Spring 2026

UMBC MAGAZINE

THE CHARM PACK SOLVES THE CASE

Approached with a Baltimore quilting mystery, this group of students, faculty, alumni, and community members pitched in to solve the curious case of a Baltimore Album Quilt's origins. Along the way, they uncovered the historic and communal practices of local quilters. Page 20

Meyerhoff Hits 500 – page 16 | Meet the Class of 2026 – page 26 | Business (Not) As Usual – page 30

36

Feeling the Pull

How do you build a magnet with a field roughly 140,000 times stronger than the Earth's? Grad student Ethan Bowers diligently inspected and photographed hundreds of intricately etched copper disks as part of the process.

By Catherine Meyers

TABLE OF **CONTENTS**

13
Building a "Cybergut"
UMBC researchers are testing how state-of-the-art, millimeter-sized medical implants could transform patient care for gastric disorders and other areas of medicine.

By Catherine Meyers

20
The Charm Pack Solves the Case
Intrigued by a quilting mystery that began in 1846, a group of Retrievers came together to examine the evidence.

By Catalina Sofia Dansberger Duque

26
Meet the Class of 2026
This year's graduating Retrievers highlight the communities they found and the communities they made as their defining experience of being a student at UMBC.

By UMBC Magazine Staff

30
Business (Not) As Usual
At UMBC, entrepreneurship transcends a traditional business education: It empowers scientists, artists, and technologists to innovate across disciplines.

By Sarah L. Hansen, M.S. '15

DEPARTMENTS

TO YOU	2
OFFICE HOURS	3
DAWG'S EYE VIEW	4
THE NEWS	6
AT PLAY	8
DISCOVERY	12
IMPACT	16
HOW TO	36
CLASS NOTES	38
THEN & NOW	46
WILD CARD	48

ON THE COVER
Quilting is an entry point to storytelling, as UMBC CoLab students discovered. The artistic practice can make time stand still, be a window into the past, and inspire future quilters with possibilities.

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TO **YOU**

Dear Fellow Retrievers,

I have a confession to make—it's not always easy to tell the UMBC story. But the difficulty stems from a very good reason: Rarely is there just one person or one organization doing meaningful work alone. You interview one person, and they introduce you to three more, and before you know it, the story has grown exponentially! This interconnectedness isn't accidental—it's baked into our UMBC make up. Retrievers approach the world with intentional interdisciplinarity and genuine community engagement that makes it impossible to give a complex question a surface-level treatment.

You'll see this clearly in "Business (Not) As Usual" (p. 30). At UMBC, students and faculty find that entrepreneurial pathways abound and that by eschewing a conventional business school setup, Retrievers are set to be nimbler in the world of innovation. It should surprise no one that one area where UMBC students especially excel is "socialpreneurship," or the desire to drive positive social change rather than profit.

The Class of 2026 is ready to lead the charge on positive social change. Want to feel hopeful about the future? I welcome you to chat with any number of our graduating class (or read about them on p. 26) and you'll walk away with a sense that Retrievers are asking big questions and not satisfied with superficial answers. These new alumni are approaching the world through a community-engaged lens that's grown out of layers of mentorship, campus leadership opportunities, supportive friendships, and relevant applied-learning and education-abroad experiences.

Speaking of layers, consider the mystery presented to Sarah Fouts, an American studies professor who was approached with a a quilt with an interwoven set of names. Fouts turned the original question of the quilt's origin into a summer CoLab research experience that eventually included students, alumni, community members, and the Baltimore Mayor's Office. The group uncovered historic quilting practices and also reprised a 30-plus-year-old quilting competition that celebrates Baltimore (p. 20).

I enjoy following the rabbit (Retriever?) trail of interviews—it's a fun challenge to try to get the most complete view of a story while staying in tune to the details that matter. Throughout this issue, Retrievers are connecting the dots across disciplines and across the state to create positive change—and they're not doing it alone.

— Randianne Leyshon '09
Editor, UMBC Magazine

WEB **FEATURES**

See web-only videos, interviews, and more all year long at **magazine.umbc.edu**.

Opening students' eyes to the poetic world

Restorative practices guide Retrievers

UMBC boosts sustainable fish farming

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OFFICE **HOURS**

Manav Narendra's story has been shaped by constant motion. A math and computer science double major, who graduated from UMBC this spring, Narendra grew up moving frequently between India and the United States, adapting to new schools, cultures, and environments every few years. Raised by a single mother who was always striving to create a better life for them, Narendra grew accustomed to change—but also to the challenges that come with it.

Coming to UMBC marked a turning point. Narendra sought out a smaller, close-knit academic environment where he could build community, form lasting friendships, and explore what it means to belong somewhere. President Valerie Sheares Ashby—who has also been at UMBC for four years—and Narendra reflect on growing rooted to a place and what effect those lasting connections can have.

UMBC Magazine*: Manav, tell us about your background and what brought you to UMBC.*
Manav Narendra: I'm originally from India, and I've spent about half my life there and half in the U.S. Growing up, I moved a lot because my mom would switch jobs for better opportunities. By my senior year of high school, we had just moved to Maryland. I applied to a vast array of colleges, but I ultimately chose UMBC because I wanted a smaller, more personal environment where I wouldn't feel lost. And here, I've met people in so many different ways—through classes, the Honors College, tutoring, tennis, even the Career Fair. It's been really meaningful.

President Valerie Sheares Ashby: You wanted a place where you could feel seen—that is powerful. And these smaller communities within UMBC can really shape your experience.

UMBC Magazine*: How did moving so often affect your ability to build relationships?*
Narendra: It was difficult. I became more introverted over time because you don't really get the chance to build lasting friendships when you're always leaving. I just didn't realize how much I was missing in terms of long-term connections until I got here. Nevertheless, I'm forever grateful to have met so many incredible people from such beautifully different walks of life—they've all shaped who I am today.

President Sheares Ashby: I understand that. I am an introvert, too, and I think those kinds of experiences can really shape how you connect with people. It is not always easy to keep starting over. When I moved to Baltimore, I did not know anyone here, but from experience, I knew what I needed to put in place in order to feel like I am grounded and rooted in community. I learned how to do that when I was your age. In college and in graduate school, I started to ask myself: "What is it that I need to feel grounded?" And then I would go get it—I do not wait for it to happen.

UMBC Magazine*: How has UMBC shaped your conception of community?*
Narendra: I've made friendships that have lasted all four years, which still surprises me. I'll see someone on campus and think, "Wow, I've known you for so long."

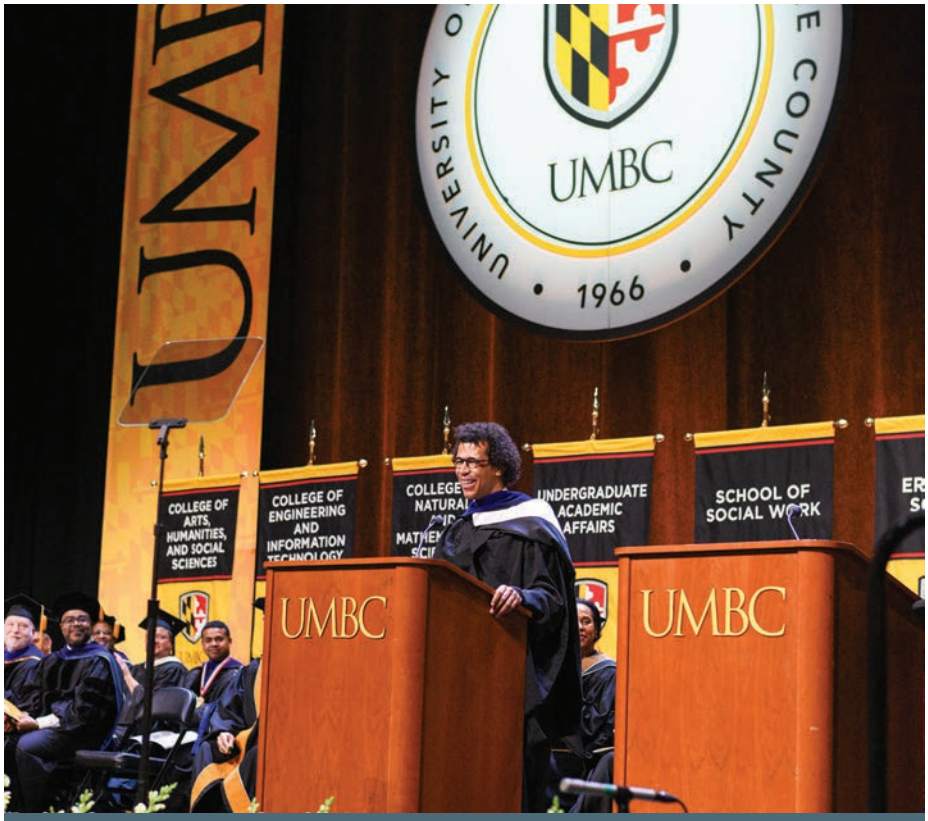
President Sheares Ashby: That is such a special realization. I always tell students that those relationships are one of the most important parts of college. You learn so much in the classroom, but those connections—those are what stay with you.

UMBC Magazine*: What does "home" mean to you now, after having moved so much?*
Narendra: Growing up, home was my mom. Wherever she was, that's where home was. She was the only constant in my life. I was diagnosed with cancer when I was 13, and my mom and I went through it together. I dealt with the physical pain, but she carried the brunt of the emotional and mental burden. She quit her job to take care of me. I couldn't have done it without her. Now, I feel like I have another home here. I have a place where I belong, where I feel valued. It's comforting to be in one place and not have everything constantly changing.

UMBC Magazine*: How did that experience influence your future goals?*
Narendra: It's made me want to give back. I'm looking at various roles, ranging from data and actuarial science to software and astrophysics—seeing where I can best utilize my skills to make a difference: something that helps people and advances our collective understanding of the world. I feel like I've been given a second chance at life, and I want to use it well.

President Sheares Ashby: Often, our experiences guide us toward that sense of purpose. There is this idea of finding where your talents meet the greatest need—that is where meaningful work happens.

DAWG'S EYE **VIEW**



HITTING THE RIGHT NOTES

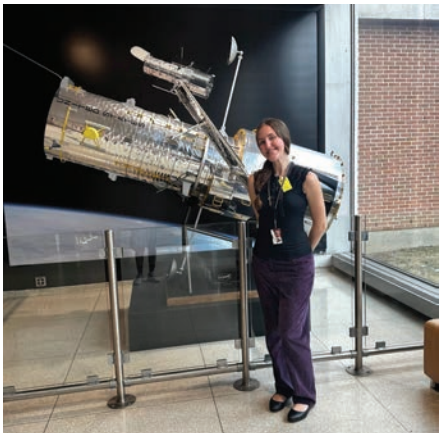
Jonathon Heyward, music director for the Baltimore Symphony Orchestra, took a different stage this May as he conducted a UMBC Commencement ceremony. "You are standing in a very unusual place today," he told graduates, before receiving his own honorary UMBC degree. "You are simultaneously at the end of one journey, and at the very beginning of another." Photo by ProPicsUSA

@UMBClife

MADE FOR THE MOVIES

Most filmmakers can only dream about being nominated for an Academy Award. For **Sara Khaki** '10, visual arts, that dream came true when her 2025 documentary *Cutting Through Rocks* made the shortlist among the 2026 Oscar finalists. The film, codirected with Mohammadreza Eyni, follows the first Iranian woman elected as a councilwoman in a rural village.

@sarakhakifilms



LOOKING TO THE WESTERN SKIES (OF THE U.S.)

After graduation, **Katherine Carver** '26, physics and math, will be seeing stars. She's taking her talents to Great Basin National Park where she'll serve as night sky interpretive ranger (yes, that is a real and very cool job title) to lead public programs focused on astronomy and help visitors engage with the night sky.

@umbclife

CHEERS TO 50+ YEARS!

Bartleby, UMBC's creative arts journal, added to their story with a retrospective of works spanning more than 50 years as part of the Arts+ initiative. **Rick Weir** (left) '25, psychology, former *Bartleby* editor, and **Andrew Coulbourne** (right) '26, English, current senior editor, joined fans and supporters at Baltimore's Bird in Hand Café & Bookstore to celebrate works old and new.

@umbc_bartleby

BROKEN RECORDS

The Retrievers brought home the hardware this year! UMBC women's track and field clinched their first ever America East Indoor Championship title, men's swimming and diving team reclaimed their America East title for the first time since 2023, and men's basketball also reclaimed the America East title and advanced to NCAA tournament play for the first time since 2018.

@UMBCathletics

BRINGING BACK THE BOOK REPORT

Take a look and see if it's in a book by joining this year's Retrievers Read challenge! This time, we're partnering with the UMBC Library to raise funds to better support our students. As always, this program is open to all alumni, students, faculty, parents, or staff members.

@UMBCAlumniAssociation

SEEING SEPTUPLE?!

Keighley Rockcliffe, Center for Space Sciences and Technology, captioned the out-of-this-world image created with combined views of the Moon, Venus, and the Pleiades crossing the south Italian sky for the Astronomy Picture of the Day.

@AstronomyPictureOfTheDay

PITCH PERFECT

"Root, root, root for the home team" took on a whole other meaning in late April when men's basketball head coach **Jim Ferry** took to the mound and threw out the first pitch during the Orioles/Astros game. Ferry celebrated his 400th career win during the season, and we celebrated that he made it over the plate with ease.

@umbcathletics

WHAT'S YOUR VIEW?

Share your Retriever perspective on social media using the hashtag #UMBC, and your image could be included in a future issue of *UMBC Magazine*!

THE NEWS

News in Brief

Shooting Their Shot

For the first time since UMBC's men's basketball's historic upset in NCAA's 2018 March Madness, UMBC returned to the dance. And while the Retrievers fell in a thriller to Howard, 86-83, in the NCAA Tournament First Four contest, UMBC still finished the season 24-9 overall, tied for the second-most wins in program history.

Before the NCAA appearance, the Retrievers clinched another America East title in front of a packed home court at Chesapeake Employers Insurance Arena, inking their place in athletics history by producing the men's basketball's best conference regular season.

Black and Gold(water)

Four UMBC students have been named Barry Goldwater Scholars this year. UMBC juniors **Deeya Mistry**, biological sciences; **Jessica Slaughter**, computer engineering; **Phoenix Bryant**, biological sciences; and sophomore **Amir Walton-Irvin**, computer engineering, are among the 454 scholars selected nationwide in 2026. They competed with nearly 1,500 students majoring in science, engineering, and mathematics who were nominated by their academic institutions for the prestigious award.

This is the third time that a record four UMBC students have received Goldwater Scholarships in the same year. "I'm always so impressed by the caliber of students at UMBC," says **April Householder** '95, director of undergraduate research and prestigious scholarships, who works with students each year to prepare their Goldwater application materials. "And I'm excited to see what they do next because this is also a springboard to even bigger and better opportunities."

Going Global

UMBC's Global Learning Lab received one of two 2026 Innovative Excellence in Internationalization Awards. This award—offered by the Association of International Education Administrators (AIEA)—honors creative, replicable, and innovative initiatives that are critical to internationalization and require strong leadership to achieve. The AIEA commends the Global Learning Lab for reflecting UMBC's commitment to justice, equity, diversity, and inclusion by fostering inclusive, cost-effective models that integrate global perspectives into the curriculum.

The Global Learning Lab's primary mission is to support faculty development in increasing student access to global learning opportunities. Through a cohort-based model, the lab brings together faculty to integrate applied global learning into the curriculum. Faculty who participate in this initiative produce concrete deliverables, such as course maps, faculty-led study abroad programs, and Collaborative Online International Learning (COIL) projects.

"To date, 48 faculty members have participated across 27 unique departments ranging from biological sciences to visual arts to chemical, biochemical, and environmental engineering," shares **Manfred van Dulmen**, provost and senior vice president for academic affairs. "Projects continue to positively impact the student experience and have included nine mapping initiatives, 12 COIL projects, and 27 study abroad programs."

Addressing Flood Risks

UMBC researchers have secured a $1,031,000 congressional earmark to launch a vital new initiative tackling the escalating threat of flooding in Maryland's most vulnerable communities.

Led by **Alan Yeakley**, professor, and **Dillon Mahmoudi**, associate professor, both in geography and environmental systems, the project establishes the UMBC Laboratory for Flood Risk Impact Assessment and Adaptation in Impoverished Maryland Communities. This lab will serve as a hub for analyzing and tracking the impacts of rising flood risks on low-income populations in both urban and rural areas across the state. Yeakley and Mahmoudi will bring on two postdoctoral researchers and graduate and undergraduate research assistants, who will gain critical skills in community-engaged research and data analytics while supporting the work.

