THE KETTLE

Jessica Wojcik: I Wouldn't Change a Thing

The Second Set of Hands Saving Lives

Leaning into the Unknown of Artificial Intelligence

& More

FALL 2024 · UNIVERSITY OF MINNESOTA ROCHESTER ALUMNI MAGAZINE

FEATURED STORIES

ket·tle /ke-tᵊl/ *noun*

A term derived following field observations of hawks, "kettle" means a group of soaring raptors.

VIEW FROM USQUARE:
DEAR RAPTOR ALUMNI,

This fall, the UMR community welcomed students, faculty and staff back to campus at our annual Raptor Reconnect celebration. What a joy it was to connect with new Raptors and to imagine them flourishing in the future, like you!

One of UMR's Grounding Values continues to be on full display: **community**. We're not simply an institution of higher education, but rather, people connected by a common vision.

When many campuses across the country are consolidating or cutting, I'm so grateful that we have the opportunity to expand our academic programs, facilities and personnel to support future enrollment increases. Our innovative faculty, staff and leaders are currently exploring core questions as we continue to develop UMR's future: *How will we enhance our support of pre-med students? What might we create in digital health in conjunction with AI and Mayo Clinic's "Unbound" expansion? How might we further invigorate our preparation of students who will become mental health practitioners? And more.* In this issue you'll learn more about UMR's approval of our Campus Plan by the Board of Regents.

As we continue our Onward campaign, I encourage you to consider becoming a philanthropic partner. To pursue future expansion, we need passionate individuals like you to consider giving to the UMR food pantry or undergraduate research fund — or perhaps, together you could "crowd-source" a scholarship from the UMR Alumni Network.

I'm thrilled to announce that for the first time a UMR grad is serving on the University of Minnesota Alumni Association Board. Congratulations **Sarah Vang** and thank you for your service!

Now it's time to dive in and enjoy these stories of hope and inspiration. Your alumni peers are developing future health technologies, serving as a second set of hands for surgeons and experiencing transformed aspirations through service to the underserved.

I encourage you to update your contact information and share your news so that we stay connected as you continue to make us #UMRProud.

Onward, learning as we grow…

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ON THE COVER:
Jessica Wojcik '14 stands proudly with downtown Rochester as a backdrop reminiscing on her career that started in sonography and has now led her to medical sales and a patent-pending fertility tracking device.

@UMROCHESTER

University of Minnesota Rochester, 111 South Broadway, Suite 300, Rochester, MN 55904

Lilian Nwaokorie '23 presented her traditional Nigerian attire at the Mbano National Assembly (MNA) Youth & Young Adult Pageant. This attire, known as Isi Agu, is deeply symbolic in Igbo culture representing strength, power and pride.

SERVING THE UNDERSERVED WITH EMPATHY AND COMPASSION

Written by **KIMBERLY FRIEDLINE**

> I always had an aspiration to serve underserved communities. When granted the opportunity to serve in an area that I felt needed it the most, I couldn't let the opportunity pass me."

Lilian Nwaokorie's '23 path to medicine began when she was young. With several family members in the medical field, she knew that she would follow in their footsteps in some capacity.

Knowing that she was headed toward health care, she began to search for a school that would allow her to reach her career goals. "My cousin, who was a student at University of Minnesota Rochester (UMR), shared insights about the University's strong medical focus and its connections with Mayo Clinic. This led me to do my own research and I determined that UMR was the ideal choice to support my ambitions and future plans."

FINDING HER VOICE IN MEDICINE

Nwaokorie enrolled at UMR to pursue a Bachelor of Science in Health Science degree. Initially, her plan was to apply to medical school and become a physician. However, the plan changed after attending a career panel hosted by UMR. One of the panelists was a physician assistant (PA), whose description of their career and role in medicine grabbed Nwaokorie's attention. "I was particularly intrigued by the lateral mobility and interprofessional collaboration, as well as the autonomy the career provides," she said.

With a clear career goal in mind, Nwaokorie's focus was set and supported by her classmates, mentors and professors. "My friends were a crucial part of my undergraduate experience, providing support and a shared mindset and focus on our goals," she explained. "While we had similar experiences, our diverse backgrounds offered unique perspectives that enriched our understanding of many aspects of school." One particularly enriching experience was planning and seeing to fruition the creation of the Black Student Union (BSU). BSU developed and planned events for the campus community, hosted discussions about shared experiences between students on campus and initiated other impactful events. "We all contributed to founding BSU, and the laughter and memories we created together continue to resonate with me to this day."

A LIFE-CHANGING MISSION

After graduation in 2023, Nwaokorie took a gap year before beginning PA school. "I took some time to work as a certified nursing assistant and to shadow PAs. Also, during this gap year I participated in a medical mission to give back to my community." This medical mission in Mbano, Nigeria, strengthened her commitment to serve and advocate for underserved communities both in the U.S. and abroad.

"I always had an aspiration to serve underserved communities. When granted the opportunity to serve in an area that I felt needed it the most, I couldn't let the opportunity pass me. My family is from Nigeria. I would see and hear about poverty and I was determined to be a part of giving back." Her connections through the Mbano National Assembly (MNA) introduced her to the idea of a medical mission, which they have hosted annually for more than 15 years. In early 2024, Nwaokorie had the opportunity to join the annual mission.

"During the medical mission, health care services are provided to the local underserved areas for free. Some of the amazing medical services include: C-sections, fibroid removal, malnutrition treatment, preventative care through immunizations and many more. All this is done through the service and dedication of volunteer medical health care professionals from the U.S. and Nigeria, such as doctors, nurses, nurse practitioners and non-medical volunteers who come together to provide essential treatments, surgeries and diagnostic services. The mission aims to make a lasting difference in the lives of those who need it most."

