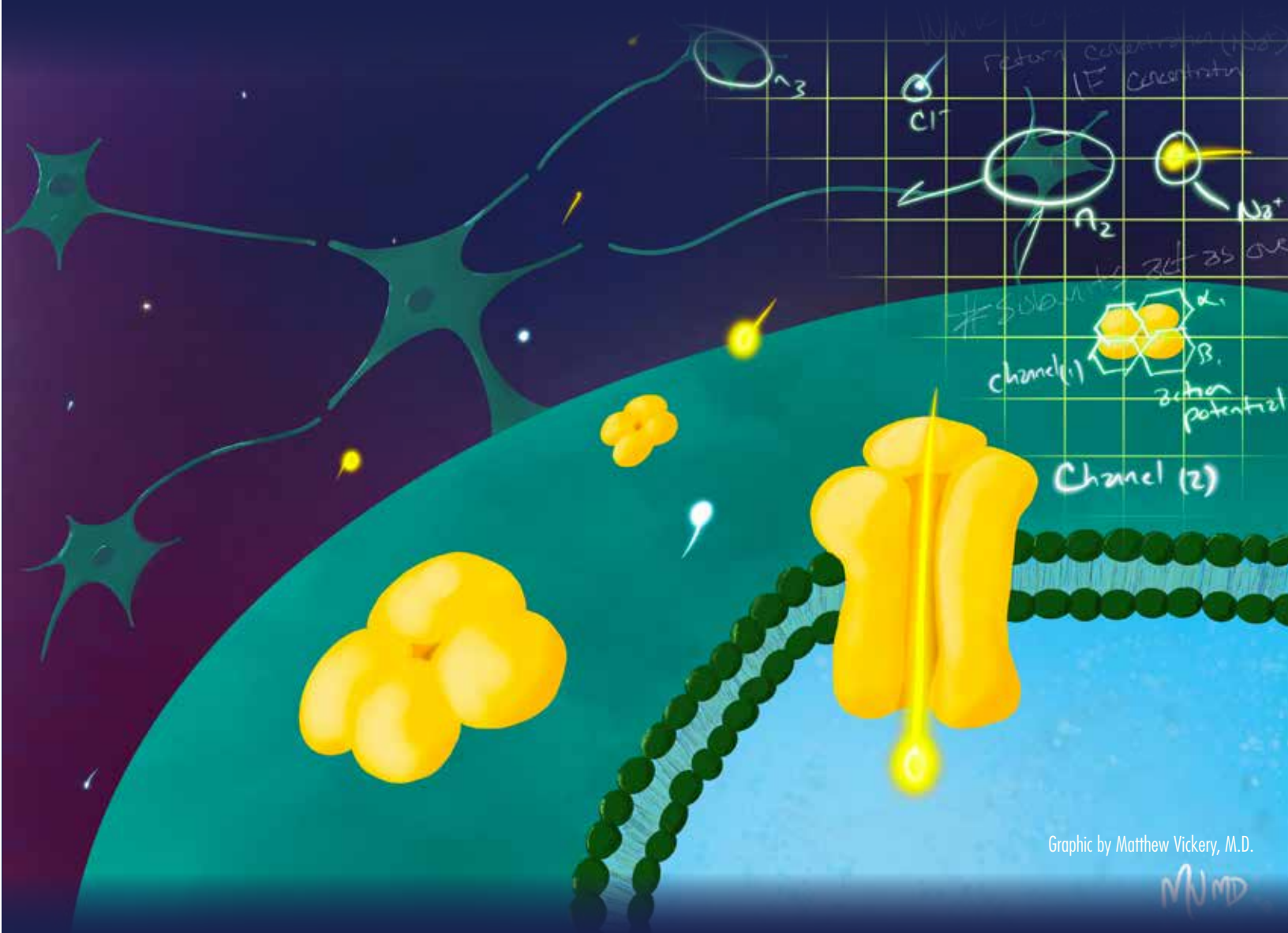




An ion channel's model behavior



Mathematics professor wins NSF grant to build computer models of mysterious biological processes - Pg. 6

CONTENTS

Feature Stories

- Geography student helps Revitalize Milwaukee p.2
- JAMS alum wins an Oscar for documentary p.4
- Mathematics prof’s new grant for ion models p.6
- Geosciences student patrols beach for summer p.8
- Nonprofit Management offers a la carte classes p.9
- Alum-now-history student’s Milwaukee impact p.10
- Derek Counts named Distinguished Professor p.11
- Meet the new L&S faculty members p.12

Columns

- Upcoming Events p.15
- Alumni Accomplishments p.15
- In the Media p.16
- Laurels and Accolades p.17
- Video Story p.17
- People in Print p.18

PUBLISHED THE FIRST TUESDAY OF EACH MONTH BY THE
COLLEGE OF LETTERS AND SCIENCE AT
THE UNIVERSITY OF WISCONSIN-MILWAUKEE.

CONTACT US AT LET-SCI@UWM.EDU

L&S ACTING DEAN: NIGEL ROTHFELS

IN FOCUS EDITOR: DEANNA ALBA



FIND US AT UWMLetSci

Geography student’s summer internship makes an impact at Revitalize Milwaukee

This summer, Klaudia Rixmann met a mother and son who were in desperate need of a wheelchair ramp. The adult son needed a wheelchair to get around after a surgery left him unable to walk on his own. He moved in with his mother so that she could assist with his day-to-day care. But their Milwaukee home had a series of steps leading up to the front door. “Every time the son needed to leave the home, his mother had to collapse the wheelchair, bring it down the stairs, open the wheelchair back up, and then support her son down the stairs and back into the wheelchair,” Rixmann said. “Coming home, the same thing again. They did this every single time the son needed to leave the home.”

So, she and coworkers decided to do something about it. Rixmann is a summer intern at [Revitalize Milwaukee](#), a nonprofit that helps low-income seniors, veterans, and disabled people in the city make crucial repairs to their homes. Rixmann encountered the organization while she was researching a project for one of her geography classes – she is double-majoring in geography and German – and was so taken with their mission that she asked the CEO if she could sign on as an intern over the summer.

“I was very clear – I don’t have any construction or building experience, so I can’t help with that,” she laughed. Instead, Rixmann has worked in the company’s headquarters, assisting with marketing, fundraising, outreach and education. She answers phone calls from home owners in distress and helps them to file applications and paperwork, as well as conducts site visits to determine what renovations might be needed.

