 2013. In recognition of his family's generosity, an area in Kellogg's state-of-the-art Global Hub was named the Galvin Family Design Wing and Conference Center. The space features design studios and creative space for students to develop, test and launch new businesses.

To further address increasing student interest in entrepreneurship, Galvin also contributed to NUseeds, a \$4 million venture capital fund to help launch student-founded ventures.

He also guided fundraising efforts for The Garage, Northwestern's innovation and entrepreneurship lab for students, which has fueled more than 1,000 startups and projects since 2015.

"If you can't offer students the opportunity to create a business, to innovate, to create intellectual property, they won't come to your school," says Galvin. "If we want the University to survive and prosper, it has to engage in continuous renewal, adapting to different technologies and new teaching methodologies, and making sure it provides a modern, innovative educational experience."

After all that Galvin has helped Northwestern build, he's most excited for what comes next. "I'm hoping there are lots of surprises to come that take advantage of the creativity and the environment at Northwestern," he says.

STEVE BOXALL



## Promoting Health Equity

### Charles S. Modlin Jr. '83, '87 MD

When Charles Modlin graduated from Northwestern's Feinberg School of Medicine, his father issued a stern edict. "He told me explicitly, 'It's your responsibility now to use this medical education ... to benefit society,'" Modlin says.

An accomplished clinical urologist and kidney transplant surgeon, Modlin embraced his father's directive and has emerged as a national leader in efforts to reduce health disparities in men and communities of color.

Modlin, who grew up in New Castle, Ind., first learned about health care disparities in the mid-1990s after completing his kidney transplant fellowship at the Cleveland Clinic. Black men, he discovered, had the lowest life expectancy of any demographic. A range of social determinants of health, such as poverty and access to health care, spurred higher rates of various cancers and chronic conditions, including diabetes and hypertension, in Black men.

Modlin wished to build trust in a system that many men of color often approached with skepticism.

In 2003 he launched the Minority Men's Health Fair at the Cleveland Clinic, a free event that provided education, examinations and preventive health screenings that saved many men's lives by detecting prostate and bladder cancer, kidney disease, congestive heart failure and other conditions.

The first event drew just 35 men, but attendance swelled in subsequent years. More than 16,000 men have attended the

JASON SMITH '92

event since its inception.

Modlin also opened the Cleveland Clinic's Minority Men's Health Center in 2004 — and, later, several other health equity centers — to create an accessible, welcoming health care environment for people of color.

After a 27-year tenure at the Cleveland Clinic, Modlin joined MetroHealth, a large northeastern Ohio health system, in 2021. As vice president and chief health equity officer, Modlin steers the system's health equity activities, which include diversifying staff and developing health equity centers across medical subspecialties. In 2022 he introduced a new health fair for men of color.

"This is something I was put on this Earth to do: to be a leader in eliminating health care disparities," says Modlin,

who remains a practicing physician.

It's a calling inspired by his father's charge but also by the responsibilities he feels as a double Northwestern alum.

"Northwestern has continued to push me to excel above and beyond, to be innovative and creative in how I can best serve the community," says Modlin, who majored in chemistry as an undergraduate before enrolling in medical school.

The inaugural recipient of Feinberg's Distinguished Humanitarianism in Medicine Award in 2009, Modlin initiated the Class of 1987 Feinberg School of Medicine endowed scholarship campaign to provide tuition support for Northwestern medical students. He also served on Feinberg's alumni board for three terms and has returned to campus numerous times to share his story with undergraduates and medical students.

Dedicated to mentoring and guiding future generations, Modlin also wrote *It Isn't Difficult to Do It If You Know How to Do It*, which offers career advice for high school and college students.

"Northwestern opened my thinking tremendously and made me realize I can make a huge difference not only in the lives of people in my local community but globally as well," Modlin says.

*Daniel P. Smith is a Chicago-based freelance writer.*

*The recipients of the 2023 Northwestern Alumni Medal will share how the University shaped their lives and careers at the President's Alumni Panel: My Northwestern Direction on Oct. 6. Visit [alumni.northwestern.edu/medal](https://alumni.northwestern.edu/medal) to learn more.*



Mark Your Calendar!  
#CATSGiveBack  
is Tuesday,  
November 28.