This experience was a profound insight into the daily circumstances that those in the area of Mbano lived. "I witnessed firsthand the dire need for accessible health care. Within this rural region, a vast number of citizens find themselves in the grip of poverty, which is not merely a concept but a harsh reality that dictated their daily existence. Basic necessities such as food and clean water were often luxuries, let alone the ability to afford medical treatment. This medical mission was not just an opportunity for health care, but a lifeline in the face of adversity."

In addition to assisting with medical care, Nwaokorie had planned a mission of her own. "Before my journey to Nigeria, I held a fundraiser event to help purchase essential items for the citizens, more specifically the youth in the area. Items included soap, deodorant, toothbrushes, toothpaste, menstruation materials, clothes, diapers, food, snacks, water, etc. All these items were distributed."

Things that are easily accessible and often taken for granted in the U.S. became so much more. "Seeing the excitement on the children's faces as they received these simple yet invaluable gifts solidified the impact of our collective efforts and will be a memory I'll cherish forever. The distribution of feminine products to the young girls stood out to me as a particular impact. In a society where resources are scarce, many girls have been forced to endure the challenges of their menstruation cycle with makeshift solutions like folded tissue paper or, in some heartbreaking cases, nothing at all." Nwaokorie not only distributed the much-needed menstrual products, but also provided crucial education on their use. One of the girls later approached her to express her gratitude. To this young woman, "this was not merely an action of providing basic necessity, but restoring her sense of dignity, alleviating her discomfort and empowering her to navigate a natural aspect of womanhood," Nwaokorie explained. "This heartfelt exchange resonated deeply within me, reaffirming my commitment to serving underserved communities with compassion and empathy."

"The rigorous course load at UMR definitely helped prepare me for the course load at PA school... UMR created a space where I could try out different studying strategies and set me up with a mindset of resilience, which I know will aid in my success in PA school."

BECOMING PART OF THE SOLUTION

After this impactful mission trip, Nwaokorie returned to the U.S. and began PA school in Chicago. While this new educational undertaking is challenging, it is one she feels well-prepared for. "The rigorous course load at UMR definitely helped prepare me for the course load at PA school. PA school is harder, however UMR created a space where I could try out different studying strategies and set me up with a mindset of resilience, which I know will aid in my success in PA school."

Looking to the future, Nwaokorie hopes to stay in the Chicago area to start her career as a PA, where she plans to continue working with underserved communities. "Recognizing the hardships underserved communities face has inspired me to be a part of the solution in combating those barriers." With her strong advocacy for the underserved and deep-rooted compassion and empathy leading the way, Nwaokorie is sure to be part of the solution. ■

During Nwaokorie's gap year after graduating in 2023, she participated in a medical mission to Nigeria where she distributed essential items to rural, impoverished communities. This included items such as diapers, pads, bottles, food and clothing provided to expecting mothers to care for their newborns. She posed in her Miss Mbano sash from her win of the Miss Mbano 2023 title at the MNA Youth & Young Adult Pageant.

ANALYZING DATA FOR IMPROVED PATIENT OUTCOMES

Written by **FELICIA SCHNEIDERHAN**

You go where you feel a connection — and for Dawood Al Dawood '23, UMR just felt right.

In 2021, Al Dawood was visiting Rochester for 10 days for medical purposes. An undergraduate student in biology at the University of Alabama, he recalls feeling an immediate connection to the Rochester area. "I think what attracted me to the city is that it's not crazy-busy like big cities, and also the calmness of the downtown and most places. The traffic does not last more than 30 minutes, and it has some historical and natural attractions to see and explore."

When he first arrived at UMR, he had no specific career plan in mind. Center for Learning Innovation (CLI) courses helped him find his strengths and how he might apply them.

"I was impressed by the opportunities UMR offers and the flexibility," he said. "I was amazed when I learned about the great level of cultural diversity and how differences are embraced and celebrated on campus. It is a small campus yet it has the potential to draw the big picture of its students' academic lives."

A key experience was the Special Research Student (SRS) program and his involvement in a research project at the department of nephrology at Mayo Clinic for two semesters. "I learned a great deal and acquired many critical skills that are crucial in the field of research, especially the wet lab setups."

He earned his Bachelor of Science in Health Sciences in 2023, but he wasn't done yet.

Al Dawood is now in the final stretch to earn a master's degree in bioinformatics and computational biology (BICB) in December.

Established in 2007, BICB is a collaborative academic and research graduate program that advances informatics and computation through interdisciplinary education. It unites health sciences, biosciences, engineering and technology with many University of Minnesota departments and Mayo Clinic, National Marrow Donor Program, IBM, Hormel Institute and more.

> What is most meaningful to me about patient care today is the ability to contribute to personalized medicine. By analyzing vast amounts of genetic and epigenetic data, I can help develop tailored treatment plans that are specifically designed for an individual's unique genetic makeup. This means that treatments are more effective, have fewer side effects and can significantly improve a patient's quality of life."

Al Dawood described the program as the integration of three essential fields: biology, statistics and computer science.

The bioinformatics component uses existing software and algorithms to understand biological data such as DNA sequences, protein structures and gene expression profiles. The computational biology component develops theoretical methods, mathematical modeling and computational simulation techniques to study biological systems. "It is very important to have a good understanding of what programming is and make the effort to use algorithms through methods such as machine learning or data mining." With the rapid increase of technological advancements and the emergence of artificial intelligence, he said, such careers are needed.

