

Spring 2020



UMBC

MAGAZINE



Grit & Greatness

Go big
DAWGS!!

#RetrieverNation

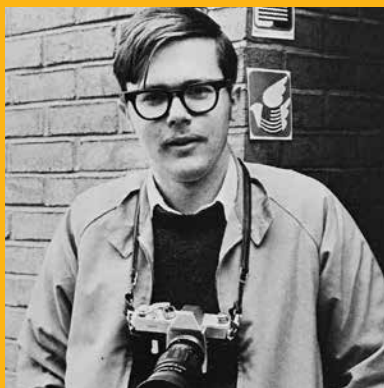
You will do great things!



Be Your Best Self! Don't stop Retrievin'!

STAY GOLDEN, RETRIEVERS

With fifty years between them, the Classes of 1970 and 2020 have more in common than one might think. — page 20



HOUSE of GRIT

UMBC
4EVA!

2 COOL
+ 2 BE
4 GOTTEN

#UMBCtogether

UM! BC!



36

We Reach Together

From scientists and nurses on the front lines to folks behind the scenes keeping our campus running, from mask makers and teachers to artists and chefs, we're all better together.

By UMBC Staff

Photo courtesy of Maggie Kemper '14, biology.

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Stay Golden, Retrievers

To celebrate what should have been UMBC's 50th Commencement, 1970 graduates paired up with graduating seniors to talk about how campus life has changed and stayed the same.

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Black & Gold Forever

With traditional end-of-studies rites of passage not possible this May, our 2020 graduates are finding ways to acknowledge their achievements.

By the Class of 2020



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First Light

After years in development and months of waiting, a UMBC-developed mini satellite launched into space to study climate and air quality, proving persistence pays off.

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There's No Such Thing as Small Politics

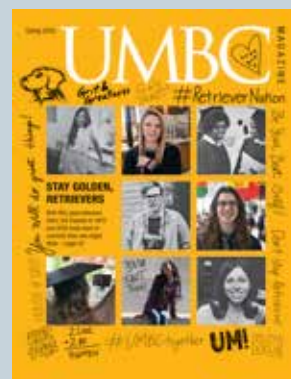
Beyond the red, white, and blue of election season are people who contribute to the system in quieter—but just as vital—ways.

By UMBC Staff



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ON THE COVER

We started getting excited about UMBC's Golden Commencement about a year ago, well before we knew COVID-19 would change our plans. Something that hasn't changed in the past 50 years? Retrievers' grit in the face of adversity. Bottom left photo of new graduate **Emily Hobby, computer science**, by her father, David.

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TO YOU



Dear Retrievers,

I'm writing to you from my basement on a rainy morning in May. I just spilled my coffee, and my 7-year-old is calling to me from his makeshift desk on the other side of the room. He's trying to figure out his homework, and to be honest, so am I. I guess we really are all in this together.

In an hour or so, I'll get on a WebEx chat with some other members of the *UMBC Magazine* team. We're all a little more tired than usual, but it's great to see those faces. I miss them

so much. Together, we'll figure out how to finish up this magazine without any actual paper trading hands. And we'll try to guess what might be on the minds of our readers in two months when it finally hits people's mailboxes. It's scary and weird and sad all at once.

But, you know what? At times like these, when we don't quite know whether to cry or hide or both, the only thing I can really feel for sure is thankful.

I hear about Retrievers every day who reinforce my belief in what this university does best—nurturing our community of inquiring minds and a culture that reaches together in the name of the greater good. That spirit is so essential, especially now. You'll find some of those stories in this issue, but you'd need a whole library to capture them all. I'm thankful for every single one.

We're all counting our blessings these days, no matter what form they may take. I'm thankful for my kind and creative colleagues and for being lucky enough to have a job I love in a community I adore. I'm especially thankful for the health and love of my dear family—but also for the white noise app on my phone that occasionally saves my sanity.

I'm thankful for the grace I'm seeing from our students and for the support our community is giving them in the darkest of times. I'm thankful for the faculty and staff working so hard to keep UMBC running and for the magical way President Hrabowski's words can lift our spirits and remind us of our calling.

Writing the letters for this page is always an exercise in faith—and a little like time travel. My hope as I write today, many weeks from when you'll actually read this, is that things are better now and that you're thriving. I don't know yet when we'll see each other in person, but I find strength in the knowledge that this community is better when we're #UMBCtogether. See you on the flip side.

—Jenny O'Grady
Editor, UMBC Magazine

WEB FEATURES

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



Star Student Becomes
NASA Engineer



Building Bridges
with bwtech



URCAD Goes Online

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UP ON THE ROOF



UMBC Magazine caught up with UMBC President Freeman Hrabowski at his home office to talk about alumni leadership during the pandemic, UMBC's Golden Commencement, and a symbol of hope in tough times.

UMBC Magazine: *Given the challenges we're all facing, it's wonderful to hear about UMBC alumni making a difference in so many ways. We see Retrievers in health leadership, such as **Kizzmekia Corbett '08, M16**, who is working at the National Institutes of Health (NIH) on a COVID-19 vaccine; U.S. Surgeon General **Jerome Adams '97, M4**; Baltimore Health Commissioner **Letitia Dzirasa '03**; and **Kaithyn Sadtler '11**, leading a new COVID-19 study at NIH on asymptomatic patients. We have **Mark Doms '86**, the new chief economist of the Congressional Budget Office, and artists like **Jill Fannon, M.F.A. '11**, photographing healthcare providers...and so many other inspiring people. How does it make you feel to see our alumni making their mark in these ways?*

Freeman: We have produced well-prepared leaders who are committed to the public good all along, from the Maryland speaker of the house and the Baltimore County executive to the chief of staff for the governor and the Maryland secretary of labor, all the way over to the heads of the Associated Black Charities and the Center for Urban Families. All of these people in a variety of policy and public service roles are leading our country and our communities in supporting children and families.

And we've got alumni leading and doing important work across the board, from the arts to the sciences. So across the disciplines, looking through different sets of lenses, people are working to understand and support people in their time of need. And it is very inspiring.

UMBC Magazine: *We've been thinking a lot about our graduating class, the Class of 2020, and what this semester meant to them, but it's also the 50th anniversary of UMBC's first Commencement. Do you feel there are connecting points between the Class of 1970 and our newest graduates?*

Freeman: I think many people would call the period of the '60s another generation-defining moment in American history. From the Civil Rights Movement to Vietnam to changes in voting rights in our country, we saw civil unrest, and we also saw some progress. We saw the assassination of a president, John Kennedy, the assassination of Martin Luther King Jr., and the assassination of Sen. Robert Kennedy—all in an eight-month period during the '60s. People who were graduating in the '70s had been through those times of great uncertainty and tragedy, very much so, and I

relate to and resonate with UMBC's Class of 1970 because that is also the year I graduated from college. My wife and I were supposed to be going down to Hampton University this spring for our 50th reunion.

The Class of 1970 experienced those things in high school and college—the unrest, the tragedy, and fear—and right now our graduating class of 2020 is having the same type of experiences. Yet beyond the fear about the future, the uncertainty, and the tragedy, we also are seeing Americans come together with people from around the world to help each other. The most important message in both periods, in the midst of the uncertainty, is that we will get through this.

And so there's this theme of hope in the midst of the chaos and fear and uncertainty. In 2020, as in 1970, we are at a point where we are being tested as human beings and as a society to show who we are at our very core. And the good news, the encouraging news, is that when we as human beings get knocked down we have this indomitable spirit that pushes us to get back up and to say we can do this. We can go through this, and we can do this. And that's why the celebration of 2020, as it was in 1970, is a message of hope for humanity.



You know, I saw this picture of the sunrise on campus, and one word popped into my head—hope. My grandmother used to always say, “Just remember that the sun will come back.” That’s a powerful message.

Have a question for President Hrabowski? Share it with us at magazine@umbc.edu.

“Across the disciplines, looking through different sets of lenses, people are working to understand and support people in their time of need. And it is very inspiring.”

DAWG'S EYE VIEW

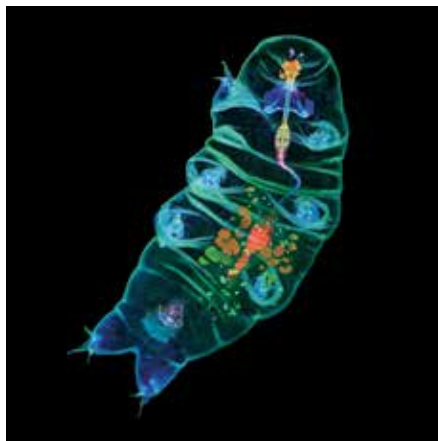


ONE SMART (CHOCOLATE CHIP) COOKIE!

Officer Chip, campus's favorite pup-in-residence, passed her comfort dog certification. We didn't really need a test to tell us what we already knew—Chip excels at bringing smiles to every Retriever's face.



@ChipUMBC



THAT'S A CREATURE OF A DIFFERENT COLOR

UMBC biologist Tagide deCarvalho won the 2019 Life Science Global Image of the Year for creating and capturing a photo of these microscopic creatures by using fluorescent stains. The award for best nickname goes to these moss piglets or water bears, better known as tardigrades.



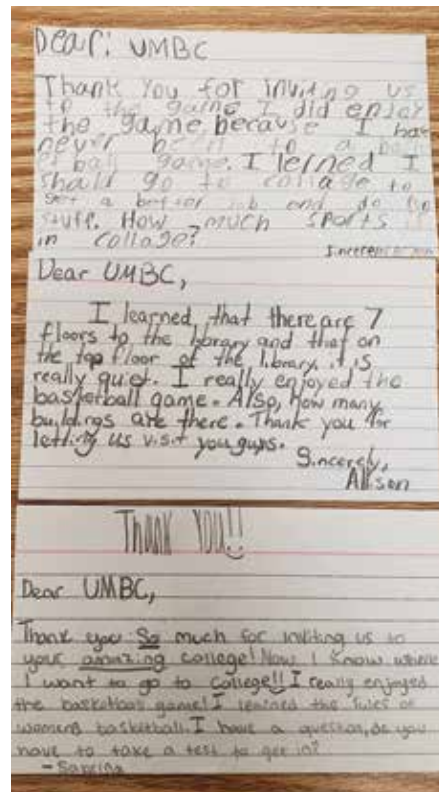
@OlympusLifeSci

GO WHERE THERE IS LOVE

Kizzmekia Corbett '08, M16, biological sciences, is not only taking the lead on developing a vaccine for COVID-19, she's also spreading the UMBC love. The feeling is mutual, Kizzy! Read more about Corbett on page 39.



@KizzyPhD



EARLY, EARLY DECISION

Get these students an application! Mrs. Coppage's fifth grade class obviously loves UMBC as much as we do—we can't wait for them to join us as the Class of 2031!



@mrs_coppageGr5



GET THE WORD OUT

You may have seen Michelle Obama's book *Becoming* win a Grammy for "Best Spoken Word Album," but did you know UMBC's Adam Rooner '12, music, was the recording engineer behind the audiobook?

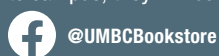


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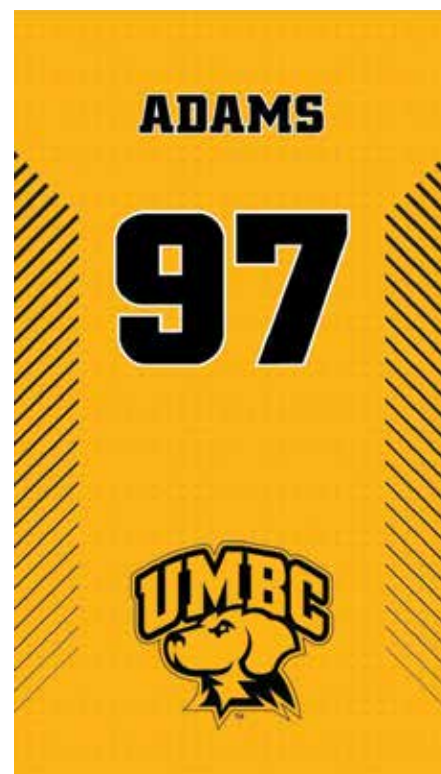
NEW STAFF ORIENTATION

With their human overlords working from home, UMBC's Bookstore mannequins have gained full control of the premises. Calling themselves Emmett and Mattie, the pair has taken over the Bookstore's social media. Presumably, when we return to campus, they will be our leaders.



RESTAURANT ROYALTY

Cake king **Duff Goldman '97, history**, and bao baron **Steve Chu '12, economics**, chatted with **Robbin Lee '13, visual arts**, of Baltimore Homecoming, about the superiority of Baltimore's culinary scene compared to any other city. We agree!



WELCOME, CLASS OF '24!

Most of America may just know UMBC as a basketball school, but the cool kids know we got the brains and the brawn. The U.S. Surgeon General, **Jerome Adams '97, M4**, celebrated our May 1, @collegesigningday with this @UMBCAthletics digital jersey.



POOL PARTY

UMBC men's swimming and diving continue to dominate the sport, capturing gold at the February 2020 America East Swimming and Diving Championship. If it were possible to win too much, UMBC's men's swimming and diving would take the cake, having now captured 12 of the last 13 championships overall.



— Photo by Brian Foley for America East.

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

Breakthrough Moment



New research on the structure of the human immunodeficiency virus (HIV) has revealed a promising novel drug target for treating HIV infection, which affects more than 40 million people worldwide. The findings were published this spring in *Science* magazine, and the research team included 15 UMBC undergraduates.

The paper showed that a tiny change in HIV's RNA controls which form of viral RNA an infected cell will make. There are two possible forms, and both are necessary for HIV to replicate. The critical change happens to be in a region of the HIV genome with low mutation rates. That placement makes it a promising target for new therapies because the virus is less likely to mutate and develop resistance.

"For decades, the scientific community has known that two different structural forms of HIV RNA exist—they just didn't know what controls that balance," says lead author **Joshua Brown, Ph.D. '18, biochemistry**. "So our discovery that a single nucleotide is having a huge effect is a paradigm shift in understanding how HIV works."

Crucially, "you can imagine that if you could come up with a drug that would target the genetic code at that one specific spot, and shift it to one conformation only, then it could prevent further infection, theoretically," Brown says.

The researchers, under the guidance of Brown and **Michael Summers**, Robert E. Meyerhoff Chair for Excellence in Research and Mentoring and Distinguished University Professor at UMBC, are now testing different molecules that could shift the balance between the two forms. That could effectively prevent the virus from replicating and therefore treat HIV.

Thanks to significant research on HIV over the last few decades, today AIDS is a manageable disease. Many therapies include several different drugs so that even if the HIV in a particular patient becomes resistant to one of them, the therapy is still effective overall. However, these can cause side effects and limit treatment options for patients with certain other conditions.

Because the area of the HIV RNA genome that this new research addresses mutates more slowly than other places in the genome, "there's more chance of a drug that targets that region being effective for longer," explains co-author **Ghazal Becker '19, biological sciences**. It could also mean one drug would be enough.

The new findings open up a range of new research opportunities. Future results and any new therapies they enable could have a major impact. "Every time we get a new drug

in HIV, we exponentially improve the chances of individuals finding a drug that works for them, where resistance is a little less likely,"

says **Hannah Carter '17, biochemistry and molecular biology**.

The research could have effects beyond HIV, too. "Some HIV research has laid the groundwork in how we understand coronaviruses," Carter adds. "All basic science in HIV ends up having a ripple effect throughout all of virology."

Publishing in *Science*, arguably the most prestigious scientific journal in the world, is a big deal for any researcher. It's rare to have undergraduate authors on papers of this caliber; the new paper has 15 undergraduates and two Maryland high school student co-authors. All met the strict requirements for authorship: making a significant intellectual contribution to the research.

The undergraduates on the team "were just as invested in this project as I was," Brown says. "I really feel like they should get a Ph.D. out of this, too."

"Everyone in the group felt the project was ours, and I think that really came out in our work ethic and the time we were willing to put into it," **Issac Chaudry '21, biochemistry and molecular biology**, says.

"Josh had really high expectations for us, which gave us really high expectations for ourselves," adds co-author **Aishwarya Iyer '18, M26, biochemistry and molecular biology**. "That's something I think all of us continue to carry when it comes to other lab experiences."

— Sarah Hansen, M.S. '15

Photo: Joshua Brown, Ph.D. '18, in the lab.

Virtual URCAD Boosts Student Research

Nothing in Undergraduate Research and Creative Achievement Day's (URCAD) 24-year history could have prepared its organizers and participants for the challenge presented in spring 2020, as COVID-19 pushed what would have been a heavily attended event into a virtual space online.

Using a technology called VoiceThread, student researchers uploaded poster presentations, performances, and visual artwork, adding commentary and responding to questions from the online audience—mimicking the in-person experience—and URCAD XXIV transformed from a single day into a week-long event.

In the opening remarks, **Keisha John '03, M12, biochemistry and molecular biology**, provided a video message about leadership with integrity. A former Meyerhoff Scholar, she is now associate dean for diversity and inclusion in the Graduate School of Arts and Sciences at the University of Virginia.

"The students really jumped in with both feet to the new technology and made some really dynamic presentations," says **April Householder '95**, director of undergraduate research and prestigious scholarships in the Division of Undergraduate Academic Affairs. "They created voice-overs for their posters, made videos, and converted their live performances to the web. And they did that in a very condensed amount of time with a very short learning curve."

URCAD usually attracts about 2,500 attendees, but this year's event garnered 18,771 views and 2,971 unique users logged in, with visitors from as far away as the United Kingdom and South Korea. The VoiceThreads were viewed 3,750 times (with **Angela Endres '22, visual arts**, leading the pack at 97 views) and collected 2,671 comments (with **Kenneth M'Bale '20, media and communication studies**, topping out at 52).

The 251 presentations will remain online until September 4, so the university community and beyond may continue to explore the remarkable depth of student research and creative achievement.

— By Tom Moore

New Dawg in Town



UMBC has named **Brian Barrio** the director of athletics, physical education, and recreation, effective January 2020. He will direct UMBC's 17-sport NCAA Division I intercollegiate athletics program, all campus recreational programs (including intramurals, club sports, and recreational activities), and the physical education program.

Barrio comes to UMBC after serving as director of athletics at Central Connecticut State University (CCSU) and in leadership positions at the University of Nevada, Pepperdine University, University of Southern California, and the America East Conference.

In each role, Barrio has developed programs and implemented policies supporting student-athlete success. During his tenure at CCSU, the Blue Devils won seven Northeast Conference titles and the CCSU baseball program won the university's first-ever NCAA Tournament contest. In just one year, he increased athletics fundraising by 44 percent.

"UMBC has a bold and clear vision for how athletics can move the needle on the university's strategic goals," Barrio says. "I am thrilled to be trusted to help execute that vision over the coming years. The tremendous coaches and student-athletes already in place at UMBC will make this an exciting transition for me."

Barrio also shares, "UMBC has made a strong commitment to intercollegiate and recreational athletics—a commitment that will benefit all UMBC students and will foster a vibrant student life. A university that makes that commitment while remaining steadfast in its support for student-athlete academic success and personal development—that's the total package for an athletics director."

Barrio comes to UMBC at a time of sustained athletic and academic success over several years. This includes highlights like the men's basketball team's "16-over-1" NCAA victory, swimming and diving programs dominating conference competition, men's soccer's numerous America East titles, and women's soccer's first trip to an NCAA Tournament. Most recently, UMBC's men's lacrosse and softball teams overcame challenges to win 2019 America East Championships.

UMBC student-athletes also continue to excel academically. In fall 2018, they achieved a record grade point average for the third consecutive semester, posting a mark of 3.14. Over two-thirds of student-athletes posted GPAs of 3.00 or higher.

Barrio earned a bachelor's degree in communications from Boston College in 1999, where he got his start as a team manager for the men's basketball team and an intern in the sports information office. He went on to earn his Juris Doctorate from the University of California-Hastings College of the Law.

"I am delighted to welcome Brian Barrio to UMBC," says UMBC **President Freeman Hrabowski**. "His values and experience are impressive. He will be an outstanding ambassador for UMBC Athletics and a leader who will make an immediate contribution to the campus."

"Brian really understands the role athletics and recreation can play in building vibrant campus life, driving enrollment, and helping connect people to the university," says **Greg Simmons, M.P.P. '04, public policy**, vice president for Institutional Advancement, who co-chaired the search committee.

— Dinah Winnick

THE NEWS

Community-Minded

The Carnegie Foundation for the Advancement of Teaching has honored UMBC with its distinguished Carnegie Community Engagement Classification. This classification acknowledges UMBC faculty, staff, students, and community partners for their deep commitment to strengthening the bonds between campus and community.

UMBC is one of only 67 public colleges and universities in the U.S. to receive this honor, and one of 359 U.S. institutions to date “doing exceptional work to forward their public purpose in and through community engagement that enriches teaching and research while also benefiting the broader community,” says Mathew Johnson, executive director of Brown University’s Swearer Center for Public Engagement, the administrative and research home for the classification.

This recognition is a testament to UMBC’s unwavering support for increasing equity in the Baltimore region and in communities nationally and internationally through work that honors existing sources of community strength, fosters investments in communities, and actively works to address disparities in health outcomes, education, and other core issues.

The Shriver Center has stood at the center of UMBC’s community engagement work for decades, preparing and connecting faculty, staff, and students from all academic programs with community partners. The Shriver Center’s applied learning experiences have helped thousands of students to develop as community-minded agents of change and hundreds of partner organizations to meet their goals.

BreakingGround is another long-standing UMBC community engagement initiative with significant impacts, both on and off-campus, including environmental justice initiatives and work to improve Baltimore City’s aging water infrastructure. The work of BreakingGround now fits within UMBC’s Center for Democracy and Civic Life, launched in 2018.

The Baltimore Traces project, a collaborative teaching initiative in the arts and humanities, amplifies the community voices of Baltimore

residents and neighborhoods through various media. This key example of community-engaged teaching, which has been recognized by the National Humanities Alliance, has produced short video documentaries, a website, an interactive map, and radio programming.

Scholarship and teaching rooted in community engagement can be found in all disciplines at UMBC. In the Sondheim Public Affairs Scholars Program, for example, students spend years honing their skills as future public servants and advocates in local, national, and international communities. UMBC also trains future scientists and engineers to conduct community-based research, from the National Science Foundation-supported Bahama Oriole Project, to an affordable infant incubator that originated in a UMBC engineering course. And UMBC’s Engineers Without Borders student group has taken trips to Kenya and Costa Rica, working collaboratively with local communities and local university students to improve access to clean water.