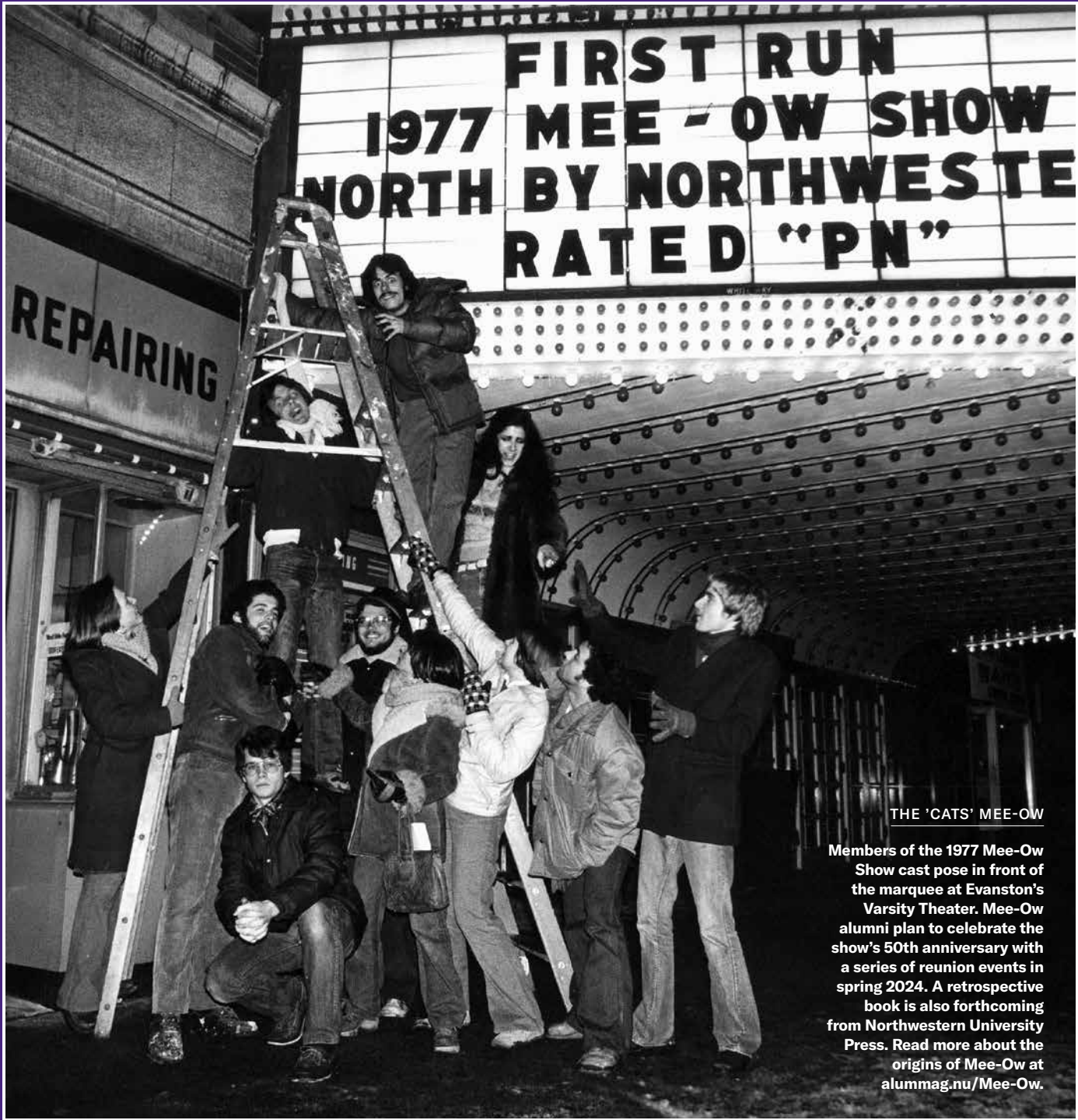
#CATSGiveBack is Northwestern's celebration of GivingTuesday, a global day of philanthropy following the Thanksgiving holiday.

Last year, nearly 3,400 donors came together to support more than 420 different areas across the University, including schools, student groups, and scholarships. This GivingTuesday, celebrate giving back and make an impact on today's students.

Learn more at [giving.northwestern.edu/CATSGiveBack](https://giving.northwestern.edu/CATSGiveBack).