BICB felt like a career that could help find answers to all the "whats, hows, and most importantly, the whys," he said.

The field was a natural fit for Al Dawood's many interests. "I have always liked biology courses, especially those related to the human body. I always find it fascinating to look into the smallest things that can have a huge impact on human health and the body. This includes DNA, RNA and proteins."

Studying those areas as an undergraduate was not a huge struggle, he said, but he knew more would be expected in graduate school. He prepared by taking a genome biology course through Mayo Clinic in the summer of 2023. "That course was one of the most difficult courses I have taken, yet it got me looking very closely at the biological and chemical aspects of epigenetics and heredity biomarkers. It also involves the understanding of alterations that can occur to the DNA or RNA, including methylations, acetylation and external modifications through deletions and insertion. It is a whole different world."

With the combination of dry lab experience in BICB and wet lab through SRS, "I can say I have earned a very well-rounded experience in the field as both labs complement each other and rely heavily on each other."

While pursuing his master's degree, Al Dawood works as a research technologist in the division of gastroenterology and hepatology at Mayo Clinic.

In his daily work, he isolates peripheral blood mononuclear cells from the blood samples of patients with liver diseases like fibrosis or cirrhosis. Occasionally, he works directly with the human liver from the operating room. He especially enjoys analyzing the data after sequencing the samples and seeing how different each sample is.

One of the most rewarding aspects for Al Dawood is knowing that his work directly contributes to the well-being of patients. Every analysis, every piece of data processed, has the potential to enhance patient outcomes, he said.

"What is most meaningful to me about patient care today is the ability to contribute to personalized medicine. By analyzing vast amounts of genetic and epigenetic data, I can help develop tailored treatment plans that are specifically designed for an individual's unique genetic makeup. This means that treatments are more effective, have fewer side effects and can significantly improve a patient's quality of life." ■

FLYAWAYS FROM RAPTOR LIFE

RUQAYAH ALI
2023 UMR Graduate

What is your current position?
PA student at Mayo Clinic College of Medicine and Science

How did your experience in leadership impact your time at UMR? Leading the Muslim Students Association was a profoundly meaningful experience that significantly enriched my understanding of community building. By collaborating with a passionate team, we focused on creating an inclusive environment. We organized events that celebrated our culture and traditions while also addressing the diverse needs of our members. Through workshops, social gatherings and educational seminars, we strengthened our bonds and encouraged open dialogue among students of all backgrounds. This leadership role taught me the importance of empathy and active listening. Witnessing the positive impact of our initiatives, as students found a sense of belonging and connection, reinforced my belief in the power of community. Ultimately, this experience not only shaped my leadership skills but also deepened my commitment to fostering inclusivity and support within our campus community.

ANJELICA MONTANO
2015 UMR Graduate

What is your current position?
Title V Children and Youth with Special Health Care Needs Coordinator

Who was your favorite instructor at UMR and why? I would say Yuko Taniguchi was my favorite instructor because of the way she engaged with and made herself available to help students. Her work and expertise aided students in all of their courses at UMR. Every time we had a major paper due, everyone was flooding her JustASK hours. Her teachings went WELL beyond the classroom, applying to how we navigate life and express ourselves, and share our knowledge with and learn from others.

What do you miss about UMR?
I miss the time with other students, the study sessions and learning from each other. UMR was a small and strong community of learners, and it was supportive. When I tell others about my undergrad experience, they cannot believe the closeness between students and educators, administrators and other staff.

MONICA ZIEBELL
2019 UMR Graduate

What is your current position?
Drug and Alcohol Counselor/ Crisis Worker embedded in law enforcement

Was there a turning point during your time at UMR or in your career that you are now appreciative of?
My entire life I thought I was going to become a physician. I went to UMR to prepare for medical school. After graduating I decided to get a masters in professional studies in addiction counseling at UMN before applying to medical school. The education, experience, and degree I gained from working with individuals struggling with addiction was pivotal in my career. During my internship I decided that I no longer wanted to pursue medicine, and I wanted to switch to becoming a therapist. I am forever appreciative to my counselor, Grace, at UMR who suggested I look into graduate school prior to medical school. I never thought of graduate school as an option and without that I might not have found my passion. The detour from a plan I created and worked toward my entire adolescence was scary, and at the same time well worth it.

UMR'S CAMPUS PLAN APPROVED BY THE BOARD OF REGENTS

This fall was another historic season for the University of Minnesota Rochester (UMR) as the Campus Plan was approved by the University of Minnesota Board of Regents.

This approved plan is a catalyst for the next, Bolder phase of UMR's future, as the campus continues to innovate and expand academic programs in concert with the health care workforce needs at Mayo Clinic, across Minnesota and beyond.

The University recognizes that, like any new venture charting its future, UMR requires flexibility in its facilities model to support dynamic growth. To date, the UMR campus is a long-term tenant in six downtown facilities, including the Student Life Center (former DoubleTree Hotel), University Square in the Galleria, 318 Commons, Residence at Discovery Square, One Discovery Square and Two Discovery Square. Two critical principles have been consistent factors in facilities development for this new campus: keeping students in walkable proximity to internship and research opportunities and making prudent financial decisions to keep student costs as low as possible.

UMR's campus will experience changes in the next three years focusing on specified **near-term priorities** including:

- Creating functional, healthy and accessible UMR spaces in the Heart of the City, updating and expanding active learning classrooms.
- Planning with partners for new specialty spaces including a Heart of the Campus central gathering area; an Instructional Development Center to share educational innovations broadly; an Internship and Career Center; facilities to enhance recreation and student life; and other high-tech, high-touch spaces to support new academic programs for the evolving environment of digital health and mental health.
- Committing to progress toward carbon neutrality in everything we do, including a new approach to "green leases."