UMBC is also invested in the local community immediately surrounding campus. Recently, the university celebrated the opening of OCA Mocha, the brainchild of students in an entrepreneurship class (see story on page 12).

“Thanks to the Carnegie application process, we know the extent and the depth of the community-engaged work that UMBC students, faculty, and staff have achieved over the last five decades,” shares **Scott Casper**, dean of the College of Arts, Humanities, and Social Sciences. “The Carnegie classification is an opportunity to celebrate that work. It’s also an opportunity to keep growing—coordinating this work to understand better the impacts of our community-engaged partnerships for our faculty, staff, students, alumni, and our partners.”

— *Catalina Sofía Dansberger Duque*

Photo: Sherman STEM Teacher-Scholar Vanessa Gonzalez '19, American studies, works with Lakeland Elementary/Middle School students.



ION PRIDE 



RESPECTFUL
RESPONSIBLE
READY

This is important.

won't give up
on you.

you can do
with
effective c

It's OK to not
know
But it's **NOT** OK
to not
TRY

DO the
RIGHT
thing even
no-one

I AM
RESPECTED

100

1000



AT PLAY

A World of Opportunity



The stunning first-round upset of top-ranked and top-seeded Virginia in the NCAA Tournament two years ago put the UMBC men's basketball program on the map in the United States. But the truth is, there are Retrievers who've been playing professionally around the world for years.

In fact, three key players from the 2017 – 18 team—top scorer **Jairus Lyles '17, sociology**; starting point guard **Jourdan Grant '18, media and communication studies**; and **K.J. Maura**—are sharing their Retriever gifts in Germany, Latvia, and Portugal, respectively.

For those who want to play basketball professionally beyond the boundaries of the NBA, going out of the country to make a career is a popular option. In fact, some make long careers out of it either in one place or in several.

Cavell Johnson '09, American studies, played just one season at UMBC, transferring in for the 2007 – 08 season, when the 6-foot-8-inch forward became extremely

valuable during UMBC's first-ever NCAA appearance for basketball. Though the team lost to Georgetown in the opening round, Johnson graduated into a professional career, hopscotching around the world to play for teams in Finland, Hungary, China, and Greece.

While playing for the KW (Kitchener-Waterloo) Titans, located about 75 minutes outside of Toronto, during their 2017 – 18 season, Johnson took over as coach. He's now coach and general manager for the team, a part of the National Basketball League of Canada.

"There's so much love and support here; the people, you hear it all the time...the people in Canada are so nice," Johnson says. "I get to impact lives now. That's one of my favorite things I get to do."

Andrew Feeley '06, sociology, who played at UMBC from 2001 to 2005, left the United States in the fall of 2006 and played in Japan for three years. After that came a year in France before going to Uruguay, where he's

played for the past eight years. Feeley is 6-foot-10-inches tall and loved being able to both play basketball and see the world.

"I just did it because I had the opportunity, and I thought this is awesome," he said in a recent interview. "Someone's going to pay me to play basketball...and I'm going to travel the world on somebody else's dime. If I had to do it all again, I'd do it the exact same way."

Feeley's world may be changing now, though. The league he plays in suspended their season in late March and was scheduled to re-evaluate at the beginning of April. Plus, the 36-year-old got married last August and after a long career playing, the Philadelphia resident says he might like to go into college coaching.

Other former Retrievers play basketball professionally overseas, as well, such as former student **Will Wise** in Latvia; **Ryan Cook '14, economics**, in Kazakhstan; **Quentin Jones '15, business technology administration**, in the Bahamas; and **Will Darley '19, environmental studies**, in Malta, among others.

In the end, these athletes are getting to fulfill their dreams—playing professional basketball.

"We have been fortunate to have multiple guys go off and play professionally," UMBC coach **Ryan Odom** says. "Those guys gain invaluable experience and have a chance to see the world and continue to play the game they love. And once their playing careers are over, they have a degree from UMBC that means a lot when they go enter the workforce."

—Jeff Seidel '85

*Above: Members of the 2018 team celebrate a victory.
Below: Cavell Johnson '09 dunks during a game.
Photos courtesy of UMBC Athletics.*



Podcast Fever

Friendship first, story second. These have been the cornerstones of success for *Riverdale*, *Count Me In*, and *Obsidian*, three Retriever-made podcasts.

While their production paths differ, all three started with the same premise—to have more time to talk and create with a good friend about a topic they obsessed about. Podcasts take time and energy, so you had better love the topic you chose.

For sisters **Carly Faye Engelke '08, dance**, and **Hannah Mae Engelke '14, psychology**, their die-hard topics were dance and Montessori.

“We talked for hours each day, even though we lived in different time zones, to the point where my husband,”—producer **Corey Jennings '10, economics**—“strongly suggested we start a podcast,” says Carly Faye. With 82 episodes covering a wide range of dance-related topics and an impressive guest list behind them, *Count Me In* shows no signs of slowing down.

On the other hand, *Riverdale* co-creator **Imani Spence '16, English and media and communication studies**, produced just six episodes to coincide with her specific fandom. When Spence, a long time fan of the *Archie* Comics, watched the *Archie*-inspired teen mystery show, *Riverdale*, she knew she needed to share her new guilty pleasure. Spence also wanted to keep in touch with her best friend, **Amanda Quinn '16, political science and global studies**, who lived across the country. Bam! The *Riverdale* podcast was born.

“I watched the first season and was hooked,” says Spence. “I got Amanda hooked. Next thing we knew we were watching the show, taking notes, and recording a podcast.”

As in the case of *Obsidian*, sometimes the



obsession is an intentional artistic exploration. The narrative podcast evolved from a creative writing exercise between friends **Adetola Abdulkadir '17, bioinformatics and computational biology**, and **Safiyah Cheatam M.F.A. '21, intermedia and digital art**, who discovered a mutual love of science fiction and Afrofuturism, which explores the liberation and betterment of black people and black lives through different mediums.

“I wanted to write scripts again and this was a great opportunity,” says Cheatam. “I believe Afrofuturism is a good tool for black people to imagine a better future for themselves.” Over the course of a year, they worked on creative development, hired actors, a sound designer, and an artist to create one episode. They are now funded for 10 more episodes through a Rubys Artist Grant from the

Robert W. Deutsch Foundation.

In addition to the importance of collaboration and topic focus, podcasts require some technical skills—and all three of these production teams had either prior experience in radio or friends who did. But, regardless of skill level, they all struggled to find time between life commitments. Their advice? Forgo the fear of lacking technical skills, time, location, an audience, or a certain number of episodes. Make it work.

In the end, they all agree, podcasting is about having fun. It is a medium that can deepen the bonds of friendship and creates a community, making all the hard work worth it.

— Catalina Sofia Dansberger Duque

Photo: Carly and Hannah Engelke record their dance and education podcast *Count Me In*.
Courtesy of Corey Jennings '10.

“I watched the first season and was hooked,” says Spence. “I got Amanda hooked. Next thing we knew we were watching the show, taking notes, and recording a podcast.”

AT PLAY



Coffee and Community

The plan began percolating in early 2017, when **Gib Mason '95, economics**, presented a challenge to his Innovation, Creative Problem-Solving, and the Socialpreneur class: create a way to better connect UMBC to the community surrounding it.

Two and half years and a lot of lattes later, in fall 2019, OCA Mocha opened its doors on East Drive in neighboring Arbutus. What started as an empty shell full of potential became a warm, welcoming student-run space with a coffee bar, community meeting room, entertainment stage, and gallery wall featuring works by local artists.

As students, **Michael Berardi '19, media and communication studies**, and **Deep Patel '19, biological sciences and financial economics**, were in the class that created the concept; as alumni, Patel is a co-owner of the coffee shop, and Berardi is the general manager.

Since running with the idea born in Mason's class, the OCA Mocha team has learned first-hand about planning, construction, relationship-building, and the ups and downs of starting a business from scratch. And the learning didn't stop when OCA Mocha opened its doors; in addition to the financial and organizational aspects of making the project a reality, Patel says he has learned "how to work with a team to accomplish a goal." Berardi adds that he is now "more comfortable with uncertainty and ambiguity" and has learned "the power of positivity—people notice it and want to be part of it."

In their opening months, the place buzzed with activity from morning to night, with students studying, groups playing board games, impromptu meetings in the booths, friends and families gathering for coffee and conversation, and people running into old friends—or making new ones—over the signature OCA Mocha or frozen hot chocolate.

And even after temporarily closing its physical location due to COVID-19, the OCA Mocha team has continued its community-focused work. A virtual open mic night drew ten performers and more than 600 views on social media. In partnership with the UMBC

Office of Sustainability, the team took a planned OCA Mocha Kids Club event online with video tutorials on how to make Earth Day-themed crafts from on-hand items otherwise destined for the landfill.

Building on OCA Mocha's existing partnership with Retriever Essentials, UMBC's food pantry, the team offered a one-time no-cost lunch delivery to local kids in need. As a result, Patel and Berardi made and delivered 35 lunches and Kids Club activity packs.

Berardi said it was eye-opening to see how many people, including in his own neighborhood, needed help. A mom posted her thanks on social media, saying this gesture "brought so much joy" to her three kids. The team continues to partner with Retriever Essentials to serve UMBC's food insecure community.

Bettina Tebo, president of the Greater Arbutus Business Association, is one of the project's earliest supporters. At the grand opening, she called OCA Mocha "just the beginning of the amazing things that can happen from this relationship...and from the connections that we're building."

Along East Drive, other businesses noticed an uptick in foot traffic after OCA Mocha opened. A new bus route from campus to East Drive certainly helped. Sheena Herron, owner of Finders Keepers Thrift Store and Consignment Store, says, "We've gained so many new and loyal customers...simply because they were at OCA Mocha and noticed we were next door."

When OCA Mocha eventually re-opens, Berardi and Patel look forward to the familiar buzz of activity. They already have plans to expand the coffee shop's menu and live entertainment offerings, enhance their community-focused programming, and "serve the community in ways we haven't even thought of yet."

— Mary Ann Richmond '93

Photo: Student workers create coffees and food for guests in the fall.



IMPACT

Stay Black and Gold



Last July, UMBC senior **Karina Martinez**’s world crashed down around her when an auto accident left her with two broken arms and a totaled car.

In a matter of moments, reality set in. Surgery and recovery would take at least three weeks. Without a car, she couldn’t get to school or her part-time server job, much less the required field placement she needed to complete to graduate. Her manager gave her a less physically-taxing hostess position, but losing a month’s work and switching from tip wages to hourly left Martinez in a real bind.

“I had bills I had to pay,” says Martinez ’20, social work and psychology. “I thought about dropping some classes so that I could work more to be able to pay off my UMBC balance but then my sister told me I should look into seeing if UMBC has an emergency fund for students.”

UMBC’s Stay Black and Gold Emergency Fund is an initiative of the Student Government Association that provides emergency funding in awards ranging from \$1,000 to \$8,000 depending on needs arising from unexpected crises ranging from accidents to house fires, deaths of parents, loss of jobs and other sudden losses of income that could prevent the continuation of classes. Like many universities across the country creating similar support systems for their students during the COVID-19 crisis, UMBC is continuing to grow its resources to respond to its community’s needs. In the months of April and May, 641

students requested support, and more than \$118,000 in funds was distributed.

“The Stay Black and Gold Emergency Fund acknowledges that sometimes we are faced with circumstances we could not have predicted and we need help from others,” explains Vice President for Institutional Advancement

Greg Simmons, M.P.P. ’04, public policy.

“Donors who give to this fund are committed to helping us do all we can to help students finish their degrees in the face of challenges they hadn’t expected and in some cases hadn’t even imagined could be true.”

In March, longtime UMBC supporters **George** and **Betsy Sherman** made a pledge of \$25,000 to reinforce the fund, and other individual donations have come in steadily for the fund and to UMBC’s Retriever Essentials Food Pantry, which offers dry goods and toiletries to students with those ongoing needs.

Martinez, who begins University of Maryland, Baltimore’s advanced standing master’s of social work program this fall, appreciates what it means to be on the other end of the helping hand.

“Unfortunately, sometimes unexpected things happen...so having funds like this available to them really makes a difference,” she says. “For me it was allowing me to graduate on time with my class. So, thank you so much for donating, it is much appreciated.”

—Jenny O’Grady

Retrievers Behind the Scenes



All over campus, staff work hard to make a difference in the lives of their fellow Retrievers.

Diana Smith is no exception. In addition to her work as program

management specialist for the Division of Undergraduate Academic Affairs (UAA), and president of UMBC’s Nonexempt Staff Senate (NESS), Smith also works closely with the Wisdom Institute, UMBC’s association for faculty and staff retirees. Here is a glimpse into her work.

Q: What is your favorite thing about the work you do at UMBC, and why?

A: I am a helper and fixer by nature. I enjoy establishing a sense of organization to messes and unraveling complex problems. In UAA, we see a wide variety of student issues as well as campus issues which ultimately affect our students. I enjoy applying my skills to help make the student experience a positive one.

Q: Why do you feel that service is so important?

A: Service is important to me on a couple of different levels. As the server, I am able to connect with those I serve—whether that be a person or project. It gives me joy to build relationships and make an impact on something or someone. As one who has received the service of others, it is sometimes a humbling experience to recognize and acknowledge that you need some form of assistance and that another person cared enough to serve me. That, in turn, fuels my desire to serve others.

Read more of our interview with Smith at magazine.umbc.edu/tag/behindthescenes.

Lifelong Learning



Jim Kruger '13, political science, M.P.P. '14, has a favorite spot near the public policy building.

The bench, Kruger's own donation to UMBC, is strategically positioned to give him a break on his path to and from the public policy building. It was a much-needed respite when he was a first-year political science student at the age of 60 and again as he earned a master's in public policy a year later.

"Students confuse me for the professor," says Jim, who visits the bench still as he pursues a doctorate in public policy at age 70. "They introduce themselves to me and are quite astonished when I sit next to them ready to learn just like them."

UMBC prides itself on providing flexibility and support for all students regardless of what age they begin their academic journey. In fact, UMBC and the University of Maryland, Baltimore partnered recently to become Maryland's first "age-friendly" universities. They join 58 institutions worldwide that make up the Age-Friendly University Global Network, led by Dublin City University in Ireland.

Universities earn the "age-friendly" designation by committing to 10 guiding principles related to opportunities and resources that support active and healthy aging from research to enrollment and staffing. The initiative is inspired by the World Health

Organization's age-friendly cities movement. It is an opportunity to provide the support needed to make learning, working, and innovation accessible through life's continuum.

"This is about mindset," said UMBC President **Freeman Hrabowski**. "It is a challenge that we face in our society to rethink how we think about aging. The more we grapple with these challenges together, the more joy we will have in our societies."

Kruger's daughters—**Sarah Brandt '97, biology, and M.A. '08, education, and Megan Kruger '97, biology**, whose names are also listed on the bench—know it hasn't always been an easy road for their father.

"He has a lot of energy," says Megan, who notes he starts each morning making sure his grandchildren are fed, dressed, and are on time for the bus. He then heads to UMBC where he has followed a rigorous course of study for the last 10 years. No excuses. Not even through prostate cancer.

Slowing down after retirement was not his plan. In fact, he aims to finish a path he began in 1968, the year he originally entered college. The following year, he married and, shortly after, had his first child, **Jim Kruger IV**, followed by twins. College gave way to full-time work, and he worked as an industrial steam pipe fitter in Baltimore for 40 years. Regret is not in his vocabulary.

Jim Kruger's student experience, while at times difficult, was not that much different than that of younger students. Learning French was exasperating. Group work was awkward, especially when group partners had a different sense of timeliness. There was always new technology to learn. And health issues momentarily interrupted his course.

But Kruger also found tremendous support. The Writing Center and online library were crucial to his success, he says. And, like many students, he was grateful for financial support. The Golden ID program, a state program that provides some financial support for people 60 and over, helped fund his undergraduate and graduate study and created a community. Another element of support for Kruger was his daughter-in-law **Leslie Kruger**, who has worked on campus for more than 12 years.

Through it all, Kruger says he appreciated the support of his family and faculty mentors who were always accessible, especially, during cancer treatments. With more than 40 years invested in his education, he is excited to forge ahead.

"He believes in finding your own path," says his daughter Megan, "even if it changes many times."

— *Catalina Sofia Dansberger Duque*

Photo: Jim Kruger and his wife Kathy enjoy the bench they donated.

Campaign Corner

To date, UMBC's Grit & Greatness Campaign has raised more than **88% of the total goal*** to Make Big Breakthroughs, Forge True Partnerships, and Transform Lives.

Raised through April: **\$131.7 million**

2020 Giving Day Totals: **2,674 donors gave \$188,507**

Total goal: **\$150 million**

Learn more at **giving.umbc.edu**

** As of April 30, 2020*

DISCOVERY

Day in the Sun



For an independent filmmaker, recognition from the Sundance Film Festival is a big deal.

This past January, **Jovan James '13, visual arts**, along with co-director Elegance Bratton, presented their short film *Buck* at Sundance to an appreciative crowd of industry insiders.

"It was incredible because you wonder when you make your work if someone is going to care about this—will it matter?" said James recently upon hearing the news that the film was selected for Sundance. "It feels great to be seen, to know that you are doing the right thing by telling stories that you want to tell, and not compromising."

Completed in 2019, *Buck* is James's M.F.A. thesis film—the culmination of his graduate studies in the NYU Tisch School for the Arts Graduate Film Program. It is a story about a young black man, Lynn, caught in the throes of a depressive fugue. Seeking escape, he resorts to debauchery with an older white lover, Richard. But, rather than joy, he discovers that happiness is a more complicated proposition.

Aware of the mental health crisis facing the black gay community—noted by a rise in suicide rates and drug addiction as the chance of HIV infection hovers at 50 percent for gay black men—James approached this project from a very personal perspective. He wanted *Buck* to tell a story that could speak to this

community—his community—and suggest a way towards a different outcome.

Young black men like Gemmel Moore, who was in the news after overdosing in the home of wealthy white political donor Ed Buck, were on the minds of the directors as they selected a title for their film, they said, along with the commodification of black male bodies, as the term references enslaved black men and black male sex workers.

As a transfer student to UMBC from CCBC Essex, James found himself among other dedicated students working at all hours in the Fine Arts Building, making short films for classes, and with close friends throughout his time at UMBC.

"A lot of my path, of course, began at UMBC...I met a lot of interesting people on campus...and I left the country on the study abroad program (in Milan, Italy, in 2012 at Università Cattolica del Sacro Cuore), that was a big moment in my life." He goes on to recount the sense at UMBC that, to be great, you had to work really, really hard and want success. "I'm thankful for that—it really gave me my sense of determination and allowed me to experiment."

Once at NYU, there was pressure to follow the "auteur model" of filmmaking, but the egoism in the approach went against the way he wants to lead. Collaboration has been an

important element of his filmmaking, ever since the early days at UMBC and throughout production of the three short films he has released—*The Jump Off* (2017) and *Tadpole* (2018) preceded *Buck*—since entering the program at NYU. Bratton and his husband, producer and costume designer Chester Algernal Gordon, have become key collaborators.

Assistant professor of theatre **Susan McCully** recalls James from her playwriting class: "He was always front and center in class—completely focused. He challenged me frequently; it was always the kind of defiance that I yearn for from my students. His questioning was always about his growth, not about him protecting his ego. I've been following his journey through NYU and now in the world. I'm not surprised by his success. I'm proud that his work is 'out' and defiant and about people growing in the world."

James currently lives in L.A. while interning at Bad Robot Productions in a coveted year-long internship program that gives him direct access to people who can help his career. (He recently had an opportunity to screen *Buck* for his colleagues, including Bad Robot head J.J. Abrams!) But, James can't wait to share *Buck* in Baltimore, where so much of his inspiration comes from.

Buck was recently named an official selection of the 22nd Annual Maryland Film Festival and will be screened during the festival's revised virtual edition from June 12 to 21.

"There are so many environments in Maryland that I want to use," said James. "I want to bring that love and attention to my city... and money, jobs, and mentorship programs to teach kids to gaff, do sound, costumes, assistant direct, and also to direct, write, and produce their stories!"

— Catherine Borg

Photo: James on set with his crew. Courtesy of Dawn Hall.

Winds of Change



Wind turbines are massive, with a single turbine blade measuring up to 350 feet, longer than the wingspan of some commercial airplanes. At its highest point, a blade can be 850 feet off the ground, almost reaching the height of the Eiffel Tower.

A few years ago, **Soobum Lee**, associate professor of mechanical engineering, began looking at the spinning motion of wind turbines and additional vibrations created as they spin continuously. He came up with a novel idea: using these small vibrations to power transmitters that could send sensor data to a turbine's operation and maintenance systems. Wind turbines have sensors on their blades to alert their operators if the blade gets damaged or if there is a malfunction or maintenance issue, Lee says. Until now, these sensors have been powered by batteries that need to be changed every two years or so, which is time-consuming and can be dangerous for maintenance workers as they access multiple sensors on the blades.

"The sensors are to help with maintenance," says Lee. "If they also create a maintenance need, it's a problem."

Over the past seven years, UMBC faculty across disciplines have worked to commercialize their research to bring innovative technologies to companies and consumers. Recognizing the challenges with this transition, UMBC,

the State of Maryland, and other research institutions created initiatives to help faculty pursue entrepreneurship opportunities, including the Maryland Innovation Initiative (MII), to promote research commercialization. A unique feature of the MII program is university "site miners," who help and support faculty throughout the application process.

So far, 16 companies have been formed by UMBC faculty since the start of MII, including Lee's, for which he received a phase one grant to develop his vibration-powered sensor technology. Through bwtech@UMBC, UMBC's research and technology park, Lee connected with Pranay Kohli, an energy sector executive. In 2018, Lee and Kohli founded ACTIVEcharge, LLC, a startup that develops solutions to autonomously monitor wind turbines.

"Soobum and I have benefited tremendously from the MII program. Although we had the technology and the business skills, what MII and bwtech provided us was the ecosystem of professionals who have guided us along the way," says Kohli, CEO of ACTIVEcharge.

In the lab, Lee and his students have developed a power management circuit and have integrated it with a power source, sensor, and data transmitter that is about 6 inches tall and weighs about 2 pounds.

The sensors provide signals to the transmitters, and the transmitters send the data to receivers. This process uses the energy produced by the attached mechanical generator, powered by vibrations from turbine blades, and no external source of energy is needed. The sensors are designed to sit inside the blades, so they are completely protected from the elements and do not interfere with the blade aerodynamics.