That is a crucial part of the program, because “a lot people have been living in their situations for years and



Klaudia Rixmann works Aug. 13 at Block Build MKE 2022, a home repair event that included Revitalize Milwaukee. (UWM Photo/Elora Hennessey)

they don’t realize it’s unsafe or unhealthy,” Rixmann said. “We had people living for a number of years without electricity, and they’ve just gotten used to that. They’ll call us about a broken stair, but not the fact that they don’t have electricity.”

On the home visits, she said, she gets to interview the potential clients and learn about them and their families. Developing that rapport helps people gain trust in the organization and helps Revitalize Milwaukee understand what repairs the home might need.

“A lot of these homeowners, all they have is Social Security. They still have to buy food and pay utility bills,” Rixmann noted. “Almost every month, they’re facing a choice of, do I buy my medication this month or do I pay my utility bill or do I skip on my mortgage? And so, they do not have the capacity to save for a \$10,000 wheelchair ramp or other repairs.”

Rixmann was drawn to geography, and urban geography specifically, because she was looking for ways to address the local problems she saw around her in Milwaukee. Lack of affordable housing and dangerous conditions like lead paint and lead pipes are issues that affect a number of Milwaukeeans, especially the city’s Black residents.

“You can clearly see on a map based on income or race, there are very clear lines in Milwaukee. There are huge disparities. Redlining really shaped the urban landscaping of Milwaukee,” Rixmann, who is white, explained. “Revitalize Milwaukee tries to bridge those disparities.”

But it’s one thing to learn about redlining and racial covenants in a geography classroom, and another to see their effects on the city’s streets. And it’s a lot different to learn about a problem academically than it is to solve it practically. Rixmann said one of the most valuable things about her internship has been learning to take the concepts that she’s learned at UWM and apply them.

“I realized that you need that business side of it. You need that more realistic, technical side,” Rixmann said. “Last week, we had a ‘Block Build’ where we had to rehab 23 homes in one day. How do we organize that? What coordination do you need, what marketing? I think it’s been awesome to learn those skills.”

And, she added, it’s been rewarding to see how she and Revitalize Milwaukee have helped make a difference in people’s lives - starting with a wheelchair ramp.

By Sarah Vickery, College of Letters & Science

Revitalize Milwaukee’s Impact

3,000 homes repaired since 2006

400+ homes to be repaired in 2022

\$1,880 average monthly income of homeowners

\$22 million invested in repairs since 2006

25,000 hours of volunteer time invested in Milwaukee

[Source](#)

Journalism alum would like to thank the Academy - and UWM

Josh Rosenberg was eating Thai food on his couch when he won an Oscar.

The award, in the “Best Short Documentary” category, was for Breakwater Studio’s film “The Queen of Basketball.” Rosenberg was the project’s Head of Production, but as tickets were limited, he stayed home to watch on television while the film’s director, **Ben Proudfoot**, attended the Academy Awards ceremony.

The couch was comfortable. The Thai food was tasty. And then, on the TV screen, Proudfoot was called to the stage to accept a statuette.

“It was just very surreal,” Rosenberg recalled. “It was a really proud moment to see, to (come from) such humble beginnings to now all of a sudden seeing Ben up there winning an Oscar. It was just incredible.”

Humble beginnings

Rosenberg’s humble beginning started in Green Bay, Wisconsin, where his high school had a partnership with Time Warner cable. Using equipment purchased with a grant from Time Warner, he studied video production – both filming and editing. When it was time for college, he looked for a school that had a good broadcast journalism program so he could keep on filming.

He found one in UWM, and then he found Mark Zoromski.

“You get a couple of great teachers in your life. I met Mark Zoromski literally on a campus tour,” Rosenberg recalled. Zoromski, now the director of student media at Marquette University, used to teach broadcast journalism in UWM’s Journalism, Advertising, and Media Studies program. He also ran PantherVision, a student-produced cable newscast.

“He is the most impassioned journalist,” Rosenberg said. “One thing that has always stuck with me from my time in the Journalism Department and working with Mark was being able to tell a story that can connect with an audience. That’s something I’ve always held onto.”

Rosenberg interned with news organizations like WUWM, but he was frustrated that traditional journalism didn’t allow him to delve into a story as deeply as he wanted. He toyed with the idea of becoming a filmmaker – and when he graduated in 2007 into a shaky job market, “I did a super lucrative move that my parents were really excited about: Self-financing an independent feature (film),” Rosenberg laughed.

The experience led to bigger things. Rosenberg met a fellow filmmaker named Scott Foley on set, and the two decided to seek their fortunes in Chicago after they wrapped up their feature film, “Tracks.” Eventually, Rosenberg found himself working for Oprah Winfrey’s production company Harpo, and later with the Oprah Winfrey Network in Los Angeles. Over the years, he completed shoots with names like Steven Spielberg, Michelle Obama, and Dwayne Johnson.

He and Foley also kept working on their own films. They co-wrote a film called “Jessica” – Foley directed, Rosenberg produced – and entered it in the Phoenix Film Festival in 2016. There, they met Ben Proudfoot, himself a filmmaker with a vision: Proudfoot wanted to create a studio that produced great content while giving filmmakers a safe place to test their craft.

So, Proudfoot founded Breakwater Studios in 2012 and hired his friend Rosenberg as the Head of Production in 2018. Breakwater Studios has two lanes: Brand filmmaking, where the studio works with select brands to tell humanistic stories, and original short documentary films. The studio was nominated for an Academy Award in 2021 for the film “A Concerto is a Conversation.”



Josh Rosenberg shows off the Oscar statuette that Breakwater Studios won for “Best Short Documentary” for the film “The Queen of Basketball” at a party the day after the Academy Awards. Rosenberg, a UWM graduate who majored in Journalism, Advertising and Media Studies, is the Head of Production at Breakwater Studios. Photo courtesy of Josh Rosenberg.

Then, in 2022, their film “The Queen of Basketball” also received a nomination – and a win.

The Queen of Basketball

“**The Queen of Basketball**” tells the story of an overlooked legend. Lusia “Lucy” Harris scored the first basket

in women’s Olympic history and remains the only woman to ever be officially drafted to the NBA.

“We were like, how is she not on billboards and how is she not on the lips of every sports fan in America? So, we knew we just had to tell the story,” Rosenberg said.

The film drew some big names as executive producers, including Shaquille O’Neill and Stephen Curry. The documentary is a long interview with Harris herself, who tells her story with aplomb. The narrative is overlaid with archival shots of Harris’ basketball days. That footage was an incredible find. Proudfoot and his cinematographer, Brandon Somerhalder, went to Harris’ old college and found boxes upon boxes of undeveloped photographs from basketball games from the mid-70s.