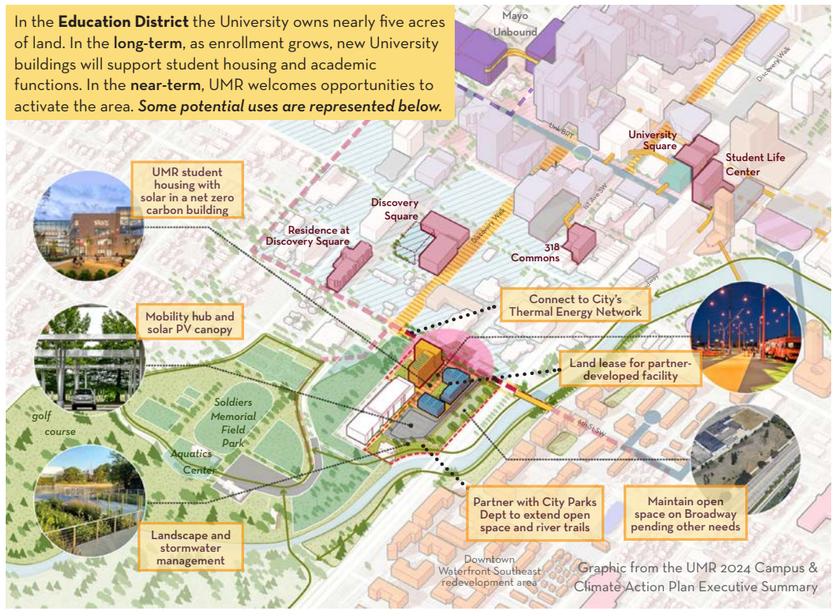
Longer range expansion will focus on mission-aligned development with partners, potentially including student housing or other endeavors in the Education District, which is connected by Discovery Walk to UMR's other facilities in Discovery Square and the Heart of the City.

Next-step decisions will be guided by three principles: students are at the center, research informs practice and partners make it possible.

To bring these plans to life and to help UMR reach growth goals, financial support is needed from UMR's biggest supporters — YOU!

Support UMR in this next stage of growth by giving today at z.umn.edu/Onward.

In the **Education District** the University owns nearly five acres of land. In the **long-term**, as enrollment grows, new University buildings will support student housing and academic functions. In the **near-term**, UMR welcomes opportunities to activate the area. ***Some potential uses are represented below.***



Graphic from the UMR 2024 Campus & Climate Action Plan Executive Summary

THE NEW CLASS: 2024 RAPTORS

Pictured above, UMR's new class of Raptors have settled into the Student Life Center and are learning to navigate their class schedules in the vibrant heart of Med City as they begin to expand their knowledge and develop the skills needed to fulfill the future workforce needs of the health care industry.

Incoming and current Raptors have the opportunity to participate in a number of new clubs and initiatives including taking a band course, competing in pickleball intramurals or using the new Creativity Studio.

INCOMING & CURRENT RAPTORS

UMR serves just under **1,000 students.**

FIRST-YEAR STUDENTS

BIPOC: **48%**

In-State: **85%**

First Generation: **47%**

This incoming class is **12.3% larger** than last year's and UMR serves a greater percentage of BIPOC students than any other U of M campus.

OUTGOING RAPTORS

40% of 2024 graduates plan to pursue graduate or professional school.

23% of 2024 graduates plan to go straight into the workforce to pursue their career.

37% of 2024 graduates plan on taking a bridge year prior to their next steps.

100% of BSHP graduates have entered the workforce in their field.

More than 160 students graduated this spring — the biggest class of graduates to date!

SAVE THE DATE: UPCOMING EVENTS

State of the Campus
November 12, 2024
11:30 a.m. - 1 p.m.
Historic Chateau Theatre

This year's theme is "Learning Innovation Unbound."

Give to the Max Day
November 21, 2024
z.umn.edu/UMRGive

This year's fund supports UMR's Food Pantry, aligning with the commitment to student success, community well-being and equity.

BICB Research Symposium
February 7, 2025
University of Minnesota Rochester

Research and Education Symposium
May 2, 2025
Two Discovery Square

University of Minnesota Rochester Commencement 2025
May 17, 2025
11 a.m. - 1 p.m.
Mayo Civic Center

I WOULDN'T CHANGE A THING

Written by **KIMBERLY FRIEDLINE**

Jessica Wojcik's '14 passion for sonography is evident. "A friend's daughter told me she might be interested in pursuing sonography, and I talked her ear off for half an hour," she laughed. Her infectious passion for her career began in high school when she visited Mayo Clinic for the first time.

"My grandpa was having testing there. I remember exactly where I was standing in Peace Plaza — looking around and seeing everyone in suits, white coats and scrubs. Everyone was walking around and on a mission. I remember taking it all in and turning to my mom and saying, 'This is where I'm going to work someday.' In my heart, I had never felt so called to a certain place. I knew Mayo Clinic in Rochester was where I wanted to train and start my career."

During high school, Wojcik took advantage of the post-secondary enrollment option, taking college classes during her junior and senior years. One of these was a career class that allowed her to shadow different health professions, one of which was sonography. "At each shadowing opportunity I would always ask them, 'If you could change one thing about your career, what would you change?' I asked three different sonographers and they all said, 'I wouldn't change a thing.' I remember thinking, wow, I want to be able to say that someday. I want to be in a career where I know I wouldn't want to do anything else in my life. And that's truly where I am today."