The project focuses on communities along the Chesapeake Bay and its major tributaries, including historically underserved neighborhoods in Baltimore such as Turner Station. Researchers will investigate how the legacies of blockbusting and redlining have heightened flood vulnerability in low-income areas and assess whether flood mitigation resources have been distributed equitably. The team will also evaluate the current state of adaptation strategies at every level—from individual households to the city, county, state, and federal governments.

Junior Ace Valentine, a guard on the men's basketball team, drives to the basket in the NCAA First Four game again Howard University. Photo by Michael Joseph/UMBC Athletics.


BISON
11
UMBC

AT **PLAY**

One for the Books

Appropriately, chapter one of UMBC's inaugural BookFest began at AOK Library Plaza. Hundreds of students gathered at the BookMarkIt to try letterpress printing, stitch pamphlets, create and swap zines, and browse a book arts display.

Lindsay DiCuirci, associate professor of English, envisioned Bookfest '26 after receiving professional development funds from the Breaking the M.O.L.D. leadership program in the College of Arts, Humanities, and Social Sciences in spring 2025. Her proposal for the funds included hosting a book festival that explored both the creative, maker-based aspects of book history and the importance of advocacy and access. BookFest came to fruition this April when UMBC celebrated writers, readers, makers, and advocates during National Library Week.

"My own research is in early American book history, so I am drawn to all aspects of books across time and place," DiCuirci says. "Given that we are also facing a major resurgence in book banning and censorship, I wanted to draw particular attention to attacks on libraries and the urgency around protecting our rights to read. Books by and about underrepresented people and experiences are being pulled from shelves across the country at the same time that funding for public schools and libraries is being slashed. I wanted BookFest to amplify this dynamic."

One of the first conversations DiCuirci had about her idea was with **Aditya Desai** '09, English, a program officer for Maryland Humanities who runs its Center for the Book and the One Maryland, One Book (OMOB) initiative. The pair decided that BookFest would celebrate OMOB—a communal reading experience for the state—by hosting Lawrence Burney, author of the 2026 OMOB selection, *No Sense in Wishing*. Burney attended BookFest and discussed his essay collection, growing up in Baltimore, and his deep relationship to music with **Chris L. Terry**, assistant professor of English.

Burney contended that everyone, no matter their age or life stage, can make valuable contributions to their community. "I think that's one of the easiest ways any critic can kind of stunt their own growth, so I always make it a point to engage with people younger than me," he said. As he leaned into writing and sharing his passions, he says he realized "there is a way to amplify something while also having a challenging conversation about it."

Desai also introduced DiCuirci to Maryland State Librarian Morgan Miller, who was instrumental in passing Maryland's Freedom to Read Act. The pair collaborated on a BookFest panel called "Freedom to Read: Libraries and Our Democracy."

Miller then brought John Owen into the mix. Owen is the librarian for the Maryland State Library for the Blind and Print Disabled (LBPD), and throughout BookFest, UMBC raised funds for a nonprofit that supports the LBPD in its mission to make reading and all library services accessible to Marylanders. In partnership with Maryland Humanities, BookFest also served as a collection point for the Maryland Commission on African American History and Culture's annual book drive.

Craft and care were front and center throughout the festival. Graphic design senior **Sonia Pivovarov** brought the first iteration of BookFest to life with eye-catching print and digital advertising materials. The BookMarkIt purveyed BookFest-themed original creations and items from the Hilltop Print Shop, an instructional letterpress printing shop and mobile cart. Special Collections Reference and Instruction Archivist **Lindsey Loeper** and DiCuirci built the shop with support from a Hrabowski Innovation Fund Grant.

Hoping for a sequel to BookFest? The next iteration is already in the works, DiCuirci says, along with ideas for smaller pop-up events throughout the year to amplify the creative work of UMBC students.

— Kayla Logue '27

Students enjoy the activities at the inaugural BookMarkIt outside of the AOK Library, including a station to letterpress custom-made BookFest swag.

Diving Into a New Sport

Kaleb Cave's story is unique among almost all collegiate swimmers and divers: When he started college, he was not a strong swimmer.

He is, however, recognized as the youngest person ever to perform a standing double backflip. His athletic prowess had already earned him a spot on the USA Gymnastics national team in the Senior Elite Trampoline and Tumbling division.

So how did this mechanical engineering major and gymnast end up on the swimming and diving team? It started on Instagram: Cave's account (@lub.lub), where he chronicles his athletic feats, has over 140,000 followers.

Junior computer science major **Andy Vines**, a member of the diving team, messaged Cave when he saw the tumbler was a fellow Retriever. "My mom always told me to find a way to get involved at UMBC, and I thought this might be it," says Cave. He reached out to coach **Jeff Fisher**, and a few months later, he was making a splash.

While diving and tumbling have many similarities, the transition was anything but smooth water for Cave. "Learning how to dive was more of a mental than a physical battle for me. With my gymnastics background, the flipping and twisting came naturally. However, I struggled—and still struggle—with my approach and entries into the water," Cave says. "Landing on my head was definitely weird to get used to, especially when I've been landing on my feet all my life. My aerial awareness is pretty good, though."

Cave had a solid rookie campaign his sophomore year, qualifying for the finals in both the one- and three-meter board events at the America East Championships. However, less than a month later, he ruptured his Achilles tendon at a tumbling national team camp, necessitating surgery.

"My physical therapist did an amazing job getting me back to where I need to be," Cave says. Still, "seeing how weak I was and how long it was taking to gain back little bits of strength was taxing on my mental health."

Cave returned to the pool for a diving meet in October 2025, just under seven months after the injury. "It felt great," said Cave. "My return didn't feel rushed at all, just natural and smooth."

In January 2026, Cave broke a 14-year-old school record en route to winning the three-meter competition at the Towson Diving Invitational. He qualified for NCAA Zones, the preliminary event for the NCAA Diving Championships, in the three-meter and one-meter events.

Two weeks later, Cave won bronze in both the one-meter and three-meter events at the America East Championships, helping lead the men's swimming and diving team to its 15th title. The team championship meant the most to him, as the medals—his first ever for diving—represented his contribution to that victory.

With two full seasons of diving under his belt, Cave feels ready to level up. "Next year, I definitely think I can start pushing the difficulty, now that I've cleaned up my form since my first season."

Being a student-athlete is time-consuming, especially when learning a new sport and alongside a technical major like mechanical engineering, but Cave says UMBC has allowed him to succeed.

"UMBC provides so much support for student-athletes, whether it be a quiet place for us to study or one-on-one tutoring sessions. Teachers are always here to provide help when needed and guide you through the course content." It seems that Cave has found the right way to land on his feet after all.

—Zachary Seidel '12, M.S. '15

Kaleb Cave, center, shows off one of his two bronze medals from the 2026 America East Swimming and Diving Championships, along with fellow divers Anders Logas (left) and Aiden O'Callaghan (right). Images courtesy of Randall K. Wolf

AT **PLAY**

Sisters in Science

Deep within UMBC's Meyerhoff Chemistry Building, amid the hum of centrifuges and stacks of microscope slides, a unique family tradition has taken root. While some families might pass down jewelry or recipes, the Abdelghani sisters prefer to pass down research benches. **Huda**, **Reem**, and **Rowah Abdelghani** have each found their way into **Deepak Koirala's** lab, transforming a space dedicated to the intricacies of RNA into a second home where sibling bonds and scientific breakthroughs go hand in hand.

Huda, the trailblazing eldest, was the first to stake a claim. As a high school junior in Howard County's Applications and Research Laboratory (ARL) biotechnology program, she mastered lab basics like polymerase chain reaction, micropipetting, and gel electrophoresis. Seeking a senior-year internship, she cold-emailed labs at nearby universities. "Some of my friends emailed over 30 people before finding a spot," she recalls. "I got lucky with Dr. Koirala." When Koirala, associate professor of chemistry and biochemistry, opened his doors to her in 2022, he didn't just gain a talented intern—he unknowingly signed up for an entire family's worth of curiosity and ambition.

Koirala leads a research group studying the structures of RNA in enteroviruses—a family of pathogens behind illnesses like hand, foot, and mouth disease; polio; and myocarditis. Huda joined in summer 2022 and stayed through the 2022 – 2023 academic year. Mentored by graduate student **Hasan Al Banna**, she quickly learned that scientific research involves frequent failure—and that failure isn't personal.

"You can do everything right and still not get results," she says. "That's just science." Koirala's individualized attention left a lasting impression; when her mentor was away, the professor spent hours helping her set up crystallization plates. Now a junior mechanical engineering major at MIT completing a co-op semester with Apple's Mac product design team, Huda credits the lab with sparking her interest in bioimaging tools. "The technical and soft skills I gained at UMBC apply anywhere," she reflects.

Huda's enthusiasm inspired the middle sister, Reem, to reach out to Koirala for her own ARL internship in 2024. "I saw how happy Huda was, and it looked like something I'd enjoy, too," Reem says. Mentored by Ph.D. student **Naba Krishna Das**, Reem immersed herself in lab operations, from presenting at meetings to generating crystal structures of RNA complexes.

The lab's collaborative environment shattered her preconceptions about research. "I was worried grad school could be isolating, but it's so interactive, with people at every stage of their careers," she explains. Reem's work on viral replication earned her coauthorship on a 2025 *Nature Communications* paper while she was still in high school.

"I never expected to be so involved—I feel privileged," she says. The process taught her the value of replication and troubleshooting. "Sometimes it's trial and error as you're exploring something new," she says.

Now a first-year biochemistry major at UMBC, Reem plans to return to the Koirala lab as soon as space is available. "I didn't consider grad school before, but now it's definitely on the table," she says, a perspective born of early experiences that revealed the reality of the scientific process.

Rowah, a high school senior, joined the lab last fall. Her initial anxiety about working for a "strict primary investigator" quickly vanished. "Dr. Koirala is one of the kindest people I've met," Rowah says. She was equally impressed by the lab's supportive culture, where members share resources and brainstorm together. "They push each other to do better—it's a real community."

Building on her ARL skills, Rowah worked with Ph.D. student **Bethel G. Beyene**, who ensured she understood the concepts behind the techniques. The creative problem-solving she developed carried over into Rowah's high school robotics competitions. "When things go wrong, we sit down and figure it out. It's not that failure means you're wrong; overcoming it is how you succeed," Rowah says. "I applied lab thinking by evaluating all possible sources of error to debug our robot—it felt great," she says. Now considering biomedical engineering, Rowah says the lab showed her she doesn't have to choose between her interests in biology and mechanics.

The sisters' bond fueled their individual successes. "We talk openly—about lab life, plans, even arguments," Reem laughs. Though their time in the lab didn't overlap, Huda's path reassured the others. "If I hadn't had that chance, I couldn't have shared it with my family," Huda says.

Koirala credits the ARL program for bringing talented students like the Abdelghanis into his group. He emphasizes that they are not just assistants but intellectual contributors. "They're contributing at the level of authorship," he says, noting Reem's publication.

His inclusive approach welcomes students from diverse backgrounds, training high schoolers alongside Ph.D. candidates. "They're all making science better," Koirala says. This philosophy has proven successful: since arriving at UMBC in 2020, Koirala has secured multiple major grants and published high-profile papers.

In Koirala's welcoming space, beginners become contributors, failures forge innovators, and family ties amplify ambition. As Rowah troubleshoots gels, Reem eyes graduate school, and Huda designs technology at MIT, their shared journey affirms that science thrives on curiosity. It grows through community. And, occasionally, it runs in the family.

— Sarah L. Hansen, M.S. '15

Sisters Huda (top), Reem (left), and Rowah (right) Abdelghani have all conducted biochemistry research with Deepak Koirala at UMBC. Photos courtesy of Koirala.


Stemi 508

DISCOVERY

Revealing Galactic History With Cosmic Rays

What if we could peer back in time to understand how our galaxy was built—one exploding star at a time?

When massive stars reach the end of their lives, they don't go quietly. They explode in spectacular fashion, forging heavy elements and hurling them across space. Some of these particles, called cosmic rays, eventually reach detectors built by humans. By studying which elements arrive and in what amounts, scientists hope to piece together the story of our galaxy's chemical evolution.

But there's a problem: As these cosmic rays race through space, they smash into hydrogen atoms and break apart. These reactions, called "proton spallation," turn heavier elements like iron into lighter ones like sodium or chromium. Without knowing exactly how often these "breakups" happen, it's hard to translate what detectors see into a true picture of what's out there. But if scientists could accurately reverse-engineer the process, determining how much of one element came from another, they would better understand the galaxy's true chemical makeup.

Now, **Priyashini Ghosh**, a nuclear physicist at UMBC's Center for Space Sciences and Technology, is performing a pioneering experiment, hoping to fill some of this knowledge gap.

In early June, Ghosh and her collaborators led the Facility for Rare Isotope Beams (FRIB) at Michigan State University to study, for the first time ever, how chromium-52 breaks apart when it interacts with hydrogen. Chromium-52 is of particular interest because it can help reveal processes happening in our galaxy, and yet it has never been measured before. Using a high-energy beam of this stable form of chromium, the team will record "proton-spallation cross sections"—measures of the likelihood of violent interactions between protons and heavy ions.

"Nuclear data acts as a translator from the data collected by missions like Voyager, converting it into a meaningful understanding of our galaxy," Ghosh explains.

Current models don't quite match what telescopes and spacecraft actually observe, especially for elements like chromium, titanium, and vanadium. The differences have puzzled researchers for years. These questions linger because the right kind of experimental data has been extremely laborious and expensive to obtain—until now.

"A sample of chromium-52 the size of a chocolate square can cost around $150,000," Ghosh notes. So instead of using a large piece of chromium-52, FRIB's chemists will collide a beam of less-expensive nickel-58 with a carbon target, producing a pure chromium beam—the first time this has ever been achieved.

The experiment ran for about 43 hours, collecting data on 50 to 60 different fragments produced as the chromium beam collided with various detectors and broke apart. The results are expected to sharpen astrophysical models and bring us closer to understanding how elements are created and spread throughout the Milky Way.

"What makes this project exciting is that FRIB lets us reproduce, in a controlled way, a process that naturally happens in the universe: cosmic rays traveling from a dying star through the galaxy," says Jorge Pereira, FRIB's magnetic spectrometer operation group leader.

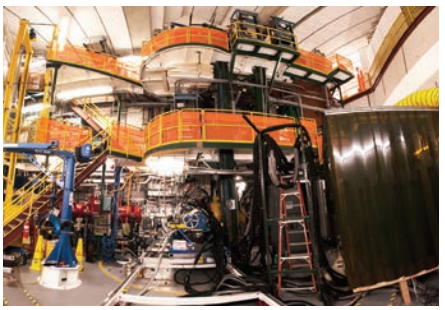
This chromium experiment launches a program that Ghosh is developing at UMBC dedicated to building a comprehensive proton-spallation cross-section database that could transform how we read the cosmos. The results will directly support the upcoming TIGERISS mission, set to fly to the International Space Station in 2027. TIGERISS will be the first instrument to measure elements from boron all the way to lead with remarkable precision—and Ghosh's nuclear data will help scientists make sense of what it sees.

"This is such a feat of nuclear engineering," she says. "We're using detectors to expose the physics in very specific ways—arm-wrestling with nature to get the answers we need."

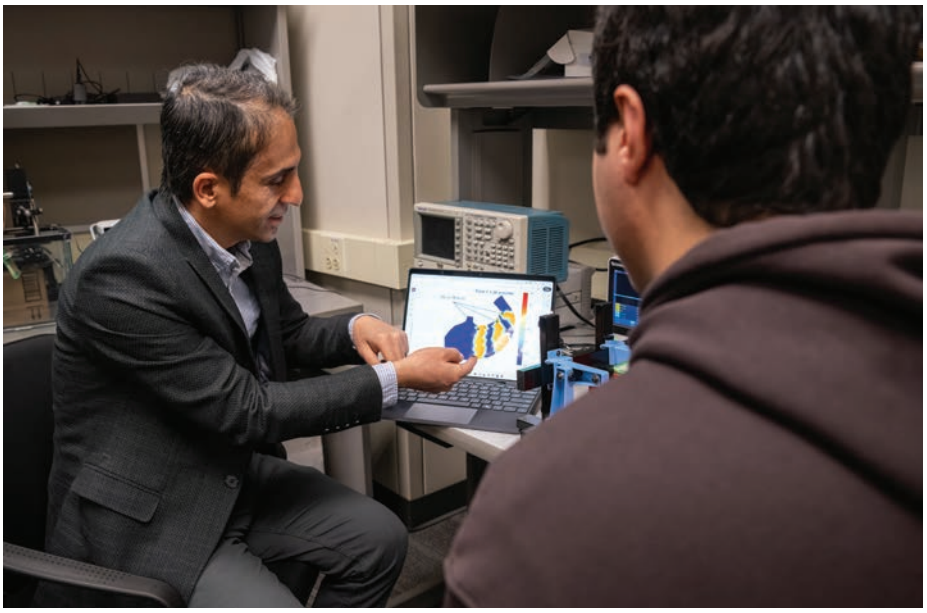
— Sarah L. Hansen, M.S. '15

Top: Priyarshini Ghosh operates a scanning electron microscope at Kansas State University, where she completed her Ph.D. in nuclear engineering. Courtesy of Kansas State University.