“We were able to get that restored and fully scanned,” Rosenberg said. “That’s always kind of the holy grail of filmmaking. It’s like giving a little gift back to the world, in a way. This stuff hadn’t been seen for years and years.”

The archival shots and Lucy herself charmed audiences – enough that “Queen of Basketball” ended up on the Academy Awards nomination list and won the Oscar. Unfortunately, Harris passed away unexpectedly in January. Proudfoot invited her children as his guests to the Academy Awards ceremony.

The day after their win, Rosenberg said, the studio held a big party and passed around the statuette. Then, Proudfoot stood up and announced that just because they were Oscar winners, didn’t mean they could rest on their laurels or treat anyone differently. They are still in the business of producing quality documentaries.

Rosenberg’s next projects include the Breakwater Studios film “The Best Chef in the World,” which just premiered at the Telluride Film Festival and will get a release on *The New York Times* Op-Docs later this month. Also available for rent or purchase is the Wisconsin-made “Small Town Wisconsin,” which Rosenberg produced along with Scott Foley, Wisconsin native Niels Mueller, and Oscar winner Alexander Payne.

By Sarah Vickery, College of Letters & Science

A Packers Documentary Dream

If Josh Rosenberg could make a documentary on any subject, he said that he would revisit a childhood memory:

“I grew up in Green Bay, and, shocker, I’m a huge Packer fan.

“From the age of 10-14, I was a Packer Bike Kid. This was a tradition that started with Vince Lombardi in the ‘60s. All of the neighborhood kids in Green Bay would give their bike to a player and they would ride them from the locker room down to the practice field during training camp. Back then, you had a player and you “rode” that player for the entire year. I had this guy named Dorsey Levens, who was a running back.

“Now it’s a big business where the kids get a ticket and they can ride one time down to the field. But for us, Dorsey came over to my house and met my parents. That was just such a special thing.

“I want to be able to share that story and that special piece of the Packers.”

Channeling model behavior: Mathematics prof wins NSF grant

Electrically charged ions like sodium, potassium, and calcium are essential for the body's cells to perform their functions. But, cells are surrounded by an impermeable barrier made of lipids, or fats. There are channels in the cell wall that ions may pass through to cross that barrier and make their way inside the cell.

In the cell there is an organelle called a mitochondrion. If you think back to high school biology class, you may remember that mitochondria are the "power houses" of the cell. Mitochondria produce a molecule known as ATP, which provides the body energy for functions like muscle contraction, cellular signaling, and protein synthesis.

To do that, mitochondria need ions, and to get inside the mitochondria, the ions must pass through another ion channel. Known as VDAC (voltage-dependent anion channel), this channel is much different than regular ion channels in the cell membrane. A regular ion channel is specific to one kind of ion. In other words, only a sodium ion can pass through a sodium ion channel, and only a potassium ion can pass through a potassium ion channel. But the VDAC allows multiple ionic species to pass through – and even small molecules like ATP.

"You also have to consider multiple ionic species that have different ionic sizes. How are you going to simulate these particles across the channel?" mused Dexuan Xie, a professor of mathematical sciences at UWM.

That's the question that Professor Xie and his collaborator, Professor Ranjan Dash from the Medical College of Wisconsin, will answer with the help of a new, \$600,000 grant from the [National Science Foundation](#) (NSF) awarded on July 13, 2022.

The grant is titled, "DMS/NIGMS 1: Collaborative Research: Advanced Ion Channel Modeling and Computational Tools with Application to Voltage-Dependent Anion Channel and Mitochondrial Model Development." Xie is collaborating with Dash to build computer models that will simulate how ions move through the VDAC and how the properties of those ions impact the function of the mitochondria.

Solving this problem could result in solving a host of other problems. According to Xie and Dash's grant proposal, "mitochondrial dysfunction ... plays a critical role in the pathogenesis of numerous human maladies, including cardiac ischemia-reperfusion injury, heart disease, hypertension, diabetes, cancer, aging, and neurodegenerative diseases. Therefore, alleviating mitochondrial dysfunction through targeted interventions would curb the progression of these diseases and attenuate their severities."

In other words, understanding how VDACS impact the mitochondria may help researchers discover treatments or even cures for diabetes, heart disease, cancer, and many other illnesses.

Building a model

Constructing a computer model of a VDAC is a challenging feat because very little research has been done into this area.

In addition, the current methods of computer modeling ion channels won't give an accurate picture of how a VDAC might function because they do not take into account "any atomic charge, ionic charge, ion size,

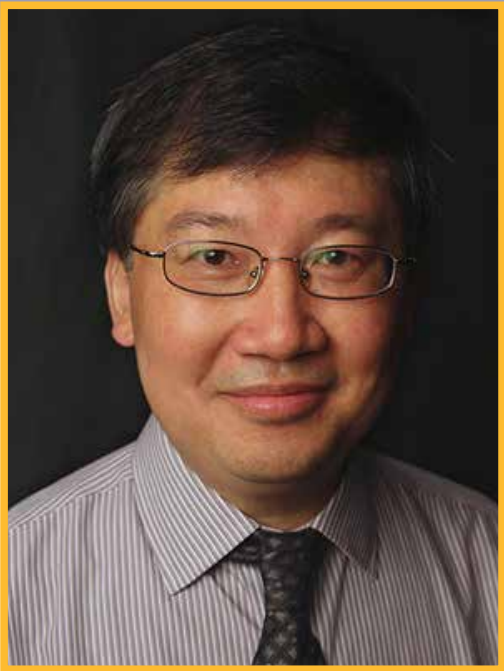
or membrane protein molecular structure," according to Xie and Dash's grant proposal.

That's a problem because computer modeling relies on mathematical calculations for accuracy. Using the simulation data derived from specific equations, the computer can generate images of how a VDAC functions – impressive given that these functions are carried out on an atomic level.

Over the past five years, Xie has developed increasingly efficient modeling methods to generate models of cellular ion channels. His work has been based on what is called either a Poisson-Nernst-Planck equation or a Poisson-Boltzmann equation, so named for the types of equations used to produce the data the computer needs to generate a vivid image of ion transport across a membrane via an ion channel.

That works well in regular channels because ion channels have few variables. "These channels have a select function and only allow one kind of ionic species through and block others," Xie explained. He was actually halfway through a five-year, \$42,000 grant awarded by the Simons Foundation to build ion channel models when he was awarded the NSF grant. He will continuously carry out this project in the coming three years under the support of a gift grant (a total of \$8,400 per year) that he received from the Simons Foundation on Sept. 1.