Lee and Kohli hope that, in the coming years, their integrated solution will be installed on turbine blades around the world. Their goal is to provide turbine maintenance crews with near-real-time data that can support their work in a way that doesn't create additional labor or physical risk and prevents potential catastrophic events.

Sustainable energy projects are growing in the U.S., so now is an important moment to make technology improvements, Lee notes, adding, "I want to make things even better than they are now."

—Megan Hanks Mastrola

Image: Wind turbines. Photo by Kam Abbott, used under CC BY 2.0.

"Although we had the technology and the business skills, what MII and bwtech provided us was the ecosystem of professionals who have guided us along the way."

—Pranay Kohli, CEO of ACTIVEcharge

DISCOVERY

Finding Their Way Home

Mantis shrimps have earned fame for their powerful punching limbs, incredibly unusual eyes, and vivid exoskeletons. And, it turns out, they're also really good at finding their way home. Through a series of painstaking experiments with these often-uncooperative creatures, **Rickesh Patel** has produced new findings on mantis shrimp navigation, published in *Current Biology*.

Patel, a 2020 Ph.D. graduate in biological sciences, found that the species of mantis shrimp he investigated relies on the sun, patterns in polarized light, and internal cues—in that order—to navigate directly back to their nondescript burrows. These straight-line returns often follow forays that meander and zigzag as the shrimp looks for a meal or a mate. The ability to get home quickly comes in handy when seeking shelter in the presence of a predator, or a perceived one, as Patel noted on his first research fieldwork expedition.

After his first year at UMBC, Patel traveled with **Tom Cronin's** lab to Lizard Island in the Great Barrier Reef to collect mantis shrimps for study. "As soon as they notice you, they'll turn around and zip straight to some sort of shelter," Patel says. Like a true scientist, "that got me wondering how they go about finding their way home."

Scientists have written a great deal on navigation in other species—primarily bees, ants, and mice—but Patel's is the first work on navigation in mantis shrimp.

First, Patel had to find a behavior he could work with to test ideas about how mantis shrimp navigate. So he created a small arena with an artificial shrimp burrow buried in sand. He placed the shrimp in the arena, and to his delight, the mantis shrimp was happy to occupy the small section of PVC pipe. Then he placed a piece of food at a distance from the burrow. He watched as the shrimp left its burrow, meandered until it found the food, and then returned to its burrow in a fairly straight line.

From those initial observations, Patel hypothesized that mantis shrimp use a process called path integration to find their way home. In other words, they are somehow able to track both their distance and direction from their burrow.

"That was probably the most exciting part of the experiments for me, because I knew I had a really robust behavior that I could work with," Patel says. "Everything I did really extended from that initial point."

After that first discovery, the challenging work began, to figure out what cues the animals were using to determine the path home. Further experiments involved much larger arenas, mirrors, and natural patterns in sunlight—all of which took creativity and a lot of patience.

"The animals will only behave maybe once a day, so if you scare the animal, you've lost that day," he says.

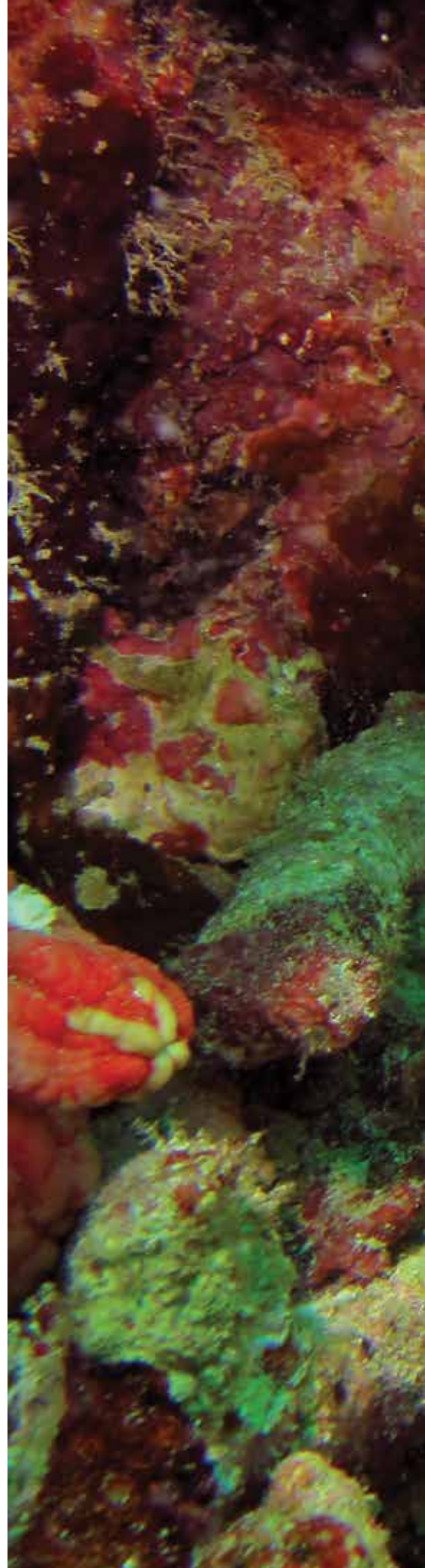
Patel is ultimately interested in the neural basis of navigation behavior, but "before you can investigate what's happening in the brain, you have to understand what the animal's doing," he says. "So that's why I really focused on the behavior work, to figure out what the animal is doing and what kind of stimuli are appropriate to show the animal that we can use to investigate its neurology."

Patel will continue his research career at Lund University in Sweden as a postdoctoral fellow, starting this summer. Right now, he's thankful for the experience he's had at UMBC, from that first summer through his dissertation research, and being the mentee of Cronin, professor of biological sciences and a pre-eminent scholar of mantis shrimp vision.

"Tom has been great in that he's given me complete freedom to approach any question I want to while also being happy to offer advice when asked," Patel says. "That combination has helped me grow into my own as a researcher."

— Sarah Hansen, M.S. '15

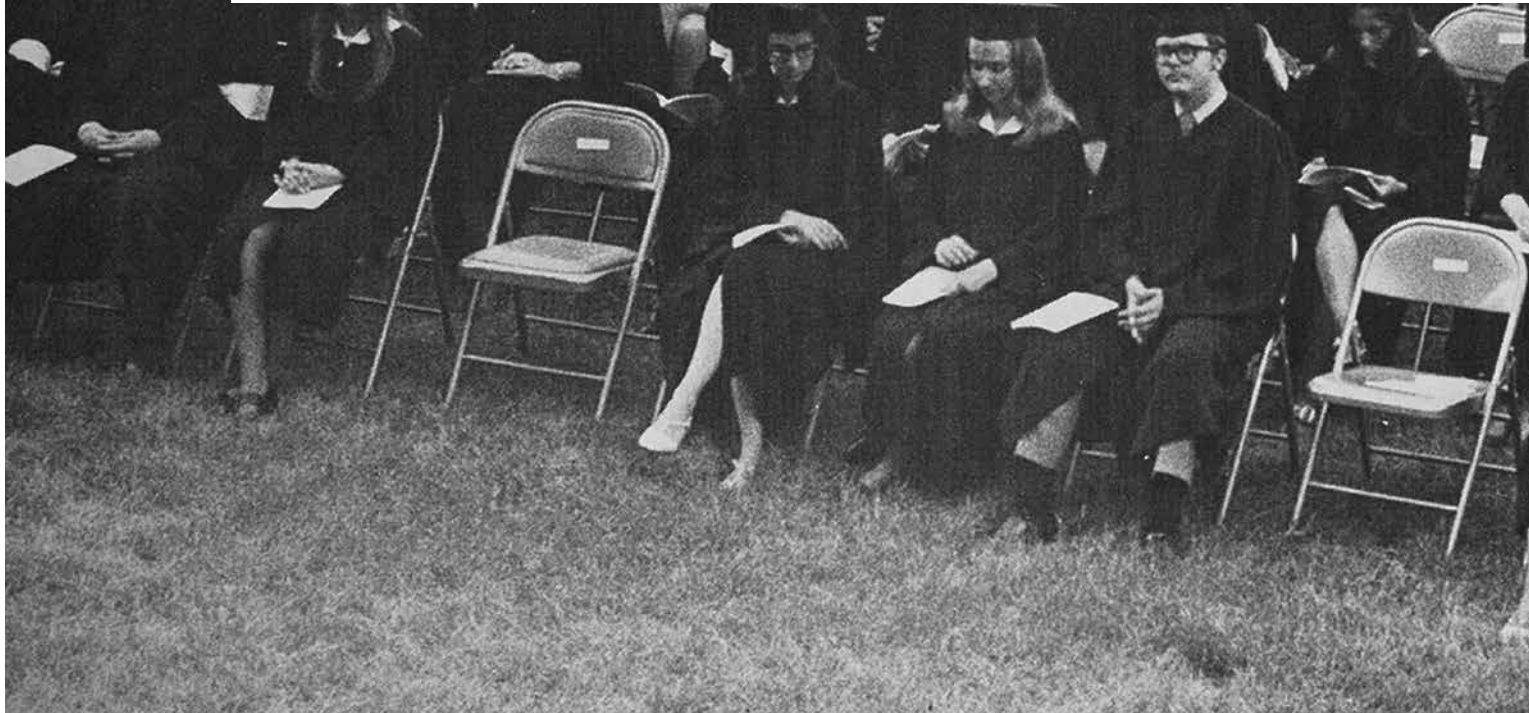
Image: A peacock mantis shrimp. Photo by Bernard Dupont, shared under CC BY-SA 2.0.







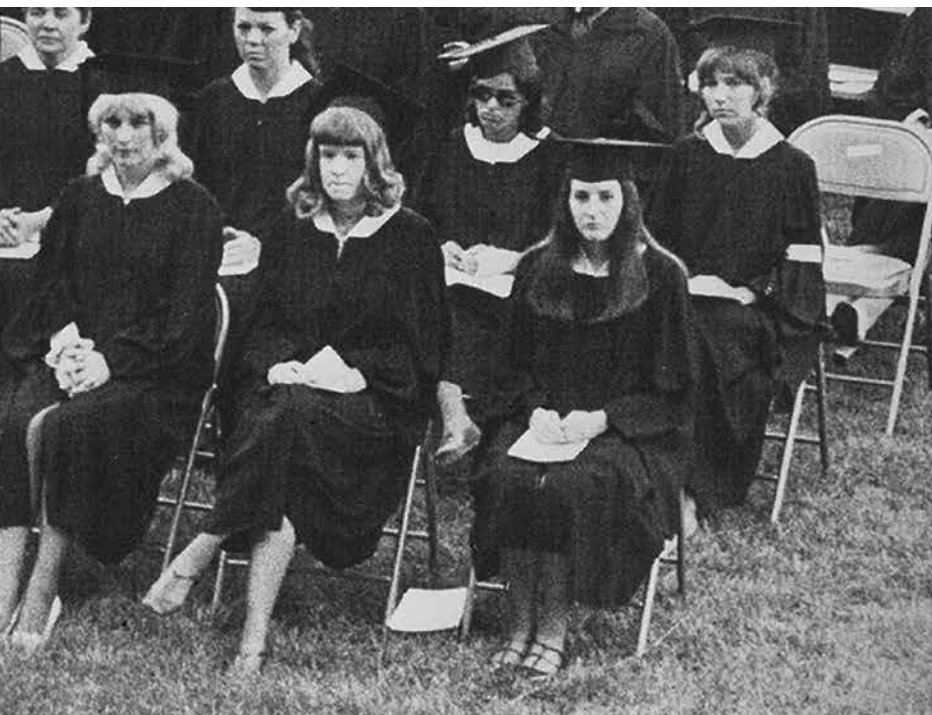
STAY GOLDEN,





BY JOHANNA ALONSO '20

RETRIEVERS



FIFTY YEARS AGO, UMBC'S VERY FIRST CLASS CROSSED THE STAGE FOR THE UNIVERSITY'S INAUGURAL COMMENCEMENT CEREMONY.

Among the faces of the 239-member founding class captured in black and white in the *Skipjack 1970* yearbook are men and women eager to explore their world. Together with brand-new faculty and staff, they helped set the foundation of UMBC as a true community of inquiring minds.

Although they are decades apart, the graduating Class of 2020 has made just as indelible a mark on UMBC. Like their 1970 counterparts, they have contributed fresh takes on timeless conversations, challenged norms for the public good, created timely scholarship of all types, and pioneered entirely new ways of learning.

As we celebrate UMBC's Golden Commencement, we hope you will enjoy these conversations between members of the Classes of 1970 and 2020 and take pride in what it means to be a Retriever—and how those principles have remained consistent year after year.

HERE'S WHAT THEY HAD TO SAY.

PHOTOS: Linda “Louie” Sowers ’70 (top) and Kaya Knake ’20 (bottom) read through the 1970 Skipjack yearbook.



TIMELESS TEAMMATES

LOUIE & KAYA

For decades, many students’ UMBC experiences have been shaped by the teams they cheered for and the championships they competed in. But when **Linda “Louie” Sowers ’70, American studies**, first arrived at UMBC in the school’s inaugural year, athletics were hardly a blip on the map of the school’s three-building campus—and women’s sports did not exist at all. It was Sowers herself who made the change.

Formerly a high school volleyball player, she approached the school’s athletic director and struck a deal: If she could gather enough interest, the school would sanction a women’s volleyball team.

In the end, 66 women—around a tenth of the school’s entire population—signed on, demanding women’s athletics. A volleyball team was formed, followed by field hockey and basketball, and the rest is history.

“I often wondered what would’ve happened if I hadn’t...said, ‘hey, we have girls that are interested in playing,’” Sowers told **Kaya Knake ’20, computer science**, a member of the Track and Field team, over lunch at True Grit’s early last semester. “How many years would’ve gone by with no women’s sports here?”

The women’s teams at the time had few resources at their disposal; they initially practiced in their gym uniforms, had

difficulty finding schools to compete against, and were relegated to practicing in the late evening, once the boys were done using the field.

Even once they did get their own uniforms, girls who played more than one sport got only one uniform that they used year-round—including Sowers, who wore lucky number 13 for all three teams. You can spot the jersey scattered across the pages of UMBC’s 1970 yearbook, which Knake and Sowers flipped through together as they chatted.

Now, 50 years later, women’s athletics at UMBC not only persists but thrives, with eight NCAA teams, including basketball and volleyball; field hockey, sadly, did not stand the test of time.

Knake, who will graduate this semester into a new career at Northrop Grumman, is one of the many students whose UMBC experience is inextricably tied to athletics. After all, Knake is a Michigan native who would not have heard about UMBC if she hadn’t been recruited by the university’s track and field team.

Unlike in Sowers’s time, Knake’s team has never had any dearth of schools to compete against. One of the most memorable experiences she has had as part of the Track and Field team, she said, was when UMBC hosted the America East Outdoor Track and Field Championships at the end of her sophomore year, bringing nine teams



and tons of fans to campus. There, Knake won two events and even set an America East record for the outdoor 800 meter. But it was the support of the community that really made the occasion special, Knake told Sowers while sharing some of the team photos she keeps on her phone.

"It meant a lot because my parents came down from Michigan, and then some people from UMBC came to watch, and we had a ton of alumni who came out as well," Knake explained. "It was really special to have everyone here and feel like a big team."

A WORLD TO DISCOVER

DALE & PAT

It might come as a surprise to today's UMBC students to learn that study abroad has been a part of the university's fabric since almost the very beginning. In 1969, UMBC's third year, a group of 42 students traveled abroad as part of a winter session course (then called the "mini-mester"), traversing Europe and visiting important historical landmarks.

Dale Gough '70, American studies, was not on that trip. He did, however, end up going abroad after his senior year, but it was not for a class, nor for a vacation. At the time—the tail end of the Vietnam War—there was a draft lottery, in which young men were selected based on their birthdates to serve in the military. When Gough realized he was going to be drafted, he decided to get ahead of the curve by going to the military recruitment office, résumé in hand, in hopes of getting placed somewhere other than active duty.

"[The recruiter] said, 'Well, have you ever considered military intelligence?' And I said, 'Oh, you mean like James Bond?'" Gough recalled as he and **Pat Michael '20, mathematics and global studies**, took a walking tour of campus together this spring.

Thus began Gough's assignment in Panama, where he worked as the non-commissioned officer in charge of

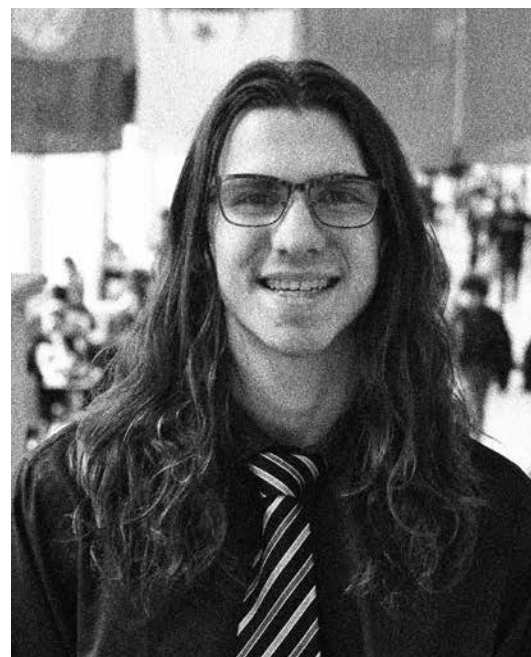
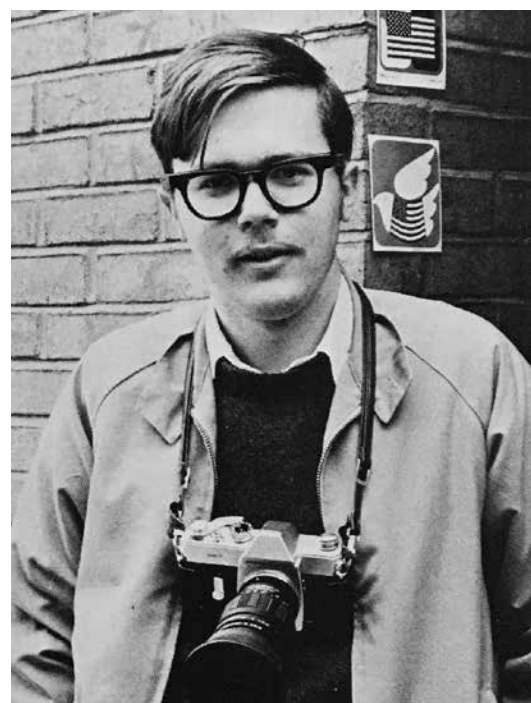
source administration and research analysis. Since then, he has visited six times and has become quite well-versed in Panamanian politics, culture, and history, as evidenced by the stream of facts and anecdotes he related to Michael as the duo turned off of Academic Row and made their way across the quad towards the Interdisciplinary Life Sciences Building.

Now, the class of 1970 is donating \$25,000 to support international education in hopes of boosting the number of UMBC students who are able to study abroad. Even though Gough did not personally have the opportunity to study abroad while in school, his time in Panama taught him that immersing oneself in another culture "fundamentally changes your DNA."

The sentiment was echoed by Michael, who studied abroad in Colombia—which shares a border with Panama—during their junior year at UMBC. "It rocks your world," said Michael, who described their experience in Colombia as that of a "investigator," constantly trying to gain a deeper understanding of the country's customs and culture over the course of their semester-long experience.

While Michael managed to get used to some aspects of Colombian culture, like the blunt way the people talk with one another and the nation's proclivity for long days that start early in the morning, they know that

PHOTOS: Dale Gough '70 (top) and Pat Michael '20 (bottom) tour campus together earlier this spring.



PHOTOS: Donna Helm '70 (top) and Kara Gavin '20 (bottom) shared stories of new learning techniques over the phone.



they still have much to learn. They plan to return someday soon and even applied to teach there as a Fulbright Scholar.

Gough and Michael ended their campus tour in The Commons, where they sat below the colorful swath of international flags that hang from the ceiling. There, Michael told Gough about working as a peer advisor in the Education Abroad Office. Part of the job of a peer advisor involves explaining to their fellow students what study abroad was like—a duty that has turned out to be mutually beneficial.

“Talking about my experience has helped me ground it, but it has also inspired other people,” Michael says. “It’s fun to see some people’s faces when they light up.”

SUPPLEMENTAL LEARNING

DONNA & KARA

When **Donna Helm '70, French**, came to UMBC, she wasn’t entirely sure what she wanted to study; the career options at the time were limited for women, she recalls, but she did have an interest in teaching. Luckily, though, she wasn’t alone in her uncertainty. Most of the professors who taught her were playing it by ear, as well.

“Many of our professors were brand-newly minted Ph.D.s who had never taught, and this was their chance to sort of figure it out, too,” Helm said in a phone call with **Kara Gavin '20**, an English major and Humanities Scholar.

This led to a sort of camaraderie between the professors and students, who worked together to navigate the beginnings of a brand-new school; there was a sense that everyone on campus was constantly trying new things, learning from mistakes, and improvising.

“They had requirements, but we had a certain amount of freedom to design... what we wanted to do,” Helm says.

This led to a handful of educational experiences that may strike today’s students as a little bit unusual. Some



of the most notable were the weekend excursions Helm—along with her professor and classmates—used to take to an off-campus estate called the Donaldson Brown Center, located in Cecil County on the Susquehanna River.

There, the students would fully immerse themselves in the French language. “It was an opportunity to just speak French and to interact on a different level with our professors because we weren’t at the school,” Helm says. “That was really a lot of fun.”

After the COVID-19 pandemic forced universities to switch to distance learning this spring, UMBC’s students and professors faced moments of uncertainty and improvisation not unlike what Helm’s class experienced in the school’s first year.

Just as Helm’s professors tried to find interesting ways to engage their students, Gavin’s professors have had to completely rearrange their courses to accommodate the new online environment. The professor for her costuming class altered the final project so that students who do not own a sewing machine could either create a



costume design plan, including budget and materials, or write a research essay.

Degree requirements were also somewhat looser when Helm was a student, mirroring the temporary changes to grading policies this semester to afford students an unprecedented amount of flexibility for completing their graduation requirements under the stress of a pandemic.

And just as Helm and her professors supported one another through the often-challenging work of building a university from the ground up, Gavin says her professors have been more than understanding of what their students are going through in this difficult time.

"My teachers also have been helpful just by asking, 'How are you guys doing?'" In the first Zoom session of my English Technical Communication course, we spent the first 15 minutes just talking about how we were, how our families were," Kara says. "As often as I can, I try to make sure to thank my teachers for how they have helped us in this transition."