Below: The 18-meter-long S800 Spectrograph at the Facility for Rare Isotope Beams (FRIB) at Michigan State University. Courtesy of FRIB.



Building a "Cybergut"



Personalized and precise treatments will improve patients' quality of life in a fast-approaching future driven by artificial intelligence, wearable tech, and other innovations. UMBC researchers led by **Mehdi Kiani**, a professor in the Department of Computer Science and Electrical Engineering, are at the frontiers of these changes. They recently teamed up with colleagues at New York Institute of Technology and Pennsylvania State University to develop a system that combines state-of-the-art, millimeter-sized medical implants, computational models, and machine learning to better monitor and treat stomach disorders. A grant from the National Institutes of Health will fund the work through 2029.

The research offers the promise of improving individual medical treatment for gastric disorders such as gastroparesis, a chronic condition causing nausea and unexplained vomiting that affects more than 1.5 million people in the U.S. It also has broader implications for improving our general understanding of how the nervous system controls organs.

"This type of research is vital because it addresses fundamental gaps in how we monitor and treat complex organ functions," says Kiani. "By integrating advanced sensing, modeling, and intelligent control, we can move beyond today's limited approaches toward precise, adaptive therapies. These innovations have the potential to transform patient care not only for gastric disorders but across many areas of medicine."

Kiani has extensive experience developing advanced, wireless medical implants. While at Penn State prior to joining UMBC, Kiani and his team developed a device that could harness energy from magnetic field and ultrasound sources simultaneously. The dual-powered feature is important, the researchers say, because it means the device can harness enough power to operate even as it is shrunk to millimeter-sized dimensions and implanted in a living body, where safety concerns limit the frequency of electromagnetic radiation that can be used to power and communicate with the device.

Shrinking medical devices makes implanting them less invasive. It also means that many devices can be implanted across a wide area in the body, improving the ability to both monitor and treat disease.

As part of the new research, Kiani and his colleagues envision a network of multiple tiny devices, called gastric seeds, implanted in the submucosal tissue of the stomach. The seeds will wirelessly monitor the electrical signals in the stomach that control its rhythmic contractions. They can also deliver electrical stimulation to correct misfiring signals.

The seeds will be linked to a wearable band wrapped around the outside of the body and will use the dual magnetic field and ultrasonic channels to both receive power and transmit and receive data.

In addition to developing advanced implantable medical devices, the team will also build a virtual stomach to model the complex electrical and mechanical dynamics of a real stomach. This information, in turn, will help determine how best to use the gastric seeds to deliver treatment.

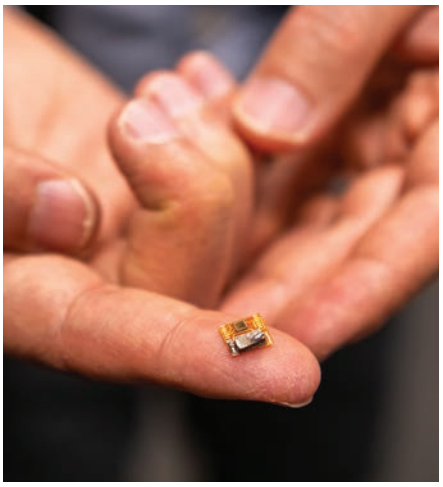
The team will first construct an intricate and accurate model on a personal computer and then use data from that model to train a machine learning model that can operate using the limited computing power of the wearable band. The machine learning model will efficiently interpret the sparse signals from the gastric seeds to determine optimal electrical stimulation treatments in real time.

"What excites me most about this research is its truly multidisciplinary nature, bringing together expertise needed to tackle medical challenges no single field can solve alone," Kiani says. "It's also inspiring to work with talented students and help shape their careers as we develop technologies that can meaningfully advance patient care and improve quality of life."

— Catherine Meyers

Top: Mehdi Kiani talks with Ph.D. student Sina Razaghi, who will work on the cybergut project.

Below: Kiani holds a medical device that could harness energy from magnetic field and ultrasound sources simultaneously.



DISCOVERY

Restoring the Roots of Black Music

Kristina Gaddy '09, saves and gathers manuscripts, sheet music, pictures, maps, drawings, and anecdotes, sharing them on her blog to make public what she finds hidden in archives, private collections, and museums. For her fourth book, *Go Back and Fetch It: Recovering Early Black Music in the Americas for Fiddle and Banjo* (University of North Carolina Press, 2025), Gaddy teamed up with **Rhiannon Giddens**, a Grammy Award–and Pulitzer Prize–winning musician who is equally passionate about digitizing and broadening access to the historical material culture of the banjo.

Gaddy came to UMBC as a Sondheim Public Affairs Scholar. Her passion for history and languages—Swedish, German, and Spanish—led her to graduate with a dual degree in history and modern languages and linguistics. Looking back on her time at UMBC, Gaddy is grateful for the opportunities the program provided, especially the chance to study abroad in Germany. There, she combined her proficiency in German with her historical training to research the foundations of her first book.

"The Sondheim Public Affairs Scholars Program was wonderful because of the funding I received to support my research and the cohort of students," says Gaddy. "We were all really interested and excited about social issues, public policy, and how these ideas could be used to improve the world."

These interests inspired a career in historical nonfiction writing and led to her to write meticulously researched books: *Flowers in the Gutter: True Story of the Edelweiss Pirates, Teenagers Who Resisted the Nazis* (Dutton Books, 2020), *Well of Souls: Uncovering the Banjo's Hidden History* (W. W. Norton & Company, 2022), and *A Most Perilous World: The True Story of the Young Abolitionists and their Crusade Against Slavery* (Dutton Books, 2025).

Go Back and Fetch It is Gaddy and Giddens' third collaboration. In 2018, Giddens invited Gaddy and her husband, Pete Ross—banjo maker, researcher, and musician—to present at a banjo symposium during the inaugural North Carolina Folk Festival, which Giddens curated. Gaddy presented her research on the African American roots of the banjo, an experience she credits as the inspiration for *Wells of Souls*, for which Giddens wrote the foreword. They also collaborated in 2022 on one episode of the 10-part series *The Banjo: Music, History, and Heritage* for The Great Courses.

"The idea behind the book was that there were all these little pieces of music in archives, in published books, in manuscripts that were sprinkled throughout the historic record of Black music in the Americas," explains Gaddy in the same interview. "They weren't compiled in one place. Rhiannon, as an artist, was frustrated that she couldn't access them."

For their book collaboration, they selected 19 pieces of music from 1687 through the 1860s. Gaddy wrote a historical research essay for each song explaining the types of banjos used, how and when they were played, and their sociocultural significance across communities in the Americas and the Caribbean. Giddens transcribed the songs into modern treble clef and banjo tablature, which shows finger placement, rather than the Western classical notation tradition, making early Black Atlantic banjo music accessible to banjo players today, in the future, globally, and across all genres.

"Having come from the public history side of UMBC's history department, I strongly believe in people having access to information as it pertains to their own history. It was one of the reasons I wanted to write *Well of Souls*," says Gaddy, about her second book. "I had gathered all this information, and I could have shared it with just a few people, but I wanted anybody who wants access to banjo history not to have to go to some expensive conference to hear about it."

— Catalina Sofia Dansberger Duque

Right: Kristina Gaddy and Rhiannon Giddens perform at the 2026 Baltimore Old Time Music Festival. Photos courtesy of Liz Pappas and Gary Jared.

Below: Gaddy plays at the Metropolitan Museum of Art with musician Jake Blount in May 2023. Photo courtesy of Gaddy.

"We were all really interested and excited about social issues, public policy, and how these ideas could be used to improve the world."

—Kristina Gaddy '09


OLD TIME

IMPACT

Meyerhoff Hits 500

This spring, the Meyerhoff Scholars Program at UMBC celebrated a landmark achievement: 500 program graduates have earned a Ph.D.

The milestone highlights the program's success as the nation's original model for increasing diversity in science, technology, engineering, and mathematics (STEM). Grounded in high expectations and robust support, Meyerhoff Scholars consistently go on to excel in top graduate programs and lead in academia, industry, and government while mentoring the next generation. UMBC has maintained its position as the national leader in producing Black M.D./Ph.D. graduates: Between 2014 and 2024, UMBC alumni accounted for 15 percent of all such dual-degree recipients nationwide, far outpacing any other institution. UMBC is also the leader in graduating Black students who go on to earn Ph.D.s in the life sciences, math and computer sciences, and engineering.

Joseph Washington '97, Ph.D. '15, mechanical engineering, a member of the fourth Meyerhoff cohort (M4), says the Meyerhoff scholarship set him on his path. In particular, Selection Weekend for admitted Meyerhoff Scholars and Summer Bridge, intensive group programming prior to the scholars' first UMBC semester, affirmed his identity and potential: "The most important message I internalized from the Meyerhoff program was that I can be Black and intelligent," he recalls.

Today, he serves as an assistant teaching professor at UMBC at the Universities at Shady Grove. He mentors students informally, advises the UMBC chapter of the American Institute of Aeronautics and Astronautics, and creates space for Meyerhoff Scholars to discuss graduate school and careers.

Sadella Santos '12, chemical engineering, M20, and her sister **Melissa Santos** '12, chemical engineering, M19, also credit the program with shaping their journeys. Sadella, a senior scientist at Exponent Inc. with a Ph.D. in chemical engineering, says, "At work, I champion the message that diverse perspectives are necessary to drive scientific progress." She pays it forward by reviewing abstracts for the Annual Biomedical Research Conference for Minoritized Scientists (ABRCMS) and hosting lab visits for high school students.

Melissa, who earned a Ph.D. in chemical engineering followed by a law degree, applies problem-solving and adaptability skills honed through Meyerhoff to her legal career. She recently participated in a panel for McNair Scholars on summer research experiences. "Surround yourself with people who will support you but also challenge you to grow," she says.

Meyerhoff scholars often refer to themselves as family—and that's especially true for the Santoses. **Justin Santos** '17, biochemistry and molecular biology, M25, is the third scholar in the family. He is completing his M.D./Ph.D. in neuroscience at Emory University this spring and will begin residency in emergency medicine at Washington University in St. Louis. He mentors students pursuing clinical-scientist careers and assists with ABRCMS abstract reviews.

Naomi Mburu '18, M26, chemical engineering, was UMBC's first Rhodes Scholar, earning a D.Phil. in engineering science from the University of Oxford, and today she serves as lead analyst at Fusion Advisory Services. She now reviews scholarship essays for UMBC students and organizes summer internships to bring diverse talent into the fusion energy field. "Supporting the next generation is so important," she says. "I have only come this far myself with the help of my own mentors."

Meyerhoff Scholars do not simply succeed—they reach back. The model's impact now extends even further: universities including Pennsylvania State University, the University of North Carolina at Chapel Hill, University of California, Berkeley, the State University of New York at Stony Brook, and others have adapted key elements of the Meyerhoff approach with support from funders such as the Chan Zuckerberg Initiative and Simons Foundation.

With more than 2,200 undergraduates supported to date and a national reputation for producing leaders committed to diversity in STEM, the 500th Ph.D. stands as compelling proof of the Meyerhoff model's effectiveness.

— Sarah L. Hansen, M.S. '15

Image courtesy of ProPicsUSA

"Supporting the next generation is so important. I have only come this far myself with the help of my own mentors."

—Naomi Mburu '18, M26

Retrievers Behind the Scenes

Hailey Turney, M.A. '21, first came to UMBC as a student pursuing an academic passion in the text, technologies, and literature program. Now, as an undergraduate academic advisor in the College of Engineering and Information Technology and an instructor teaching introductory English and university orientation classes, she helps current UMBC students find their own path, too.

Q: What part of your job do you enjoy the most?

A: I love interacting with students and helping them find their way. Being that person who they can turn to when they don't know where to go is the most important part of our job. When I was an undergrad, I did not have the best advising experience, so being able to make a difference as an advisor now feels like a great twist of fate.

Q: What's one thing about the UMBC community you really value?

A: There will always be someone in your corner. I did my master's here and it was the first time I immediately felt seen in my academic career. When I came to work here, I immediately felt wanted and supported. There are so many resources available to the UMBC community and there is always someone there to help you find them.

Q: Who at UMBC has supported you?

A: My boss **Emily Abrams-Stephens** is spectacular. My fellow advisors are also there to support me. If I am ever away, I know my students will be taken care of by my colleagues. The most remarkable thing about UMBC is the people.

Q: What is a fun fact about yourself?

A: I like to play Volo soccer in Baltimore and do Dog's Day Out at BARCS!

Read Hailey's full interview at: umbc.edu/stories/meet-a-retriever-hailey-turney

Hometown Recruits Shine Bright

The Best of Baltimore Grant, a UMBC initiative started in fall 2025, is changing how students from Baltimore City imagine college: not as a distant possibility overshadowed by debt but as a tangible, financially supported path forward and right in their backyard.

For first-year student **Essence Jones**, who went to Baltimore City College, a high school in northeast Baltimore, "that financial freedom really pushed me towards UMBC," she says, describing the moment she learned the grant would cover what other aid could not—including room and board.

The Best of Baltimore Grant grew out of President **Valerie Sheares Ashby's** desire to see a greater number of Baltimore City high school students become Retrievers. And the grant is just one part of a bigger initiative, says **Yvette Mozie-Ross** '88, vice provost for enrollment management and planning: "This year, we have been more intentional with our outreach efforts, partnering with community-based organizations such as CollegeBound and College Track to continue to help us get the word out how the Best of Baltimore Grant can make a UMBC education attainable for all Baltimore City residents."

The grant is designed to cover remaining billed costs after federal grants, subsidized loans, and other scholarships are applied, closing gaps that often prevent students with demonstrated financial need from enrolling.

In its first year, the program offered awards to nearly 140 students, with dozens ultimately enrolling and receiving grants ranging from $1,100 to $22,000. And the increased outreach methods are paying off—applications from city residents grew by 20 percent for fall 2026.

Jones, a double major in biological science and psychology, says UMBC meets her at her pace and provides lots of student support. She points to spaces like the Learning Collaboratory, where students gather to work through complex chemistry problems together.

Deylon Moy Joseph, a mechanical engineering first-year student and another Best of Baltimore awardee, arrived in the United States from Trinidad and Tobago in 2022 and enrolled at Mergenthaler Vocational-Technical High School. From the start, financial reality and the desire to avoid student loans shaped his college search. At UMBC, he found a layered support system: the Meyerhoff Scholars Program and, unexpectedly, the Best of Baltimore Grant. "We didn't have to apply, but when we were accepted to UMBC, we received letters saying, 'Congratulations,'" he recalls. "It was amazing."

Moy Joseph credits faculty like assistant teaching professor **Joseph Washington** '97, Ph.D. '15, mechanical engineering, with offering an open-door approach that allows students to work through complex problems in real time. Outside class, in spaces like the Retriever Learning Center, "it's so easy to study with someone," Moy Joseph says. "And it's satisfying to help people, too."

That reciprocity—learning, then teaching—is central to many Retrievers' experiences. It reflects a broader culture at UMBC, one that merges academic rigor with connection, starting in our very own neighborhood.

— Randianne Leyshon '09

Left to right: President Valerie Sheares Ashby, Yoseph Tenaye Getachew '29, Rep. Kweisi Mfume, Essence Jones '29, Diego Leonel Escobar '29, Ray Conaway (district director for Rep. Mfume), and Yvette Mozie-Ross '88 meet to share the successes of the Best of Baltimore Grant. Photo courtesy of Jones.