#CATSGiveBack GIVINGTUESDAY

# Alumni



THE 'CATS' MEE-OW

Members of the 1977 Mee-Ow Show cast pose in front of the marquee at Evanston's Varsity Theater. Mee-Ow alumni plan to celebrate the show's 50th anniversary with a series of reunion events in spring 2024. A retrospective book is also forthcoming from Northwestern University Press. Read more about the origins of Mee-Ow at [alummag.nu/Mee-Ow](https://alummag.nu/Mee-Ow).

COURTESY OF NORTHWESTERN UNIVERSITY ARCHIVES



# Creation



Ana Gasteyer in the Peggy Dow Helmerich Auditorium at Northwestern's Annie May Swift Hall

HERE FOR THE LAUGHS

## Five Questions with Ana Gasteyer '89

The star of stage and screen and former *SNL* cast member shares her love for *The Mee-Ow Show* and the dream role she's chasing next.

1

**Can you share a highlight from your time as a student?**  
When I discovered *The Mee-Ow Show*, I realized I'd found my people. It felt comfortable to me as a performer. I loved improvisation, and I discovered sketch writing. I made my closest girlfriend, who's a big television writer now, and went on to write with her for years thereafter. I found people who thought and acted like I did in a really great way.

2

**Your daughter is a student in the School of Communication. How has your impression of Northwestern changed since you were a student?**

There are some amazing bookends and parallels. I was a student during theater professor Rives Collins' first year teaching, and my daughter has taken a ton of theater for young audiences classes with him. Theater professor of instruction David Catlin '88 was a peer of mine. Northwestern is unique in that the curricular life and the extracurricular life are equally balanced. Speaking as a performer, my experience here of making and doing is unlike most of the experiences of my friends who did not go to Northwestern. And what I discovered as a parent is that it's even more structured and organized today. I've been really impressed.

3

**What do you wish you'd known before entering the entertainment industry?**

When you're in college, the one thing you cannot ever be prepared for is the freelance nature of the arts. It's hard to visualize what that really means in terms of how much time you're on the road, how often you're going to have to pick up and take the covered wagon with you again, how many bar mitzvahs, weddings, birthdays and funerals you're going to miss because you're at the beck and call of a big production that doesn't really have time for sensible hours.

SHANE COLLINS

4

**Do you have any dream roles or projects?**

I've done a movie, *Wine Country*, with my *Saturday Night Live* girlfriends — Amy Poehler, Maya Rudolph, Rachel Dratch, Tina Fey, Emily Spivey and Paula Pell. I'd love to do more of that and help steer the vision of something that's on the silly side. I would love to originate a big Broadway role once my son is out of high school. That's my fantasy — get him off to college and go back to Broadway.

5

**What keeps you motivated?**

When I began my career, I was fueled by terror, fear of failure and true worry that I was somehow not going to cut through and do what I wanted to do for a living. No matter what, there's a lot of attrition in the performing arts. So my drive was about being legitimated as a performer and a writer.

My drive now is finding joy in what I do. I like what I do. I like working hard. I have a good work ethic, but I'm increasingly wanting to simply experience things for the sake of joy and to create joy in the world.

Read more at [alummag.nu/Gasteyer](http://alummag.nu/Gasteyer).

EMBRACING OUR DIFFERENCES: COURTESY OF NANCY MARGOLIS



INCLUSIVE THINKING

**Out of the Box**, above, was created by ninth-grader Kai S. from North Port, Fla., who writes, "My artwork depicts the boxes society puts us in and how they affect the LGBTQ+ community specifically. It shows that it's not impossible to break free of those boxes and that just being yourself is enough." The piece was part of a recent outdoor exhibition by the nonprofit Embracing Our Differences Michigan. Community activist Nancy Nupuf Margolis '57 is the president and executive director. Each year, youth and adults worldwide submit original art reflecting the theme "enriching our lives through diversity." Select artworks are then enlarged to billboard size and displayed at parks in Ann Arbor and Ypsilanti, Mich. "School administrators are incorporating Embracing Our Differences into their curriculum," Margolis says.



CROSS-CULTURAL HARMONY

## Songs of Peace

"When people in conflict come together, open their hearts and listen to music in each other's languages and cultures, it brings people closer," says Racheli Galay.