1970 – VS. – 2020

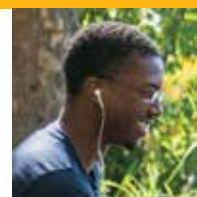
TOP SONG



"BRIDGE OVER TROUBLED WATER"
BY SIMON & GARFUNKEL

– VS. –

"SAY SO" BY DOJA CAT



FAVORITE CAMPUS FOOD OPTION



PACK YOUR OWN LUNCH

– VS. –

CHICK-FIL-A



FAVORITE PLACE TO RELAX ON CAMPUS



THE LIBRARY

– VS. –

ERICKSON FIELD



MOST COMMON BACKPACK CONTENTS



"WHAT'S A BACKPACK?"

– VS. –

LAPTOP AND NOTEBOOKS



MOST USED PIECE OF TECHNOLOGY



EITHER A SLIDE RULE OR A TYPEWRITER

– VS. –

A SMARTPHONE



BEST ON-CAMPUS JOB



TELEPHONE SWITCHBOARD OPERATOR
"GOOD MORNING UMBC"

– VS. –

INTERN FOR *UMBC MAGAZINE*





We can all agree it was not supposed to be this way. Commencement—as **President Freeman Hrabowski** often reminds graduates during the ceremony—is a dignified occasion, deserving of the phrase “pomp and circumstance.” It’s also a day for jitters, lining up with your classmates in the hallways of the Event Center, and being mindful of your feet when crossing the stage. It’s a day for loud, celebratory shouts and enough clapping to make your palms feel sore afterward. Commencement is a day for shaking hands with your mentors, for hugging your suitemates and best friends so hard your mortarboard cap falls off. In short, the culmination of your time at UMBC is a full-body experience, and our Class of 2020 deserved to have that day.

With traditional end-of-studies rites of passage not possible this May, our 2020 graduates are finding ways to acknowledge what they’ve lost but also celebrate their hard-earned achievements. Until we’re able to commemorate them in person, *UMBC Magazine* wanted to give a special shout-out and send-off to our 50th graduating class.

IN THIS TOGETHER

I never planned to walk at graduation.

Graduating college was just something everyone in my life expected me to do—why celebrate it in a three-hour ceremony? The diploma would be mailed either way.

But as the second semester of my senior year got closer and closer, I started thinking about my “lasts,” and I realized that I wanted to experience the culmination of four years’ worth of blood, sweat, and grit, and I wanted to do it with my friends.

We’ve all spent four years of our lives—some, even more—working towards our degrees, and it’s difficult to think of the last moments we have missed.

We’ll never get to experience our last day of classes, or our last club meetings, or our last late-night chicken tenders. We’ll never get to experience the butterflies in our stomachs as we wait for our names to be called so that we can walk across the stage after a (last) week of finals, pretending that we can pick out our moms in the crowd.

While it hurts that we weren’t able to have the same May graduation ceremony as the 49 classes before us, it helps to know that if we could make it through college, we can make it through this, too. And though the future’s uncertain, one thing I know for sure is that we’re all in this together, just as we have been for the last several years.

We’ve conquered Chem 101, given our first 15-minute presentation, written countless essays, and survived distance learning. We’ve pulled all-nighters in the Retriever Learning Center to complete assignments due at 8 a.m. the next day, spent days running on coffee, and have ordered more Domino’s pizza than we might care to admit.

We’ll remember the “plagues” that struck campus, causing campus-wide losses of power and water; the tree that mysteriously appeared on Erickson Field during the 2017 fall semester finals week—appropriately dubbed the Finalmas tree—and the first time we got really and truly spooked by a campus squirrel eating Chick-fil-A. We’ll remember the feeling of staying up late with friends, living exclusively on Admin sandwiches, and scrambling to find last-minute parking.

Personally, I’ll also miss the baristas at Starbucks, who remembered my name and my order, the newsroom tucked away on the second floor of the University Center, and the ground floor of Fine Arts, where I could often be found pretending to dance for an upcoming Musical Theatre Club production.

All of these memories have people attached to them, and they’re perhaps the most important. We haven’t done it alone, and while it was hard to have to give up our last, perhaps most formative, semester, it’s easy to remember the people who were there by our sides, helping us through.

Professors who have had our backs from the beginning and don’t mind if we drop by their office hours unannounced. Staff who have taught us more than we seem to be able to get from a classroom. Advisors who have checked in on us outside of advising season to make sure we’re okay. Friends who have been there since freshman orientation, and friends we were only just beginning to make this semester.

Though we may not have been able to give everyone a proper goodbye, and we might now wish that we took a little extra time to relax, we will remember the moments with each other more than anything else.

So I think we deserve it when I say:

Congratulations, Class of 2020.

We made it.



JULIA ARBUTUS IS THE OUTGOING EDITOR-IN-CHIEF OF THE CAMPUS NEWSPAPER, *THE RETRIEVER*, AND A PROUD MEMBER OF THE CLASS OF 2020. A DOUBLE MAJOR IN FINANCIAL ECONOMICS AND ENGLISH, HER NEXT STEP IS A MASTER'S IN JOURNALISM AT THE UNIVERSITY OF MARYLAND, COLLEGE PARK.

NOTHING LEFT TO SAY, BUT 'THANKS'

We reached out to the graduating class to ask about warm memories and shout-outs to fellow Retrievers they'd like to share. From an ode to the campus squirrel population to words of gratitude to mentors; from virtual hugs of suitemates-turned-best-friends to memories of closing curtain bows, what we heard was a genuine outpouring of love from our 2020 graduates for our UMBC community.

As a biology major who spends a lot of time in labs, I've always joked that Stella-Blue—my sweet Labrador retriever—is my “lab assistant” or my best “lab partner.” For the UMBC Homecoming Puppy Parade, I brought Stella to campus dressed as a scientist, complete with an Einstein wig! I was delighted when Stella won the Puppy Parade Costume Contest. Finally, her role as a “lab assistant” was made official!

ANNA MARIA SCHUSTER

BIOLOGICAL SCIENCES

One of my favorite memories is the last day of my first semester of teaching the cinematic/animation course Visual Concepts 4. It was my first time teaching a college-level course, and I felt a great sense of accomplishment in myself and in my students as we screened their impressive short films.

ADAN MARTINEZ RODRIGUEZ, M.F.A.

INTERMEDIA AND DIGITAL ART

Residential Life Facilities is a group that made my time at UMBC amazing. I was a maintenance assistant (MA) for three years. Every year, the group's dynamic changed with new MAs added, but yet every semester was always so memorable. Working with the MAs, I learned about how to fix various things in the residential buildings, but I also learned about each MA's different cultures and experiences at UMBC. My entire UMBC experience would be very different if I was not an MA.

SARAH SINNOKROT

MECHANICAL ENGINEERING

I remember the first day I walked into the Women's Center. I finally found a space where I felt that I belonged. This was so important to me because I felt as though I was the only non-traditional student and would not find a community where I felt I belonged. As a single parent, this gave me a safe place to concentrate on work, and if I needed anything such as extra food, supplies, or just to talk to someone, I had Jess and her wonderful staff.

JOANNA RILEY

SOCIAL WORK

I came to UMBC because of Cyberdawgs. My first year on the team, we placed second at Mid-Atlantic Collegiate Cyber Defense Competition (CCDC) and failed to qualify for nationals. Being a newcomer, I always believed it was my fault. The next year, I resolved to work harder. That was also the point when I was named team captain, something I also wasn't expecting. Then at Mid-Atlantic CCDC, we fell short again. As captain, I still felt that a large chunk of the blame could be placed on me. With a little shoving from my teammates **Zack Orndorff**, **Seamus Burke**, **RJ Joyce**, and **Cyrus Bonyadi**, I realized it couldn't entirely be my fault. They eventually pushed me to run for president of the Cyberdawgs team. Since then, we've won the Department of Energy's CyberForce Competition, Maryland Cyber Challenge, SANS NetWars Tournament of Champions, and most recently Mid-Atlantic CCDC. I am constantly amazed at the brilliance of the people I'm surrounded by. I truly believe I'm working with the best in the field.

ANNA TEGLA STAATS

COMPUTER SCIENCE

Just one of my favorite memories at UMBC is my first day of work as a graduate assistant for assessment in Residential Life. It was my first day interacting with the department and also my first department meeting where we had homemade ice cream made with dry ice as an “ice breaker.” What makes that memory so special to me was the amount of warmth and level of inclusivity I felt from my supervisor, the department, and my fellow graduate assistants. I did not attend UMBC for my undergraduate years, so I was beyond touched by how welcomed I was made to feel. That feeling has absolutely continued throughout the last two years, and I will be sad to leave upon graduating next month.

KATHERINE EDWARDS, M.P.P.

PUBLIC POLICY

Special thanks has to be given to my parents who always support and encourage me. I am eternally grateful. My fellow Humanities Scholars have helped to make my time at UMBC amazing. I've gained and learned so much from having classes with you, living with you, and just being with you. To each of the graduating Humanities Scholars (as well as those to come), I am so proud of you. You will amaze the world with your brilliance.

KARA DEONNA GAVIN

ENGLISH

RETRIEVER RALLY

To encourage the class of 2020, UMBC alumni from the past five decades of graduating classes submitted notes to cheer them on as they launch to their next adventure. Here is a small selection.

Incredible opportunity will come from every circumstance, if you continue to apply your grit!

BENNETT MOE '88

VISUAL AND PERFORMING ARTS

Sharp, friendly graduates are always in high demand. Celebrate your accomplishment and keep moving forward fearlessly—you got this!

KRISTEN AVERY '16

MODERN LANGUAGES, LINGUISTICS, AND INTERCULTURAL COMMUNICATION

Through your strength and creativity, confidence and humility, you will lift every voice and solve the hardest problems ever faced.

PATRICK ELLIS '04

GEOGRAPHY

You have worked so hard, and deserve to celebrate yourself and your huge accomplishment! You are enough and filled with good for yourself and the world.

FIO HAIRE '17

COMPUTER SCIENCE AND MATHEMATICS

TUNE IN!

Even without an in-person Commencement this May, you can still hear the Class of 2020's valedictorian speeches and more graduation celebration content online at umbc.edu/together.

At right, valedictorians Lydia Coley, American studies and elementary education, and Zakary Newberry, biological sciences.





FIRST LIGHT



AFTER YEARS IN DEVELOPMENT, AND MONTHS OF WAITING, A UMBC-DEVELOPED MINI SATELLITE LAUNCHED INTO SPACE TO STUDY CLIMATE AND AIR QUALITY, PROVING PERSISTENCE PAYS OFF.

BY SARAH HANSEN, M.S. '15

In the early morning hours of Saturday, November 2, 2019, a few hundred guests at the NASA Wallops Flight Facility gathered at the VIP launch viewing site—a grassy pad near a large tent. Sitting on metal bleachers and in camping chairs, they gazed upward. The NASA Antares rocket and Cygnus capsule stared back at them from two miles away, more than 14 stories high and loaded with supplies for the International Space Station (ISS). Also on board were more than 30 “CubeSats”—small satellites no bigger than large loaves of bread—all of them containing scientific instruments their makers hoped would contribute to a better understanding of our world.

One CubeSat, the Hyper-Angular Rainbow Polarimeter (HARP), has been a labor of love for a small group of dedicated UMBC scientists and engineers for the last five years. There were times when they weren't sure if HARP would ever get to space, but the big moment had finally arrived. Today, HARP was headed up. Way up.

Around 9:55 a.m., the crowd quieted. Their thoughtful silence spoke to years of late nights, early mornings, sighs and tears, hugs and high-fives. They thought back to team meetings with frantic napkin scribbling, spacecraft models made of children's toys when an idea struck at home, and big dreams.



PHOTO BY BILL INGALLS. COURTESY OF NASA.



ABOVE: ROBERTO BORDA, ONE OF THE CORE ENGINEERS ON THE HARP PROJECT, ANTICIPATES THE LAUNCH WITH HIS WIFE, CAROLINA NAPP AVELLI. PHOTO BY SARAH HANSEN, M.S. '15. BELOW: VANDERLEI MARTINS DEMONSTRATES THE HARP SATELLITE IN HIS LAB.

UMBC's **Roberto Borda**, one of the core engineers for HARP, stood at the front of the viewing area, his arms around his wife. "It's happening, it's happening!" he whispered excitedly in her ear. Other team members stood nearby with their spouses, children, and friends.

The crowd collectively held its breath and squinted across open fields at the rocket, which was backed almost directly by the low morning sun. And then, finally, it got loud. Really loud. The silent guests watched as Antares and Cygnus roared to life, 440,000 pounds of oxygen fueling eight massive explosions generating upwards of a million pounds of thrust.

At exactly 9:59:37, right on schedule, the rocket burst from its restraints and bolted upward into the sky. Cheers erupted, and the nervous tension dissipated as the rocket rose ever higher. Within four minutes, it was 100 miles above the Earth, headed to the space station at 17,000 miles per hour.

A few minutes later, champagne bottles popped and the celebration began.

OBSERVING PARTICLES IN EARTH'S ATMOSPHERE

The HARP satellite's unique sensors will collect new kinds of information about clouds and tiny particles in Earth's atmosphere, such as wildfire smoke, desert dust, and human-generated pollutants. These particles, collectively known as aerosols, have a multitude of effects on the global climate and the health of organisms. For example, rain droplets condense around the particles, so they play a role in global precipitation. The particles can also reflect light away from Earth as well as trap energy inside Earth's atmosphere, which both affect climate. And pollutants can lead to various respiratory ailments in humans and other animals.

With its innovative design, HARP is able to observe the particles from many angles at once to give scientists a more comprehensive view of what's going on in the atmosphere. The new data will equip scientists with information they need to better understand climate and air quality concerns.

"HARP is really a technology demonstration mission," explains **Vanderlei Martins**, the lead researcher on HARP and director of UMBC's Earth and Space Institute, "but our goal is to also do some science with the data."

The team includes engineers, physicists, and mathematicians from UMBC and the Space Dynamics Laboratory (SDL) in Utah, which designed the exterior parts that would carry the satellite into space. "As an engineer, I'm looking to develop technology that can make the science happen," says Dominik Cieslak, an assistant research scientist with the Joint Center for Earth Systems Technology, a UMBC partnership with NASA. Cieslak notes that the data, which will eventually be arriving in huge quantities, could be used in new ways for years to come as researchers develop new algorithms and computing power continues to grow.



▶ **FINALLY, ON APRIL 15, 2020, A FULL NINE WEEKS** AFTER HARP'S RELEASE FROM THE ISS, **ALMOST SIX MONTHS** AFTER ITS LAUNCH ON THE ANTARES ROCKET, AND **NINE MONTHS** SINCE ANYONE ON THE HARP TEAM HAD ACTUALLY LAID HANDS ON THE INSTRUMENT—NOT TO MENTION THE **YEARS AND YEARS** OF RESEARCH, DESIGN, AND CONSTRUCTION OF HARP ITSELF—IT CAME. **FIRST LIGHT.** AND IT WAS **PERFECT.**

AWAITING "FIRST LIGHT"

"We're going to celebrate every step," Martins said on the morning of the rocket launch. He was careful to note that the launch was just one step—a particularly exciting one—in a lengthy sequence. Only when the satellite was safely orbiting Earth and sending back data would he and his team know whether HARP was working the way they intended.

Despite the additional steps to come, the launch "was a big milestone," said **Brent McBride '14**, physics, a current Ph.D. student in atmospheric physics. With the setbacks the project had experienced over five years, to arrive at launch day was "a wonderful thing."

Cieslak acknowledged that going forward, "there are many ways for things to go wrong—but there is only one way for everything to go right."

To increase the likelihood of things going right, before the rocket launch, the team tested HARP many times on two different kinds of aircraft that fly at high and low altitudes, to ensure the instrument was working properly. But still, says Borda, "It's a different beast going in a plane versus going to space."

If every step in HARP's journey went perfectly, it would be sending back images from space—the first of which the team calls "first light"—within a few months. "I'll really, really celebrate when we get the first light," Martins said.

A HERO'S JOURNEY

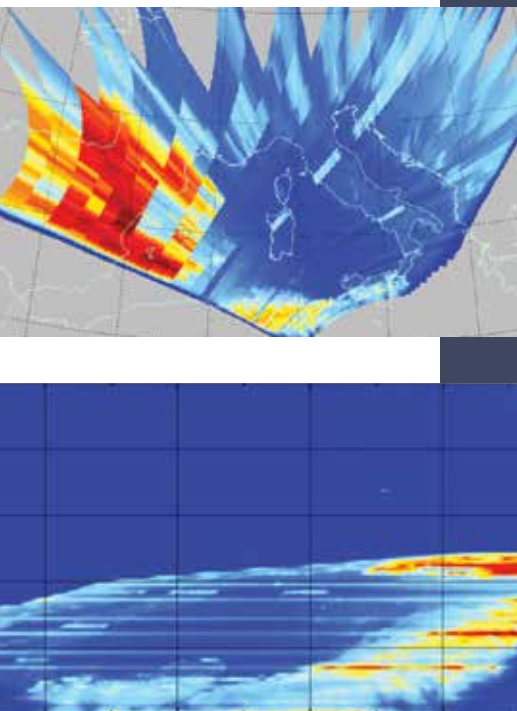
Two days after it launched from Wallops, on Monday, November 4, the Cygnus capsule made it safely to the ISS—another



THE HARP CUBESAT RELEASED FROM THE INTERNATIONAL SPACE STATION (ISS) IN FEBRUARY. IMAGE COURTESY OF NASA.

step completed. Then, the team waited with anticipation until astronauts were available to release it into orbit. Finally, after multiple delays, on February 19, 2020, UMBC community members gathered in the Physics Building to watch a livestream of the release.

"We are 55 seconds from jettison," came the voice over the internet. Once again, the crowd fell silent as the clock ticked down. At the prescribed moment, the group witnessed a small blob silently exit the launch tube and float slowly into space. HARP was the 100th CubeSat ever launched by NASA. The successful ISS release was another necessary step—if less dramatic than the rocket launch—along HARP's journey.



THE HORIZONTAL STRIPES IN THESE MINIMALLY-PROCESSED IMAGES HARP COLLECTED REPRESENT AN OPERATIONAL TEST: THEY INDICATE THAT THE THREE SENSORS ON HARP ARE ALL WORKING AND THAT THEY ARE PROPERLY ALIGNED. FOR LEAD SCIENTIST VANDERLEI MARTINS, “THAT’S GREAT NEWS.”

THE LOWER IMAGE APPEARS JUST AS IT WAS COLLECTED: HARP HAPPENED TO BE POINTING TOWARD THE HORIZON. THE UPPER IMAGE REPRESENTS THE SAME DATA PROJECTED ONTO A VIEW FROM DIRECTLY ABOVE THE REGION.

Then, more waiting. Even if HARP was collecting data, if it couldn’t send that data back to scientists on Earth, all would have been for naught. Thankfully, a little over a week after HARP’s release, Earth-bound instrumentation at Wallops successfully established a connection with the satellite.

Still, the team didn’t know then if HARP was actually working. Under normal circumstances, the team would have gotten an answer to that question within a few more weeks, by mid-March. But that was just as COVID-19 began to wreak widespread havoc in the United States. So, more waiting for the HARP team. NASA, UMBC, and SDL employees scrambled to figure out how to operate the satellite from their homes, and competition for data transfer time on ground-based instruments became ever steeper as NASA’s capacity dwindled.

Finally, on April 15, 2020, a full nine weeks after HARP’s release from the ISS, almost six months after its launch on the Antares rocket, and nine months since anyone on the HARP team had actually

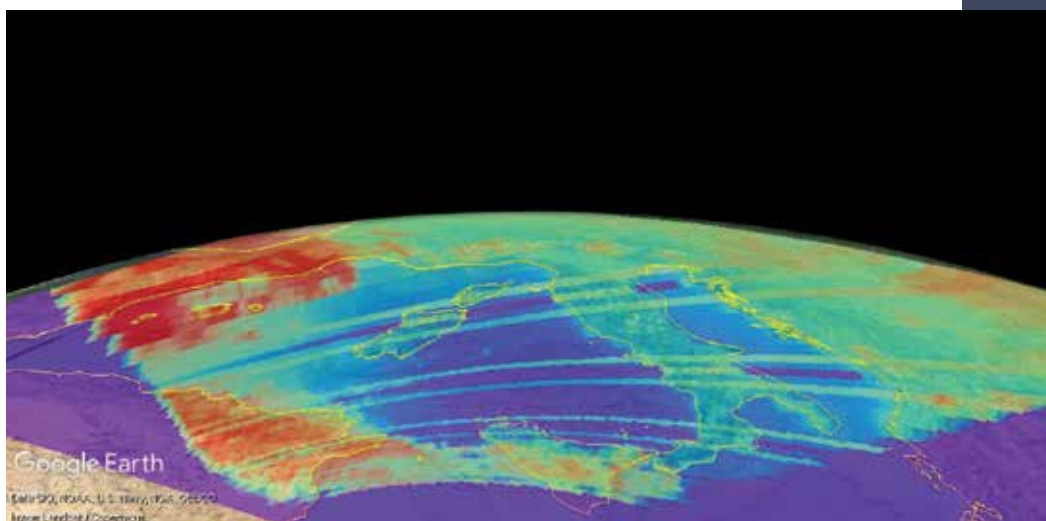
laid hands on the instrument—not to mention the years and years of research, design, and construction of HARP itself—it came. First light. And it was perfect.

MOMENT OF TRUTH

A week later, Martins perused the first fully processed image, which happened to be of the Mediterranean region. The outline of Italy was clearly visible. He started out as any scientist would, making careful, objective observations: “There are no defects. So far, there are zero issues with the UMBC payload. It is working as designed, and so far, it has exactly the same performance as we had in the lab.”

Slowly, it started to sink in. Every setback, every time he and his team had put off celebrating, every time he had tempered his enthusiasm in anticipation of first light... well, here it was. First light. Then, it came out in a rush:

“You know, the last time we touched the sensor was last September. It has been shipped, it has been transported, it was launched in a rocket to the space station, it



THE STRIPES ON THIS IMAGE HARP COLLECTED OF THE MEDITERRANEAN REPRESENT THE MANY WAVELENGTHS OF LIGHT, FROM NEAR INFRARED TO BLUE, THAT HARP’S SENSORS CAN DETECT. THE HARP TEAM WILL COMBINE HUNDREDS OF IMAGES LIKE THESE TO CREATE SMOOTH DEPICTIONS OF AREAS ALL AROUND THE WORLD. THEY CAN INTERPRET HARP’S DATA TO INCREASE UNDERSTANDING OF TINY PARTICLES IN THE ATMOSPHERE.

was released from the space station.... All those things happened and we had no idea how people were treating it...is it contaminated? Is it broken? And so far...everything is perfect." His smile grew broader.