IMPACT

A Place Where Kindness Grows

Ten minutes south of True Grit's, food is also being prepared for the local community. It's 8:30 on a Wednesday morning in the parking lot of Arbutus United Methodist Church. To the right of the church building is the Southwest Emergency Services (SWES) office, where the clanking of canned goods on metal shelves and the rustling of brown paper bags echo in the back warehouse. Legacy volunteers, UMBC Shriver Peaceworker Fellows, and Shriver Center undergraduate student volunteers quickly stock shelves and prepare to fill grocery bags with donated goods for families in the surrounding 21227 or 21229 zip codes in need of food assistance.

Rosmery De Jesus Dinzey Santana, a senior psychology student, pops out of the dried goods room to check the first order. She writes the number three on a sticky note and sticks it to a grocery cart that gets passed around from volunteer to volunteer, until it gets all the way to the back to Joan Birmingham, a volunteer of 15+ years, who quickly spins the cart back around, pushing it down the long hallway, the wobbly wheel hitting the metal, making a ding sound like it's announcing it's ready to check out.

While UMBC and SWES have been in proximity for decades, it's relatively new that an intentional cohort of Retrievers regularly volunteers there. This shift was led by a UMBC Peaceworker Fellow, **Megan Hamilton**, who began working with SWES for 20 hours a week in fall 2025. The Peaceworker Fellows Program, based in UMBC's Shriver Center, offers a master's degree in social change leadership for returning Peace Corps Volunteers. Fellows are required to complete 20 hours a week of service with community partner nonprofits, government agencies, or campus-based service-learning for the entirety of the program, says **Charlotte Keniston**, Ph.D. '24, language, literacy, and culture, an alum and current director of the program. "We now have weekly undergraduate volunteers working with the legacy volunteers, UMBC staff supporting grant writing, and a team of graduate students creating a data management system for them," Keniston says.

For Hamilton, the experience has been deeply fulfilling. "Community service is one of the happiest things I can do with my life," she says. "I think in this particular time, people have lost track of the joy of service a little bit." The Retrievers at SWES are working to bring that back.

Back at SWES on Wednesday morning, it's getting close to 9:00 a.m., and a stream of cars fills the parking lot. Hamilton greets each client with a genuine ear-to-ear smile as they walk in the door.

Hamilton has a booming, happy voice and laugh. She has deep roots in Baltimore's grassroots organizing and cofounded the Creative Alliance in 1994, a performance and art community space in the city. Her big heart has also taken her around the world in the service of others, including her Peace Corps service in Albania.

Hamilton was beaming this morning because the Maryland Foodbank, which donates food to SWES, had just conducted a site visit and was impressed with how SWES is committed to shifting to a choice food pantry—a labor of love for Hamilton. Choice food pantries function similarly to a grocery store, where clients select the food they take, increasing agency and reducing waste.

"The loving energy catalyzed when the students meet, learn from, work with, and teach their elders is awe-inspiring," says Hamilton. "It has meant worlds to the elders and the students, and those friendships are laying the groundwork for SWES' long-term sustainability."

In the future, SWES is also looking to evolve its financial assistance program, where families receive financial assistance to prevent evictions, utility shut-offs, and prescription costs. SWES covers part of the bill, and the family covers the rest. SWES hopes to leverage the renewed partnership with UMBC's Peaceworkers and Shriver Center volunteers to develop a financial literacy skills program to help families become economically stable and prosperous, and pass those skills to future generations.

Hamilton says part of what's making the relationship between SWES and UMBC work so well is the physical proximity as well as a shared commitment to service in the Baltimore area.

Dinzey Santana, the only Spanish-speaking volunteer, provides language support for Spanish-speaking families helping to translate their needs to the rest of the team. She is quiet but fierce in her service, consistent, a master of organization, and overall just awesome, Birmingham says.

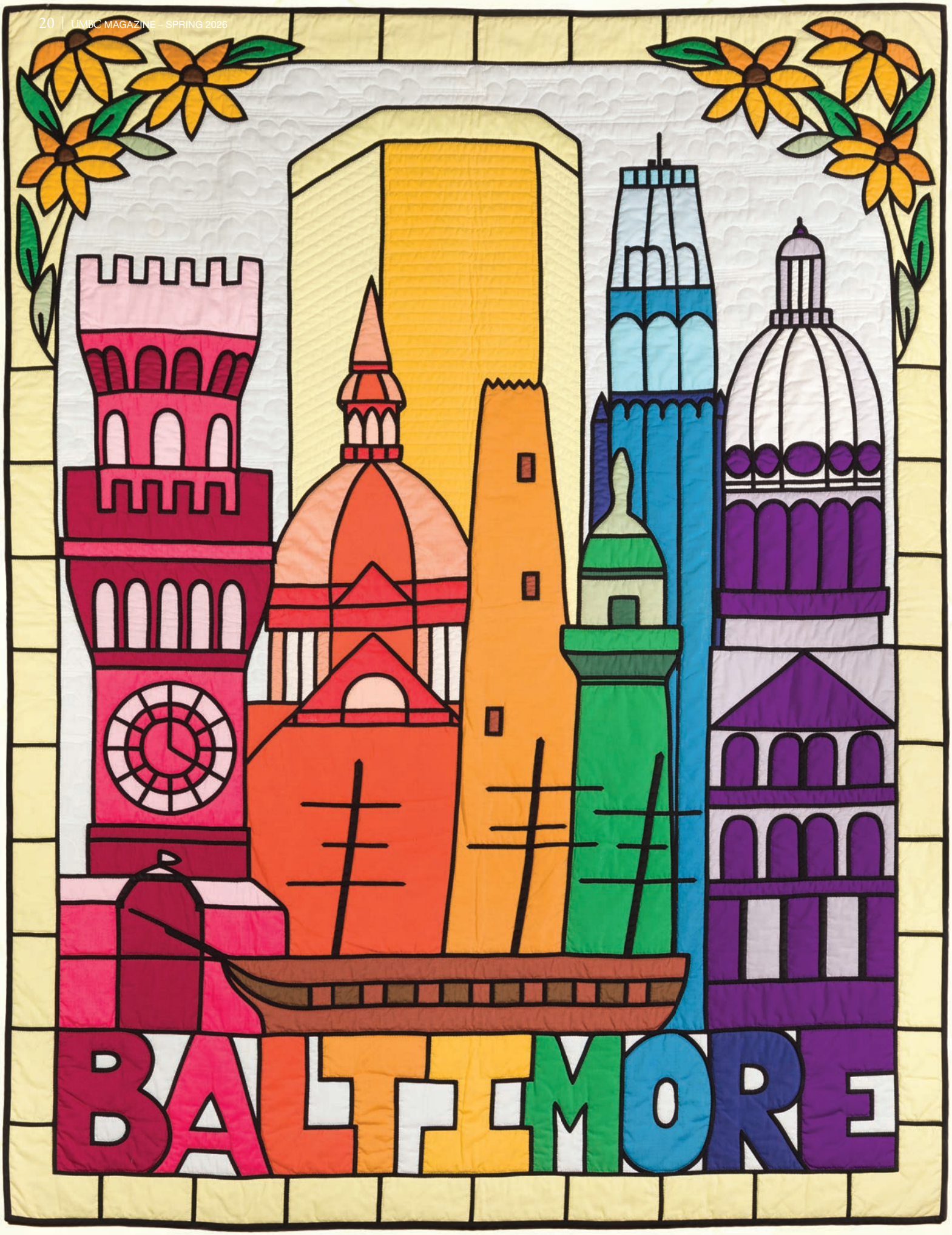
"Coming to UMBC, I learned so much about what is possible," Dinzey Santana says. "I want to go back to Silver Spring, where I grew up, and work with other Latinos to show them that it's possible to go to college and give to your community at the same time."

The UMBC volunteers serve alongside legacy volunteers from the community and surrounding areas who have, in some cases, been volunteering for decades. Star legacy volunteer Naomi Morris is 92 and has volunteered at SWES for 30 years. Birmingham says that although SWES has seen its share of challenges, she is continually touched by the people she meets and the way they make it work.

Sometimes, when the pantry and the financial assistance dwindle and there doesn't seem to be an answer to how SWES will serve its community, Birmingham throws out a request to the heavens. "I learned it from my friend who volunteers with me. She just calls it out, 'We need more of whatever it is,' and sure enough, the next day someone walks in with what we need. Last week it was pasta, this year it was volunteers—both came in abundance, and Megan, Rosmery, and all the UMBC volunteers are now helping us legacy volunteers to keep it all going."

— Catalina Sofia Dansberger Duque

Clockwise from top left: Megan Hamilton. Joan Birmingham and Diane Moberg, financial assistance volunteer and SWES board member, fill paper bags with toiletries. Rosmery De Jesus Dinzey Santana and Birmingham check the list of families that need to be served. Birmingham, Dinzey Santana, and Moberg prepare a cart for a family.


BALTIMORE

THE CHARM PACK SOLVES THE CASE

Originally approached with a quilting mystery that began in 1846, a summer CoLab pulled together a group of Retrievers to to examine the evidence. The detective pack expanded their search into robust research and, along the way, discovered how the communal process of sewing storytelling quilts lets these works of art transcend time.

By Catalina Sofia Dansberger Duque

Left: Mimi Dietrich '70 submitted this quilt, "Baltimore: Through a Glass Brightly," to Baltimore's Best Quilting Contest in 1981. Image courtesy of the Maryland Center for History and Culture where the quilt is on display. Above: Obed Grant, community engagement and partnership coordinator, Mayor's Office of Arts, Culture, and Entertainment, Christa Gilliam, Kat Gill, Monique Crabb, Sarah Fouts, and Mimi Dietrich pose in quilts that hold meaning for them.

The original quilt that caught collector Henry Stansbury's eye due to the signed name that matched his own surname. Photos courtesy of Sarah Fouts.

Those in the quilting community know that the charm pack is a pre-cut bundle of fabric squares that can be used to create the patchwork for the top layer of a quilt. This story begins with a team that can be considered a sort of Charm Pack: expert quilters **Mimi Dietrich**, **Monique Crabb**, and **Christa Gilliam** and researchers **Sarah Fouts**, **Kat Gill**, **Ben Kays**, and **Alyssa Thomas**.

The pack first came together to solve a mystery for art collector Henry Stansbury, who bought a quilt at an auction 35 years ago with the words "Elizabeth Stansbury 1846" stitched into it. Last year, Stansbury showed this quilt to Dietrich, along with a second one he bought, stitched with the names Elizabeth and Mary Stansbury. Dietrich '70, American studies, a member of UMBC's Founding Four, has written 17 quilting books and has been an active part of the Baltimore quilting community since the 1980s. One look at the quilts and Dietrich could identify the type of fabric, the stitches used, and the style of quilt—a Baltimore Album Quilt. But these details didn't give any clues about the Stansburys.

The pair turned to Sarah Fouts, associate professor of American studies and codirector of UMBC's Public Humanities Program, for help. Fouts saw this as a great opportunity for a summer CoLab—where students and faculty conduct humanities research with a community partner and create public-facing projects. Enter the Storytelling through Baltimore Album Quilts 2025 CoLab.

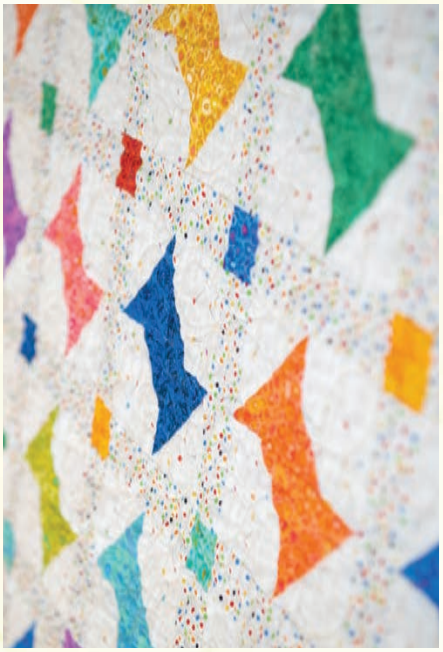
Are the Stansbury quilts lost family heirlooms? Who are Elizabeth and Mary Stansbury? Are these two quilts telling the story of unrelated families with only the buyer to tie them together? The quick answer is no. "We never doubted they were related," says Fouts. "There were just too many Elizabeths and Mary Stansburys that we couldn't link it to a direct family line." The longer, more complex answer is that all the threads led to a basement full of treasures and $10,000.

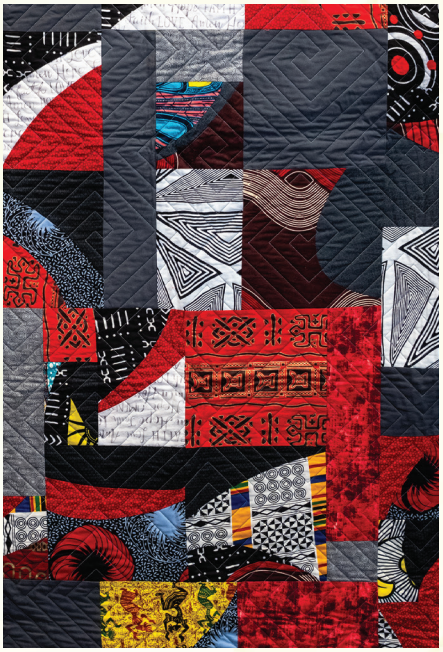
THE SANDWICH

A quilt has three layers: the quilt top, the batting or insulating layer, and the backing or the bottom layer of fabric, formally known as the quilt sandwich. These pieces create the whole, and Fouts needed to find all the pieces of the sandwich, so she sent out a call for student interns to join the quilt-mystery-turned-humanities-research CoLab. Then she gathered a team of quilting experts: Dietrich; Crabb, M.F.A. '22; and Gilliam, an associate professor of social work at Morgan State University who uses African-print fabrics to create quilts about her lived experience.

The first to join was Crabb, a Mexican American artist, who began quilting in 2014 and uses plant dyes, photography, thrift fabrics, and various quilting techniques to create quilts that reflect personal histories and feminism. As an adjunct professor at MICA, Crabb teaches 16 fiber-related processes in her Intro to Fiber class. But before the CoLab project even began, it took a turn. Crabb liked the idea, but encouraged Fouts and Deitrich to go to the basement of city hall. Crabb knew that if they thought the Stansbury quilt was a find, the bowels of city hall would dazzle them. She was right. Hanging in front of them was not one but several different types of quilts from the Great Baltimore's Best Quilting Contest of 1981, and they realized one of the participants was standing among them.

The inaugural citywide quilt competition, which Dietrich entered, celebrated Baltimore's transportation, architecture, industry, people, and plants and animals. "I was surprised to see that the quilts were in the basement," says Dietrich.





Top left to right: Dietrich's quilt, "Baltimore Album Retirement," was made by hand in the appliqué style; Dietrich's quilt, "Colorful Spools" is patchwork quilted by machine; and Christa Gilliam's quilt, "Her Flow."

Bottom left to right: "Grandmother's quilt" passed down to Sarah Fouts by her grandmother, Zita Bianchi Fouts; Christa Gilliam's quilt "Golden Time of Day"; and "Into the Blue" by Monique Crabb, machine pieced cyanotype and hand-quilted to memorialize her father.

"She Who Wears A Crown" quilt by Christa Gilliam, appliqué machine quilted.

Hers is stored at the Maryland Center for Culture and History (MCHC). "I entered the contest because I've always lived in Baltimore County."

This treasure added multiple layers to the Charm Pack's work. Now, it wasn't about one quilt story, but many. Quilts made by residents from across Baltimore who, in 1981, chose to bring forth their vision of Baltimore through needle and thread. Who were these craftspeople? What was the history of the contest? And why did the Great Baltimore's Best Quilting Contest have to live in the past?

"It's good to learn something else from what you're trying to find out," said Dietrich, and with that, students across the College of Arts, Humanities, and Social Sciences took up the mantle of citizen investigators. Gill, an American studies and English senior; Kays, a theatre design and production junior; and Thomas '25, Asian studies, made the cut. They analyzed historical records, photographs, and documents from the Library of Congress, Maryland State Archives, Maryland Historical Society, and the Maryland Quilt Heritage Project, and they quickly solved the first mystery. No records tied Henry Stansbury directly to the quilts. However, the trail did connect the deep red that bordered the quilt and was used throughout the blocks as well as the indigo used to color bluebirds in mid-flight to Maryland and beyond.

"Wonderful natural dyes have dyed the fabric on this quilt. The red throughout is made fromTurkey red... matter root that is grown here in America," said Gills in a video the lab coproduced with the Baltimore Heritage organization. "We also have this wonderful indigo blue that is very vibrant on the bird, which is from the indigo plant and is also made here in America but is also imported from Latin and South America as well."