FINDING THE RIGHT FIT

After her shadowing experience, Wojcik knew that she wanted to pursue sonography. A friend one year ahead of Wojcik in high school went to UMR, so she got to see her experience via social media. "I remember thinking what a cool place to go to school, and what a great way for me to find my career path at Mayo Clinic — to go to school at the University of Minnesota, a very reputable school, and still have access to the network of people at Mayo Clinic."

After a year at the University of Minnesota Twin Cities and experiencing a "massive college," she made the transition to UMR. It was a welcome one. "At UMR everyone knows your face. People are so used to seeing each other in the common areas, classes, etc. You feel very seen at UMR," said Wojcik. Feeling seen was something more than just a social experience, it extended through the entire academic experience as well. "With the smaller campus, you feel supported and not just a number. Whenever I needed guidance or my advisor to step in, they were there."

One major source of guidance came from her advisor, Parry Telander, now campus registrar. "UMR made it so easy for me to fulfill requirements for both the degree and certificate," she explained. "The sonography certificate program credits counted toward my bachelor's degree — they merged the two together. Parry worked with me to make sure I stayed on top of all of my requirements." Wojcik graduated in 2014 with a Bachelor of Science in

Health Professions and a certificate in Diagnostic Medical Sonography from Mayo Clinic School of Health Sciences.

"It was incredibly valuable to have access to different providers and experts in their fields. We got to meet patients, see and learn about various disorders and pathologies that you may never again see in your career. It was the perfect spot to start my career."

THE POWER OF UNPARALLELED TRAINING + UMR NETWORK

The training Wojcik received while at UMR and through the certificate program at Mayo Clinic put her on a path to success. "It was incredibly valuable to have access to different providers and experts in their fields. We got to meet patients, see and learn about various disorders and pathologies that you may never again see in your career. It was the perfect spot to start my career."

Wojcik's career trajectory is one that she credits to her excellent training and the alumni network at UMR. "Having the network of alumni all with careers in health care has been such a benefit. I'm familiar with the careers in health care they've landed in, and I can reach out to them, previous instructors and teachers included. They are connected at Mayo Clinic and other health care institutions. You just don't know when there may be a very valuable contact that you reconnect with in the future. That's what happened for me — doors opened because of my contacts and network from UMR."

AN UNEXPECTED CAREER PATH

After graduation, Wojcik worked as a sonographer at Mayo Clinic for a couple of years, honing her skills and expertise. She eventually moved to a smaller practice at Park Nicollet in the Twin Cities to be closer to family. With her training and experience at Mayo Clinic, she soon became a trusted resource for colleagues, especially when investigating more complex cases. "Because I had worked at Mayo Clinic and had so much experience scanning more complex exams and studies, I ended up training others at Park Nicollet and helped them with these harder studies that came through their practice, because they just didn't scan them as often." This experience training staff led her unexpectedly away from patient care. "I truly believed I would always be in patient care. I loved it," she said. A colleague recommended her for a position with GE as a Clinical Applications Specialist, leading demonstrations and training providers on their ultrasound equipment. This new position opened her eyes to a whole new world outside of sonography, and all of the new and innovative ways that ultrasound is now being used. "It's becoming a massive industry with lots of hand-held devices and small portable systems. It's growing rapidly."

Wojcik's career continued to evolve, leading her to a position with Butterfly Ultrasound, a hand-held ultrasound startup company, where she continued to support and train physicians on the equipment. Her demonstrated success as a relationship builder made her a natural choice to transition into the sales team. From there, she joined Elevate Healthcare as a sales manager of their ultrasound products, with a twist: ultrasound products and simulation. "We have a simulator that is a mannequin torso. You can practice doing hundreds of different exams in a risk-free environment. This allows learners to take their time and really grasp content and technique. You can scan normal anatomy as well as over 250 pathologies, which allows you to scan a wide variety of different conditions that you may encounter as a sonographer or health care provider." Training on a simulator is incredibly beneficial, she explained. "It really opens up the door for not only sonography students, but medical students, residents, fellows or even staff who want extra hands-on time to practice different, complex studies so that the first time they encounter these pathologies isn't on a real, live patient."

As the sales manager for all of Canada and the central United States, Wojcik travels quite a bit, which she enjoys. "I never imagined my career would look like this, but I'm so happy I listened to my gut that was pulling me to this career. I truly believe this is what I was meant to do."

A PATENTED NEW PATH

Today, outside of her sales manager position, but using the knowledge and experience from her career in sonography, Wojcik is working to develop a fertility tracking device that can track women's cycles using ultrasound, which has never been done before. Her goal is to offer women a more accurate and precise way to predict their fertile window, which differs from the standard ovulation test strips and basal body temperature devices that are often used to track monthly cycles today. "I have a patent pending, and am working to further develop this product." Her extensive knowledge of ultrasound equipment technology and artificial intelligence interface capabilities combined with her advocacy that women should know their bodies and what is happening with their cycle is a driving force for putting this information and technology directly into the hands of women.

Jessica Wojcik '14 addressed the 2024 graduating class at commencement on May 11, 2024. She encouraged graduates to never underestimate the power of human connection, embrace uncertainty and keep patient care and people at the heart of everything they do.

If you know health care is what you want to go into, I can't think of a better spot than UMR, with Mayo Clinic right in your backyard."

ADVICE FOR FUTURE HEALTH CARE PROFESSIONALS

"I always really encourage people to shadow and get a true sense of what their day-to-day career could be like. When people are considering careers, that is my biggest piece of advice."