"Now, it is operating in space. HARP is a demonstration of a new technology that was completely developed at UMBC, and it is now operating in space. It's working, it's performing, it's showing everything we expected and that we've been working toward for the last 10 years...so it's fantastic."

TRUE TEAMWORK

Karl Steiner, UMBC's vice president for research, was thrilled to witness his first NASA rocket launch as HARP leapt into the sky on November 2. "To have seen Vanderlei and his team work on this as long as I've known them and know the amount of work and sacrifice they've put in, the chance to be with them on this important day..." He trailed off, brimming with emotion. "It's a very special day for the team and for UMBC."

Steiner's pride only grew as HARP continued its journey. "This successful launch of the HARP CubeSat is the latest achievement in a long string of impactful scientific and technical milestones from UMBC and its Earth and Space Institute," he shared. "We can't wait to explore the scientific data that HARP will make accessible."

No team deserves this success more than Martin's. After every setback, they never gave up. Even when the instrument was damaged during testing, Cieslak brought it back to UMBC from SDL in Utah, completely deconstructed it, cleaned it, and put it back together. "It turned out that after that operation, the instrument was working better than before," Martins said.



"To me, that's a testament to my team." Always rising to the occasion. Always coming back stronger.

PERSISTENCE PAYS OFF

Yet, even after achieving first light and proving that this technology—which is unlike any ever deployed in space—can work, the team isn't resting on its laurels. HARP2 is well underway and is scheduled for launch on NASA's PACE mission in 2021. HARP2 will have bigger scientific goals and even better optical, electrical, and mechanical systems. Much of HARP2's infrastructure is being designed by UMBC students, who have dubbed themselves "the space coders."

All this looking forward provides powerful motivation for a dedicated team. But looking back is important, too. At a pizza party after the rocket launch, the team members reminisced about the time they've spent together—some as many as 15 years on other projects and five years on HARP.

"Life can surprise you. Even five years ago I couldn't have imagined I'd be here today. So keep dreaming," said Cieslak. "Keep dreaming."

EVEN THOUGH THEY COULDN'T GET VIP PASSES FOR THE SPECIAL LAUNCH VIEWING AREA, A NUMBER OF MARTIN'S STUDENTS CAME ALONG TO VIRGINIA FOR THE EXPERIENCE. THAT'S DEDICATION!
PHOTO BY SARAH HANSEN, M.S. '15.

"WE CAN'T WAIT TO EXPLORE THE SCIENTIFIC DATA THAT HARP WILL MAKE ACCESSIBLE."

— KARL STEINER, VICE PRESIDENT FOR RESEARCH

we reach *together*

*Stories by Susan Hobby, Randianne Leysbon '09,
Sarah Hansen, M.S. '15, Jenny O'Grady,
Johanna Alonso '20, and Catherine Borg*

In times of crisis, Retrievers reach together to make a difference in the world. And with the challenges posed by the COVID-19 pandemic this spring, the UMBC community showed its true colors—black and gold, obviously—with contributions of all kinds. From scientists and nurses on the front lines, to folks behind the scenes keeping our campus running, to mask makers and teachers and artists and chefs, we're all better together.

These are just a few stories of the ways Retrievers have shown resilience in the face of the global pandemic. We invite you to read more at **umbc.edu/together**.



the front lines

Every time a coronavirus patient is released from St. Barnabas Hospital in the Bronx, a song plays over the loudspeaker: “St. Barnabas for All of Us.”

Trent Gabriel ’14, biochemistry and molecular biology, has heard the catchy tune several times, but not enough. Doctors call St. Barnabas a coronavirus “war zone,” with most of its clinics for specialties such as pediatrics and psychiatry now lined with bed after bed of patients with COVID-19. The hiss and click of ventilators fills the halls.

Gabriel is a dental resident who until mid-March handled routine and emergency dentistry at St. Barnabas. When the pandemic hit, Gabriel was pressed into service, filling in gaps when hospital staff were sick or overburdened. Among other jobs, he has tested doctors for coronavirus, taken vitals of COVID-19 patients, and filled prescriptions.

UMBC alumni and students are in the thick of that battle—testing hospital staff for the virus, screening patients as a Red Cross volunteer, riding along in ambulances as an EMT, and many other roles.

“Many of our faculty, students, and staff are participating in an active role in the COVID-19 response, treating patients in the ambulance, in the field and in the emergency department, and providing consultation to direct response,” explains **J. Lee Jenkins**,

chair of the Department of Emergency Health Services (EHS) at UMBC.

Current EHS student **Sanaz Taherzadeh** says her life has prepared her for a pandemic. As a teenager, she watched her grandfather battle cancer in her native Iran and decided to become a nurse. After years working as an operating room nurse in Tehran, when a 2017 earthquake devastated the mountainous region of Kermanshah, Taherzadeh traveled there to triage and treat victims.

In 2019, Taherzadeh started her master’s in emergency health services concentrating in epidemiology at UMBC. All the threads of her knowledge—disaster medicine, epidemiology, and protective equipment—culminated when the novel coronavirus became a pandemic.

Set to graduate in December 2020, she volunteers as a surgical support technician for the University of Maryland Shock Trauma Center, as well as for the Red Cross, where she assists victims at sites of disasters and screens patients at blood donation centers to ensure they are healthy.

“Regardless of what our nationality is, what country we live in, or what religion we have, I believe we are human beings and now is the time that everyone in the world should work together to overcome this disease pandemic,” Taherzadeh says.

First-year emergency services and theatre dual major **Jack Bez** is just beginning his studies at UMBC but already using his skills as an emergency medical technician with the Gamber & Community Fire Company. When campus closed, the Eagle Scout chose to live at the firehouse instead of moving home, to avoid potentially exposing his parents to the coronavirus.



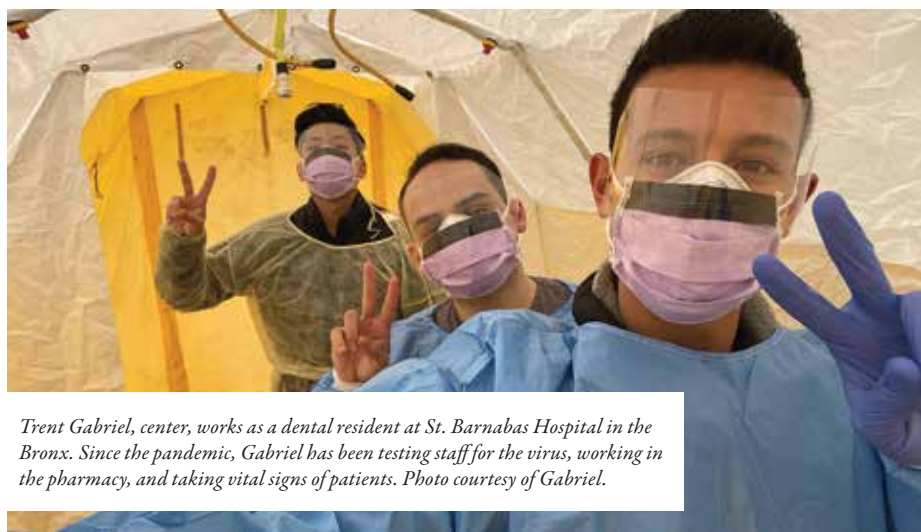
Jack Bez at the Gamber & Community Fire Company, where he moved after campus closed. Photo courtesy of Bez.

Between responding to several ambulance calls a day, Bez is keeping up with his studies in theatre. He hung sleeping bags from a top bunk in the firehouse to fashion a sound booth in which he could record his sound production assignments.

Maggie Kemper ’14, biology, remembers her first patient with COVID-19. He arrived in mid-March, just after she and the rest of the nursing staff at Johns Hopkins Hospital had converted their intensive care unit to an exclusively COVID-19 unit.

“He was pretty notable,” Kemper remembers. He was young and healthy-looking but very, very sick. Finally, the last week in April, the patient had recovered enough for staff to discharge him after weeks on a ventilator. But, the disease had transformed him.

“We gave him a standing ovation,” Kemper says. “It was hard not to tear up.”



Trent Gabriel, center, works as a dental resident at St. Barnabas Hospital in the Bronx. Since the pandemic, Gabriel has been testing staff for the virus, working in the pharmacy, and taking vital signs of patients. Photo courtesy of Gabriel.

the *homefront*

Many things came up to an abrupt end on March 12. At UMBC, students began leaving campus for an early start to spring break, student-athletes saw a sudden stop to their season, and employees began working from home for the foreseeable future. And yet, many other things continued on behind the scenes as campus staff made quick, tough calls to elevate the safety and health of our Retriever Nation.

When it became clear that UMBC would transition to distance learning after spring break, **John Fox**, director of Residential Life, and his team immediately started brainstorming how to serve the students who, for a variety of reasons, would not be able to make a trip home. With an exceptions process in place, around 200 students stayed through the first few weeks, and when Maryland Governor Larry Hogan's stay-at-home order came, 65 students continued to remain on the nearly empty campus.

"Dealing with the unknown as a college student is a unique experience," says Fox '91, information systems management. "I'm constantly reminded that we have thoughtful, understanding students who

ask good questions. It reminds me that UMBC is a place that puts value on the individual and that each student feels attended to and that their individual circumstances matter."

Dining Services, like Residential Life, needed essential staff to stay and continue to serve the remaining student population. First, they strongly encouraged taking food in to-go containers; this quickly turned into a total grab-and-go operation. In late April, remaining students and staff on campus were selecting their meals online and picking them up at the door, says **Tim Dunn**, campus executive chef.

As associate athletic director for sports medicine, **Stacy Carone** played a big role in helping UMBC's student-athletes get through the devastating news of their seasons abruptly ending. She says, "We felt as if our identities were challenged and we... lost a big part of our 'why.'"

Despite the news, what Carone remembers "is an overwhelming sense of pride; looking at the faces of our UMBC student-athletes as they processed the gravity of what was happening in the world around us; watching them not hang their heads in defeat, but do what Dawgs always

do: come together, have heart, show grit, and do what is right, not what is easy."

In early March, **Amanda Knapp**, associate vice provost and assistant dean for Undergraduate Academic Affairs, and others in the Academic Support Center (ASC) began planning and gathering tools to help their staff of nearly 200 student tutors transition to online services. As a



UMBC Dining Services found a home for overstuffed food and other items at St. Agnes Hospital and Catonsville Emergency Assistance.

testament to their efforts, ASC's complete catalog of services was available online the day after spring break.

"So far, students tell us that having a staff member who they can talk to—who can help them develop a plan for success—makes all of this so much better," shares **Delana Gregg, Ph.D. '19**, language, literacy, and culture, director of Academic Learning Resources, Assessment, and Analysis.

As international students face strict restrictions for working and supporting themselves in the United States, **Michelle Massey**, associate director of International Student and Scholar Services, and her colleagues have reached out to help those students however possible.

"It's very difficult to know that so many of our international students are suffering financially and not have more solutions to offer," says Massey. "We encourage students, and each other within our team, to focus first and foremost on taking care of yourself so we can still do our best work and contribute to the community as best we can."



UMBC's Academic Success Center made sure online resources were readily available to students learning from afar for the first time.



the solvers

At a time when everyone is looking for solutions, UMBC alumni and researchers are working hard to answer pressing questions about COVID-19 and sharing their expertise to help the public stay healthy and make informed decisions—a critical mission as a public university.

UMBC alumni have taken lead roles in the record-paced development of a vaccine to prevent COVID-19. **Kizzmekia Corbett '08, M16, biological sciences**, has led a team working on the vaccine at the National Institute of Allergy and Infectious Diseases. She and her colleagues, including **Olubukola Abiona '17, M25, biochemistry and molecular biology**, received the genetic sequence of the virus early this year and developed a potential vaccine within two months. They've since passed their findings to **Darian Cash '02, M10, chemistry**, at the biotech company Moderna. Moderna is already administering phase I clinical trials with volunteers in Washington state.

Corbett, Abiona, and Cash thank the Meyerhoff Scholars program for helping them get to where they are as researchers and to handle the intense pressures of the moment. And Corbett and Abiona draw on UMBC President **Freeman Hrabowski's** consistent exhortation to “focus, focus, focus,” Corbett says. “The UMBC connection and the training we received

there, for both of us, has been instrumental in how we are operating right now,” she adds.

In March, **Lucy Wilson**, professor of emergency health services and an infectious disease expert, offered sobering analysis of what to expect in the days and weeks ahead. In April, she gave suggestions for managing expectations as social distancing measures begin to ease in some places. And throughout the pandemic, she's given practical advice to help people limit coronavirus exposure, like removing rings, switching to glasses from contacts, and being sure to only use disposable gloves once.

As the number of cases in Washington, D.C., began to surge in mid-March, Wilson offered a reminder about the impact of social distancing. “Whatever numbers [of COVID-19 cases] we are seeing today reflect the transmission that was occurring one to

two weeks ago,” Wilson told *The Washington Post*. “We shouldn't be surprised by numbers continuing to increase, and we also shouldn't discredit the effect of social distancing until we've given it time to take effect.”

Charissa Cheah, professor of psychology, is leading a new National Science Foundation-funded research project addressing how Chinese American communities are experiencing discrimination related to COVID-19 and how they are coping. “The negative impact of infectious diseases on psychological health is understudied but highly significant,” Cheah says. **Shimei Pan**, assistant professor of information systems, will lead the study's analysis of outbreak-related social media.

UMBC alumni are contributing to the response effort in other ways. **Kaitlyn Sadtler '11, biological sciences**, is leading an National Institutes of Health study looking to detect how widespread COVID-19 really is in the U.S. population. In his laboratory at the University of Pennsylvania, **Avery Posey '05, M13, bioinformatics**, is investigating how molecules on the outside of the virus help it infect cells, in hopes of finding a way to inhibit that process. And **Monique Foster Hankins '10, M18, biochemistry and molecular biology**, is the manager of global regulatory affairs at Inovio Pharmaceuticals and is helping guide the company's vaccine trial through the Food and Drug Administration regulation process.

smart reads

Visit magazine.umbc.edu/tag/theconversation to read these and other recent articles by UMBC professors:

Jeffrey Gardner, associate professor of biological sciences, explained “Why Vodka Won't Protect You from Coronavirus, and Four Other Things to Know About Hand Sanitizer.”

Katherine Seley-Radtke, professor of chemistry and biochemistry, explains what makes the drug remdesivir useful against viruses.

Kathryn McKinley, professor of English, writes about “How the rich reacted to the bubonic plague has eerie similarities to today's pandemic.”

the makers

Sometimes it's tough to know how to pitch in when so much needs fixing. But, as hospitals and other frontline operations found themselves in need of hard-to-find personal protection equipment (PPE), UMBC makers from all types of work backgrounds came to the rescue.

At Potomac Photonics, an alumni-owned fabrication operation located in the bwtech@UMBC business park, a typical day might involve anything from piercing 10,000 tiny holes in a single sheet of steel to the microfabrication of complex parts for equipment and biotech applications. When COVID-19 struck, owner **Mike Adelstein '96, biochemistry and molecular biology**, jumped to action, producing thousands of PPE items for hospitals in multiple states. And the microfluidic chips they're working on with another client will be used for testing related to finding a vaccine or cure.

"Whether we are working on products related to COVID-19 or early detection of cancer, one of the recurring themes that you will hear from our staff is how rewarding it is to be involved in the manufacturing of parts used to save lives," says Adelstein.

Meanwhile, in **Corey Fleischer's** home workshop, he and his kids produced low-cost protective face shields for healthcare workers in need. Using an elastic band, a clear binder sleeve, and a 3-D printed frame, they printed parts on three machines "around the clock," he says.

"My father-in-law, Joe, works at a retirement center, and the healthcare workers weren't allowed to help the residents without wearing a face shield. Every store and online vendor was sold out, so he reached out to me," says Fleischer '05, M.S. '08, mechanical engineering. "[My son] Aidan and I sketched out some concepts that would provide a solution with items we could find at Walmart. We decided to make face shields out of three-ring binder sleeves."

Other Retrievers broke out their trusty sewing machines to construct fabric masks for hospitals, nursing homes, friends, and family. For recent political science graduate and Sondheim Scholar **Marly Milic '20**, the act of sewing masks was also a way of connecting with her mother.

"Once we saw that hospitals were asking for fabric masks, we both decided that we needed to help," said Milic, who Skypes with her mother while sewing. "She got a jump start on me because she already had supplies and tools. I ordered my first sewing machine and some materials and got to work right away."

Christine Obrecht, a research assistant at UMBC's Molecular Characterization and Analysis Complex, started sewing masks as soon as she heard there was a need. She has also made headbands and scrub caps.

"I don't really care who gets the masks, as long as they go to people who need them and who are trying to help," says Obrecht,

Many Retrievers (like Meredith Purvis, director of marketing, pictured here) worked to create masks for first responders and others in need.



who has donated her work to a local hospital but also a number of her elderly neighbors.

Bennett Moe '88, graphic design, found his coronavirus volunteer calling from a Facebook post. After reading about a Boy Scout creating "ear savers"—plastic contraptions that wrap around the back of the head to make wearing the stretchy elastic of face masks a little less uncomfortable—a chat with a nurse friend confirmed the need.

Moe saw a sudden use for his new tabletop laser cutter and within hours had tested a design first in clear acrylic and then—wait for it—the far sturdier plastic of a kitty litter box.

"Seriously. Necessity is the mother of invention!" says Moe, former president of the UMBC Alumni Association Board. "It feels good to be able to contribute, even in this small way, when so much around us seems out of our control."



Potomac Photonics, run by alumnus Mike Adelstein '96, has been manufacturing PPE since March. Photo courtesy of Potomac Photonics.

the teachers

Some classes translate better to remote learning than others. As UMBC's faculty modified their classes and labs for distance learning this spring, theatre lecturer **Adam Mendelson** quickly realized that there was no way for his advanced lighting design students to emulate the experience of programming and running massive lighting rigs from their homes. However, there are plenty of lessons to be learned in improvising.

For one of his assignments—the design of lights to accompany a reading of a poem—students could either use online simulation software or take a more hands-on approach, using whatever materials they had on hand, from Christmas lights to flashlights to simply opening or closing the blinds of a window. About half of the class went this route, enlisting the help of family members and housemates to flip switches or plug in lights on cue.

“As a lighting designer for a theatrical or a live event, every single thing that lights up is in your purview,” says Mendelson. “Sometimes it’s something you can control and sometimes it’s not....The key to lighting design is controlling the light and putting the light where you want it to go.”

Suzanne Braunschweig, senior lecturer of geography and environmental systems, faced the challenge of transferring hands-on labs into a digital space. Her class, Science 100: Water; an Interdisciplinary Study, usually involves traveling to creeks and streams to collect data, but, because of the dangers of COVID-19, many students can no longer even go to local parks to collect data.

The solution, Braunschweig found, was to give her students virtual lab assignments that mirror the course's in-person labs as closely as possible. But instead of gathering data in the wild, they use high quality photographs.

“It’s not doing hands-on work, but they still have the ability to analyze data and put things in context for the greater Baltimore area in terms of water quality,” Braunschweig says.

While instructors of hands-on courses knew from the start how difficult this pivot would be, **Kate Drabinski**, lecturer of Gender, Women's, + Sexuality Studies, never could have anticipated how much she still had to learn about online teaching. After all, she had taught several hybrid courses and one course fully online already and even helped train fellow professors how to use distance-learning technologies.

But the technical side of things didn't turn out to be the biggest challenge for faculty to navigate, Drabinski says. “The faculty I worked with needed to know that what they were planning to do was a good idea and would work,” she explains. “They needed to hear that we could do this, that we were all unsure of what our new classrooms would look like, and that we would be able to find strategies that would work to keep us and our students moving forward in a time of great uncertainty.”

UMBC professors aren't the only ones leading the charge into remote learning. **Atom Zerfas '13, mathematics, M.A., '14, education and teaching**, a math teacher at Pikesville High School (PHS), played



DoIT provided assistance to faculty and staff looking to suddenly transition to an online learning and work environment.

a pivotal role in introducing the students at PHS to how the final quarter of the school year would play out. He created a video to help guide students through what their new class schedule would look like, how they would access online materials, and how they could contact instructors—approaching the topic from a position of empathy.

“I couldn't imagine what it would have been like to be a student in any grade, wondering what this means for them,” says Zerfas. “I wanted to provide as many answers that I could, as soon as I could.”

more tales of retriever resilience

The Planners – As we watch the market numbers plunge and unemployment levels rise, UMBC alumni and staff help community members get through the worst of it.

The Curators – How will we tell people a hundred years from now what the 2020 pandemic was like? Retriever curators are taking on that challenge.

The Organizer – As director of Maryland's Governor's Office on Service and Volunteerism, alumna **Nicki Fiocco '11, geography and environmental systems**, has been a little extra busy lately.

Read more at umbc.edu/together.

THERE'S NO SUCH THING AS SMALL POLITICS

As election season heats up and campaign posters begin to cram our sidewalks, the public eye is often drawn to government leaders. In UMBC's own community, you'll find alumni serving in impressive positions, including state legislators and the speaker of Maryland's House of Delegates, a county executive, and even the surgeon general of the U.S.

But beyond the red, white, and blue banners are folks who contribute to the system in quieter—but just as vital—ways. Students learning to be engaged citizens, professionals protecting our census and voting data, artists finding ways of illustrating complex ideas, and more—Retrievers are proving that when it comes to democracy, every voice really does count.

*Illustrations by
Christina Animasbaun '13.*

*Read more about
Christina on page 49.*





PEEK BEHIND THE SCENES

Most of the work at all levels of government happens beyond public view. **Matt Clark '00, history,** and **Yaakov "Jake" Weissmann '06, social work,** know this firsthand. Clark served as chief of staff to Maryland Governor Larry Hogan while Weissmann is chief of staff to Maryland Senate President Bill Ferguson.

Both agree that the behind-the-scenes nature of their roles helps them get things done. Clark explains that "if you are doing it right, politics and public policy are all about compromise and patience" and that you need to "build coalitions and trust with others to move your agenda forward." Weissmann emphasizes the importance of relationships, noting that his social work major has aided his work in Annapolis.

Public service is "at its core a people business," Weissmann says. **Jim Bembry,** associate professor of social work, taught

him that: "You need to be where your clients are"—words he says help him understand what senators and their constituents need and how to help fill those needs.