Galay '07 DMA is a founding member of Quartetoukan, a Jewish-Arab quartet whose music reflects the multicultural, multilingual society in Israel. A classically trained cellist who specializes in Jewish music, Galay has toured Israel, Germany and Spain with Quartetoukan since 2012,

performing songs in Arabic, Hebrew, English and Yiddish that promote harmony and peace. Most recently she performed in Morocco as part of the 2022 International Festival of Andalusian Music. "We were Muslims and Jewish people playing together," says Galay. "It was heartwarming."

Quartetoukan also conducts music workshops for students throughout Israel, with the goal of bridging the gap between cultures. Jewish and Arab classes are brought together and then split into small mixed groups and instructed to teach one another simple songs from their respective cultures in their native languages. Then, they come up with an original bilingual song to perform together. "Music can solve so much," says Galay, who is head of the music department at the Givat Washington Academic College of Education in Israel, a position she attributes in no small part to her Bienen School of Music education. She also teaches cello pedagogy at the Jerusalem Academy of Music and Dance.





In *Coleman '72*, three Korean American siblings recall a family road trip and lessons learned along the way.

## THEATER

# An All-American Road Trip

Charlie Oh's new play explores the limitations of memory and the lure of nostalgia.

In 2018 Charlie Oh '16 earned a lead role in the national tour of Bartlett Sher's *The King and I*, just two years after moving to New York City to begin his acting career. "Touring with performers I'd looked up to since childhood was amazing," Oh says. "But I saw that they had to build careers within the narrow window of Asian American theater."

He's right. In the past, *American Theatre* magazine reports, "productions that explored Asian themes and settings ... were created solely by white composers and playwrights." And the Asian American Performers Action Coalition reports that in the 2018–19 season in New York City, Asian American actors were cast in just 6.3% of all available roles.

So, Oh began writing plays that reflected a more contemporary Asian American experience. He was surprised to find it more satisfying than being onstage — the job he'd always dreamed of.

When the pandemic started in 2020, Oh hunkered in his parents' basement in the Chicago suburbs and began writing a

play inspired by a road trip his father took in the 1970s. He called family and friends with immigrant parents, ostensibly for research but also to find connection during isolation. The first draft of *Coleman '72* poured out in less than a month.

The play, which premiered at the South Coast Repertory's Pacific Playwrights Festival last spring and won the Kennedy Center's Paul Stephen Lim Playwriting Award, is the story of a Korean American family's road trip — with a rickety Coleman camper in tow — from Milwaukee to Los Angeles, told through the varying recollections of three siblings. The idea of a Korean family on an all-American road trip inherently raises questions of identity, assimilation and legacy, Oh says. "The nostalgic tone is disrupted as the siblings probe their past. ... But facing the truth allows them to better understand who they are."

Oh plans to bring *Coleman '72* to theaters across the U.S.

Read more at [alummag.nu/Oh](http://alummag.nu/Oh).

## INTO THE ABYSS

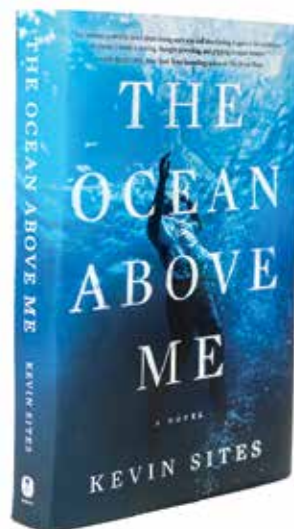
# The Ocean Above Me

by Kevin Sites

One of the first "backpack journalists," Kevin Sites '89 MS has covered conflict zones around the world. Those experiences inform his debut novel, *The Ocean Above Me*, which follows former war correspondent Lukas Landon's fight for survival after the shrimp boat that he's reporting on goes down in a storm. Alone in darkness at the bottom of the Atlantic Ocean, Landon finds a pocket of air within the shipwreck and leans on the survival skills he learned as a war journalist. At the same time, he must confront his past mistakes. While not autobiographical, the book draws on Sites' time as a war reporter and the moral dilemmas he faced.