And for education? "If you know health care is what you want to go into, I can't think of a better spot than UMR, with Mayo Clinic right in your backyard."

Looking back over her education and career thus far, it seems fitting to ask the same question she did while shadowing years ago: If you could change one thing about your career, what would you change? "My career path has been an interesting one, and it's wild because I never imagined I would be doing what I am doing today. I love it, I really do." ■

FINDING PURPOSE IN A NEW COMMUNITY

Written by **FELICIA SCHNEIDERHAN**

Jim and Connie Messina share a lifelong passion and commitment to education.

Seeing this same passion and commitment reflected in the philosophy of University of Minnesota Rochester (UMR) and its students inspired the Messinas to endow a scholarship fund. Surprisingly, the Messinas had no real connection to UMR prior to coming to Rochester three years ago for a health crisis.

After Jim suffered a health scare in October of 2021, the Messinas decided to make a long-term commitment to their health care by relocating from their home in Florida to Rochester, Minnesota, where their son Steven works as a neuroradiologist at Mayo Clinic.

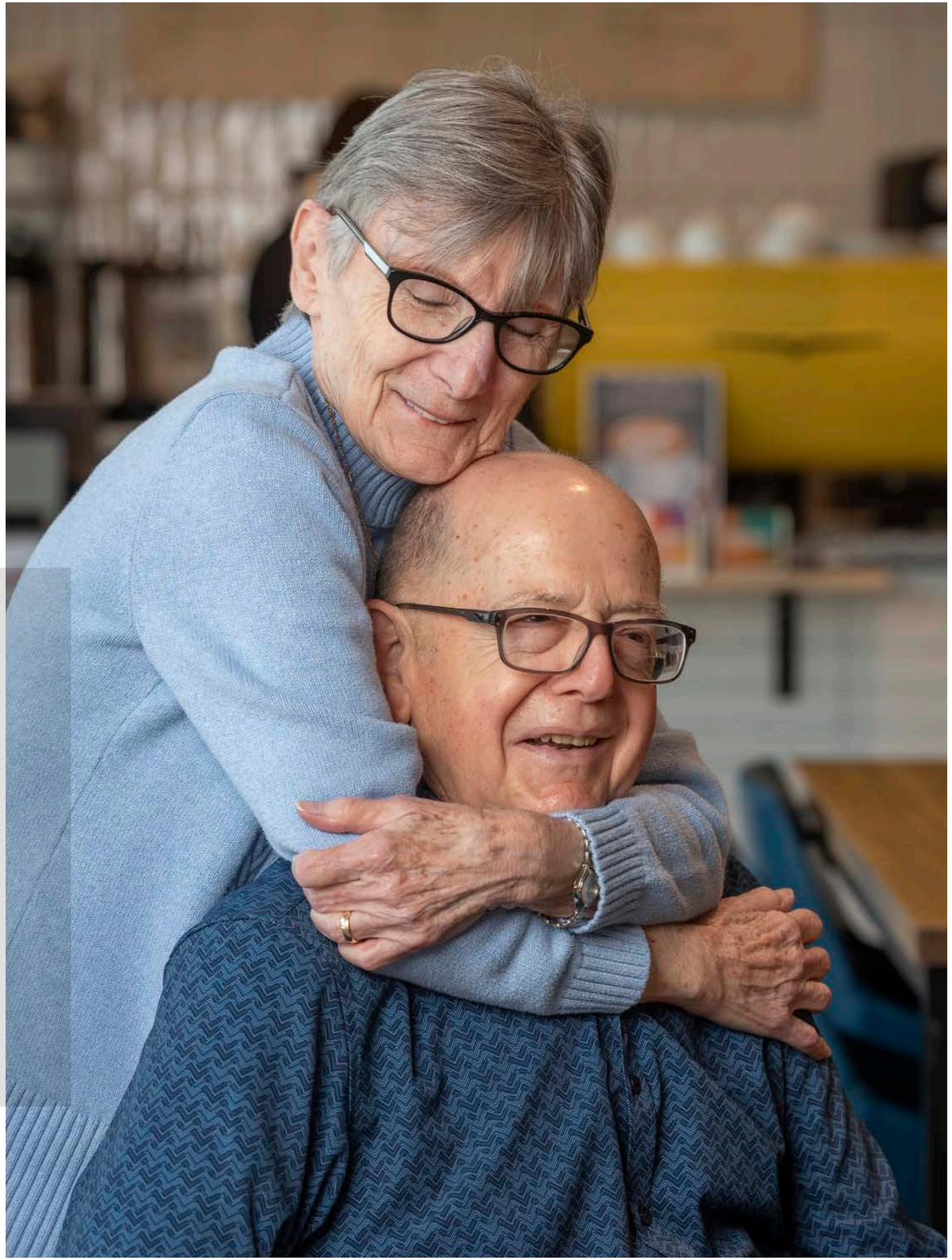
Earlier that summer, Steven and his wife Sara had asked Jim and Connie to consider moving closer to them in Rochester. "At the time, Connie and I said no way, way too cold for us," said Jim. But all that changed in the face of health challenges. "The major priority was to get the optimal medical care at Mayo Clinic and have family close at hand in case I passed."

After his health scare, Jim began spending more time with his grandchildren and volunteering. He wanted to volunteer at Mayo Clinic to encourage patients and be with them during difficult times. In just eight short months, he contributed 271 hours to that goal. His commitment as a volunteer was honored at the Mayo Clinic Volunteer Appreciation Gala in 2022 with the "Most Hours in First Year of Service" award.