The quilts the students researched were examples of how one person's quilt tells more than one story. From the thread and needle chosen to the types of dyes on a cloth, each piece can stand as its own narrative, but once stitched together, a more complex one can emerge. "Quilts became powerful analytical tools, allowing students to interrogate intersections of class, race, gender, and globalization and demonstrating how even the most familiar objects are embedded in complex and often unequal systems," says Fouts.

THE BLOCKS

Blocks are individual units of fabric sewn together with other identical or different blocks to form the main pattern of a quilt top. With the Stansbury mystery partially solved, everyone turned their efforts to studying the technical, communal, and historic aspects of Baltimore Album Quilts, which were named after a book where each page commemorated a friendship, like the adjacent blocks of a quilt.

To learn from the masters behind the craft, Dietrich introduced the students to 20 Baltimore quilt-makers. Kayes interviewed Crabb about the natural dyes and contemporary quilting practices. Thomas interviewed Gilliam about embellishments and Black quilting traditions in Baltimore. Gilliam is a fiber artist and member of the African American Quilters of Baltimore and a former Maryland Folklife Apprentice of Vera Hall, a prominent Maryland African American master quilter. With nearly a decade of experience in quilt making, Gilliam once created a quilt titled "She Who Wears A Crown," to help her students understand the 2019 Crown Act that protects against discrimination based on race-based hairstyles by extending statutory protection to hair texture and protective styles such as braids, locs, twists, and knots in the workplace and public schools.

"What excites me most about my work is the ability to work in community and meet so many young people who are interested in learning about the history of quilting," says Gilliam. "Quilting allows us to learn and teach the stories that connect us to the past."

THE BINDING

When all the measuring, cutting, dying, and stitching have told the story, the quilter binds it together by sewing a strip of fabric around the edges to cover the raw edges of the quilt sandwich. It acts as a protective border to prevent fraying and provides a polished look.

After four weeks and 130 hours of research, the CoLab, in partnership with Baltimore Heritage, coproduced five oral histories on Dietrich, Crabb, Gilliam, Stansbury, and Catherine Rogers Arthur, vice president of collections and chief curator of MCHC.

But there was still one more loose thread. Crabb didn't think the Baltimore Album Quilt story should have ended in 1981. The 1981 competition was hosted by Baltimore City Hall, with a grand prize of $1,500. In 2025, Fouts reached out to city hall for support to resurrect the competition. The positive response was not only immediate but backed with a $10,000 prize for the contest. Maryland State Art Council had already committed $7,000 to operations.

With the support of Baltimore City's Mayor's Office of Arts, Culture, and Entertainment and Maryland State Arts Council's Maryland Folklife Network, the CoLab has renewed the competition, titled Homage to Baltimore Quilting Competition. By April 1, more than 50 people submitted quilts. After Gilliam, Crabb, and Dietrich judged the final round of quilts, a $5,000 grand prize was presented at the opening exhibition on June 6, 2026, at Current Space.

The winning quilt does it all: Each of the 18 blocks of the hand- and machine-stitched quilt tells the story of Baltimore's history using a lens from the present. Created by Piecing with Purpose Quilt Collective, "Baltimore Citizens, from Past to Present, on a Zoom Call" unites the city's legendary movers and shakers in conversation with each other.

Two of the 1981 quilts were also on display at the Current Space exhibition, along with a zine by **Abby Wheatley**, a junior graphic design major, illustrating the history of the 1981 competition. "It'll be exciting to see the continuity of themes over the 45 years of the competition," Fouts says, "and, through the historical side, we can bring to life some of the CoLab's archival work." The top three winning quilts in the competition will be displayed in public schools. The Mayor's Office has committed to continuing the competition in the future.

What began as a 19th-century quilting mystery evolved into a colorful and accessible competition—celebrating a wide range of voices and inviting people to wrap themselves up in Baltimore.

"I was fascinated with the CoLab experience and how the students shared their progress," says Dietrich. "I love seeing how UMBC has grown. It's amazing to see it through the eyes of someone who was here when it opened. There are so many different choices for engaged learning."

First prize for the 2026 Homage to Baltimore Quilting Competition went to Piecing with Purpose's "Baltimore Citizens, from Past to Present, on a Zoom Call." Image courtesy of Fouts.

Kayla Nemirovsky, mathematics and financial economics

For once, Kayla won't be traveling far after graduation. She'll be staying at UMBC to pursue her master's in teaching.

Shawn Bearam, Jr., computer science

Using the skills he gained in his computer science major, Shawn will be working as a project analyst for the State of Maryland within the Division of Information and Technology.

Vunnathi Ankem, psychology

Vunnathi looks forward to returning to her classical dancing roots as she heads to India for a nine-month research project through a Fulbright Scholarship.

Meet the Class of 2026

If you surveyed UMBC's Class of 2026 and generated a word cloud, the word "community" would instantly dominate the screen. You might be tempted to dismiss it as a buzzword until you see how many graduating students highlight the communities they found and the communities they made as their defining experience of being a student at UMBC. "I can be myself here and I'm not going to be judged. Community is truly the word to describe UMBC," says **Shawn Bearam, Jr.**, computer science.

By UMBC Magazine Staff

Who are the graduates of the Class of 2026? It's safe to say they contain multitudes: There's an engineering management graduate student from India who devoted time to helping Marylanders complete their taxes; an English and political science student who volunteered as an educational and workforce advocate for Baltimore City youth; a mathematician—and *Survivor* hopeful—teaching game theory and disease modeling to students in Rwanda while also helping them understand the U.S. college admissions process.

What do they have in common? If you meet a Retriever from the Class of 2026, you will walk away from the encounter feeling hopeful for the future. These leaders and educators and entertainers and researchers are making room in the world for each person's voice to be heard and heeded. We can't wait to see where they take it from here!

"It's the people"

If community is the key takeaway from the Class of 2026, where are students finding their niche groups? **Vunnathi Ankem**, psychology, saw a way to bridge multiple areas together. As a resident assistant, a researcher, and a multifaceted student leader, she has spent her four years both building community and studying its impact on the human experience. From hosting public-service retreats in Baltimore to interviewing members of the South Asian diaspora for her thesis, Ankem's work bridges the gap between community-centered research and heartfelt advocacy. As a newly awarded Fulbright Scholar to India, Ankem leaves behind a campus made stronger by her leadership and a personal roadmap focused on healing, mentorship, and global research.

"When I think about what I'm proud of, it's not the awards, it's the people," says Ankem. "I remember all the people who were there when I needed support—those people meant more to me than any accomplishment. My advice would be to think about what you'll look back on. It will most likely be community—the people who were there when you weren't at your best."

Bearam in computer science was not content to confine himself to one campus community. He puts it plainly: "I found communities where it seemed that everyone was having fun together, and I wanted to be a part of that," he says. He had roles with the events staff in Athletics, at UMBC's research and technology park, bwtech@UMBC, and working as a lead office assistant for the vice president of student affairs. If that wasn't enough, he also served as a lead resident assistant and a first-year ambassador for the Student Government Association.

"I started to see that I was able to learn so much here," says Bearam. "I saw people who looked like me in different spaces, and I knew they would be able to understand me, so I wanted to get involved."

Rileigh Mansfield, mathematics, also made it her goal to build connections across a variety of UMBC communities. As a Meyerhoff Scholar, she served as a peer advisor and conducted research with multiple math professors, "but honestly," she shares, "some of my most meaningful involvement has been more informal. Last spring, I was having a tough semester when I got invited to join a group from the math lounge to play the board game Catan on Tuesdays. It became a little community and something to look forward to every week—a much-needed step back from school and work. I actually play in competitive Catan tournaments now, and I'm even hosting an official tournament this spring through the math honors society."

"Just see it through"

Often, the defining moment in a student's successful academic trajectory is a challenge that they can point back to. When **Chinonso Ezeobi** decided to pack up his life in Nigeria and come to the United States to pursue his Ph.D. in electrical engineering at UMBC, he was thrilled at the prospect of finding a program that would bring him fulfillment. However, financial struggles and the impact of the COVID-19 pandemic quickly threatened Ezeobi's plans for the future.

"Once I navigated through one challenge, another one came in," he says. "But at the end of the day, it was worth it. I was able to pull through all of those challenges. I was also able to transition from being an international student to having a green card through self-petition and self-advocacy, so I'm able to graduate without the additional pressure of thinking about my visa status while looking for jobs. My faith and the community at UMBC were essential in navigating through all challenges. The motivation was that I had a community of people who wanted my success, people who I felt would advocate for me even when I'm not in the room."

Never one to be derailed, Ezeobi found mentors across campus who made it their mission to keep him on the path to his Ph.D. Ezeobi recognized how invaluable their support was and found his own ways to give back to the place and people who gave him so much, including keeping his door open to any students who may need an advocate on their side.

At one point, **Maia Turman Cooke**, English and political science, was thinking about backing out of her scholar's program opportunity. In the end, though, she was surprised by how the McNair Scholars Program changed her life. "At the beginning of the application process, it seemed like a lot, and I wanted to quit—I didn't want to join. The director of the McNair Scholars Program, Dr. **Michael Hunt** ['06, Ph.D. '25], called me and said, 'Just see it through, see it out. If you don't like it when you get more involved, then you can leave.'"

Turman Cooke processed the expectations of the programs—like pursuing graduate school—while recognizing she had so much to learn about how research worked. "I was so overwhelmed because I thought I had to solve every world problem. But my peers convinced me to stay. Soon, that work became a normal part of my schedule. I had no idea what research was, and now it's something I'm super passionate about," says Turman Cooke, who starts her Ph.D. in English at the University of Maryland, College Park this fall.

"A person who needs a path"

Sometimes the way forward is clearly marked, and other times Retrievers forge their own way. **Kayla Nemirovsky**, mathematics and financial economics, had a love for international travel and a scholarship with the Sondheim Public Affairs Scholars Program but wasn't sure how those interests combined with her majors.

Nemirovsky, who is staying at UMBC to pursue her master's degree in teaching, charted her own route at UMBC as an Education Abroad ambassador, sharing widely with her peers the importance (and accessibility) of studying abroad for any major. Her Sondheim mentors connected her with an internship at the Maryland State Department of Education, and this experience helped her solidify her interest in math education curriculum and policy.

"I'm a person who needs a path," says Nemirovsky, who has traveled to more than 30 countries and counting. "I realized once I got to college that there's kind of no more path—I have to make my own. That was really scary to me, so having mentors who can help me make this path...give me advice and offer suggestions, that was extremely helpful. I really believe you have to choose the people you look up to and kind of aspire to be them."

Over his two years of graduate study at UMBC, **Yash Bhatt**, M.S., engineering management, saw his time at UMBC as much bigger than "just earning a degree." He charted a path to contribute meaningfully to both the university and the greater Baltimore community. As a graduate student, Bhatt arrived at UMBC with an undergraduate degree and professional experience, but he says he was not yet the confident leader he is today.

Outside of the classroom, Bhatt dedicated himself to enhancing student life for his classmates. As a member of the Indian Graduate Student Association and the Black and Gold Student Advisory Board, he advocated for international students and contributed to university decision-making. Bhatt also joined two Alternative Spring Break experiences. Starting as a participant and returning as a program leader, Bhatt immersed himself in what he considers a genuine "American student experience," building local friendships and making connections within local government and community organizations, in addition to the service the participants provided to the community.

"The best part of my UMBC experience has been the people and the sense of community," says Bhatt. "UMBC has this unique balance—it's diverse and full of opportunity like a larger university yet still close-knit enough that you truly feel seen and supported."

Read about more members of the Class of 2026 online at umbc.edu/class-of-2026.

Yash Bhatt, M.S., engingeering management

Building on the experience and relationships he has poured into at UMBC, Yash is exploring career options that will allow him to do impactful work in the United States.

Maia Turman Cooke, English and political science

Maia will continue to pursue her passions this fall as she embarks on her journey toward a Ph.D. in English at the University of Maryland, College Park.

Rileigh Mansfield, mathematics

Looking toward sunny California skies, Rileigh will start her Ph.D. at Stanford University in geophysics this fall.

Business

(NOT) As Usual

At UMBC, entrepreneurship transcends a traditional business education: It empowers scientists, artists, and technologists to transform their expertise into real-world impact. Through business accelerators, ambassador programs, interdisciplinary courses, and other innovation pathways, the university offers many avenues for ideas to flourish.

By Sarah L. Hansen, M.S. '15
Illustrations by Mali Glazer '27

Kushani Mendis' schedule is packed with interviews of biomedical technology researchers in government, academia, and industry. Her probing questions are helping determine whether novel nanomaterials have commercial potential. You might assume Mendis is a business student, but she is a Ph.D. candidate in chemistry: Mendis moved to the U.S. from Sri Lanka for graduate school, and she and colleagues in a lab led by **Zeev Rosenzweig**, professor of chemistry and biochemistry, have developed these nanomaterials themselves.

Early in her Ph.D. career, Mendis told Rosenzweig, "I want to become an entrepreneur." His response? "If that is what you want to do, we will help you achieve that." That support—coupled with additional resources and an internal drive to succeed—has allowed Mendis to flourish. She balances independent laboratory research, teaching and mentoring undergraduates, and leading a team in the National Science Foundation Innovation Corps (I-Corps), which trains scientists to translate research into societal impact. She even occasionally finds time to engage her artistic side.

UMBC has no formal business school. Yet it may be one of the best places in the country to learn entrepreneurial thinking, precisely because the best ideas so often come from those with technical expertise rather than MBAs. Also, many UMBC entrepreneurs are motivated by a desire to drive positive social change rather than profit, which is supported by courses on "socialpreneurship." Overall, the university's model rests on a simple but powerful dual thesis: 1) Disciplinary excellence paired with an entrepreneurial mindset produces graduates who create real-world impact, and 2) entrepreneurship is for everyone.

Employers repeatedly say they need graduates who excel in communication, creative problem-solving, collaboration, and constructive conflict navigation. Traits like resilience and empathy are in high demand. After all, finding effective solutions often requires understanding problems from another's perspective. UMBC's courses and programs deliberately train these skills, which can enhance the success of entrepreneurs—and every UMBC graduate.

The results speak for themselves. Students are winning state and national funding, launching ventures, gaining versatile life skills, and contributing to Maryland's innovation economy. This spring, two UMBC student teams—iBraid and StrikeSense—each received $50,000 Pava LePere Innovation Awards. Others have advanced through the university's summer Launchpad accelerator and secured funding totaling more than $300,000 in the past three years.

An entrepreneurial environment

The roots of UMBC's entrepreneurship emphasis trace back to 2000, with the founding of the Alex. Brown Center for Entrepreneurship and Innovation. Initially led by **Vivian Armour** and supported by Constellation Energy Corp. and the Herbert Bearman Foundation, the center took off. In 2006, the Kauffman Foundation awarded funds to a small cohort of universities including UMBC, as well as Brown, Carnegie Mellon, Arizona State, and Purdue—to further their entrepreneurship efforts. Armour invited **Gib Mason** '95, economics, a serial entrepreneur who had been guest lecturing at UMBC, to help steward UMBC's $2 million Kauffman award.

"Kauffman's research had shown that it wasn't the business school students bringing entrepreneurial ideas to the marketplace," Mason recalls. "It was the engineers and the tech guys and gals." The foundation's premise was that exposing disciplinary experts to entrepreneurial environments could help them develop and commercialize new ideas, he explains.

That initiative led to the creation of UMBC's minor in Entrepreneurship and Innovation. The 18-credit program combines two core entrepreneurship courses with 12 credits from designated courses across UMBC's three colleges, where faculty have infused entrepreneurial principles into existing major curricula. Today, more than 70 courses in biology, public health, information systems, art, and engineering count toward the minor, making it broadly accessible.

The center turned 25 this academic year. **Kevin Fulmer**, its first full-time director and a lifelong entrepreneur, has spent the past five years expanding its reach and visibility. "Before there were any full-time staff, awareness of the center was fairly minimal," he says. Under his leadership, the introductory course, Introduction to Entrepreneurship—which fills up quickly every semester—was approved as a General Education Program course. The center also launched a student ambassador program, and now six students promote events, support programming, and serve as peer mentors. Faculty can apply for funding to embed entrepreneurial thinking in their courses, and designated faculty fellows from each college are designing discipline-specific tracks within the minor. "We're trying to make it as accessible for as many students as possible," Fulmer explains.