Clark says his undergraduate history studies taught him "how to blend multiple points of view to construct your own ideas and perspectives," a helpful skill for both the political and public policy aspects of his job. Clark adds that his ongoing public policy graduate studies at UMBC "help [him] to think about how theoretical concepts and actual policy-making interact."

Clark explains that "not all public service [jobs involve] politics," but rather "public service is about choosing to look beyond your own needs to serve your community." Weissmann agrees, noting that the General Assembly consists of people "who all want to make a difference," he says, and Maryland's legislature is an example of "how government is supposed to function."

UMBC is well-represented in Annapolis, and both Clark and Weissmann interact with fellow alumni—including each other—on a regular basis. Clark attributes the prevalence of Retrievers in public service as "a testament to the quality of the University as well as the values and grittiness that we pick up there." Weissmann agrees, sharing "UMBC is where I fell in love with the General Assembly" as part of a student group that met with legislators about and testified against proposed tuition increases.

Clark advises fellow Retrievers who want to pursue a career in public services to "put your heart into the work and believe in what you are doing," noting that "it can take years to see the fruits of your labor, but it's well worth the wait."

— Mary Ann Richmond '93

PREDICTIVE POLLING

As the November elections draw near, we are flooded with polls anxious to tally how we will vote. But, have you ever wondered about the science behind these polls? Designing surveys to help understand American voting behavior is what gets **Ian Anson** out of bed and excited for the day.

During the 2018 midterm primaries, Anson, a professor of political science, saw an opportunity for his voting and polling class. Thus the 2018 UMBC Retriever Exit Poll was created.

“I wanted to expose my students to the real-life experience of tapping into the mind of the public and figuring out what

the public thinks, and how they react to political stimuli,” says Anson.

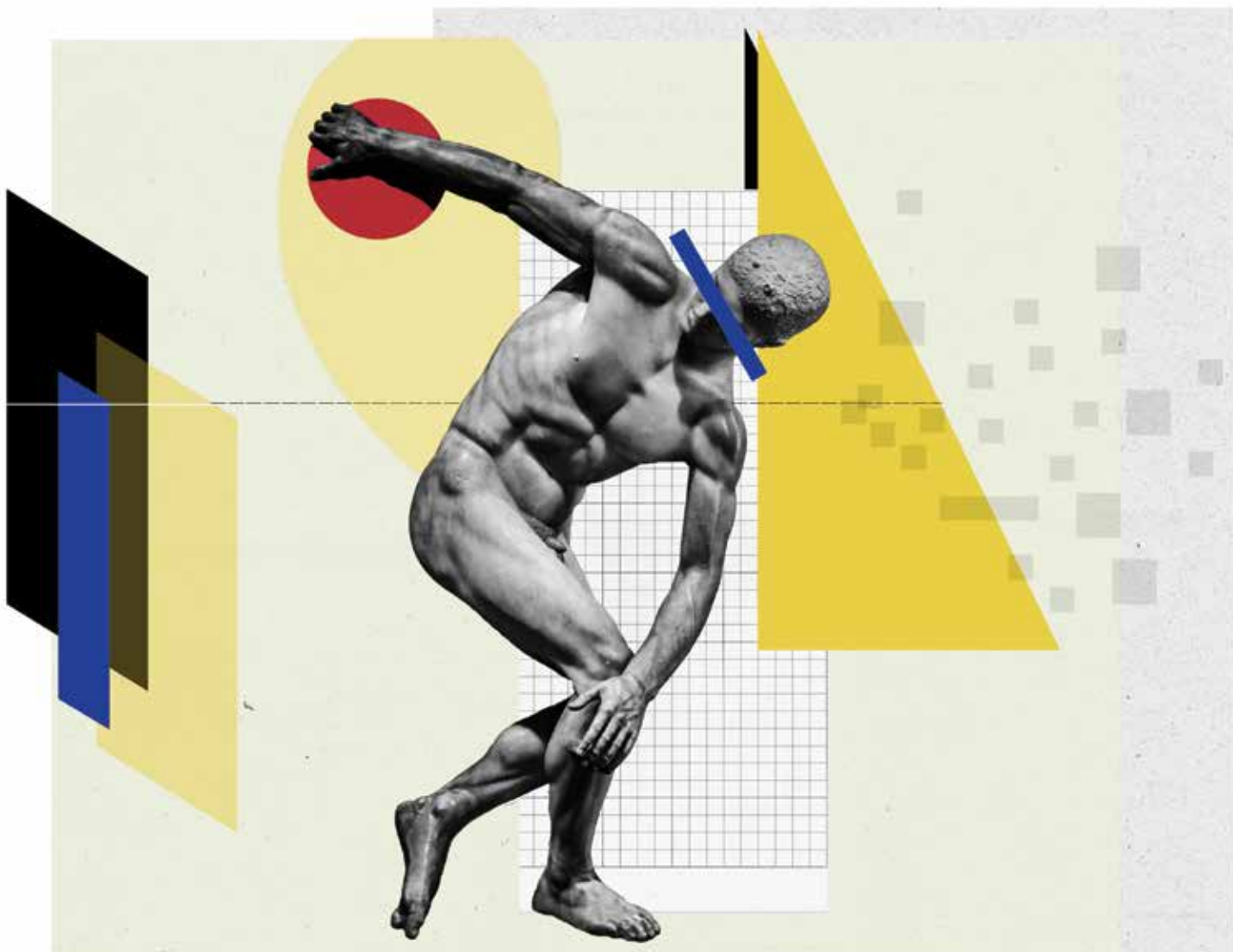
The class created a 34-question, voluntary, anonymous, and scientific exit poll. Questions covered the Maryland economy, voting behavior along party lines, the state income tax, and switching party lines for specific items. On a rainy mid-term Election Day, 25 undergraduate students, wearing UMBC Political Science T-shirts, stationed themselves in eight precincts across Baltimore County in four-hour shifts. They organized and coded the answers on-site.

At the end of the day, Anson processed the data. Everyone gathered at UMBC’s

Election Night Extravaganza where they presented their data and correctly predicted Governor Hogan would be reelected. The students gained insight into the voting behavior of Maryland Democrats who voted for a Republican governor and the issues that concerned them.

“We left the bubble of campus to see how real voters act and think instead of just reading and writing about them,” says **Samuel Deschenaux ’20, political science**, now a legislative aide in the Maryland General Assembly for state Sen. Kathy Klausmeier. Anson looks forward to the next Retriever Exit Poll this fall.

— *Catalina Sofia Dansberger Duque*





OUTSMARTING THE HACKERS

During election years, if there's one thing scrutinized more than the candidates themselves, it's the security of electronic voting machines. Because this technology can be susceptible to hacks and other vulnerabilities, it is incredibly important to know how best to keep voting safe and accessible for all.

Enter **Rick Carback '05, M.S. '08, Ph.D. '10, computer science**, who has spent his career deflecting would-be hackers, and who helped develop Scantegrity, a technology that since 2007 has influenced improvements to election systems nationwide. At UMBC, he worked alongside and was mentored by **Alan Sherman**, professor of computer science and electrical engineering.

As an undergraduate at UMBC, Carback first heard David Chaum, a cryptographer known for his work on privacy-centered technology, talk about the security of voting machines and the voting technology that he was working on. Carback approached Chaum after the event and expressed his interest in being involved with the building of the technology that Chaum had discussed. From there, a lifelong interest in security took off.

First tested with student elections at the University of Ottawa and later broadened to handle higher stakes cases, Scantegrity connects each submitted vote with a confirmation number so that people can make sure their votes were counted. It helps verify election ballots submitted and allows individuals to essentially audit the election—while protecting individuals' data.

Carback's work also takes accessibility into account. The initial version of Scantegrity included ballot marking systems, which can make voting easier for people with disabilities. The ballot marking system used invisible ink that would not show up outside the official voting space on the ballots. With this system, the machine would only count a vote based on where the ink is most dense on the ballot, Carback explains.

"I view [voting security] as a national security issue," says Carbeck, who also does computer security, risk assessment, and software development from Boston. "If you can control an election, you can then you can direct the entire course of a country."

—Megan Hanks Mastrola

STORIES ARE EVERYTHING

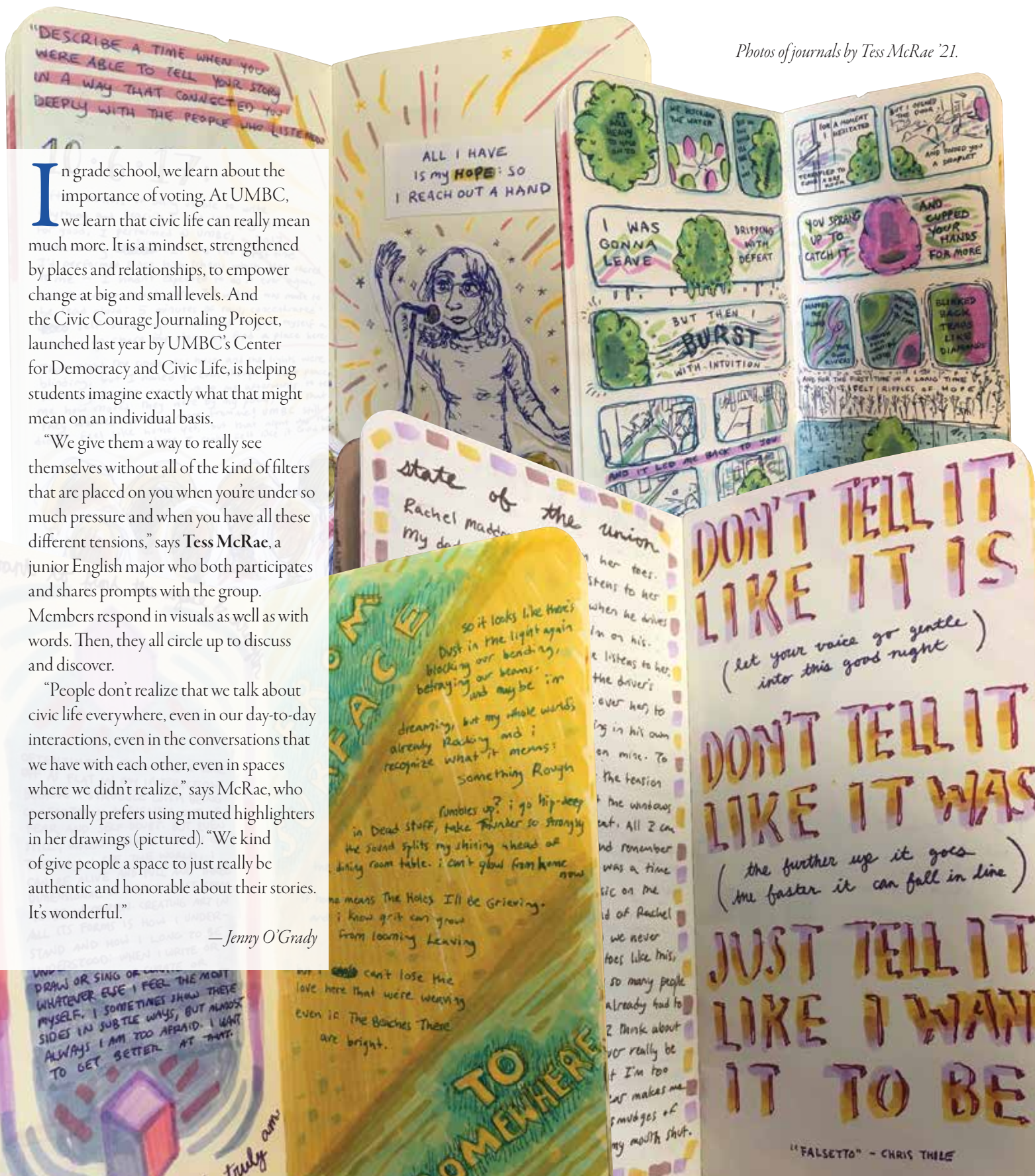
Photos of journals by Tess McRae '21.

In grade school, we learn about the importance of voting. At UMBC, we learn that civic life can really mean much more. It is a mindset, strengthened by places and relationships, to empower change at big and small levels. And the Civic Courage Journaling Project, launched last year by UMBC's Center for Democracy and Civic Life, is helping students imagine exactly what that might mean on an individual basis.

"We give them a way to really see themselves without all of the kind of filters that are placed on you when you're under so much pressure and when you have all these different tensions," says Tess McRae, a junior English major who both participates and shares prompts with the group. Members respond in visuals as well as with words. Then, they all circle up to discuss and discover.

"People don't realize that we talk about civic life everywhere, even in our day-to-day interactions, even in the conversations that we have with each other, even in spaces where we didn't realize," says McRae, who personally prefers using muted highlighters in her drawings (pictured). "We kind of give people a space to just really be authentic and honorable about their stories. It's wonderful."

—Jenny O'Grady





SAFETY IN NUMBERS

Every 10 years, the U.S. Census Bureau conducts a massive survey to answer one question: Who lives in the United States? The results inform federal funding allocations for things like schools and parks and determine the number of congressional representatives for each state. The raw data are also used by researchers all over the country, whose findings can inform decisions at the state and local level about medical services, urban planning, job training programs, and so much more.

Analyzing all that data—consisting largely of personal information about members of communities across the U.S.—can lead to a lot of good, so it's important that researchers can access it. But even with obvious identifying information like names, addresses, and social security numbers removed, it still wouldn't be hard for skilled hackers to

identify some people using the remaining information, putting them at high risk for identity theft. That's why **Bimal Sinha**, professor of mathematics and statistics at UMBC, has been working with the Center for Statistical Research and Methodology at the U.S. Census Bureau for the last seven years to help safeguard people's information.

It turns out the "raw data" the Census Bureau delivers to researchers doesn't exactly match the real data. "Before releasing the data, some sensitive items are changed," Sinha explains. That can include numeric responses, such as salary, or categorical ones, like whether a person owns a car and what type. The process of changing the data is called "perturbation," and the techniques used depend on the kind of data. The tricky part is that the "perturbed" version of the data still has to

accurately reflect reality in the country. Change it too much or in the wrong ways, and it becomes useless. "It's a balance between perturbation and utility," Sinha says. As a statistician, it's Sinha's job to develop techniques to change the data in ways that protect people's privacy but don't render it unusable.

Once that's been done, it's also critical to help researchers analyze the data effectively. The method for analyzing a perturbed dataset is different than for a standard data set. So Sinha also helps develop a toolkit that researchers receive with the census data.

Overall, Sinha's work allows researchers, state and local governments, non-profits, and others nationwide to make use of the largest dataset about humanity in the United States, without compromising people's privacy or safety.

— Sarah Hansen, M.S. '15

WALKING THE WALK

We all know the importance of getting an internship—real-world experience, networking opportunities, a chance to confirm you're on the right career path. For these UMBC students, it was also the opportunity to see the inner workings of the political realm as they embarked on semester-long internships with Maryland delegates.

You might think a legislative internship would be all work and no play, but that's not always the case. One day when **Wangui Nganga '22, global studies**, was answering phones in Del. Mike Griffith's office, she got a bit of a surprise on the other end of the line.

"I heard 'hello'...and they proceeded to tell me a joke and hung up," she remembers. "I told my coworker I thought I was prank-

called by a constituent, but she started laughing and said it was her. This was one of my favorite moments because it showed that people don't take everything super seriously."

Nganga's involvement as a research assistant for a professor in UMBC's School of Public Policy and speaker of UMBC's Student Government Association prepared her to do the research necessary to succeed in her internship. The environment itself is welcoming and understands that the purpose of everyone's work, regardless of political affiliation, is to improve the lives of Marylanders.

Through the Maryland General Assembly Internship Program, **Matthew Harrington '20, political science**, had the chance to explore his passions even further.

"I chose to work for Del. Julie Palakovich Carr because she sits on the Ways and Means Committee, which deals with tax policy, which is my policy area of interest," says Harrington.

In his short time there, Harrington had the opportunity to present a bill about reforming zone programs in the Ways and Means Committee on behalf of his delegate. In addition to the numerous hands-on ways he's able to be part of the process, Harrington also notes that the free food at Annapolis receptions doesn't hurt either.

— *Kait McCaffrey*



SEEING IS BELIEVING

Many of us have trouble digesting straight numbers. And for every hour a journalist might put into clearly explaining a complex topic in a story, an accompanying image can either support or derail that work for the reader in a matter of seconds.

That's where **Christina Animashaun '13, visual arts and media and communication studies**, comes in. As a data journalist for places like *Vox*, and formerly *Politico* and *The Washington Post*, she marries art and data to make the big numbers tangible.

It often starts with a simple question, says Animashaun, who grew up watching the evening news and reading comics before coming to UMBC as a Linchan Artist Scholar.

"A lot of times we have a lot of ideas, and in order to turn them into something tangible—art, or an article—you really have to be able to hone in on one question. One big idea."

In the case of a recent major news topic like coronavirus, for example, that might mean drilling through dozens of numbers to help quantify a question like "What do I need to be safe?" Animashaun has made some equally beautiful and scary coronavirus charts recently but also loves to layer archival photographs in fun and surprising ways.

Of course, with great power comes great responsibility. Because Animashaun understands just how much a color or shape choice can sway opinions, she does everything she can to stay as neutral and accurate as possible and bring an ethical point of view to her work.

"You're not going to see any pinks from me," she says. "And if it's blue, it's going to be a partisan blue."

—Jenny O'Grady



HOW TO SPOT MARYLAND'S STATE BIRD

With Kevin Omland, professor of biological sciences



UMBC is teeming with wildlife—the infamous frenzied squirrels, the occasional wandering deer, a curious woodchuck or two, and lots and lots of birds. Melodic chirping can be heard from the wee hours of the morning all the way until the last night classes let out. And not just any birds; the areas surrounding UMBC and campus alike are home to a special species, one that is widely revered around the entire state—the Baltimore Oriole.

*Having researched orioles and ravens for decades, it's not surprising that **Kevin Omland**, a biological sciences professor, calls himself the mascot biologist for the state of Maryland. Since joining UMBC in 2000, Omland's work has almost exclusively centered on orioles. Along with members of his lab, the presidential research professor studies a range of topics in avian evolution, behavior, and conservation. We asked the lifelong ornithophile how to spot the Baltimore Oriole, our state bird, in its natural habitat.*

Tools of the Trade

1. A good pair of binoculars
2. A device to access the website "All About Birds"
3. A smartphone or tablet to play an imitation of the Oriole's song
4. Patience—and lots of it!

Step 1:

PICK A PARK

Baltimore Orioles can be found all around suburban parks in Baltimore County and City. Omland estimates that there are at least 100 oriole territories between the Inner Harbor and the Pennsylvania/Maryland border.

"The Baltimore Oriole loves hanging out in local suburban parks," he notes. "I've even seen them in the trees near the entrance to the Maryland Zoo in Druid Hill Park. You have a good chance of seeing them in Patapsco State Park, too."

To find a Baltimore Oriole on UMBC's campus, Omland suggests scoping out Pig Pen Pond and the Conservation Environmental Research Area located south of bwtech, UMBC's business park. Omland notes that it may be harder to spot Baltimore Orioles on campus due to an increase of construction here in the past twenty years, but it is still possible to find the occasional oriole flying near the green spaces on campus.



Step 2:

LOOK (AND LISTEN!) HIGH IN THE SKY

After you've picked your park, it's important to know how to find the elusive bird. According to Omland, the state bird may be harder to spot than you think. He recommends looking and listening up toward the treeline.

"You'll never see a Baltimore Oriole on the ground to save your life," he joked, noting that he is also known to be the worst exaggerator in the world. "But in all seriousness, it is very rare to see [them] on the ground. Some particularly adventurous orioles may forage for food on the ground, but it's rare."

Omland says that your best bet is to grab a pair of binoculars and look in the tops of tall trees near rivers, ponds, and even golf courses.

As for the signature colors, Omland says that there's no other bird around that boasts the bright orange coloring complemented by the jet black feathers—it's unmistakable. He notes that adult males will have vibrant, discernible colors while females and adolescents will be a bit more muted, but still identifiable.

"You're sure to recognize the colors. It's the same ones on the baseball caps for the O's team," Omland says. "Historically speaking, it's called Lord Baltimore's Orange, and there's no other bird that carries that indisputable color. If you know that color, you're on the right track!"

Step 3:

WORK ON YOUR WHISTLE

No less important than the distinct colorings of the Baltimore Oriole is the sound that it makes—a low, loud, clear whistle that can often be heard from far distances.

"It is difficult for humans to imitate the sounds of many other birds," says Omland, "but for the Baltimore Oriole, it can be fairly easy to imitate if you practice. If you get really good at their whistle, there's a chance that they will answer back!"



Step 4:

TAKE YOUR SKILLS FARTHER AFIELD

The Baltimore Oriole is just one of more than 30 different species of orioles found all over the world, and Omland doesn't limit himself to studying just one kind.

Omland's research also includes the Bahama Oriole, a critically endangered species native only to Andros Island. Thanks to an International Research Experience for Students grant funded by the National Science Foundation, Omland has been taking students to the remote island in the Bahamas since 2016 to study how climate change is impacting weather patterns and creating natural disasters that have nearly decimated the species.

"It gives students the chance to be on the front lines of climate change," Omland says. "This is where climate change is killing people, destroying homes, and eliminating ecosystems... the students care about what happens to these islands and want to make a difference."

Omland extends the invitation to his students and beyond to participate in what he calls "adventure biology"—getting outdoors and sharing intimate opportunities with the surrounding wildlife, especially in readily accessible areas. "The Baltimore Orioles are one of the many spectacular birds that are here in our forests," he said. "If people stop, look up, and start paying attention, Maryland has a lot of wonderful diversity to offer us."

— Kennedy Lamb '20

*Photos of Kevin Omland by Marlayna Demond '11.
Photo of Baltimore Oriole courtesy of Kevin Omland.*

ALUMNI ESSAY

Treasured Moments

*In his more than a decade of service to UMBC through the Alumni Association Board of Directors, outgoing president **John Becker '01, information systems**, has seen a little bit of everything. As he passes the torch of leadership, Becker thinks back to some of the moments—and the people of our community—that have meant the most to him.*

I'm writing this column from my dining room table while my wife leads my two children in a homeschooling session on peregrine falcons. There are no pressing activities. There is nowhere to be—in fact, we are not allowed to be anywhere else. (I can't say “gotta run” at the end of phone calls anymore.) This is strange for us, and I'm sure some of you have also felt a sense of surrealism. We're sheltered in place, waiting for the seemingly inevitable house call we will be receiving from the novel coronavirus.