But modeling VDACS involves many more variables because a VDAC allows multiple types of ionic species and small molecules like ATP through the channel. So,



Dexuan Xie

Xie decided, he will have to develop more equations to account for those extra variables. The result will be a "nonlocal Poisson-Nernst-Planck-Fermi" model, or NPNPF for short.

What does NPNPF mean?

- **Poisson Equation:** This equation calculates the potential field caused by electrical charges – important, as ions from a solution and atoms from a protein molecule are electrically charged particles.

"That's a fundamental equation when you consider any electrostatic potential modeling," Xie said. "The Poisson-Boltzmann equation calculates the distribution of the ions in an equilibrium state," Because the ions are moving, they are unequal. That's widely described as the transporting movements of the ions, and they cause the electrical current. A Nernst-Planck equation is a powerful tool to model a non-equilibrium state of ions."

- **Nernst-Planck Equation:** This equation is used to describe how charged ions move within water. It addresses the concentration of ions in water outside of an ion channel subject to an electric field.

However, the Poisson-Boltzmann equation assumes that the water molecules outside of an ion channel are uniform.

"But under an electrical field, water molecule distribution will be changed," Xie noted. Because an electrical field is not uniform, some areas are stronger and some areas are weaker. ou cannot use one constant to describe this dielectric property. That's why the equation must be...

- **Nonlocal:** "It means each water molecule is correlated to all other water molecules. That's nonlocal. Local means that you're only related to yourself. Nonlocal means that each one is related to others," Xie said.
- **Fermi:** "Fermi is another kind of equation. (It) allows us to treat ionic size problems," Xie said. That will address the different sizes in sodium ions versus potassium ions versus ATP versus the other molecules that can be transported across a VDAC.

[Continued on Page 8](#)

Ion channel modeling

[Continued from Page 7](#)

“When you combine that all together, we are going to develop new kinds of channel models that I consider nonlocal electric forces,” Xie said.

“The more equations, the higher the resolution of the computer model, and the more accurate the model will be,” he added.

Applications beyond mitochondria

This grant represents the [fourth major NSF grant](#) Xie has been awarded during his tenure at UWM. His work tends to build; with each passing project, Xie discovers new ways to make computer modeling more efficient and more accurate.

Like his other work, Xie anticipates that this grant project will lend itself to other useful applications. After all, he noted, “all of these techniques or numerical algorithms can be adapted to other situations. The models, the equations were the same; we just changed the meaning of the functions.”

For example, Xie and Dash anticipate that their work might have applications for scientists studying the transport of electrons in semiconductors and ion transports in lithium ion batteries and fuel cells.

Or there might be applications in creating anti-viral drugs for diseases like COVID-19. Xie and Dash are hopeful that their work in electrostatics might shine light on exactly how the virus enters a cell, in hopes that they can identify parts of the virus that might be a good candidate to be targeted by new medicines.

The NSF grant is funded through 2025.

By Sarah Vickery, College of Letters & Science

Geosciences student is a beach ambassador



Beach ambassadors Mikayla Walker and Gavin Schmidt at the lakefront, getting ready to start their day at the beach. (UWM Photo/Elora Hennessey)

Three UWM students have an office with one of the best views in Milwaukee.

As beach ambassadors, Mikayla Walker, Gavin Schmidt and Chris Giddens patrol Bradford and McKinley beaches along Lake Michigan from Thursday through Sunday afternoons.

The beach ambassadors, wearing matching blue T-shirts, educate visitors about potential dangers and encourage them to enjoy the lake while being aware of its hazards.

The program is a response to the four drownings on McKinley Beach in 2020 and 56 overall in Lake Michigan that year. A shortage of lifeguards has made the situation worse.

The beach ambassadors aren’t lifeguards, but try to keep people safe by offering information and advice about water conditions and safety. For example, many beach visitors aren’t aware that when red flags are flying, it’s not safe to go into the water because of dangerous currents and high waves.

The beach ambassador program was organized in 2021 as a pilot program by Milwaukee Riverkeeper, Milwaukee Water Commons, Milwaukee Community Sailing Center, Coastline Services LLC and the University of Wisconsin Sea Grant Institute. That pilot effort was renewed this summer.

Walker, a senior in geology, saw a department email about the program and thought it was a good fit with her interests. She’d previously done undergraduate research studying fossils deposited along the lakeshore in a park near Cudahy.

“We want people to have fun, but stay safe,” Walker said. She feels a special responsibility to reach out people of color who may not have had early opportunities for swimming lessons or safety courses. She noted that all four drowning victims at the beach last year were Black. “As a person of color, I feel it’s particularly important to reach out to them whenever possible.”

By Kathy Quirk, University Relations

UWM microcredentials offer specific skills in nonprofit management ‘a la carte’

When it comes to continuing education in the field of nonprofit management, the No. 1 skill training that professionals are looking for is fundraising.

That may seem odd, since the need is largely coming from people already employed in the field, said Bryce Lord. But many people working in nonprofits need to learn a specific skill to fill a knowledge gap.

“People in the nonprofit field may come to it from all walks of the workforce,” said Lord, associate director of UWM’s Helen Bader Institute for Nonprofit Management. “They may have a degree in something different, like an MBA or a bachelor’s in an unrelated field.”

Eight important skill areas

Beginning this fall, UWM will be offering microcredentials in eight sought-after skill areas of nonprofit management. To earn a microcredential in Nonprofit Management, students take a cluster of three courses focused on a specific topic. This cluster can be completed in a year to a year and a half. Completion comes with a badge that can be used on a resume or LinkedIn account as evidence of competency.

“This is a way for people to get training in a much more concentrated form without having to make a larger investment, in a longer time frame,” Lord said. “The microcredentials are creating an ‘a la carte’ system for learners.”

The inspiration for microcredentialing grew out of a demand by students and employers for shorter, more competency-based learning experiences, said Phyllis King, UWM associate vice chancellor for academic affairs.

These microcredentials are designed for working people who have not attended college, current college students and those who have completed a degree. For those without a degree, the credits earned from completing a microcredential could count toward a formal degree later, dependent upon the specific program requirements.

“The use of microcredentials could translate into better jobs, higher starting salaries and faster promotion by making a learner’s qualifications clear and transparent to employers,” King said.

Marketing, innovation, technology

Besides fundraising, UWM will offer microcredentials in seven other nonprofit-specific skill areas: nonprofit governance, nonprofit advocacy, nonprofit financial management and accountability, nonprofit marketing,



Bryce Lord, associate director of the Helen Bader Institute for Nonprofit Management, says that microcredentials are quick route to specializing in a specific skill. (UWM Photo/Elora Hennessey)

nonprofit innovation, nonprofit technology and nonprofit administration.