A separate master's degree in Entrepreneurship, Innovation, and Leadership—developed by Mason and offered through UMBC's Division of Professional Studies—has served working professionals since 2019 and draws on the same philosophy of practical application. Meanwhile, the center's summer Launchpad accelerator has supported more than 20 student ventures since 2022; participants receive an $8,000 stipend to dedicate 10 weeks to full-time customer

discovery and problem validation. iBraid and StrikeSense, the Maryland award winners, emerged from the accelerator's pipeline. Additional opportunities include the fall Idea and Innovation Challenge (with a popular social-impact category) and the spring Cangialosi Business Innovation Competition for more developed concepts.

All of this exists without a traditional business school. Instead, UMBC has built an ecosystem that meets students where they are—inside their technical and creative majors—and provides the tools to translate discovery into impact. "Entrepreneurship is for everyone," the Alex. Brown Center's website proclaims, regardless of major or career aspirations.

Not-so-risky business

Entrepreneurship at UMBC emphasizes mindset over venture creation alone. "It's really just about solving problems and using an entrepreneurial mindset to do that," Fulmer stresses.

Studies suggest that only 30 to 50 percent of graduates nationally are employed in roles directly related to their specific field of study, Fulmer notes. "You may have all the technical skills in the world but not get these life skills from your major," he adds. UMBC's approach prepares students for diverse careers—launching startups, innovating inside a corporation, teaching, or pursuing research—by developing empathy and resilience and building creative problem-solving and communication skills.

Mason challenges the stereotype that entrepreneurs are reckless risk takers. "Most entrepreneurs are constantly making informed decisions to mitigate risks," he says. He draws from childhood summers working on his grandfather's Kansas farm, where he earned money from "his" acres of wheat—until one year a tornado destroyed the crop. The experience taught him that "there's a lot that you can control and a lot that you can't." True entrepreneurs, he says, take calculated risks and then work diligently to reduce them.

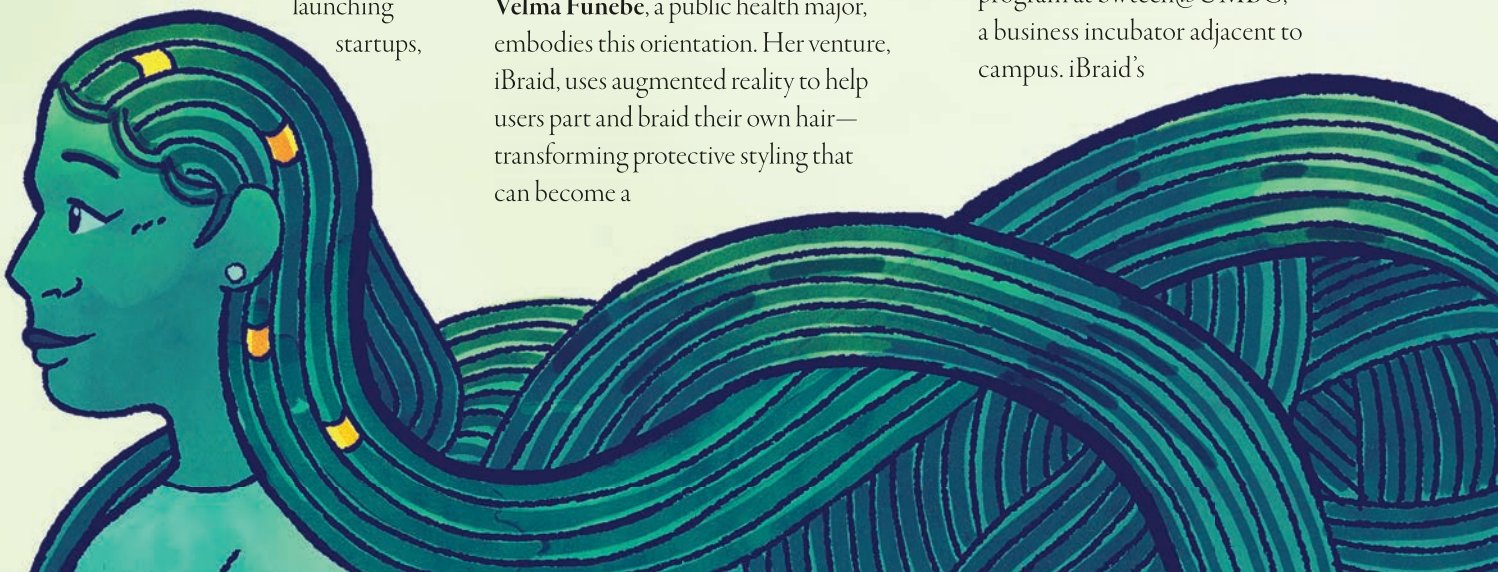
Many UMBC students are drawn to socialpreneurship—ventures that solve societal problems rather than chase profit. "Students today seem especially geared toward trying to do things for social impact," Mason says. The center's social-impact track in competitions reflects this, and courses like Creative Problem Solving and the Socialpreneur have led to tangible outcomes, such as OCA Mocha, a coffee shop connecting UMBC with the Baltimore community.

Braiding the future

Velma Funebe, a public health major, embodies this orientation. Her venture, iBraid, uses augmented reality to help users part and braid their own hair—transforming protective styling that can become a multi-day ordeal into a more manageable process. Inspired by braiding her own hair since age 11 and running a professional braiding business since ninth grade, Funebe validated demand via TikTok and conversations. "I realized it was a major problem because so many people struggled with it," she says. "I couldn't find any solutions out there."

As an Entrepreneurship Ambassador, she now supports programming and events like 1 Million Cups, another Kauffman Foundation initiative where entrepreneurs pitch ideas and get feedback. The Baltimore edition meets at OCA Mocha twice monthly. "The scariest part is when the idea is not just in your brain, but other people hear it," Funebe says. "But I think it's a great space to get feedback and say, 'Okay, I can live through an application rejection.'"

Funebe's faith helps anchor her while she balances classes, leadership in the Public Health Council of Majors, weekend braiding appointments, and venture development. iBraid has gained strong traction: a second-place finish in UMBC's Idea and Innovation Challenge, the Pava LaPere Innovation Award, a waitlist approaching 4,000, and more than 10,000 TikTok followers. Beta testing is underway, supported in part by two UMBC data science graduate fellows through the Maryland New Venture program at bwtech@UMBC, a business incubator adjacent to campus. iBraid's



momentum continued to build at Maryland New Venture Pitch Night '26, where Funebe took third place and received the Audience Choice Visionary Award.

"The Alex. Brown Center has played an essential role in helping me to grow my confidence," she says. To others considering giving entrepreneurship a try, she says, "Don't be afraid to fail—at least you get a result out of failing and can learn a lot from it."

Striking while t's hot

Abhinav Patel, **Charles Nerad**, and **Aidan Fleischer**, cofounders of StrikeSense, channeled frustration with their tae kwon do training into innovation. In competition, expensive electronic wearables detect hits and record scores, but most athletes lack access to that equipment in practice. "I had the idea for a sparring vest with a health bar like something from a video game," Nerad says.

The team developed an affordable sensor attachment that turns any existing sparring vest into a smart vest capable of detecting and scoring hits, with a gamified "health bar" interface. After placing second in the 2025 Cangialosi Business Innovation Competition, they joined the summer Launchpad program.

"All of the support we have gotten from UMBC has been instrumental, and we wouldn't be where we are today without it." Patel notes. Mentors like **Donald Miner** '06, Ph.D. '10, computer science; **Chris Ewing**, an "entrepreneur in residence" at bwtech@UMBC; and especially Fulmer provided guidance: "Without [Fulmer], we would not have had the encouragement to continue, the accountability to work hard, and the guidance to grow," Nerad adds.

They are now refining software and preparing a pilot program with local dojos. "There is no better time to take a chance on an idea than right now," Nerad advises. "You are surrounded by thousands of brilliant minds at UMBC and have access to dedicated mentors who genuinely want you to succeed."

And Mendis continues to thrive at the intersection of research and entrepreneurship. Beyond I-Corps, she has participated in the Center for Sustainable Nanotechnology, represented UMBC in the regional Three-Minute Thesis competition, and completed training at Brookhaven National Lab through UMBC's Chemistry and Biology Interface program. To younger scientists, she says, "Being a scientist does not have to mean being confined in a lab. You are a human who has a lot of potential that you can give out to the community."

As Fulmer puts it, "We've always been really great at UMBC at training students' analytical, left-brain development, but our entrepreneurship programs are promoting right-brain skills as well, which are just as important."

Extending the ecosystem

Faculty, alumni, and the broader community benefit, too. bwtech@UMBC offers state-of-the-art labs and workspaces, educational programming, mentorship, and industry connections. Many alumni and community members have built businesses there that contribute jobs and innovative products and services to the regional economy.

In addition, the Entrepreneurial Skills Training program for faculty in the College of Natural and Mathematical Sciences

helps principal investigators apply strategic, startup-style thinking to manage their multimillion-dollar research labs. "They're running a business, whether they like it or not," says Mason, who originally designed the program that's now run by Fulmer. "They're hiring people, buying resources, creating stuff."

Finally, the new Entrepreneurial Learning Lab pairs faculty with trained students to evaluate research for commercialization potential—without requiring faculty to become full-time CEOs. The inaugural cohort drew strong interest: 23 faculty applied for 10 spots alongside 54 student applications. "We're not trying to change what faculty do in terms of research and teaching," Fulmer explains, "but while they're doing that, think about potential impact."

This diverse array of entry points—from minors and master's programs to accelerators, competitions, and faculty-student collaborations—deliberately creates an inclusive entrepreneurial ecosystem. Ideas from any discipline or career stage have room to grow.

The bigger picture

UMBC's entrepreneurial ecosystem does more than launch student ventures; it strengthens Maryland's innovation economy, particularly in biotech, health tech, and advanced materials. The university's strengths in these areas—coupled with proximity to federal labs and funding—creates what Fulmer calls a "target-rich environment." Many Launchpad teams naturally transition into bwtech@UMBC's incubation programs, forming a clear pathway from classroom concept to scalable company.

Whether or not students ultimately launch businesses, they gain versatile skills—problem-solving, communication, empathy, and resilience—that will serve them across diverse careers. At UMBC, entrepreneurial thinking is not an elective add-on but foundational preparation for an unpredictable world.

"UMBC's model—technical excellence plus mindset training—prepares graduates to innovate anywhere," Fulmer says, "making the university a powerful driver of Maryland's future."

HOW TO **MAKE A (REALLY) STRONG MAGNET**

With Ethan Bowers, Ph.D. student in mechanical engineering

Tools of the Trade

1. Mechanical and electrical know-how
2. Perseverance
3. Heavy-lifting equipment (custom designed)
4. A serious power source and some chilled water (things are going to get hot)

Above: Ethan Bowers; Across top: Bowers and Romero Talamás work with the mounted magnet; Across bottom: A backlight illuminates an etched copper disk.

Magnets often attract curious minds. Einstein told of his profound sense of hidden order after witnessing the invisible forces of the Earth's magnetic field guide the needle of a compass. For ***Ethan Bowers****, it was the wonder of learning Maxwell's laws—equations developed by 19th-century Scottish physicist James Clerk Maxwell that unite magnetism, electricity, and light—that really pulled him in.*

Now a Ph.D. student in mechanical engineering, Bowers is building a massive, one-of-a-kind research magnet. It weighs more than 2,300 pounds and will be capable of generating a magnetic field of 7 teslas—roughly 140,000 times stronger than the Earth's magnetic field.

Making the magnet has been the labor of multiple researchers over more than a decade, led by mechanical engineering associate professor ***Carlos Romero Talamás****, who plans to use the magnet to conduct experiments on plasma, the unruly soup of particles that forms when gas gets superhot.*

Evan Bates*, M.S. '15, Ph.D. '18, mechanical engineering, completed an initial magnet design and analysis. In 2023, Bowers, who had returned as a student to UMBC following a stint in industry, joined the project. He redesigned key aspects of the magnet and began the meticulous work of assembling and testing it. In the coming months, Bowers plans to run the magnet up to full strength. Then the real fun begins: Unleashing the new tool to help answer the questions curious minds dream up.*

Step 1:

BRUSH UP ON YOUR MAGNET BASICS

Say "magnet," and many people think first of the objects affixing their kids' artwork to the fridge. Refrigerator magnets are an example of permanent magnets: materials in which the electrons permanently align in a way that generates a magnetic field. Permanent magnets can get quite strong—such as the rare earth neodymium magnets used in some maglev trains—but they top out at about 2 teslas.

To get an even stronger magnet, engineers can turn to a phenomenon that's captured in the Maxwell equations that captivated Bowers: Electricity and magnetism are intrinsically linked.

Electrons flowing through a wire generate a magnetic field. Coil the wire and you can create a field similar in shape to a permanent bar magnet, with north and south poles. This is the electromagnet. Higher current and more coils make a stronger magnet. However, high current also risks melting your magnet into a puddle and mangling it with the enormous pressure from the magnetic field pushing on the electrons.

In the 1930s, American physicist Francis Bitter devised a solution that replaced the coiled wires with circular metal disks separated with insulating spacers. The disks are shot through with holes for circulating water to whisk away heat and the structural design counteracts the mechanical stresses. "We chose a Bitter magnet because it offered the right combination of features for the tasks we wanted to perform," Bowers says.

Step 2:

DESIGN, TEST, REFINE, REPEAT

The UMBC team's initial vision was to create a 10-tesla Bitter magnet, with space in the center for a relatively large vacuum chamber to hold plasma. The magnet could generate either a steady or pulsed magnetic field.

After optimizing the first design and testing it with a 1-tesla prototype, the team decided in 2023 to make the magnetic field slightly higher on the ends of the magnet so that charged particles would be pushed toward the center. To do this, they had to plan tighter coil turns at the ends and lower the maximum field strength to 7 tesla. Bowers analyzed the new magnetic field profile and worked out a clever trick of adding a tapered insulating disk to seamlessly transition between the areas of tighter and looser turns.

Step 3:

PALLETS, CRANES, AND PAINSTAKING PLANNING

The final design called for 439 copper Bitter disks, four insulating transition disks, and 434 regular insulating disks housed inside a pressure vessel. Outside companies manufactured the disks, but Bowers personally inspected every single one, removing any with defects, and cleaning the copper ones with isopropyl alcohol. He built a custom pallet to hold the cylindrical assembly in place in the lab and started stacking.

The process took about a month, and near the end "I was so sick of the monotony," Bowers says. To push it across the finish line, he worked straight through the weekend, stacking the last disk on a Sunday afternoon in February.

Next up was moving the magnet core to a mobile and rotatable platform created by a UMBC mechanical engineering capstone team. Bowers built a custom crane fixture to lift the assembly and spent weeks planning every step of the move. After one stressful day, Bowers says he was elated when it all went according to plan. "I felt genuinely grateful for all I had been given the chance to work on, and grateful that God had given me the ability to succeed."

Step 4:

TEST SOME MORE

Bowers has also begun hooking up a host of equipment to test the magnet's electrical properties. Eventually he will send 15,000 amps through the disks, about half the current that flows in an average lightning bolt. The voltage will be about five times the voltage in a wall socket.

At this power, the energy in two cubic feet of the magnetic field alone will be more than

the energy of a small SUV zooming by at 60 miles per hour. Bowers is writing detailed instructions to address all conceivable operating, maintenance, and failure scenarios. "We're safe. We do all our due diligence," he says.

Step 5:

SERVE UP SOME SCIENCE

What can such a strong magnet do? Bowers and Romero Talamás plan to test how it might separate different forms of hydrogen—particularly two forms that may form the fuel for future fusion reactors to supply clean and near limitless energy. Another idea is to investigate how a high magnetic field affects when a gas will suddenly switch from being an insulator to a conductor.

Bowers grew up in rural Hagarstown, Maryland, a kid who enjoyed exploring everything from the rocks on the side of a path to the electrical motors his grandfather would wind. Research has offered him the chance to constantly challenge himself. After graduation, he'll move on to new questions at the scientific frontiers, perhaps working at a fusion energy startup or a national lab. But the 7T Bitter magnet will remain at UMBC, a gift to curious students who come after him.

— Catherine Meyers

CLASS **NOTES**

UMBC Class Notes is compiled by *UMBC Magazine* staff from items submitted online and by mail from alumni as well as from news articles and press releases received by the university. This edition of Class Notes contains information processed by May 1, 2026.

How to Submit Class Notes

The deadline for submitting Class Notes for the next print issue of *UMBC Magazine* is October 26, 2026. Submit your class note and photos online at umbc.edu/magazine or by email to magazine@umbc.edu.