While our inability to work during this lockdown is a dark cloud on the horizon, I am finding silver linings. We are spending more time (and more meaningful time) together. We are closer now than ever with our neighbors, and we are in touch daily with our out-of-state parents. I have also had time to pause and reflect on the past several years in a way that I rarely can when we are rushing around with daily routines and extra curriculars.

The 10 years that I have served on the UMBC Alumni Association Board of Directors have been among the most rewarding years of my life. Some of that reward comes from a sense of debt repayment—a sense of fulfilling an obligation for the many gifts I was given while I was a student here in the late '90s. But in thinking about it more deeply, I realize it is something else—Retriever pride—that feeds the beast.

Common Bonds

Our UMBC has been accomplishing great things for decades socially, academically, and athletically. There are bread crumbs trailing all the way back to 1966 that a nostalgic alum or prospective Board member could discover or remember that would kindle that fire—that pride—within them. Among my fellow Board members, I found a common interest in recalling formative years, assisting those students we recognize so clearly as a reflection of ourselves, and planning for an enduring legacy.

The highlights of my time on the Board could fill this magazine, but one thread that shines through is that the alumni have become increasingly involved over time. This truth reflects the hard work of Director of Alumni Engagement **Stanyell Odom** and her team; the acknowledgment of the role we play in the university by Vice President of Institutional Advancement **Greg Simmons, M.P.P. '04**; and of course the curiosity of our great alumni, which often foment into a desire to return and help in a meaningful way.

Exceptional by Example

I vividly recall meeting **Naomi Mburu '18, M26**, UMBC's first Rhodes Scholar at our Annapolis Alumni Reception, learning her story and being inspired by her determination. This reception,



held in February each year and hosted by the Board of Directors, has allowed us to meet our state's leaders who are UMBC alumni themselves, learn their perspectives, and find common interests through our ties to UMBC.

The growth of the annual Alumni Awards gala has been another source of pride for me. What began for me as an intimate affair in our library's gallery has blossomed into a spectacle with hundreds of guests held in the Linehan Concert Hall in the Performing Arts and Humanities Building. I'm stunned every year by the unique, inspirational alumni I meet across all disciplines and from all walks of life. Last year I had a chance to speak with **Jerome Adams '97, M4**, the Surgeon General of the United States, who is now at the tip of the spear in handling the COVID-19 pandemic. What struck me about Dr. Adams was how down-to-earth and family-oriented he was. He demonstrated a sense of perspective that was refreshing to see in a

person in his position of national leadership.

And I am proud of leading the effort to develop and successfully reach an audacious fundraising campaign for the Alumni Endowed Scholarship, doubling our market value in four years and allowing the funds raised by the Board to leave an enduring legacy of scholarship on generations of deserving students.

A Proud Legacy

The thread linking these events and milestones is the people. UMBC is ripe with talented alumni, faculty, staff, and, of course, talented students and student-athletes. My engagement with bright, energetic, and driven individuals is what keeps me coming back for more. If you haven't been back to campus lately, please accept this invitation. I want you to see the intelligence, diversity, passion, grit, and greatness that I have enjoyed and maybe in the process find something you left behind.

Dr. Hrabowski likes to remind us every year at Commencement that "success is never final." As we embark on a new fundraising campaign for the Alumni Endowed Scholarship and I pass the torch to **Brian Frazee '11, political science, M.P.P. '12**, I am at ease knowing that our success will continue and our future is bright. Thank you for the opportunity to serve you.

Learn more about ways of engaging with UMBC at alumni.umbc.edu.



Above: Becker (far right) celebrates the 2019 Outstanding Alumni Awardees with UMBC President Freeman Hrabowski (left) and awardee U.S. Surgeon General Jerome Adams '97, M4, biochemistry and molecular biology.



Left: UMBC's very first Rhodes Scholar Naomi Mburu '18, M26, chemical engineering, addresses guests at the annual Annapolis Reception in 2018.

"UMBC is ripe with talented alumni, faculty, staff, and...students. My engagement with bright, energetic, and driven individuals is what keeps me coming back for more."

CLASS NOTES

UMBC Class Notes is compiled by *UMBC Magazine* staff from items submitted online and by mail by alumni as well as from news articles and press releases received by the University. This edition of Class Notes contains information processed by April 25, 2020.

How to Submit Class Notes

The deadline for submitting Class Notes for the next print issue of *UMBC Magazine* is October 15, 2020. Notes and photos may be submitted via email at magazine@umbc.edu, online at magazine.umbc.edu, or by mail at: UMBC Magazine – Class Notes, Alumni House, 1000 Hilltop Circle, Baltimore, MD 21250.

Photo Guidelines

Digital photos should be taken on the highest-quality setting. They should be 4 x 6 inches or larger and 300 ppi. Save the attachment as a TIFF or JPEG. Questions? Please email magazine@umbc.edu.

1970

Andris Skuja, psychology, retired from his positions as the psychiatry training director at Kaiser Permanente and as an adjunct professor. He still has a part-time private practice, but spends most of his time traveling and participating in politics.

1973

Stephen Vicchio, interdisciplinary studies, recently published two new books, *George Washington's Religion* and *Muslim Slaves in the Chesapeake: 1634 to 1865*.

1976

With a background in the U.S. Navy prior to attending UMBC, **Francis Eurice, political science**, is now retired. A member of the Vietnam Veterans Association and the American Legion, Eurice was a principal subject in the book *Sailors to the End* by Gregory Freeman.

Blair Grubb, biological science, was featured in a Q&A about postural orthostatic tachycardia syndrome on the website of Goop, Gwyneth Paltrow's iconic wellness brand. In the article, Grubb, who is a professor at the University of Toledo and a leading expert in the treatment of autonomic disorders, describes the condition that affects blood flow.

Thomas Wrublewski, geography, retired from the National Oceanic and Atmospheric Administration (NOAA) after more than 40 years. Wrublewski was one of 24 NOAA employees asked to provide an oral interview to commemorate NOAA's 50th anniversary this year.

1979

Wanda Keyes Heard, political science, retired in December 2019 from her role as chief judge of the Baltimore Circuit Court, the first woman to hold this position. In her time as a judge, she presided over numerous important cases, including the murder trial that inspired the first season of the hit podcast *Serial*.

1982

In 2020, **Ronald Pettie, English**, plans to retire from his position as the security supervisor at Lifebridge Health. He has been with Lifebridge Health since 2010, when he retired from the Baltimore City Police Department after a 26-year career.

1986

Regina Pair Allen, health science and policy, became the director of spiritual care and values integration at Houston Methodist West Hospital and Houston Methodist Continuing Care Hospital.

Previously serving in positions such as the under secretary of commerce for economic affairs at the Department of Commerce, **Mark Doms, mathematics and economics**, joined the Congressional Budget Office as chief economist in 2020.

1987

Todd Carter, information systems management, has been named director of the Baltimore City Office of Information and Technology.

Robin Newhouse, nursing, currently the dean of the School of Nursing at Indiana University, is a health services researcher studying the effectiveness of clinical interventions that foster the use of evidence-based practices in acute care hospitals. Her daughter **Kristie Newhouse '04, psychology**, is a nurse practitioner at a trauma center in New York City.

Charles Ingram, political science, retired as warden of the Federal Detention Center in Seattle, Washington, after a 27-year career with the Federal Bureau of Prisons.

1989

1 Common Thread: The Saga of a Southern Family Since 1801, a book by **Robert House, African studies**, was released under his pen name RJ Hammett.

1990

After 17 years with the Women's Law Center, **Ellen Hare, political science**, now works for LifeBridge Health at Northwest Hospital. Her daughter Marissa is a current Retriever also studying political science.

1991

Monique Bocock, political science, retired as a captain from the United States Navy Reserves, Judge Advocate General's Corps, in November 2019 after 25 years of service.

Kara Freeman Lee, information systems, was promoted to senior vice president and chief operating officer (COO) of the American Council on Education (ACE). As COO, Lee will lead efforts to strengthen ACE's organizational capacity to achieve strategic priorities and will oversee its operations and finances of the Council.

CHRONICLING HISTORY'S UNSUNG HEROES

Kristina Gaddy '09, history and modern languages and linguistics



Venturing into a Gestapo interrogation cell is not the way many people would choose to do research.

Nevertheless, **Kristina R. Gaddy '09, history and modern languages and linguistics**, felt it was crucial to the process of writing her first book, *Flowers in the Gutter*. The book tells the true account of the Edelweiss Pirates, German teenagers who resisted the Nazi regime with acts from playing forbidden music to disseminating anti-Nazi flyers.

"There's a lot of dystopian fiction out there of kids living in an awful world and trying to resist, and I always imagine this is the real-life story of kids living in dystopia. What would you actually be doing?" says Gaddy.

Sadly, these stories often ended up in interrogation cells like the preserved one Gaddy visited in Cologne, Germany. "It was really important for me to go to those spaces and experience them as they would have experienced them," says Gaddy. She also used the trip to dive deep into archives from the time, all in German. It was a chilling and often depressing experience, she says, but it was also part of understanding the pirates' little-known movement.



While "there's been so much written about World War II," Gaddy says that "there are still things that are needed to be written." Many people know about the White Rose resistance movement, she says, but much of the Edelweiss Pirates' story has remained untold. "We think it's just natural that you do something heroic and people are going to just say that it's wonderful [but] that's not the reality," she says.

In documenting the teens' rebellious acts, Gaddy also highlights just how relatable they are. They wore strange clothes and played their own kind of music and had an irreverence that Gaddy says she found appealing.

"It just felt like alright, this is so compelling, this is the kind of story that we need," says Gaddy.

Figuring out how to tell those stories was a process that started at UMBC. Gaddy graduated in 2009 with degrees in history and modern languages and linguistics before going on to an M.F.A. degree from Goucher College in creative nonfiction writing. Her work has been published in a variety of places, including *The Washington Post*, *The Baltimore Sun*, *Bitch Magazine*, and, for her first paid publication, *UMBC Magazine*.

"The type of writing I am interested in doing wouldn't be possible without the background in history at UMBC," says Gaddy. "All the research, that's 100% something I learned to do at UMBC, in terms of writing research papers, getting primary sources, and going in the archives." All her primary sources being in German called for language skills she honed during her undergraduate years both at UMBC and during a semester abroad in Berlin.

To look critically at history, Gaddy found she also needed to recall her lessons in historiography, or the study of why and how historical stories are told. She says that UMBC history professors **Denise Meringolo** and **Kate Brown** helped her ask the questions of "how do we remember this? What is it we are looking at, and how is it that different people experience that differently or the same? If we're then presenting what we know about it, how are we changing the perception as we're doing that?"

Meringolo says Gaddy distinguished herself early on as a student through her talents in writing and her creative thinking.

"I fully expected that Kristina would pursue a career as a public historian after graduation," says Meringolo. "Arguably, by becoming a writer of creative nonfiction, she is working as a public historian. Her book tells a true story, and she has worked to identify its most provocative and meaningful core. She has also thought carefully about her intended audience, seeking to understand what they care about and how this story might help transform the 'foreign country' of the past into a familiar and meaningful landscape. I am proud of her, and I am enormously proud to have played a small role in her life."

Gaddy's book is coming at a time when these questions are more relevant than ever. In fact, she started to work on it during the summer of 2016, when "it felt incredibly timely in terms of political climate and what's going on. As I was working on it, it was almost like it can't get any timelier, but it kept getting timelier."

Her target audience of today's young adults includes everyone from those protesting in the streets to those who are using racial epithets. She hopes that teachers might use her book in their classes.

"I really feel strongly about nonfiction that it's a really compelling way to tell stories—this is not a fantasy, this is real life, this is what really happened," she says. "I hope people feel a little bit inspired by what these kids did and what kind of lessons we can take from their actions and put it into our lives."

— Karen Styksley

Photo: Gaddy places a candle at the memorial to the Edelweiss Pirates, November 2019. Courtesy of Gaddy.

CLASS NOTES

1993

Steve Marohl, history, a former Men's Lacrosse attackman, was included at the top of a PressBox list of the 15 greatest individual seasons in Baltimore sports history.

1994

Oliver Myers, M1, M.S. '96, Ph.D. '07, mechanical engineering, was named one of two new associate deans for inclusive excellence in Clemson University's College of Engineering, Computing, and Applied Sciences.

1996

Stacey Baugh, psychology, is an associate professor of psychology at Trinity University.

Candace Dodson Reed, English, was listed among *The Daily Record's* list of 2019 Top 100 Maryland Women.

1999

Laura Hanyok, biological sciences, welcomed her second child with her husband, Sean Elliott. Hanyok is an associate professor of medicine at Johns Hopkins, working in medical education and seeing patients as a general internist. For the past three years she's also served as assistant dean for graduate medical education at the Johns Hopkins School of Medicine.

Becky Knouse Perillo, biological science, is being inducted into the Howard County Women's Athletics Hall of Fame for her accomplishments as a member of the Centennial High School tennis team in the early '90s—she graduated in 1994 with a four-year record of 52-0 against county opponents.

"Conundrums," a photography exhibition by **Mitchell Kern, visual and performing arts**, was housed for a month at the Herrerger Kiss Gallery in D.C. Kern, who is an associate professor of photography at the Alberta College of Art and Design, describes "Conundrums" as "set in an absurd, fictionized environment based upon life in southern Alberta, this body of work poses questions about land and property ownership in the 21st century."

Mark Tyler, history, met up with other alumni for a 20-year reunion in Maine. Among the members of the Class of 1999 present were: **Ashita Goel, biochemistry and molecular biology**; **Caton Beitzel, computer science**; **Jodi Meyers, biological science**; and **Elaine Elgamil, English**. Here's to the next 20 years of friendship!

2001

Kafui Dzirasa, M8, chemical engineering, was awarded the 2020 Early Career Mentoring Award in Basic – Translational Science, which honors research mentors in the Duke University Schools of Medicine and Nursing.

2002

Keith Elder, Ph.D., policy sciences, the founding dean of Samford University's School of Public Health, has accepted the position of provost and executive vice president at Mississippi College.

Thomas Sova, biological sciences and sociology, graduated cum laude from the University of Baltimore School of Law in 2005. He also earned a M.S. in biotechnology from Johns Hopkins University. Currently, he works at the Frederick National Laboratory for Cancer Research, where he is a senior technology transfer manager and patent attorney.

Brian Thompson, economics, has been promoted to associate general counsel of Merkle, a performance marketing agency with more than 50 offices around the world.

2003

Philip Knowlton, visual arts, completed his latest feature length documentary. *Kupenda* (Swahili for "love") tells the story of three Kenyan teenagers impacted by disability who set out to challenge their community's long-held stigma and climb the highest mountain in Africa, Mt. Kilimanjaro.

2004

Raydiance Dangerfield, English, M.A. '19, instructional systems development, wrote an article entitled "Feeling Trapped?" for *TD Magazine*, the publication of the Association for Talent Development. Dangerfield is the director of organizational development and learning at the University of Maryland Global Campus.

Delali Dzirasa, computer engineering, founder and CEO of Fearless, organized a virtual roundtable with Sens. Ben Cardin and Chris Van Hollen to discuss the unique concerns of small businesses during the COVID-19 pandemic.

Alicia Wilson, political science, spoke at the World Economic Forum in Davos, Switzerland, on behalf of Johns Hopkins on the topics of "Power of Place" and the "Role of Global Universities in Promoting Sustainable Future."

Patrick Wohlfarth, music, a former Linehan Artist Scholar, is the co-author of an upcoming book, *The Conscientious Justice: How Supreme Court Justices' Personalities Influence the Law, the High Court, and the Constitution*. Wohlfarth is an associate professor in the Department of Government and Politics at the University of Maryland, College Park.

2005

Isaac Kinde, M13, biological science, is the co-founder and head of research and innovation at Thrive, a biotech startup launched in May 2019. Kinde is bringing to market his invention of biomarker technology called Safe Sequencing System, which reduces the error rate of DNA sequencing.

2006

After eloping to Ireland to marry his penpal of 10 years, **Matthew Bowen, English**, and his wife Sanni moved to her native Finland. Bowen documents his experience in a blog entitled "My Life In Finland." He has worked in the Olkiluoto Nuclear Power Plant for the past three years. This July, the pair is expecting their first child.

Chris Cerullo, sociology, was promoted to patrol sergeant in the Manchester, New Jersey, police department.

SHARING A LOVE OF GREEN CHEMISTRY

Ram Mohan, Ph.D. '92



According to recent statistics, approximately 6,000 people in the United States apply for Fulbright awards yearly. Fewer than 800 are awarded and rarely does one person win two.

Nevertheless, **Ram Mohan**, who received his Ph.D. from UMBC in 1992, was awarded a Fulbright Teacher-Scholar Grant in 2012 and a second Fulbright Teacher-Scholar Grant in 2020 to teach green chemistry in India, where he was born and raised, before moving to Baltimore at the age of 21 to attend UMBC.

Now a professor of chemistry at Illinois Wesleyan University (IWU), Mohan fondly remembers the people who inspired him as a student at UMBC.

Mohan graduated with honors in chemistry from a Hansraj College in New Delhi, and, like many of his friends, he says, wanted to pursue higher education in the United States. His interest was in organic chemistry, but he really wanted to focus on the relationship between the environment and cancer. The incidence of cancer, often caused by environmental pollution, is increasing worldwide, especially in India.

Through his research, in the 1980s, Mohan discovered that the work of UMBC's **Dale Whalen**, now professor emeritus of chemistry, matched his own interests. "Simply put," he relates, "I would not be where I [am] professionally without the kind and caring faculty at UMBC," adding, "from the day I arrived, [Professor Whalen] took me under his wing...whether taking me to the Social Security office or showing me lab techniques."

"The faculty at UMBC," explains Mohan, "not only did cutting-edge research, but its members also cared about the success of each and every student." Whalen was not the only UMBC professor he remembers fondly. He also mentions professors **Donald Creighton**, **Ramachandra Hosmane**, and **Ralph Pollack**. In fact, Mohan says, the entire Chemistry Department "hung out together," including the staff, **Anne Geffert**, **Patty Gagne**, and **Audrey Mahoney**. He stays in touch with many of them.

After graduating from UMBC, Mohan pursued postdoctoral work at the University of Illinois at Urbana-Champaign. He began his teaching career in 1994 as a visiting professor at Coker College in Hartsville, South Carolina. After two years, he moved back to central Illinois as an assistant professor at IWU, a small selective liberal arts college, where he remains today. Again, Mohan claims his current passion for teaching stems from being a teaching assistant at UMBC for many semesters.

His research is inspired by green chemistry—principles and application—and he has traveled to Hong Kong, Malaysia, China, and throughout India, lecturing and conducting workshops, which is what he now is doing in India as a Fulbright-Nehru scholar.

He is especially passionate about taking green chemistry to small, undergraduate colleges in rural areas where most students come from a farming background. "Raising awareness for environmental problems in such areas," he explains, "will help to solve India's overall environmental problems."

For example, a typical workshop consists of 10 lectures on various green chemistry topics and includes interesting case studies that highlight environmental problems and solutions, using green chemistry concepts.

Mohan also has introduced green chemistry into the curriculum at IWU and made significant strides in "greening" organic chemistry laboratory experiments. His course at IWU especially highlights environmental problems in the United States. Undergraduate students at IWU take this enthusiasm for green chemistry on to graduate school and beyond into their professional careers.

Green chemistry, or sustainable chemistry, is the design of chemical processes and products that use nontoxic chemicals. The goal of green chemistry is to minimize the impact of chemicals on human health and the environment.

What Mohan finds especially rewarding is "the chance to give back to [his] country of birth while representing the United States as a cultural ambassador."

Although Mohan enjoys his work—both teaching and research—at IWU, and he likes to travel by train between Bloomington and Chicago, he says that even after 28 years he still misses UMBC. "Maryland and Baltimore always will remain my first home in America," he says proudly.

— By Lynne Agress

Image: Jason Reblando/Illinois Wesleyan University

CLASS NOTES



Mark Tyler '99, history, met up with other alumni for a 20-year reunion in Maine last summer.

2007

Jessica Dulaney Lewis, acting, passed the National Interpreter Certification exam for American Sign Language interpreters in the United States. She uses her acting degree to interpret theatrical performances throughout the Baltimore and D.C. area.

2008

Kizzmekia Corbett, M16, biological sciences, is the scientific lead of a team researching the genetic makeup of the coronavirus at the National Institutes of Health Vaccine Research Center. She and her team have been featured in many news articles, including a *New York Times* article entitled, "Researchers Are Racing to Make a Coronavirus Vaccine. Will It Help?"

Brittany Wight, visual arts, is the founder and CEO of Wight Tea Company, specializing in single-origin teas and handcrafted tea blends.

Simon Zuniga, computer engineering, moved to his home country of Chile after graduation, where he spent nine years as a research and development engineer at an electronic equipment company, and, recently, he was hired as a research and development engineer at Synopsys Inc. He is happily married with two children, Matilde and Daniel, and calls his time at UMBC "an eye-opening experience."

2009

Madrice Guy, M.S. information systems, is the CEO and founder of Blue Eye Technology Inc., a management, science, and technical consulting service. In addition, he is a professor at Harford Community College and has previously taught at the University of Baltimore.

Karsonya Wise Whitehead, Ph.D., language, literacy, and culture, was listed among *The Daily Record's* list of 2019 Top 100 Maryland Women.

2010

Natalia Panfile, M.F.A. intermedia and digital arts, took part in a residential performance program, entitled "Dissenting Bodies Marking Time," as a part of Venice International Performance Art Week. There, she and other international artists spent eight days devising a performance art piece and four days performing for the public.

Alexandra Psihogios, psychology, was recently awarded the Mentored Clinical Scientist Research Career Development Award from the National Cancer Institute. Psihogios is a member of the faculty at the Children's Hospital of Philadelphia in the Cancer Center.

Victor Torres, anthropology, M.F.A. '15, imaging and digital arts, presented a panel, facilitated by the nonprofit Visual AIDS, entitled "Still Beginning: The 30th Annual Day With(out) Art" at the Whitney Museum of American Art in New York City. The program included seven newly commissioned videos ranging "in subject from public sex culture in Chicago to anti-stigma work in New Orleans, highlighting pioneering AIDS activism and staging intergenerational conversations," according to the Whitney Museum website.

2011

Mitch Case, media and communications studies, and **Brian Brown '13, biochemistry and molecular biology**, were featured on nbcnews.com for expediting their wedding during the coronavirus. After a coworker married them in their studio apartment, they celebrated by taking a stroll outside.

Bill Joyner, health administration and policy, began serving as the Baltimore Police Department's (BPD) first equity officer in April. As a member of the Consent Decree Team, he'll use his social work and legal training to advance BPD's performance in equity, diversity, and impartial policing.