For this pilot program, students with a bachelor’s degree [can apply as non-degree students](#) without committing to a full graduate degree. No letters of recommendation or GRE scores are needed to enroll in this master’s-level microcredentialing program.

New undergraduates [can also be admitted as “non-degree/guest students”](#) to enroll in the microcredential courses.

Can apply toward a degree

The nonprofit microcredential carries nine college credit hours that can be used toward a master’s degree in nonprofit management or a 15-credit certificate in the discipline, Lord said. Students enrolled in either program could structure their coursework so that they simultaneously complete a microcredential badge with their degree or certificate.

UWM will be creating microcredentials in other academic departments, with a goal of offering 20 to 30 microcredentials in various disciplines within the next two years, King said.

According to UWM surveys, undergraduate students were most interested in microcredentials in information technology, health, business and social work, she added. Graduate students had similar responses, but with the addition of leadership and diversity.

By Laura Otto, University Relations

Clayborn Benson: An alum, and a history student again

You can never learn enough about what history has to teach you.

That’s why 73-year-old history graduate student Clayborn Benson, who leads the Wisconsin Black Historical Society and Museum, is still educating himself and others.

“Mentally I wasn’t ready before, but I’ve been back for a year and a half and I’ve been blessed to receive mostly A’s,” he said. “I take one course per semester, and I’m able to manage that one course.”

Benson retired from WTMJ in 2007 after 39 years (1968-2007) as a video journalist, and still works five days a week at the Wisconsin Black Historical Society’s Museum at 2620 W. Center Street.

He is used to juggling many roles.

While working as a news cameraman, he decided to improve his skills through a photography training program at Milwaukee Area Technical College. Then mid-career, after years of covering events all over Milwaukee and around the world, he decided to come to UWM to earn his bachelor’s degree in fine arts in film in 1987.

Sparking an interest in history

In working on that degree, Benson received a grant to do a three-part series, “Black Communities,” on the history of people, communities, housing and migration in Wisconsin. (It is still available on the museum [Facebook](#) page and through the [Milwaukee Public Library](#).) That experience sparked his interest in history and a desire to collect and preserve the widely scattered documentation of the Black experience in Wisconsin.

For the past 35 years, Benson has been sharing that history through stories on social and public media, presentations to community groups as well as celebrations, exhibitions and events at the museum. (Most recently the museum was the site for the announcement of Milwaukee’s first Black female assistant fire chief, Sharon Purifoy-Smooths.)

He has received numerous awards for his work as both a visual journalist and historian. He was honored at a Milwaukee Bucks game during Black History Month this year and featured in the Milwaukee Journal Sentinel’s [“Difference Maker” series](#).

From the time he was a youngster hanging out in a barbershop to now, Benson has always enjoyed telling stories. His work now gives him the opportunity to talk about the individual experiences of Black people as well



Clayborn Benson is the founding director of the Wisconsin Black Historical Society and Museum at 2620 W. Center Street. (UWM Photo/Elora Hennessey)

as larger stories of events that have shaped Milwaukee and Wisconsin history.

An important resource

With the help of his daughter, who works there full-time, and volunteer staffers, the Wisconsin Black Historical Society and the museum have become a go-to resource for students and scholars, the media and others interested in learning more.

Benson is particularly interested in reaching out to schools and students to pass on what he and other elders have learned to the next generation. Among the many activities the museum offers are genealogy sessions for young people.

He advocates for the university to get even more involved with elementary and high school students, particularly in urban schools. He has faith in these students’ abilities to overcome challenges.

“There’s nothing any one of those kids can’t get over and learn how to do.”

Step by step

He bases that optimism on his own life experiences. “I would be embarrassed to tell you what my educational levels were. It took a great deal of work to raise my levels so I could be a good student in school.”

His experiences at UWM and the support of family have helped him educate himself and others. That’s why he continues to work toward a master’s degree — one semester at a time.

“I have to say my real identity and understanding of who I am has come out of my learning here at UWM. My readings have really helped me get a clear understanding of the choices I’ve made in my life and what I want to devote my life to. All good things come out of education. It totally changed my life, not only the way I see myself, but it empowered me.”

By Kathy Quirk, University Relations

Art history professor receives distinguished designation

Three faculty members have been named [UWM distinguished professors](#) by a panel of current faculty holding that title. The addition brings the current active number in this prestigious group to 24.



Derek Counts

Derek Counts, in the College of Letters & Science, Deyang Qu in the College of Engineering & Applied Science, and Belle Rose Ragins in the Lubar College of Business received the honor.

At the pinnacle of their careers, UWM distinguished professors have had significant impact on their fields of study, remarkable productivity and international reputations.

Derek Counts is professor of classical art and archaeology in the Department of Art History in the College of Letters & Science. Funded by the National Endowment for the Humanities and National Science Foundation, he is an expert in the archaeology of Greece, Cyprus and the eastern Mediterranean and has published extensively on ancient sculpture, religion and social practice.

Counts is co-director of the Athienou Archaeological Project in Cyprus, where he has been excavating for three decades. He and his collaborators are working at the forefront of the digital turn in archaeological practice and publication. He co-edited “Mobilizing the Past for a Digital Future” (2016), which explored the impact of emerging mobile technologies in lab/fieldwork. In 2020, he co-authored “Visualizing Votive Practice: Exploring Limestone and Terracotta Sculpture from Athienou-Malloura through 3D Models,” about leveraging 3D visualization technology to provide scholarly, open access to sculptures excavated by his team in Cyprus.

On the faculty since 2002, Counts was awarded the 2020 UWM Faculty University Distinguished Service Award.

By Laura Otto, University Relations

Meet the new faculty in the College of Letters & Science



Alita Burmeister
Associate professor,
Biological Sciences

PhD 2016, Michigan State

Previously a Postdoctoral Research Scientist at Yale

Research focus: Microbiology and Evolution

Research discoveries: I research bacteria, which are cell-based organisms, just like people are. And just like our cells can be infected and killed by viruses, so can bacterial cells. My research has uncovered a way that these viruses might be alternatives to antibiotics.

Current projects: My new lab is up and running at UWM! Two students and I are researching a new virus that infects bacterial cells. We are using this virus to understand bacterial evolution, including changes to antibiotic resistance.

Goals for the year: I'm excited to mentor students, grow my lab, and have fun discovering something new.

Fun Fact: After accepting this position, the first new gear I got was a pair of snow shoes. I'm working on hiking all of Milwaukee County Park's 170 miles of trails, many hopefully in winter.