Sites, who recently returned to the U.S. after a decade of teaching at the University of Hong Kong's Journalism and Media Studies Centre, says literature has the power to do what news reporting often can't in this age of polarization: "I want to keep reaching people with the issues that are important to us today, but at the same time, I'd like to reach a larger audience that doesn't come with preconceived notions. Literature is a way to do that."

Read more at [alummag.nu/Sites](http://alummag.nu/Sites).



COLEMAN '72: JENNY GRAHAM/SOUTH COAST REPERTORY; BOOK: SHANE COLLINS



## STORYTELLERS

# Cultivating Media Mavens

Kyra Kyles opens doors for young content creators of color.

Chicago's Pilsen neighborhood, home to the National Museum of Mexican Art, is known for its vibrant street murals and art galleries. Now it is also the site of a new regional hub for young people of color who want to break into the media industry.

Chicago native Kyra Kyles '98, '98 MS is CEO of YR Media, a training center for aspiring music producers, podcasters, journalists and multimedia content creators. The Oakland, Calif.-based center primarily serves young people ages 14–24 who identify as people of color

and who come from low- to moderate-income households. Since last December, Kyles has been leading the center's first full-scale expansion in its 30-year history: a brick-and-mortar facility in Chicago that will mirror its Oakland offerings. Programming at the Midwest location is slated to launch this fall.

Setting up shop in Pilsen was no accident, Kyles says, noting its proximity to Chicago's West and South Sides, which are home to many minority neighborhoods. "We want to make sure it's welcoming for everyone."

The 5,200-square-foot YR Media regional facility offers paid internships, training programs and state-of-the-art audio and video production technology to young people from Chicago, Detroit and other Midwestern cities.

Kyles has worked in media for more than 20 years, focusing on reaching young, multicultural audiences. She served two terms as president of the National Association of Black Journalists–Chicago and worked her way up to editorial director of *Jet* and editor-in-chief and senior vice

president of digital editorial for *Ebony* magazine.

"It's been my lifelong dream not only to be a journalist and a storyteller but to make a way for others, especially storytellers of color," she says. "In my career, no matter where I've gone, I never wanted to be the only person of color in the room."

Nevertheless, she often was. To this day, most major media companies remain overwhelmingly white. Creating pathways for youth of color to enter the media industry is a core part of YR Media's mission. "I'm proud of and passionate about creating a pipeline," Kyles says.

The organization offers wraparound support, including financial coaching, mental health services, healthy food access and more, because, Kyles says, "you can't produce your best work if you're not feeling your best self."

Alumni of the program have gone on to successful careers at *The Washington Post*, Gimlet Media, Vox Media and KQED and include Pulitzer Prize finalists and winners.

Read more at [alummag.nu/Kyles](http://alummag.nu/Kyles).

## ASTRONOMY

# Star Hunter

It's in our nature to be fascinated by the night sky, says Tim Hunter '68 MD. "It's born into us. If you were to go onto any street corner in Chicago, put out a big telescope and point it at some constellation, you'd have a crowd right there."