Jim also began volunteering at his new home in Rochester, High Point Condominium, and it was there that the Messinas first learned of UMR. One of their fellow condo residents, Marilyn Stewart, held an information session in her home about the University, its students and its outstanding health care education. The Messinas met Chancellor Carrell and four UMR students who shared their stories. "It was an extremely moving experience due to the incredible quality of the students who spoke at that session," Jim said.

"We had no idea that UMR existed until that fateful night," he continued, "and then both Connie and I decided to pursue supporting UMR, given its fantastic student body and connection to Mayo Clinic, which was responsible for saving my life in December 2021. We believe that UMR is a wonderful jumping off place for future health care professionals."

> If our grandkids are interested in health science, there is no better school for them to go to. They don't need a huge university. That's what we like about UMR — education is primary, and everything else is secondary."



Jim and Connie Messina married on August 3, 1973. They have two adult children, both of whom are married, and five grandchildren. In 2023, the couple celebrated their 50th wedding anniversary in their new "hometown" of Rochester.

"Whenever we're around University Square, we are just floored by the number of students who are there continuously working. It's really impressive being there. I know hardworking students, and these students are amazing. We're more than impressed."

In the summer of 2024, Jim and Connie fully funded their scholarship, and have committed to continue making a significant contribution each year moving forward.

The scholarship is open to all students at UMR. "We felt that no matter who benefited from these funds, they would strengthen the quality of the student body and history of UMR," Jim said.

The Messinas emphasize their gratitude to be able to sponsor students at UMR, "because it is a fantastic source of some of the most educated and talented students we have ever met. We want to assist UMR to become as strong as it can become in the future to have a lasting impact on the medical community in this community, state and country," said Jim.

"When you give to UMR, you can see your money is not going to anything else but the students. That's what determined why we would give," said Connie.

"We didn't do this for recognition. We did this to support people and their mission," added Jim. "We recognize UMR's focus on health science. If our grandkids are interested in health science, there is no better school for them to go to. They don't need a huge university. That's what we like about UMR — education is primary, and everything else is secondary. You seek higher education [in order] to serve people and that's what the UMR philosophy is: People first — and I love it."

The Messina's generous donation does more than express their deep gratitude for the excellent care they received at Mayo Clinic; it upholds their lifelong commitment to the value of education.

"As a 40-year teacher, you can bet your tootsies that I would always support some form of education," said Connie. She graduated with a bachelor's degree from Buffalo State University, earned her first master's degree at Temple University, her second master's at Johns Hopkins and a doctorate degree at University of South Florida. Connie was originally an elementary school reading teacher in Hamburg, New York, and went on to be a special education teacher in Tampa, Florida, until her retirement.

Jim graduated with a bachelor's degree from Catholic University in Washington, D.C., then went on to earn his master's and doctorate degrees from SUNY at Buffalo. He was a school counselor in Hamburg, New York, completed a one-year National Institute of Mental Health sponsored post-doctoral fellowship at the University of Florida, then worked in community mental health in Pensacola. He also worked with Johns Hopkins University and the Florida Mental Health Institute. He maintained a 20-year private practice in Tampa, Florida, followed after retirement by his work in hospitals and older adult treatment centers. Jim completed his active career serving 10 years at Troy University's Tampa Campus and retired from Troy in June 2021. ■

CLASS NOTES

VICTORIA AJAYI '20
Attending Tufts University School of Medicine in Boston, Massachusetts. Anticipated graduation in May 2025.

MAGI BLACKMON '23
Started a new position as the new Community Life Coordinator at the University of Minnesota Rochester.

PAIGE (BORUCH) BIESTERFELD '20
Recently married.

TAYLOR FOX '24
Started a new position as a Clinical Trials Data Coordinator at the University of Wisconsin-Madison with the Carbone Cancer Center.

LUCAS JACOBSON '16
Graduated with a Master of Business Administration from St. Mary's University of Minnesota and recently promoted to Assistant Supervisor in the Virology Laboratory at Mayo Clinic.

TRENTON KANITZ '19
Accepted the role of Nursing Home Administrator of a 119-bed facility, Redeemer Health Care Center under the company Cassia in Minneapolis, Minnesota.

SAMANTHA KREPS '19
Recently engaged.

KEVIN LOVOLD '22
Attending University of Dubuque's Physician Assistant program.

BETHANY O'BRYAN '18
Graduated with a Master of Public Health from University of Minnesota School of Public Health and received a Doctorate of Veterinary Medicine from University of Minnesota College of Veterinary Medicine. Currently working as an Associate Veterinarian at Spring Valley Vet Clinic.

CHIDIOGO ORAKWUE '22
Attending University of Minnesota Medical School.

BRADEN STROMBERG '23
Attending Bethel University's Physician Assistant program.

KATHLEEN TIERNEY '19
Started a new position as a staff pharmacist at UnityPoint Health in Des Moines, Iowa.

SHARE YOUR NEWS WITH UMR!

UMR graduates achieve great things every day, from breakthrough research and career success to weddings and the arrival of baby Raptors. Send updates to **z.umn.edu/UMRShareYourNews** and stay social **@UMRochester.** Visit **update.umn.edu** to update your address and contact information.

YOUR INVESTMENT HAS A POWERFUL IMPACT

Beyond academics, a student's financial health is a major factor in their success and retention. Removing financial barriers will increase the number of students who have the opportunity to complete a world-class University of Minnesota Rochester (UMR) education.