Mark Freeland
Associate professor,
Anthropology

PhD 2015, University of Denver and the Iliff School of Theology

Previously an Assistant Professor of American Indian and Indigenous Studies and Co-coordinator of the American Indian and Indigenous Studies Program at South Dakota State.

Research focus: My primary research focus is American Indian, and specifically Anishinaabe, worldview and cultural theory.

Research discoveries: I demonstrate a repeatable methodology to use worldview as part of a test for translating our indigenous languages.

Current projects: I am working on a manuscript which uses this linguistic methodology to critique contemporary educational and disciplinary language of history, religion, sovereignty and status as nations. I am also working towards a public facing humanities project to document the integration of indigenous languages and indigenous lifeways in educational praxis.

Fun fact: While I am not on social media, the one exception is Strava, a cycling app where you can compete against others on the same segments of road. I, sometimes neurotically, work to be the fastest (have the "King of the Mountain title) on certain sections of the road.



Polymnia Georgiou
Assistant professor,
Psychology

PhD 2015, University of Surrey (UK)

Previously a Maria Skłodowska-Curie fellow at University of Cyprus

Research focus: My research focuses on the investigation of hormone-based mechanisms underlying depression and drug addiction.

Research discoveries: I discovered that the increased stress susceptibility in hypogonadal males is not due to the absence of testosterone but due to the absence of estradiol.

Current project: I am currently working on identifying epigenetic mechanisms that might be involved in hypogonadism induced stress susceptibility and depression.

Goals for the year: My goal is to kick off my lab, starting from hiring people and setting up the equipment and techniques for creating a vibrant environment.

Fun fact: I come from a small Mediterranean island, Cyprus, and after moving to several places I finally landed in Milwaukee.



Pamela Harris
Associate professor,
Mathematical Sciences

PhD 2012, UW-Milwaukee

Previously an Associate Professor of Mathematics at Williams College

Research focus: My research is in the area of algebraic combinatorics. I like to use combinatorial arguments and techniques to enumerate, examine, and investigate the existence of discrete mathematical structures with certain properties. I am particularly interested in problems related to the representation theory of Lie algebras, whose study intersects number theory via vector partition functions.

Research discoveries: One of my favorite results was generalizing the idea of lattice point visibility to power functions through the origin.

Current projects: I am currently working on a variety of parking function related projects, work in collaboration with a number of undergraduate and graduate students from across the country.

Fun fact: In 2012 I was ranked 10th in the state of Wisconsin for Jiu Jitsu, a hobby that began as a graduate student at UW-Milwaukee!



Ahmad Hosseinizadeh
Assistant professor, Physics

PhD 2010, Laval University (Canada)

Previously a Research Scientist at UW-Milwaukee

Research focus: My research centers around the understanding of structures and functions of biomolecules within the frameworks of data analysis, algorithm development, and machine learning methods.

Research discoveries: I have worked on algorithms that are able to determine three-dimensional structures and conformations of biological particles such as viruses and proteins using X-ray or electron microscopy snapshots. Extracting ultrafast structural changes of light-sensitive proteins from noisy and incomplete data is another aspect of my research.

Current projects: I am studying the structural dynamics of a photoreceptor protein using experimental data collected by X-ray Free Electron Laser technology.

Goals for the year: I plan to set up new research collaborations, and prepare and submit a research grant proposal.

Fun fact: I like hiking and visiting national parks around the world, and deserts are my favorite places to visit in nature.



Jeffrey Lopez Rojas
Assistant professor,
Psychology

PhD 2011, Otto von Guericke University Magdeburg (Germany)

Previously a Postdoctoral Researcher at Columbia University

Research focus: My research aims to understand the brain core mechanisms supporting social cognition, focusing on the entorhinal-hippocampal network and how alterations in this circuit result in impaired social behavior, intending to find more specific interventions to treat neuropsychiatric and neurodegenerative disorders.

Current projects: I am studying nature of the social information that the lateral entorhinal cortex encodes and relays to the hippocampus. These experiments will help elucidate the network mechanisms supporting social recognition memory and could open the door to therapeutic interventions in schizophrenia and other neuropsychiatric and neurodegenerative disorders.

Fun fact: I am a passionate amateur chess player. I became chess champion of the Magdeburg (Germany) in 2016 and a U.S. National Master in 2019.

New faculty

Continued from Page 13



Gabriela Nagy
Assistant professor,
Psychology

PhD 2017, UW-Milwaukee

Previously an Assistant Professor in the Department of Psychiatry & Behavioral Sciences, Duke University School of Medicine

Research focus: Mental health equity research, community-engaged research, and implementation science.

Research discoveries: Consistent with the existing scientific literature, immigrants tend to be healthier upon arrival to the U.S. compared to individuals born in the U.S. – a phenomenon known as the “Immigrant Paradox”

Current projects: My lab (the EQUITY Research Group) will be testing a psychosocial, skills-training intervention called “Cultivating Resilience” that is designed for helping immigrants and refugees from Latin America reduce immigration stress and increase resilience in the face of many structural and social stressors.

Fun fact: I obtained my PhD from UWM and I am excited to be a Panther again and to live in Milwaukee!



Jon-Marc Rodriguez
Assistant professor,
Chemistry & Biochemistry

PhD 2019, Purdue University

Previously a Postdoctoral Research Scholar & Visiting Assistant Professor at University of Iowa

Research focus: Our team conducts chemistry education research. Our goal is to help advance and support the chemistry community, especially individuals at the periphery such as emerging researchers/instructors and undergraduates interested in participating in science.

Current projects: Our group supports student engagement in research by providing opportunities for students to participate in research on our team and by investigating how we can create better learning environments for undergraduate researchers. Our goal is to support the development of broadly useful skills that can be applied in future careers. We support students in making intellectual contributions by analyzing data, reading academic journal articles, and writing. We are also interested in topics such as how students use equations when solving problems and how students construct and interpret graphs.

Fun fact: I enjoy walking and running along trails. I look forward to finding the best trails along the lake!



Arjun Saha
Assistant professor,
Chemistry & Biochemistry

PhD 2016, Indiana University

Previously a Postdoctoral Scientist at USC Los Angeles

Research focus: Through the lens of multiscale simulations, my research explores the molecular intricacies in biological processes (specifically motor proteins) and how they relate to complex diseases such as cancer and neurodegenerative diseases (e.g., Alzheimer’s, Parkinson’s, Dementia).

Research discoveries: Using multiscale simulation, I showed how electrostatics play a key role in the unidirectional translocation of misfolded proteins through the narrow channel of AAA+ motor inside proteasome, the recycle bin of the human body. Using computational enzymology models, I also elucidated the complex catalytic mechanism of protein degradation in the proteolytic center.