After earning her Ph.D. from Johns Hopkins University, **Kaitlyn Sadtler, biological science**, had her thesis on the role of immune cells in muscle regeneration published in *Science*. Since then, she has been named a TED Fellow, listed on the *Forbes* 2019 30 Under 30 List in Science, and in 2020 was named a TEDMED Research Scholar. Recently, she took a position at the National Institutes of Health, where she is the first tenure-track investigator in the main engineering institute. Sadtler is currently leading a group of scientists who are studying COVID-19 and its possible antibodies.

2012

The owners of Ekiben, Baltimore's purveyor of everyone's favorite steamed bun sandwiches, **Steve Chu, economics**, and **Ephrem Abebe '13, information systems**, opened a second location in Hampden. During COVID-19, the restaurant has donated more than 1,000 sandwiches and counting to local hospital workers.

Alicia Jean McClelland, sociology, M.A. '13 applied sociology, has been appointed as Bank of America's senior vice president and global corporate health and safety manager for the U.S., Canada, and Latin America regions.

WHO CARES FOR THE CAREGIVERS?

Sarah Christa Butts '07, social work



Sarah Christa Butts '07, social work, is used to battling society's biggest problems, from ending homelessness to stopping family violence.

Now, the licensed master social worker is taking her advocacy straight to the top of the policymaking world on Capitol Hill. Her next-level challenge? Making sure that professionals working to protect society's most vulnerable populations are themselves adequately protected.

"I've always been driven by social-work values," says Butts, director of public policy for the National Association of Social Workers (NASW), for whom the work is incredibly personal. "We're advocating for the needs of our clients and the social workers serving those clients."

In her new role, she educates and advocates among members of Congress and their staffs, federal agency officials, lobbyists, and political candidates, working to advance the goals of the world's largest organization of social workers.

Her issue portfolio includes pay equity and adequate compensation for social workers and access to mental health and behavioral health care services, including substance use disorder treatment and workplace safety.

For example, the Protecting Social Workers and Health Professionals from Workplace Violence Act, a recently introduced bipartisan bill, would direct

federal grants to states to improve facility safety, provide safety training to staff, and purchase safety equipment for social workers and health professionals.

"Sometimes clients are in crisis. We are a lot like first responders," says Butts. "Social workers work in a number of settings, including visiting clients in their homes. Unfortunately, we are disproportionately the victims of violence. Some social workers have died on the job, but this risk doesn't stop us in our mission to help others."

Butts is also working to reduce student loans for social workers, who are required to have a high level of education but who are among the lowest-paid professionals in the workforce.

All of these issues address "what attracts and retains social workers," says Robyn Golden, associate vice president of population health and aging at Rush University Medical Center in Chicago. "More hard-to-reach populations will be better served as a result."

Golden has worked with Butts on policy issues such as Medicare beneficiary's access to social work services and describes her as "a critical thinker and strategist."

"She balances her clinical knowledge with policy and listens so well to both the client and constituent voice," Golden says.

Social work students often follow one of two paths: policy work or clinical practice. Even as an undergraduate, Butts chose both.

"I was interested in the large systemic issues—managing the policy implications—but also in one-on-one practice," she says.

As part of UMBC's Title IV-E Education for Public Child Welfare Program, a collaboration with the Maryland Department of Human Resources to prepare social work students for public child welfare practice, Butts spent a year as a caseworker, providing services and going to court with children who had been removed from their homes.

After receiving her bachelor's of social work from UMBC, Butts earned a master's of social work from the University of Maryland, Baltimore, and she is now pursuing a Ph.D. in public policy at UMBC.

"I've had such a great experience at UMBC. Grit and Greatness....I see myself in that slogan," says Butts, who was a Pell Grant recipient. "I identify with being resilient, persistent, passionate about my work, and striving for excellence and impact. I had to overcome a lot of complicated life circumstances, including losing my dad at nine years old, my mom's substance use disorder and returning to college with a young daughter... UMBC has a special commitment to support students like me, and I am grateful."

Butts has held roles in state and local government as well as nonprofits, including positions in Maryland's Department of Human Services, Social Services Administration, and the Family League of Baltimore. Prior to joining NASW, Butts served as the first executive director of the Grand Challenges for Social Work, a national initiative to collaborate on 12 of the United States' most deep-rooted and pressing social problems. She's also the founding administrator of the American Academy of Social Work and Social Welfare, an honorific society for the profession.

"She has always been able to make the connection between what social workers do, for who, and for how long with the larger policies," says **Carolyn Tice**, associate dean and professor in the School of Social Work. "She's absolutely committed to equity and social justice and that permeates her work."

— Laura Cech

Image: Courtesy of Sarah Christa Butts.

CLASS NOTES

Adam Rooner, music, worked as an engineer on the audiobook of Michelle Obama's 2018 memoir, *Becoming*. In 2019, *Becoming* won the Grammy award for best spoken word album.

Gabriel Spiro, history, graduated summa cum laude from Southern New Hampshire University with his master's in public history.

2013

Shanae Cole, media and communication studies, was featured alongside her twin sister Shaniece in a video on Nickelodeon's Facebook. In the video, they were seen hosting their own Nickelodeon episode, available on the Nickelodeon Instagram, of "Nick on the Street," where they quizzed people on the streets of L.A. about their Nick knowledge.

In July 2019, **Kyle Edwards, sociology**, was awarded the Washington D.C. Office of Cable, Television, Film, Media, and Entertainment Filmmaker of the Month award for his film *68*. He is also part of the Spring 2020 cohort for the Institute for Documentary Filmmaking at George Washington University and an adjunct professor of sociology at UMBC.

Franki Graham, dance, is the artistic director and co-founder of LucidBeings Dance, a Baltimore-area contemporary dance company. As part of LucidBeings Dance, Graham has performed at Gordon Center for the Performing Arts, Baltimore Theatre Project, and even in UMBC's Proscenium Theatre, among others.

Asif Majid, interdisciplinary studies, completed his doctorate in anthropology, media, and performance at the University of Manchester. There, he made theatre with British Muslim youth as a way to understand the sociopolitical narratives they negotiate in everyday life.

After graduating with her Ph.D. in clinical psychology at Eastern Michigan University, **Megan Pejsa-Reitz, psychology**, will start as a pre-doctoral health psychology intern at the Veterans Affairs (VA) Maryland Health Care System/University of Maryland School of Medicine Consortium.

2014

Kenneth Harris, mechanical engineering, was named one of *Forbes* 30 Under 30 in Science. Harris currently works as a senior engineer at NASA's Goddard Space Flight Center, but his

history at the organization goes back more than a decade, when, at 16-years-old, he volunteered as a counselor at a NASA Goddard space camp and was subsequently chosen for NASA's High School Internship Program.

Tara McMullen, Ph.D., gerontology, is a Presidential Management Fellow for the U.S. Department of Veterans Affairs, where she works with the National Opioid Initiative, Enterprise Opioid Strategy Team. She will co-lead the implementation of the White House Opioid Cabinet Objectives.

Gitika Talwar, Ph.D., psychology, discusses some of the challenges international students face due to COVID-19 in *The American Bazaar*. As a community-clinical psychologist on a college campus and previously an international student herself, Talwar shares her unique perspective.

2015

Isabel Aldunate, media and communications studies and intercultural communications, is pulling double duty in her dual roles for former Vice President Joe Biden's presidential campaign. Aldunate is both the deputy director of strategic communications and the Hispanic media press secretary.

Last spring, **Michael Burgos, sociology, M.A. '17**, who works as a first-year adviser for the College of Education at the University of South Carolina, was nominated for the National Academic Advising Association's Outstanding New Advisor Award. He was selected as one of 10 certificate of merit award winners in this category.

As a health insurance specialist with the Centers for Medicaid & Medicare Services, **Jocelyn Ihrig, M.A. '17, sociology**, reviews state proposals, provides technical assistance to state medicaid agencies, and makes provider payment policy recommendations regarding payment methodologies and financing.

Recently published in *Nature*, **John Malloy, biological sciences**, writes about the importance of financial support for graduate student conference travel as a means to level the playing field for early-career scientists from all socioeconomic backgrounds.

Ogonna Owu, M.A., intercultural communication, was selected as an inaugural NAFAA: Association of International Educators' Representation, Inclusion, Support, and Empowerment Fellow. Owu, who works as a

study abroad advisor at Towson University, is one of only 12 education professionals in the United States to be awarded this opportunity.

After graduating from The George Washington University (GWU) Law School, **Victor Pham, financial economics**, has gone on to work at Gebhardt & Smith LLP, a Baltimore City law firm. During his time at GWU, two of his papers were published. Pham's brother, **Nicholas '17, mathematics**, is a fellow Retriever.

John Rattray, computer engineering, founded Sparkwear Inc. The company's platform, Aura Spark, consists of smart, LED wristbands. The wristbands are designed to help event organizers and planners increase and measure engagement at social and networking events.

Lois Sarfo-Mensah, emergency health services, is the leader of Ladies Get Paid Baltimore. She was featured in *Baltimore Magazine* in an interview about the group's monthly meet-ups, where attendees speak about salary negotiation, submissive cultures, imposter syndrome, and other topics.

2016

As a social science research analyst with the Centers for Medicaid & Medicare Services, **Lia Adams, psychology, M.A. '17, sociology**, reviews and analyzes potential Medicaid financial management issues. Adams relies heavily on the research and analytical skills that she learned in the applied sociology master's program to carry out her day-to-day responsibilities.

Christina Araviakis, political science, will soon graduate from the University of Baltimore (UB) School of Law. She serves as executive editor of the *UBLaw Review* and is the vice president of the school's Women's Bar Association. Araviakis currently works as a student attorney for UB's Human Trafficking Prevention Project Clinic. After graduation, she hopes to become a civil litigator.

Conor Donnan, M.A., history, recognizing the historical importance of COVID-19, has responded with two other scholars by creating *Corona Chronicles*, an archive of day-to-day life during the pandemic.

John Fritz, Ph.D., language, literacy, and culture, associate vice president of instructional technology at UMBC, was featured in *The Baltimore Sun*, commenting on the complexities and opportunities associated with moving instruction completely online.

Gwenaëlle Thomas, biochemistry and molecular biology, has been selected for Duke University's 2020 Dean's Award for Excellence in Mentoring. Thomas is a fourth-year student in the Neurobiology Graduate Training Program at Duke.

2017

Donna Poole, M.A., management of aging services, addressed the Maryland state legislature in January about the ongoing challenges in addressing the needs of caregivers and their families. Poole is the founder of Arcadia Assisted Living LLC, an assisted-living facility located in Chester, Maryland.

2018

Andrew Arvizu, history, the heritage coordinator at Patapsco Heritage Greenway, was featured on WYPR to discuss the importance of creating platforms for previously silenced narratives to help redefine a region's identity.

Joshua Brown, Ph.D., biochemistry, was featured on the website of the University of West Florida (UWF), from which he received his bachelor's degree in 2012. The story, entitled "On a Path to Discovery," describes his journey from UWF to UMBC, his experience working alongside Professor Michael Summers, and how mentorship has impacted his career.

Shubhangi Kuchibhotla, acting, made her Everyman Theatre debut as Luanne Cooper in the regional premiere of *Be Here Now*. DC Theatre Scene called Kuchibhotla's performance, "the living embodiment of a joyful exclamation mark." She has previously appeared in productions at Arena Stage, Constellation Theatre Company, Annapolis Shakespeare Company, and elsewhere.

During her time at UMBC, **Yamini Narayan, health administration and policy**, interned with the Veterans Affairs Medical Center, The Urban Institute, and The Hilltop Institute studying various aspects of health policy. Currently, Narayan is working as a research fellow in the Yale Law School, where she studies state-level data related to firearm fatalities. This year, she plans to complete her master's of public health at the Yale School of Public Health.

MJ Neuberger, M.F.A., imaging and digital art, was the 2019 Bresler Resident Artist at VisArts, a visual arts non-profit located in Rockville, Maryland. As part of her residency,

Neuberger created "Light gets in," a mixed media exhibition. The exhibition was on view in VisArts' Common Ground Gallery.

2019

Emma Ayala, visual arts, was named as one of Johns Hopkin's 32 Saul Zaentz Innovation Fund (SZIF) in Film and Media Fellows for *Corpse Flower*, an animated project that she's collaborating on. As a SZIF fellow, she will work with and be mentored by award-winning artists.

Alexander Gliese, mechanical engineering, has to defer his Olympic swimming plans after the postponement of the Tokyo Summer Olympics. Gliese, who has dual citizenship with Denmark, is part of the Danish national swim team.

Iyanuoluwa Emmanuel Odebo, Ph.D., information systems, is completing his postdoc at the Air Force Institute of Technology while working for the Treasury Department.

Nicole Ringel, M.F.A., imaging and digital arts, was featured in an exhibition entitled "A Gentle Excavation" at Resort in downtown Baltimore, which was subsequently named as one of *BmoreArt's* best Baltimore art exhibitions of 2019.

Twisha Thakore, M.P.S., industrial and organizational psychology, was hired as an associate human resources generalist at Science Systems and Applications Inc. During her time there, she has organized and conducted sessions on workplace mental health. She also performed eight bharatnatyam-style dances, the national dance form of India, at a performance in New Jersey.

Graham Whaples, American studies and media and communication studies, is a marketing and communications associate at the Maryland Sports Commission. Whaples is married to fellow UMBC graduate **Brittany '08, biological sciences**. Their son, Bowen, is a graduate of the Y Preschool at UMBC.

FRIENDS WE WILL MISS

Maurice Berger, chief curator and research professor at UMBC's Center for Art, Design, and Visual Culture (CADVC), died on March 22 from complications of COVID-19. A path-breaking art historian and curator, Berger was a fierce advocate for social justice and an exceptionally caring human being. Through his exhibitions and writings, he compelled the UMBC community to look honestly at issues of race, inequity, and their representations in visual culture.

English Professor **William Bettridge** was a founding member of the 1966 faculty at UMBC. He was looking forward to celebrating the 1970 graduating class on their 50th anniversary, according to his wife, Pat, when Bettridge passed away on March 9.

Carol Clopein Harmon touched many lives with her kindness and wonderful sense of humor in her 18 years as an administrative assistant at UMBC—15 years with the Department of American Studies alone. Harmon passed away in November 2019. Harmon's work exemplified the fact that administrative assistants are what truly make a department or program work at UMBC. She was diligent, knew the campus inside and out, and graciously shared her expertise with her colleagues. Born and raised in Catonsville, Harmon had a strong love of family and faith.

Over the years, **Kim Lamphier '96, MPR, policy sciences**, worked as a public policy expert and lobbyist on issues relating to small businesses, bicycle safety, wildlife protection, criminal justice reform, and promoting youth participation in government. In her last year, before passing away from cancer in August 2019, Lamphier's roles with Trash Free Maryland and Bike Maryland included advocating for two major legislative victories—the first statewide Styrofoam ban in the country and a bill that guarantees funding for Maryland's Bikeways Network program.

George McGeeney '82, economics, former UMBC Men's Lacrosse player and chief operating officer for U.S. Lacrosse, passed away in February. As a sophomore in 1980, McGeeney helped UMBC win the NCAA Division II championship. In 2001, McGeeney was inducted into the Greater Baltimore Lacrosse Hall of Fame and the National Lacrosse Hall of Fame in 2002. His jersey number 51 has been officially retired.

Yaw Owusu-Boaitey '20, M29, biological sciences, passed away on May 20. He will be missed by his family and classmates.

Austin Pickard "Bob" Platt was one of the earliest faculty members to join UMBC's Biology Department in the late 1960s. Platt, who passed away in April, was a classical field ecologist, who worked on the hybridization of natural populations of butterflies and was especially adept at discovering natural chimeric butterflies, according to colleagues. He taught ecology and invertebrate zoology courses and is fondly remembered by his students decades later as a very talented eccentric in his field.

THEN & NOW

Change of Scenery

Looking at aerial photos from UMBC's first several years—in this case, 1969—it's hard not to think, "But where is everything?" Most of the distinctive landmarks of today's campus are missing, and even our ubiquitous Hilltop Circle (then called Loop Road) is only half there.

As different as campus looks now, most of the buildings in this early photograph still serve their original function. This picture was taken the year after the opening of the library's first wing—or "Phase I," as it was called at the time, a nod to the planned expansion. Over the years, the building would be extended by two more phases, the last of which was completed in 1995.

In the upper-left-hand corner of campus, you can spot the school's first dormitories under construction. The first residential hall was completed the year after this photo was taken and was named, unceremoniously, Dorm I. It, along with Dorms II and III, were finally given their current names—Susquehanna, Chesapeake, and Patapsco, respectively—in 1979.

Though the landscape of our campus has changed to be almost unrecognizable from this 1969 image, it has also been altered considerably in just the past few years. The aerial photo of UMBC in 2019 shows two new landmarks that did not exist in 2016, when members of this year's graduating class were freshmen.

The Interdisciplinary Life Sciences Building and the UMBC Events Center are only the latest additions to UMBC's landscape. It's likely that by the time today's first-year students have their commencement in 2023, UMBC's skyline will have shifted once more, making our "now" their "then."

—Johanna Alonso '20



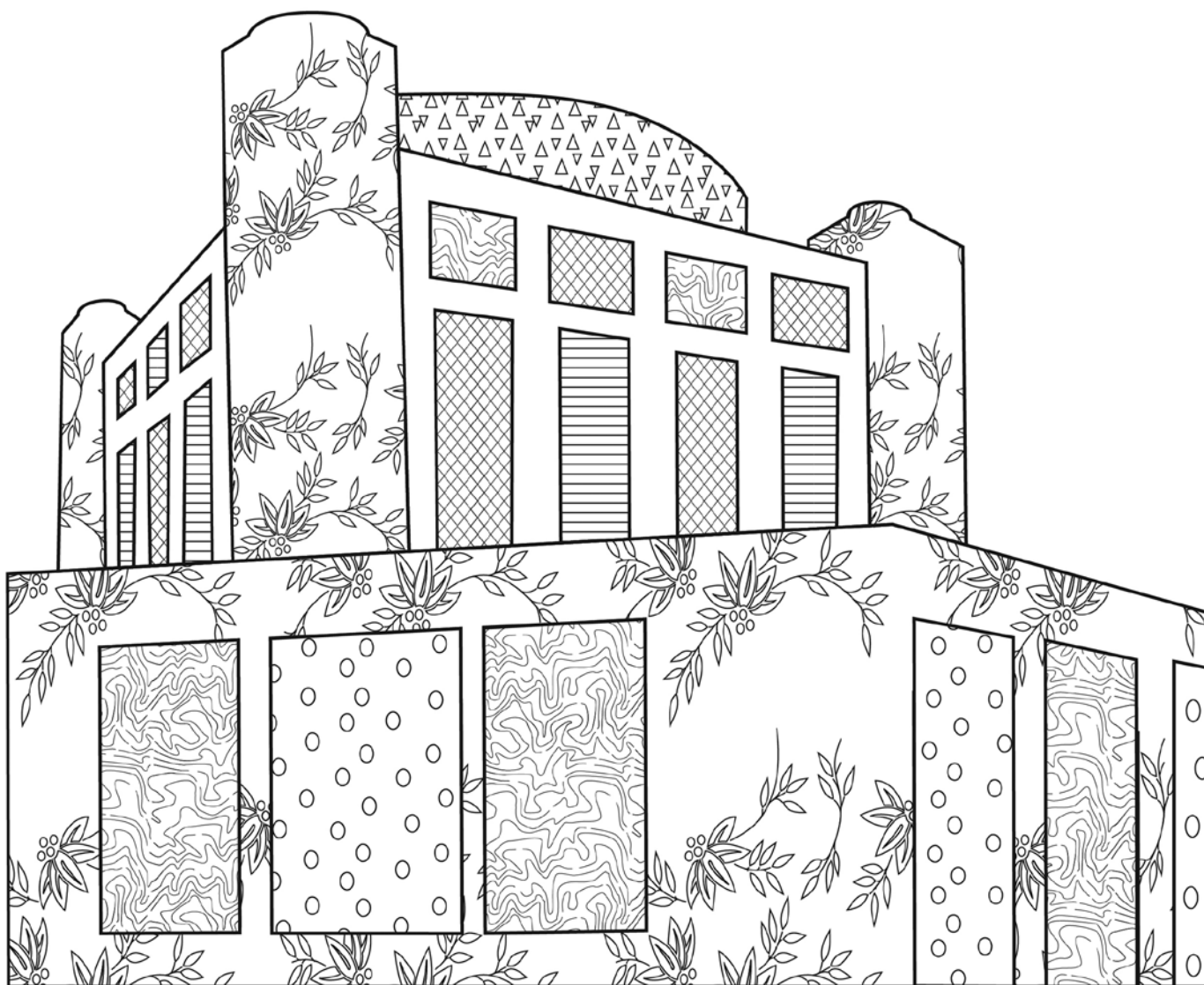


WILD CARD

We're Going to Be AOK

Employees of commonvision, UMBC's student design and print center, are known for contributing their creativity to the community—the office often has fun giveaways on campus: colorful pins, posters, and the coveted *Hallowzine*. Now that we're all at home, they wanted to extend the fun online. This coloring page was designed by **Carmella Pombuena '16, design**, and edited by **Zachary Barker-Frey '22, visual arts**.

Check out commonvision.umbc.edu for more coloring pages, digital wallpapers, and other design goodies. And show off your colorful take on the AOK Library by posting a photo on social media using #UMBCtogether.





SUPPORT THE STAY BLACK AND GOLD EMERGENCY FUND

With a small gift, you can help students who truly need your support. Money raised in this campaign directly supports emergency financial aid needs of students at UMBC.

The UMBC Student Government Association created the Stay Black and Gold Emergency Fund as a resource for students who face urgent and unexpected financial challenges that suddenly stand between them and their educational goals. For almost 10 years, this emergency fund has ensured UMBC students in crisis could continue to pursue their academic dreams. Crisis can affect students at any time. In fact, this fund was started to help in moments just like this. The COVID-19 pandemic is affecting our community in a myriad of ways, and we are hearing from more students than ever who are suddenly struggling in the face of challenges that they could not have imagined.



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Support Retriever Essentials

Your gift helps the Retriever Essentials Food Pantry tackle food insecurity in our university community. Money raised in this campaign directly supports student access to health foods and other essential supplies, free of charge.

giving.umbc.edu/support

Due to remote operations during the COVID-19 outbreak, please know there may be a delay in depositing and receipting a check. We recommend making your gift online. Thank you.

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