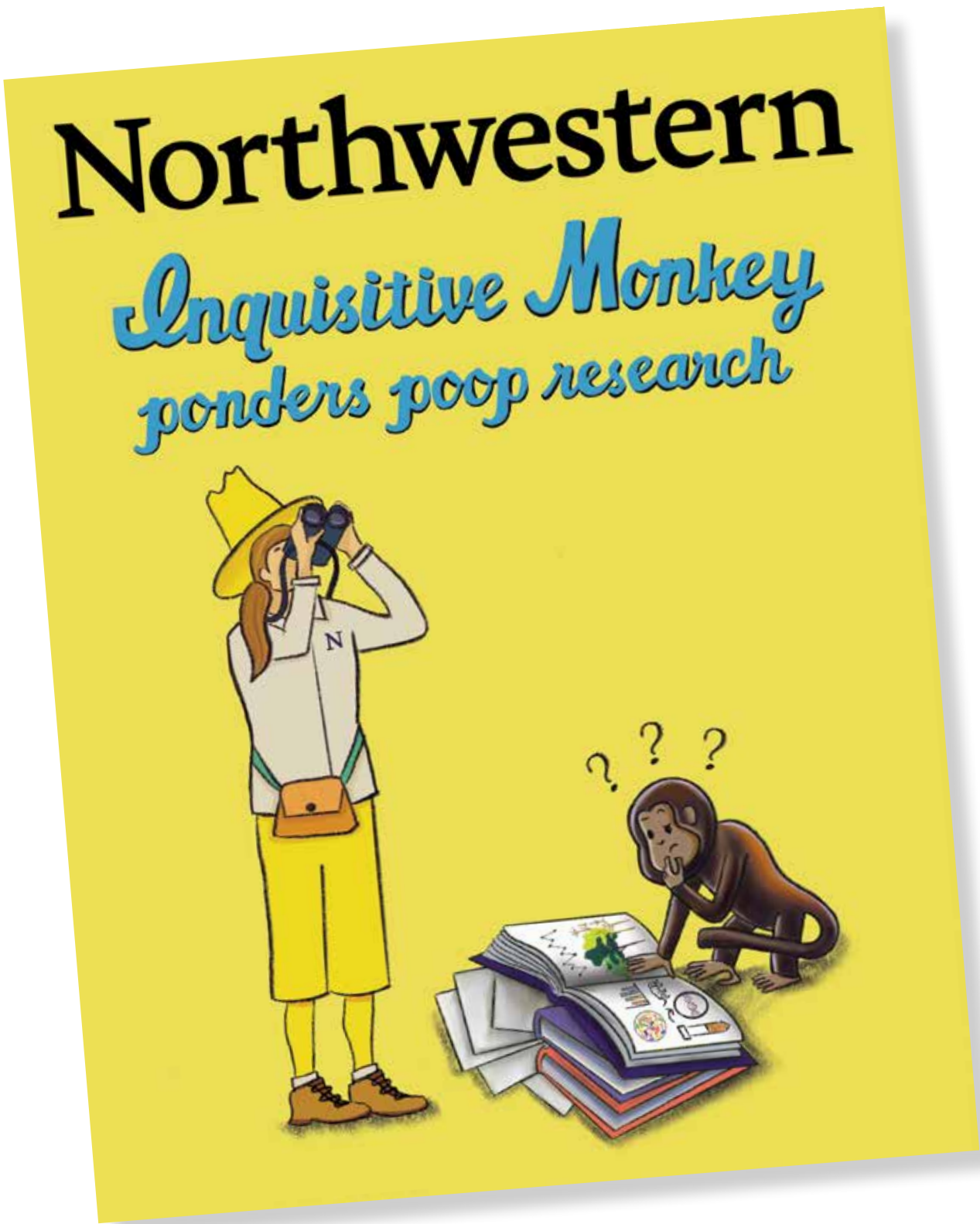
A retired radiologist who lives in Tucson, Ariz., Hunter has written the weekly "Sky Spy" column in the *Arizona Daily Star* for more than 15 years. He recently compiled his columns into a book, *The Sky at Night*. He also co-founded the International Dark-Sky Association, which is dedicated to protecting the nighttime environment from light pollution.

His best advice for amateur astronomers? Get a planisphere, a hand-held star-charting instrument. Rotate its two large disks according to the time and date to show a map of the stars currently above you. "That's the way to learn the constellations," he says. "If you like that, then get a good pair of binoculars. Have fun and don't take it too seriously."

Read more at [alummag.nu/Hunter](http://alummag.nu/Hunter).







**Anthropology doctoral candidate Tabor Whitney '22 MA makes monkey business her business.** Learn how her research uses feces from endangered monkeys to support conservation efforts. See page 28.

LESLIE-ANNE MOCK

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Often when you think of venture capital investing, you think of endowments and pension funds investing in hard-to-access opportunities. Alumni Ventures is disrupting the venture capital industry by offering a path for accredited investors to own an actively managed, diversified venture portfolio that invests alongside well-known VC firms. This asset class has outperformed the S&P over many periods.<sup>1</sup> With Purple Arch Ventures, the idea is simple—by investing together with other Northwestern alumni, we all can do better.



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<sup>1</sup> Cambridge Associates, Venture Capital Benchmarks, March 31, 2019.  
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# 50%

**The suspected population decline among Mexican mantled howler monkeys over the course of 30 years, largely due to habitat loss and forest fragmentation. By studying the primates' feces, Northwestern anthropology doctoral candidate Tabor Whitney '22 MA is developing a health assessment tool to help protect the endangered Mexican subspecies.**

*Read more on page 28.*