1970

Dale Gough, American studies, received the 2026 Award for Excellence in International Education from the American Association of Collegiate Registrars and Admissions Officers for his 40-plus years of work in foreign credential evaluation, international admissions, and professional training for colleagues across the profession.

1975

James Wiggins, political science, continues to gather his Retriever friends around him. In February 2026, his friends of more than 50 years shared a trip to Punta Cana, Dominican Republic.

1976

Jerry Cimino, history, with wife, **Estelle Cimino**, launched the Counterculture Museum at the corner of Haight and Ashbury in San Francisco in May 2025. Within 10 months of opening, the museum was listed as one of *Time's* 100 World's Greatest Places in 2026. The Ciminos also founded the Beat Museum in San Francisco.

1979

Gary Brooks, history, was awarded the 2026 "Greek of the Year" by the Maryland Tau Eta Zeta Chapter of Zeta Phi Beta Sorority, in recognition of his continued leadership and service to youth development, community service, and leadership within athletics.

Kevin Jones, psychology, retired in February 2026 after 46 years as associate director for security training at the Defense Counterintelligence and Security Agency.

1981

Howard Siskind, M.S. '85, psychology, published his first novella—a portal fantasy about a teen dragon slayer—*Sare* in April 2026. His band Stillwaters performed at Ram's Head On Stage in March 2026 as part of the Annapolis Musicians Fund for Musicians Presents: In The Vane of Eric Clapton show.

1985

Tim Dunn, English, retired in June 2026 as professor of English and Appalachian studies at Hazard Community and Technical College in Hazard, Kentucky, after 31 years.

1989

Claudia Pearce, M.S., Ph.D. '94, computer science, a member of The Artists' Gallery in Ellicott City, Maryland, had a feature show there in March 2026, highlighting her quilts from her Safari Stories Series. Pearce also has a solo show at the Art League in the Torpedo Factory Art Center in Alexandria, Virginia, in September 2026. The show includes a quilt inspired by Maryland, featuring a raven called Edgar.

Tonya Edmonds '92 with her new book, Level Up Now.

1992

Shawn Duffy, information systems management, celebrated 12 years in business in January 2026 as the founder and CEO of Duffy Compliance Services, a cybersecurity consulting firm, in Frederick, Maryland.

Tonya Edmonds, information systems, recently established the Tonya and Allan Edmonds Conference Award through UMBC's Center for Women in Technology in honor of her father, Allan. She published *Level Up Now: The AI Toolkit for Modern Entrepreneurs* in September 2025 and trains organizations and universities on practical AI adoption.

1993

Clarence Lewis, III, information systems, led the planning for the festivities marking the 50th anniversary of the Zeta Upsilon Chapter of Phi Beta Sigma Fraternity Inc. In October 2025, the chapter proudly honored five decades of promoting brotherhood, service, scholarship, and commitment to excellence on the UMBC campus and throughout the community.

PLOT TWIST—AN AUTHOR'S NONLINEAR PATH

Michelle Jabès Corpora '03, English and theatre

It was around five o'clock on a Wednesday in May, and **Michelle Jabès Corpora** '03, English and theatre, was on her sofa watching her favorite British murder mystery on TV. It had been a long shot to think her newest book, *His Face Is the Sun*, would hit the *New York Times* (NYT) bestsellers list, and since she hadn't heard anything and it was getting late, she figured it wasn't meant to be.

Buzz! Buzz! Buzz! Suddenly, she looked down at her phone to see a FaceTime call from five different numbers. She quickly answered and saw her agent, editor, assistant editor, and publicists in the group of smiling faces before hearing the four words every author dreams of hearing: "You're on the list!"

"I just started crying," recalls Corpora. "I couldn't believe it."

His Face Is the Sun stayed on the NYT Bestsellers Young Adult Hardcover list for five weeks, which the author says was "absolutely unbelievable."

Corpora's journey to becoming an NYT bestselling author was not a straight line—far from it. Corpora initially came to UMBC as a Linehan Artist Scholar to study theatre. Because she'd always been passionate about writing and literature, however, she added English as a second major to supplement her studies.

"Learning about drama helped significantly with my approach to character, plot, and pacing," says Corpora. After UMBC, Corpora earned a master's degree in children's literature from Hollins University. After some additional twists and turns, she went to New York City to find a job in children's publishing.

One catch: Corpora didn't have a full-time job lined up. All she had were two unpaid summer internships at children's publishing houses.

"It was a real gamble," says Corpora, "but I feel like my entire career has been a series of gambles, and they always seem to work out well."

Corpora landed an editorial assistant position at Greenwillow Books, an imprint of HarperCollins Children's Books, where she had the opportunity to work on books by legendary authors like Kevin Henkes and Sid Fleischman, among many others. Then came her own children and another career pivot. With the birth of her daughter, Corpora moved into book packaging services.

"Book packaging is an interesting, mostly unknown side of the publishing industry where groups of writers work as a team to create concepts for series fiction," says Corpora. "The transition was challenging because you really have to let go of ownership over your ideas, and you have to be creative in a collaborative way, which doesn't come naturally to most people at first."

Despite the learning curve, Corpora admits that her work as a concept creator really helped her grow as a writer, as she was coming up with ideas, developing them, and also editing manuscripts. "It made me into a jack-of-all-trades," she says.

In 2015, Corpora got her first publishing opportunity after winning an audition to be a ghostwriter for a long-running middle-grade mystery series, eventually writing five books in the series. It wasn't until 2021, however, that Corpora would see her name on one of her creations. Her next four books, all bearing the name Michelle Jabès Corpora on the cover, were what are known as work-for-hire projects.

"These are usually projects that you audition for," explains Corpora. "It's not ghostwriting because your name goes on the books, but usually the publisher has a concept for a book or series they want on their list, and they hire a writer to develop and write that project for them."

This was the process for her two middle-grade historical fiction novels, *The Fog of War* and *The Dust Bowl*, as well as her young adult horror duology, *Holly Horror*, which was created in partnership with the owners of the classic character, Holly Hobbie.

"Because of my job, I'd become a kind of chameleon," says Corpora. "I was happy to write whatever book the client wanted. But it also taught me to identify the essence of every story. What makes it good? What makes it human? What's the heart of this story?"

Each step in Corpora's journey built her foundation as a writer. But at that point, her agent knew she was ready for more.

"She'd seen me grow through all of this, was basically like, 'It's time for you to stop auditioning and ghostwriting and start writing your story—something that's meaningful to you and that's yours,'" recalls Corpora.

His Face Is the Sun is the first in the Throne of Khetara series, an ancient-Egyptian-inspired epic fantasy trilogy born from that conversation with her editor, about a kingdom in turmoil, a forgotten oracle, and four unlikely heroes: a princess, a priestess, a rebel, and a thief.

"My parents and three of my grandparents were immigrants born in Egypt," says Corpora. "So I grew up hearing stories about Egypt and became fascinated by ancient Egyptian history from a very young age."

Corpora describes the series as "Ancient Egyptian Game of Thrones for young adults," which is told from the perspectives of the four main characters.

"That seemed to really resonate strongly with people," says Corpora, who wanted to showcase the different perspectives in ancient Egypt, including the nonroyal population who were most affected by war and conquest.

The trilogy was picked up by Sourcebooks Fire and is currently being published in nine territories so far, including the UK, Italy, France, Germany, Spain, Brazil, Hungary, and Greece. It has also won numerous distinctions, including being on the list of Young Adult Library Services Association Top Ten Best Fiction for Young Adults in 2026.

"It's been a long and winding road to get here," says Corpora. "But I'll always remember UMBC as a place that allows people to find their way in the world, even if your journey might take you off the beaten path."

— Bobby Lubaszewski '10, M.P.S. '23

Top: Corpora at a book signing event at The Strand Book Store in New York City. Below: Corpora as "Cleo" aka Fräulein Kost in a 2001 UMBC Theatre production of Cabaret.

CLASS **NOTES**

1994

Lisa Respers-France, English, was promoted to senior entertainment reporter at CNN in April 2026, recognizing her 17 years of work covering the intersection of culture and entertainment across the network's platforms.

1995

Bipin Salunkhe, M.S., Ph.D. '97, mechanical engineering, was named to the Industrial Advisory Board for the bioengineering master's programs in the department of bioengineering at the University of Pittsburgh in early 2026. Salunkhe brings his expertise as the vice president of head device research and development at Bayer Radiology.

2002

Rithy Chhay, computer science, M.S. '11, information systems, was named the "Exemplary Industry Mentor" for 2026 by UMBC's Center for Women in Technology Scholars Program for the decade of service helping student scholars bridge the gap between academia and industry. Chhay is an executive partner with Sentinel Solutions LLC. In February 2026, Chhay published his second book, *Perspectives*, a reflective and practical exploration of growth, gratitude, discipline, and intentional living.

2004

Erica Reaves, biological sciences, M.P.P. '11, public policy, a Meyerhoff Scholar, was sworn in by Baltimore City's Mayor Brandon M. Scott as a member of the city's Commission on Sustainability in April 2026.

Monica Strobel, English, a National Board Certified Teacher, was a finalist for the 2026 Charles County Public Schools (CCPS) Teacher of the Year. Strobel is an English and language arts teacher at Milton M. Somers Middle School in La Plata, Maryland, and has been a teacher for over 20 years with CCPS.

2005

Aliya Frederick, biochemistry and molecular biology, a pediatric neurologist at Rady Children's Hospital San Diego and assistant clinical professor of neurosciences and pediatrics at the University of California, San Diego, won Ms. Black California USA in January 2026. She contributes her pageant winnings to a mentoring program she developed at Rady Children's Hospital that brings young people from the community into the hospital to work with healthcare professionals.

Donna Omata, M.A., historical studies, along with her son, Hiromitsu Hubbard, had an exhibit in May 2026 at the Gallery CA in Baltimore titled "Katazomé: A Multidisciplinary Visual Art Exhibition." It tells the story of Omata's journey to Japan to study the ancient art of katazomé—stencil dyeing—through a multidisciplinary visual art exhibition. Through this exhibition, Omata and Hubbard share a personal family story of discovering cultural roots, intergenerational exchange, and transcending discrimination by finding identity through art and creativity.

Clarence Lewis, III, '93 led the planning for the festivities marking the 50th anniversary of the Zeta Upsilon Chapter of Phi Beta Sigma Fraternity, Inc.

2008

Carly Jaron, modern languages and linguistics, M.S. '16, human-centered computing, married fellow Retriever **Christopher Swartz** '06, computer science, in Durango, Colorado, on January 10. Their wedding was officiated by **Nichole Au Mortin**, spouse of **Eric Mortin** '08, chemical engineering. Jaron is currently working on her second master's degree in information systems at UMBC.

Allison Jennings-Roche, English and political science, was appointed to the EveryLibrary Institute as the new editor-in-chief of the *Political Librarian Journal*, which focuses on library advocacy and activism, research, policy, and funding issues for libraries. Jennings-Roche currently serves as associate director of digital initiatives and collections at the University of Baltimore's Library and Archives. She also serves on the board of Library Futures and as federal legislative policy coordinator for the Maryland Library Association.

2010

Corey Jennings, economics, joined the Maryland Department of Social and Economic Mobility (DoSEM) in May 2026 as the director of outreach and communications, working under Secretary Walter L. Simmons and the Wes Moore administration. DoSEM was formed in October 2025, unifying several offices to focus on small business growth, federal and state certified procurement opportunities, and social equity.

Sara Khaki, visual arts, has a 2026 Oscar-nominated documentary, *Cutting Through Rocks*, codirected with Mohammadreza Eyni, that follows Sara Shahverdi, the first woman elected to a council in a rural northwestern Iranian village. The film highlights her

In pairs, left to right: Michael Gambrill '75 and Carol Gambrill; Gary Brooks '79 and Karen Brooks; and James Wiggins '75 and Evangeline Wiggins on vacation together in Punta Cana, Dominican Republic.

eight-year fight to empower local women by teaching them to ride motorcycles, advocating against child marriage, and promoting equal land ownership. The film also won the Grand Jury Prize at the 2025 Sundance Film Festival.

Amber Spry, political science, media and communications studies, is an assistant professor of African and African American studies at Brandeis University. In April 2026, she returned to UMBC to give a talk hosted by the Center for Social Science Scholarship titled: "The Technological Future: Shifting the Focus from What We Build to Who We Build It For."

2011

Mitch Case, media and communication studies, joined the American Folk Art Museum as the new director of communications and audience development in November 2025. He will oversee the museum's communications, brand and profile strategy, and audience development initiatives.

Greg Sileo, M.P.P., public policy, was promoted to senior policy advisor at Brownstein Hyatt Farber Schreck law firm in January 2026. As a member of the firm's state government relations group, he is an innovative strategist with over 15 years of experience in government relations, policy, and municipal public-sector leadership.

2012

Sarah Archibald, Ph.D., public policy, was named the associate vice provost for research compliance and regulatory affairs at Drexel University's Office of Research and Innovation in February 2026. Archibald has more than 20 years of leadership in higher education, overseeing complex ethics and regulatory programs across research, civil rights, and academic environments.

Wilson W. Dobud, social work, coauthored *Kids These Days: Understanding and Supporting Youth Mental Health*. The book, published in September 2025, challenges the current approach to treatment for anxiety and depression in youth, promoting social connections and giving kids opportunities to experience success and mastery.

2014

Dawnielle Allen, M.S., instructional development systems, an instructional system specialist for the Federal Aviation Administration, received the 2025 Federal Government Distance Learning Association's Hall of Fame Award in recognition of her years of service promoting and developing distance learning in the federal government.

2015

Emily Bordenski Joyal, health administration and policy, met **Travis Joyal** in their first-year English class at UMBC. After almost 13 years together, on November 1, 2025, the pair married in Rhode Island.

2018

Emily Grace, English, a doctoral candidate in literature at The Catholic University of America, is the new editor-in-chief of the online literary journal *Literary Matters*. She is grateful for the English faculty at UMBC and their encouragement throughout her journey, particularly **Lia Purpura**, writer in residence, and **Lindsay DiCuirci**, associate professor of English.

2019

Leah Michaels, M.F.A., imaging and digital arts, premiered her documentary *Moon Crab* on Maryland Public Television in April 2026 as part of Chesapeake Bay Week. *Moon Crab* explores the life of the ancient horseshoe crab, highlighting its struggle with extreme population decline.

Sara Saleh, psychology, passed the Maryland Bar exam and in October 2025 was sworn in as an assistant state's attorney for the Baltimore City Office of the State's Attorney.

CLASS **NOTES**

Emily Bordenski Joyal '15 met Travis Joyal in their first-year English class at UMBC. After almost 13 years together, on November 1, 2025, the pair married in Rhode Island with their pup, Tessie, at their side.

2021

Jie Chen, M.S., Ph.D. '22, electrical engineering, was featured on the cover of *IEEE Transactions on Biomedical Engineering* for his study at the University of Texas Southwestern Medical Center. Chen's work builds on training in signal processing and hyperspectral imaging, and the full pipeline—from problem formulation to implementation and open-source release—was developed as part of this effort.

Anjali DasSarma, media and communication studies, published research titled "The Sinews of Colonial Hypocrisy: Indigenous Unfreedom in Newspaper Advertisements in 1776" in the *Journalism History* journal in April 2026. DasSarma, a doctoral candidate at the Annenberg School for Communication at the University of Pennsylvania, used a century of newspaper advertisements to document Indigenous slavery in the American colonies.

Carrie Samantha Edick, theatre, worked as stage manager for Round House Theatre's production of *Nothing Up My Sleeve*. The show premiered in February 2026.

2022

Ilysa Lee Cohen, management of aging studies, was featured in the *Baltimore Jewish Times* in February 2026 for her decade of volunteering at The Edward A. Myerberg Center. After her UMBC degree, she returned to the center as the wellness and engagement coordinator.

2023

Rudy de Leon Dinglas, Ph.D., public policy, is the recipient of the Northeast Conference of Public Administration 2025 Marc Holzer Award. With over 17 years of experience in government and academia, de Leon Dinglas has advanced performance management, data governance, and organizational transformation across state and local governments nationwide.

2024

Manav Vaishnav, business technology administration, was selected as a finalist for the 2025 TEDCO's Entrepreneur Expo's Future Founders: University Innovators Pitch Competition after pitching his startup CeeVlo, which helps parents/educators teach their children (K–5) about healthy nutrition through an online culture platform and hands-on play.

2025

Jessica Burstrem, Ph.D., language, literacy, and culture, received two awards for her service at UMBC: the University System of Maryland Board of Regents Student Excellence Scholarship for Leadership and Advocacy and the Honor Society of Phi Kappa Phi 2025 Marilyn Demorest Love of Learning Award.