Current project: I am developing a holistic approach to understand the full spectrum of protein misfolding phenomena using novel computational biophysics concepts.

Fun fact: I love making pizza at home and feeding them to my family and friends in small gatherings.

Upcoming Events

September 16
Center for 21st Century Studies Open House. 2-4 p.m. Curtin 939. Visit the Center and engage with colleagues across disciplines. Students, staff, faculty, and community partners all welcome.

September 22
Center for 21st Century Studies: Healing Spaces Roundtable. 3-4:30 p.m. Curtin 175. Conversation leaders include Mishiikhenn Vern Altman (Electa Quinney Institute), Elizabeth Drame (School of Education), Adam Jussel (Dean of Students), and Kate Nelson (Office of Sustainability). An exhibition featuring local artists follows the conversation in Curtin 929.

September 29
Women’s & Gender Studies Lunch & Learn with Sharity Bassett. 11:30 a.m.-12:30 p.m. Curtin 181. “If you don’t want your stick touched, put it away”: Rematriation as Haudenosaunee Women’s Reclamation of Space in Lacrosse.” In person or join virtually via [Teams](#).

September 30
Planetarium Show: Constellations of the Zodiac - Libra. 7-8 p.m. Manfred Olson Planetarium. Delve into the astronomy and mythology behind the zodiac and learn more about the constellation Libra. [Tickets](#) are \$6 for the public and \$5 for UWM students. Shows are for ages 4 and up. Masks recommended.



Alumni Accomplishments



Karen Sasahara ('81, BA International Studies) was [nominated by President Biden](#) as Ambassador Extraordinary and Plenipotentiary to Kuwait. Sasahara is a career member of the U.S. Foreign Service and was most recently the Deputy Assistant Secretary of State for North Africa. She speaks French, Arabic, Spanish, and Russian and has won numerous State Department awards.

Rebekah Beaulieu ('05, MA Art History) was named the new president and CEO of the [Taft Museum of Art](#) in Cincinnati after a nationwide search. She is the current director of the Florence Griswold Museum in Connecticut and holds several positions on museum professional boards and societies.

Seth King ('09, PhD Physics), a professor of physics at UW-La Crosse, was recognized as the Carl E. Gulbrandsen Innovator of the Year by [WiSys](#). The award honors UW-System faculty, staff, or students who make exemplary contributions to education, research, and entrepreneurial thinking.

Evan Casey ('17, BA Journalism, Advertising, and Media Studies) joined [Wisconsin Public Radio](#) as a reporter. Through his previous experience with other news organizations in southeast Wisconsin, he has reported on topics like the opioid epidemic and the Waukesha Christmas parade attack.

Laura Sumner Coon ('09, MS Nonprofit Management) was appointed the executive director of the [Racine Literacy Council](#) and began work in August. She will carry out the organization’s mission of providing adult literacy services to those in need in Racine County. Sumner Coon has years of experience in equity and nonprofit work.

Luke Gavronski ('20, BA Journalism, Advertising, and Media Studies) was hired at New Jersey-based boutique public relations company [Violet PR](#) as an assistant account executive. He was previously an account coordinator at Conway PR & Marketing.

Matthew Wamser ('18, BA English) has joined the UWM Admissions Office as a marketing content writer. He previously interned in the University Relations office as a UWM student.

Ken Hunt ('06, BA History) has permanently taken over the head coach of [Brown University’s](#) track and field and cross country men’s and women’s teams after serving as the interim head coach last season. He had served an assistant coach for the team since 2012.

Tisia Muzinga ('16, BS Journalism, Advertising, and Media Studies) was hired as weekend morning anchor for Fox station [KDFW Dallas](#). She will also report for the weekday “Good Day” newscast. Previously, Muzinga was an anchor in Des Moines, Iowa.

Tony Atkins ('13, BA Journalism, Advertising, and Media Studies) joined the [WESH Newsroom](#) in Orlando, Florida, as a television reporter. He was previously a reporter for TMJ4 News.



In the Media and Around the Community

Hosting the Rebut Republican National Convention might be an economic boon for Milwaukee, but **Thomas Holbrook (Political Science)** told [WISN 12 News](#) that he doubted the RNC's location would sway voters.

A much-anticipated blooming of a corpse flower at UC Santa Cruz Arboretum failed to materialize in August. [Lookout Santa Cruz](#) quoted UWM greenhouse manager **Paul Engevold (Biological Sciences)** in explaining why the bloom aborted.



[Milwaukee Magazine](#) reported that J.R.R. Tolkien's manuscripts are on display at Marquette University this autumn, co-curated by **Sarah Schaefer (Art History)**. [CBS 58 News](#) also highlighted the collection and Schaefer's role curating it, as did [Spectrum 1 News](#) and [Wisconsin](#)

[Public Radio](#). Tolkien is the author of the "Lord of the Rings" book series.

The exhibit runs through Dec. 23 and can be viewed at Marquette University's Haggerty Museum of Art (1234 West Tory Hill Street, Milwaukee). Tickets are required for entry and can be purchased on the [Haggerty Museum's website](#). Tickets are \$10 for adults; \$8 for seniors and active military; and free for select groups.

No photography is permitted.

The [Christian Science Monitor](#) called on **Sara Benesh (Political Science)** to explain how the public views a seemingly increasingly political U.S. Supreme Court. She also spoke to [PBS Wisconsin](#) about abortion and its historical context in the Constitution.

Despite recent legislation aimed at combatting inflation, **Scott Adams (Economics)** told [CBS 58 News](#) that inflation will likely only be brought down if the Fed raises interest rates.

The [Milwaukee Independent](#) featured **Ben Hubing's ('21, MA History)** book detailing Wisconsin's historic fascination with politician George Wallace.

Graduate student **Kitonga Alexader (History)** is working on a [website](#) and app that details the history of Milwaukee's Bronzeville neighborhood. The [Milwaukee Journal Sentinel](#) reported on his efforts.

Jean Creighton (Planetarium) explained the mythology and the science behind the constellation Virgo on [WUWM Radio](#).

Any Republican nominee for the 2024 presidential election will need the aid of Fox News to convey their message, **Michael Mirer (Journalism, Advertising, and Media Studies)** noted in an article by [The Hill](#). The article was republished on [MSN](#) and [Yahoo! News](#).

A new book by Mark C. Crowley titled, "[Lead From the Heart: Transformational Leadership for the 21st Century](#)" (Hay House Business, 2022) quotes research by **Robert Schwartz (emeritus Philosophy)** on how the quantity of negative emotions versus positive emotions people feel throughout the day impacts how well they function.