Quadmania 2026 moved to the Chesapeake Employers Insurance Arena this year as the Student Events Board (seb) brought rapper Fetty Wap to entertain Retrievers. Photo courtesy of James Benoit.

CLASS **NOTES**

Carly Jaron '08, M.S. '16, and Christopher Swartz '06 tied the knot in January 2026.

Sai Manvitha Nadella, M.P.S., data science, and **Sampath Rayavarapu**, M.P.S. '25, data science, cofounded AI-Edumate, an AI-powered learning platform born from their capstone project. Nadella also works full time as a business intelligence professional at Volanno, a D.C.-based transportation solution provider.

Friends We Will Miss

Patricia Bettridge passed away on May 10. Bettridge came to UMBC in 1966 and did graduate work in English. She was married to one of UMBC's founding English professors, **William Bettridge**.

Thomas E. Dewberry '73, history, passed away on December 7, 2025. Dewberry was a lawyer who served in the Maryland House of Delegates from 1989 to 2002. He was speaker pro tempore of the House from 1997 to 2002 and was later a Maryland administrative law judge. In 2002, Dewberry became the chief administrative law judge of the Office of Administrative Hearings, a position he held until his retirement in 2019.

Craig Eugene Hastings, M.S. '88, molecular biology, passed away on January 21, at the age of 62. Hastings, who lived in Iowa, spent the majority of his career working for Pioneer seed company (an affiliate of Corteva Agriscience), focusing his time on genetic engineering.

Willie B. Lamousé-Smith, professor emeritus of Africana studies, passed away on January 15, at age 90. Lamousé-Smith joined UMBC in 1975 to direct what was then known as the Division of Afro-American Studies. Lamousé-Smith's research focused on development economics, politics, demography, and health in Africa and its diaspora. Until his retirement in 2008, he remained a full teaching faculty member. In 2017, he was honored by the UMBC Alumni Association as a Legend of Excellence. He was a steadfast advocate for the university and a teacher and mentor to many.

Wallace Eldon Parr passed away on March 22, at the age of 97. In 1966, Parr was part of the original faculty of the UMBC Mathematics Department. He taught mathematics and early computer programming classes at UMBC before retiring in 1992. Parr was born on the Confederated Tribes of the Umatilla Indian Reservation in Pendleton, Oregon, and was a registered member of the Walla Walla tribe. Before UMBC, Parr worked at the Naval Ordnance Lab (now known as the Former Naval Surface Warfare Center White Oak) in White Oak, Maryland, starting in 1951. He served in the Navy during the Korean War at the Patuxent River Naval Air Station. He designed test pilot flights, working with future astronauts, including Alan Shepard, the first American in space.

Bonny Tighe, a cherished member of the Meyerhoff Scholars Program community, passed away on February 13, at the age of 76. Tighe joined UMBC's Department of Mathematics and Statistics in 1988 as a full-time instructor and retired in 2025 as a senior lecturer. She taught math courses to the very first cohort of Meyerhoff Program Scholars through the 37th cohort. She was a dedicated and innovative educator who emphasized practice, collaboration, and shared responsibility for learning. Tighe's contributions to the academic and personal development of thousands of Meyerhoff Scholars and alumni are immeasurable.

Peggy Daidakis Werner '73, sociology, passed away on December 12, 2025, at the age of 74. Werner was a longtime Baltimore City Hall fixture and a pioneer in the convention industry. In 1979, Werner became the director of the Baltimore Convention Center, the first woman to lead a U.S. convention center. In 1986, Werner became the Convention Center's executive director, serving in this position for nine mayoral administrations.

Li Yan, professor of computer science and electrical engineering, passed away on March 16, at the age of 68. Yan joined UMBC in 1990 and devoted more than three decades to UMBC. A respected scholar in areas including ultrafast optics, nonlinear optics, lasers, and optical communications, Yan made significant contributions to his field and was a dedicated educator, teaching and mentoring generations of undergraduate and graduate students.

"WHY DO I NEED TO KNOW THIS?"

Padmanabhan Seshaiyer, Ph.D. '98, applied mathematics

More than 20 years ago, **Padmanabhan "Padhu" Seshaiyer**, Ph.D. '98, applied mathematics, observed researchers stretching aneurysm tissue samples in a neighboring lab, generating a dataset to describe the resilience of artery walls under varying conditions. Those mathematical computations could then be used to help doctors predict how likely an aneurysm in a patient's artery was to rupture and choose the safest effective treatment—potentially saving lives.

For Seshaiyer, that exposure was a revelation. "Mathematics has a place to change people's lives," he realized. Today, as a professor of mathematical sciences at George Mason University (GMU), he directs the Center for Mathematics Professional Learning and Educational Training (COMPLETE). Previously, he also directed the STEM Accelerator Program for the College of Science at GMU, where he later served as associate dean for academic affairs. Both initiatives embody his mission: reform science, technology, engineering, and mathematics education so that every student experiences that same powerful connection to real-world impact.

Seshaiyer grew up in India, earning a bachelor's degree in electrical and electronics engineering and a master's in mathematics. He loved math but, like many kids, kept asking, "Why do I need to know this?" Seeking applied graduate programs abroad, he chose UMBC in 1993 for its strong faculty and focus on applied math research—plus a presidential scholarship that made it possible. "UMBC had some really top-notch professors, and in particular, really good people doing applied mathematics," he recalls.

At UMBC, mentors lit Seshaiyer's path in research and teaching. With **Manil Suri**, professor of mathematics, he studied finite element methods, which break a complex problem into many simple pieces, solve each separately, then combine the results to approximate the behavior of the whole. His scholarship didn't require him to teach, but he pursued classroom opportunities anyway to enrich his experience—which they certainly did. For example, "four into eight" means multiplication in Indian English but division to American students. "Unless you're in front of the classroom, make that mistake, and learn from it—well, that's how you become a good teacher," he reflects.

A course with former UMBC engineering professor **Jay Humphrey** exposed Seshaiyer to biomechanics. Impressed, Humphrey later recruited him for a postdoctoral position at Texas A&M University. It was there that Seshaiyer observed the aneurysm experiments that sparked his pivot to education reform. Traditional teaching, he had seen, often skipped the "why," leaving students disengaged.

"There was a gap," he says, "between understanding how to do the mathematics and the why." That idea inspired him to found the COMPLETE Center, which has trained over 2,500 teachers since 2010 in blending procedural skills with conceptual understanding. The training is grounded in evidence-based pedagogy, such as the 5E instructional model: engage, explore, explain, elaborate, and evaluate.

"Students are not just consumers of mathematics," Seshaiyer emphasizes. "They are producers of mathematics. It's important to treat them as producers." He starts lessons by making connections to real life. When teaching conic sections—the various cross-section shapes created if one slices through a cone—he begins with GPS satellites, which draw intersecting circles to pinpoint a location: "Now, I just told you why we need to learn what we're learning."

Seshaiyer has realized that reforming mathematics education at the college level is insufficient, though. As chair of Virginia's STEM Advisory Board, he spearheaded the state's first K – 12 data science standards, in part responding to employer demands for a data-science-ready workforce. Data science sits at the intersection of statistical reasoning, mathematical foundations, and computational thinking and may not carry the emotional baggage that straight-up "math" does for some students, Seshaiyer explains.

In Virginia's data-science curricula, students follow a hands-on cycle: acquire data, process it, visualize trends, generate a model, use it to predict future results, and communicate the findings. Students often get to choose their own projects, which have included everything from river pollution to rates of depression among high schoolers.

The process follows a framework Seshaiyer developed called the "five Cs." It starts with "context" (a real-world problem), followed by creating a meaningful "curriculum" that incorporates integrated "content" presented via effective teaching "concepts." Throughout the process, the teacher cultivates student "competencies" including communication skills, collaboration, critical thinking, and creativity.

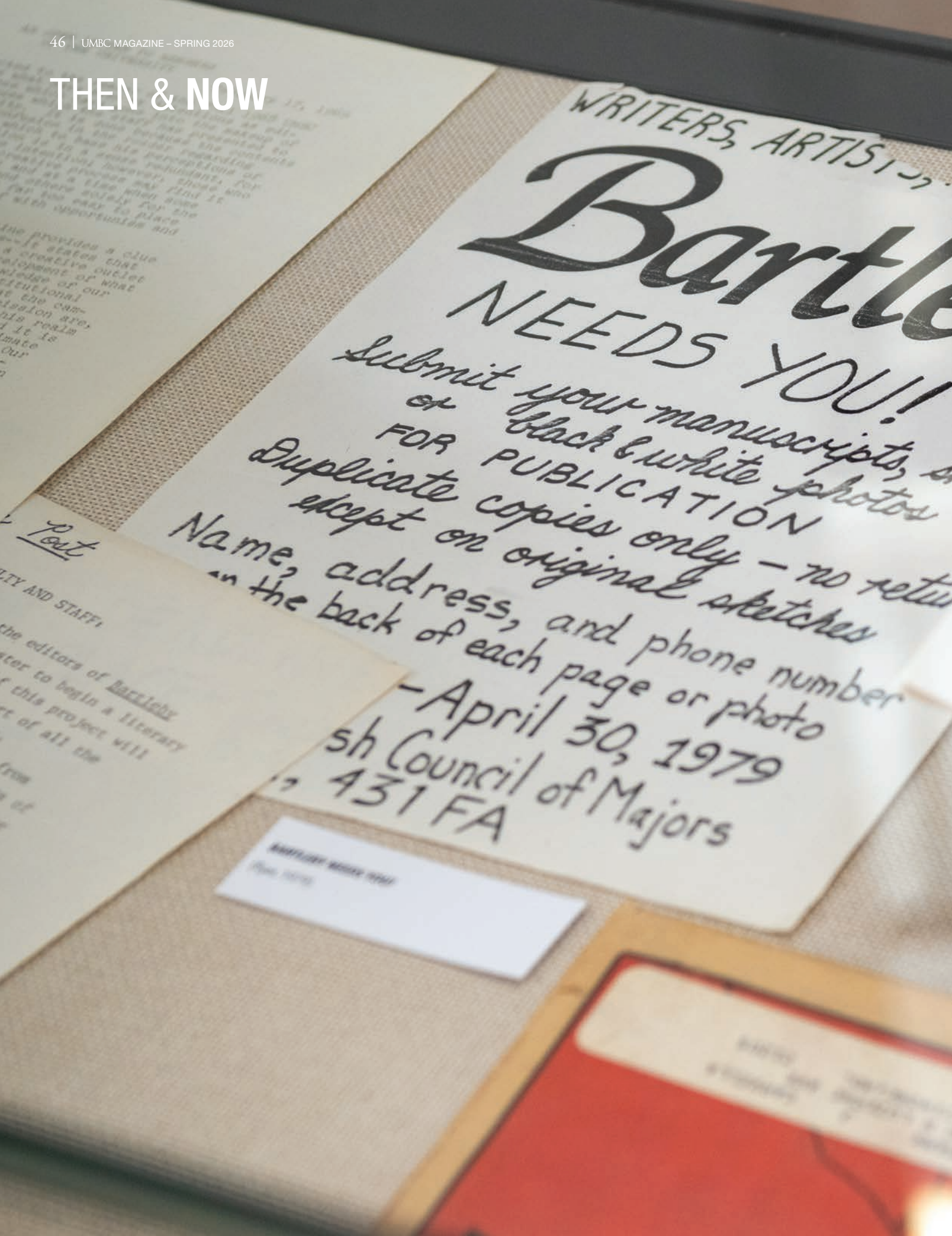
Sometimes, the best thing a teacher can do to foster these skills is step away: A high school student interested in modeling the spread of Zika virus was in Seshaiyer's office when an undergraduate student arrived who was interested in gang violence in Puerto Rico. Seshaiyer stepped out (ostensibly for a cup of coffee) and encouraged the two to discuss their ideas. When he returned, the two students had come up with modes of gang violence "transmission" that paralleled the ways Zika spreads. The research eventually yielded a published paper on which both students were coauthors.

"UMBC has definitely taught me so much," says Seshaiyer, who received a 2024 Outstanding Alumni Award from the UMBC Alumni Association Board of Directors. Recently nominated for Virginia's Math Educator of the Year, his core passion—"mathematics for impact"—endures.

— Sarah L. Hansen, M.S. '15

Padmanabhan Seshaiyer accepts his 2024 UMBC Outstanding Alumni Award. Photo by Jill Fannon, M.F.A. '11.

THEN & **NOW**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Bartleby Is More Than Golden

"Bartleby NEEDS YOU!" This was the handwritten call to arms in 1979, for writers and poets to submit their work to *Bartleby*, UMBC's creative arts journal. The sentiment of this flyer is not that different from its first publication in 1972 and from today's social media posts alerting students to upcoming submission deadlines.

This unwavering spirit brought **Howard Quinn** '80, English, back to campus in fall 2025 for the Bartleby 50+ celebration. He shared his memories as one of six editors of the 1979 – 1980 edition and reveled at the *Bartleby* covers and works, displayed in showcases, some with typed-up poems printed on newsprint or cardstock and stapled together like the edition with 35 pieces that he helped edit—including his own poem, "Wind Down Wind" about loss.

In 2026, *Bartleby*—under the recently chartered Student Media Collective—editors read 200 art submissions, 120 poetry submissions, 60 fiction submissions, and 23 creative nonfiction submissions. The ensuing 160-page publication is book-bound and printed on glossy paper. Over five decades, Retrievers have continued to creatively express the personal and political events that have defined their lives, including war and national identity, rebellion, women's rights, LGBTQ+ identity, social isolation, and joy and love.

Quinn came to *Bartleby's* retrospective to celebrate the publication's ongoing impact and to share a message from his friend **Martha Campbell** '82, American studies, a *Bartleby* editor for three and a half years.

"I know that *Bartleby* has endured because people showed up to create art, give voice, share ideas, and they did that work year after year," wrote Campbell, perhaps inadvertently echoing a line from her poem published during her tenure: "And the clock moves on, slow, but certain in its ways."

By Catalina Sofia Dansberger Duque

Top left to right: Sean McNutt '24, anthropology, editor of volume 43; Howard Quinn '80, and Andrew Coulbourne '26, current editor, look at historic issues of Bartleby. *Bottom: Folks celebrating Bartleby 50+ gather in the AOK Library rotunda.*

WILD **CARD**

Thyme to Grow

Each plant, whether a small wild buttercup or a massive oak tree, starts out as seed—packed with potential to grow well beyond its original size. By this logic, The Garden's new Little Seed Library—cosponsored by Retriever Essentials and the Office of Sustainability and installed by Facilities Management—is seeded with infinite potential.

Based on the now-familiar concept of Little Free Libraries that spread access to the love of reading, the Little Seed Library, down the sidewalk from UMBC Police, is set up for people to donate seeds (perhaps harvested from the adjacent garden) and those who want to put their green thumb to the test can take what they need to get started.

The idea stemmed from conversations **Michael Berardi**, assistant director of Retriever Essentials, was having with folks on campus about tangible ways to grow interest in the community garden while wanting to raise awareness of where our food actually comes from. "We want to help campus engage with our food in a more deep and meaningful way," says Berardi '19, M.P.S. '25, who was also a co-founder of the campus-adjacent coffee shop, OCA Mocha.

Jessica Graziano, who has been tending two plots in The Garden for several years, only foresees fruitful outcomes for the Little Seed Library. Eventually, in addition to seeds and instructions for planting, Graziano would like to see folks donate gardening tools and horticultural resources. Graziano, the current president of The Garden club, says her favorite thing to grow is perennials. "My current favorite is False Indigo, which I've had growing in my plot at The Garden for about two-and-a-half years," she shares. Recently recognized with a UMBC Community Impact award at SGA's 2025 – 2026 CelebratingOrgs event, The Garden is lush with promise.

Nicole Wolf, UMBC's sustainability coordinator, says that the Office of Sustainability has some nutrient-rich ideas coming up with the other organizations that help support The Garden. But in the meantime, "access to free seeds and gardening space removes the barrier of not knowing where to start or even having to leave campus if they choose to use the community plots," says Wolf. "We will continue to foster this culture by hosting regular 'seed save collection' events on our campus to keep the library stocked while teaching attendees about native plants and how to harvest ethically as we go."

— Randianne Leyshon '09

Junior Laila Kaira, Office of Sustainability intern, and Nicole Wolf chat on the bench attached to the Little Seed Library. Photo by Randianne Leyshon '09/UMBC.

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– Nate Dissmeyer '07, information systems management

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