Some may view President Biden's plan to forgive some college debts as an unfair advantage to people who have



Democrats should focus on issues beyond abortion, like poverty and crime, to entice Black voters, **Paru Shah (Political Science)** said in an [Associated Press](#) article reprinted around the country. She also commented on how Democrats and Republicans are vying for blue-collar voters in a report by [WUWM Radio](#).

graduated college, **Rebecca Neumann (Economics)** stated in an [MSN](#) article.

Noelle Chesley (Sociology) was a guest on the inaugural episode of the [High Volume Hiring Podcast](#) by Steven Rothberg. She spoke about the potential pitfalls of automated hiring systems.

David Hoeveler (emeritus History) was a guest on [Wisconsin Public Radio](#) to discuss his book on "John Bascom and the Origins of the Wisconsin Idea."



Laurels and Accolades

Ryan Shorey (Psychology) is co-principal investigator on a new, five-year, \$4.3 million grant from the National Institutes of Health titled, "An Innovative, Prospective Model to Understand Risk and Protective Factors for Sexual Assault Experiences and Outcomes among Sexual Minority Men." The project will investigate the sexual assault experiences of sexual and gender minority men and expand insight into victimization and related outcomes.

Yomarie Castellano (Center for International Education) and **Christine Wolf (Global Studies)** will be co-presenting at the NAFSA Region V Conference in Milwaukee, October 19-21. They will present on the creation and implementation of an IDEAS grant funded project, the team-taught course Global Studies 391, Black Lives Matter, A Global Comparative Study and a companion study abroad experience to the UK.

Philip Chang (Physics), Mahsa Dabagh (Biomedical Engineering), and Susan McRoy (Computer Science) have been awarded a three-year, \$500K grant to support summer school to teach computing for research problems. The program is aimed toward graduate students at UWM and will greatly enhance the level of computational sciences at UWM.

Pantherics, a startup founded by **Alexander Arnold (Chemistry and Biochemistry)** and **Douglas Stafford (formerly Milwaukee Institute for Drug Discovery)** received a \$255,841 Small Business Innovation Research grant from the National Institutes of Health. The award will support research into the company's anti-inflammatory drug, which may have use in treating asthma.

Shama Mirza (Chemistry and Biochemistry) received a \$538,699 Major Research Instrumentation grant from the National Science Foundation for the acquisition of a high-throughput, high-resolution orbitrap mass spectrometer to enable multidisciplinary research and education in Southeast Wisconsin.



Video Story



Jorge, a geosciences major from Illinois, says UWM's undergraduate research and leadership opportunities have built his confidence and his resume. Through the UWM Roberto Hernández Center, Jorge was nominated to participate in a program for underrepresented students in geoscience called Go Forward, which led to a mentoring position and an internship in his field.

Watch the video at <https://youtu.be/8P1ilXy00o>

In the Media, con't.

[WISN 12 News](#) reported that after a 21-year effort, a photograph has been found of every person listed on the Vietnam War Memorial Wall. Students from the UWM **Journalism, Advertising, and Media Studies** program found a photograph for every soldier from Wisconsin.

[The Geek Review](#) cited research by **John Heywood (Economics)** when it examined the pay disparity between male and female actors in Hollywood.



People in Print

Christopher Olson (graduate student, Media Studies). 2022. Blondie's Odyssey: The Homeric Journey and American Mythmaking in *The Good, the Bad, and the Ugly*. In [**The Good, the Bad, and The Ancient: Essays on the Greco-Roman Influence in Westerns**](#) (ed. Sue Matheson). Jefferson, North Carolina: McFarland.

Scott Adams, John Heywood (both Economics), Darin F. Ullman and Shrathinth Venkatesh. 2022. Social Jobs and the Returns to Drinking. [**Economics and Human Biology**](#), 46(101149), 1-12.

Robert F. Strzepek, Brook L. Nunn, Lennart T. Bach, **John A. Berges, Erica B. Young (both Biological Sciences),** and Philip W. Boyd. 2022. The ongoing need for rates: can physiology and omics come together to co-design the measurements needed to understand complex ocean biogeochemistry? [**Journal of Plankton Research**](#), fbac026.

Cecilia M. Casadei, **Ahmad Hosseinizadeh,** Gebhard F. X. Schertler, **Abbas Ourmazd (both Physics),** and Robin Santra. 2022. Dynamics retrieval from stochastically weighted incomplete data by low-pass spectral analysis. [**Structural Dynamics**](#), 9(4). Online.

Diandra Doppler, Mohammad T. Rabbani...**Ahmad Hosseinizadeh...Peter Schwander, Marius Schmidt,** Marc Messerschmidt, **Abbas Ourmazd (all Physics),** et al. 2022. Co-flow injection for serial crystallography at X-ray free-electron lasers. [**Journal of Applied Crystallography**](#), 55: 1-13.

Dimitrios Giannakis, **Abbas Ourmazd (Physics),** Philipp Pfeffer, Jörg Schumacher, and Joanna Slawinska. 2022. Embedding classical dynamics in a quantum computer. [**Physical Review A**](#), 105(5).

Ghoncheh Mashayekhi, John Vant, Abhigna Polavarapu, **Abbas Ourmazd (both Physics),** Abhishek Singharoy. 2022. Energy landscape of the SARS-CoV-2 reveals extensive conformational heterogeneity. [**Current Research in Structural Biology**](#), 4: 68-77.

Abbas Ourmazd (Physics), Keith Moffat, and Eaton Edward Lattman. 2022. Structural biology is solved - now what? [**Nature Methods**](#), 19: 24-26.

Junko Yano, Kelly J. Gaffney, John Gregoire, Linda Hung, **Abbas Ourmazd (Physics),** Joshua Schrier, James A. Sethian & Francesca M. Toma. 2022. The case for data science in experimental chemistry: examples and recommendations. [**Nature Reviews Chemistry**](#), 6: 357-370.

Joel Rast (Urban Studies). 2022. Urban Political Development and the Social Construction of Interests: The Case of Chicago's Dearborn Park. [**Urban Affairs Review**](#), 58(5): 1207-1233.

Sarah E. Riforgiate (Communication), Satoris S. Howes, Mathias J. Simmons. 2022. The impact of daily emotional labor on health and well-being. [**Management Communication Quarterly**](#), 36(3), 391-417.



UWM welcomed students back to campus for the start of the 2023-2024 year, and also said hello to the new first-year students. They met on the soccer field to take their traditional class picture.