UMR is committed to ensuring that every student has the opportunity to pursue their education without financial barriers. By giving to UMR's student support initiatives, you help provide scholarships, emergency funds and other financial resources that enable students to focus on their academic journey.

Your generosity ensures that all students, regardless of their financial background, can thrive in our innovative and inclusive learning environment. Together, we can empower the next generation of leaders in health care and beyond.

MEET LINDSEY

Lindsey Hemker, Director of Development and Alumni Relations, plays a crucial role in fundraising efforts and fostering meaningful relationships with alumni and donors including engaging the community in building support for UMR amongst local businesses, government officials and other stakeholders.

INTERESTED IN GIVING?

Contact Hemker (pictured), at hemk0019@r.umn.edu or 507-258-8417.

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Allison Henning ’16 is a certified surgical first assistant at Mayo Clinic specializing in general, colorectal and transplant surgery.

THE SECOND SET OF HANDS SAVING LIVES

Written by **FELICIA SCHNEIDERHAN**

Facing surgery can be an unsettling experience for patients. They and their loved ones put their trust in the care and skill of the surgical team, which includes many who work behind the scenes to make sure vulnerable patients receive top-level care. A surgical first assistant is a key member of that surgical team.

“A surgical assistant is like a second set of hands and eyes for the surgeon,” said Allison Henning ’16, a certified surgical first assistant (CSA) at Mayo Clinic, specializing in general, colorectal and transplant surgery.

“We have advanced knowledge of surgical anatomy and procedural steps,” she explained. “CSAs are in charge of positioning and prepping the patient for the specific procedure. We start with the resident or fellow by making an incision, locating relevant anatomy with retraction, and getting everything ready for the surgeon. During, we anticipate the surgeon’s needs and the best way to help them. When you work with a specific surgeon, you learn their preferences and how they want things done. We are also responsible for closing incisions and applying surgical dressings at the end of the procedure.”

To train excellent surgical first assistants for this vital role, the Mayo Clinic School of Health Sciences offers a 12-month Surgical First Assistant (SFA) program, one of only 14 in the nation. This accredited certificate-training program is limited to only 20 students in each session; they work intensely to gain experience in the lab, the classroom and the operating room. Normally, the program begins in January and runs a full year. Now, however, a new collaboration offers an accelerated one-year SFA Capstone Experience for University of Minnesota Rochester (UMR) students, which allows them to begin the certificate program just before graduation, and accrue credits towards their Capstone and undergraduate degree.

Three UMR alumni who have continued their training in Mayo Clinic’s cutting-edge SFA program shared their experience, including the joys and challenges of becoming that second set of hands providing the best possible care to patients in their most vulnerable moments.

ALLISON HENNING '16

Certified Surgical Assistant at Mayo Clinic

Allison Henning chose UMR for her undergraduate degree because she liked that the entire program was geared towards health science.

"I knew I wanted to do something in health care, and having all my classes relate to that made things much more interesting. I also really valued the small class sizes and the opportunity to develop relationships with professors and other students. I didn't want to attend a university where I was just another number. I felt like everyone at UMR cared about my journey and wanted to help me succeed."

She was initially set on going to medical school, but gradually discovered it wasn't what she truly wanted. "My connections with my classmates and professors helped me realize that it was okay to change my mind and not always know what my next step would be. The support I received from my friends, professors and success coaches helped me find a career path I had never considered before. Without them, I'm not sure where I would have ended up."

Initially, Henning thought the SFA program would be a stepping stone, but it ended up being a career that she really enjoys. "I am able to be directly hands-on during surgery. I get to help do the fun part of the case without any of the crazy hours, endless charting, stress and responsibilities outside of the operating room (OR) that the surgical residents have."

Henning's UMR experience prepared her to work on team projects in the SFA program. "Other UMR grads and I were way ahead of the curve when it came to group projects and presentations compared to our SFA classmates. I was able to handle the workload thanks to the high standards we were held to during our undergrad coursework."

As a CSA at Mayo Clinic, Henning specializes in open, laparoscopic and robotic abdominal surgeries. She works primarily with one surgeon focused on colon cancer and other chronic conditions such as ulcerative colitis, Crohn's disease and diverticulitis. On days when her surgeon isn't operating, she works with various other surgeons within the general surgery, colorectal and transplant departments. This involves more big, open cases, sometimes combined with multiple specialties and sometimes minimally invasive laparoscopic and robotic surgeries. "I really enjoy the variety of cases and the fact that I get to do something different each day."

"The surgeons rely on us to help teach the residents and students. Many residents and surgeons have told us that having a strong surgical assistant who knows the case makes a huge difference for them. The supervising surgeons are able to be in two ORs at the same time. They can stagger their surgeries knowing they have a strong team working safely to get everything ready for the critical portion where they need to be present. At the same time, the second OR is starting to close and get ready for the next surgery. They put a lot of trust in CSAs to make sure things run smoothly and safely, and to notify them of any issues." This allows more patients to get the life-saving procedures they need, she said.

"I like knowing that I played a part in helping patients. At Mayo Clinic, we see a lot of patients who have been turned away from other hospitals or have already had a surgery that was unsuccessful. Sometimes, we are a patient's last hope, and being able to help them in their time of need is very rewarding. We may be behind the scenes, but the work we do is an integral piece of their care."

NICK BAKER '14

Certified Surgical Assistant at Mayo Clinic

For Nick Baker '14, declaring a major right out of high school was not easy as he had many interests but nothing specific he could confidently say he wanted as a career.

"Choosing UMR with their Bachelor of Science in Health Sciences (BSHS) degree gave me an area of study to focus on, without deciding on a career path before I was ready," he said.

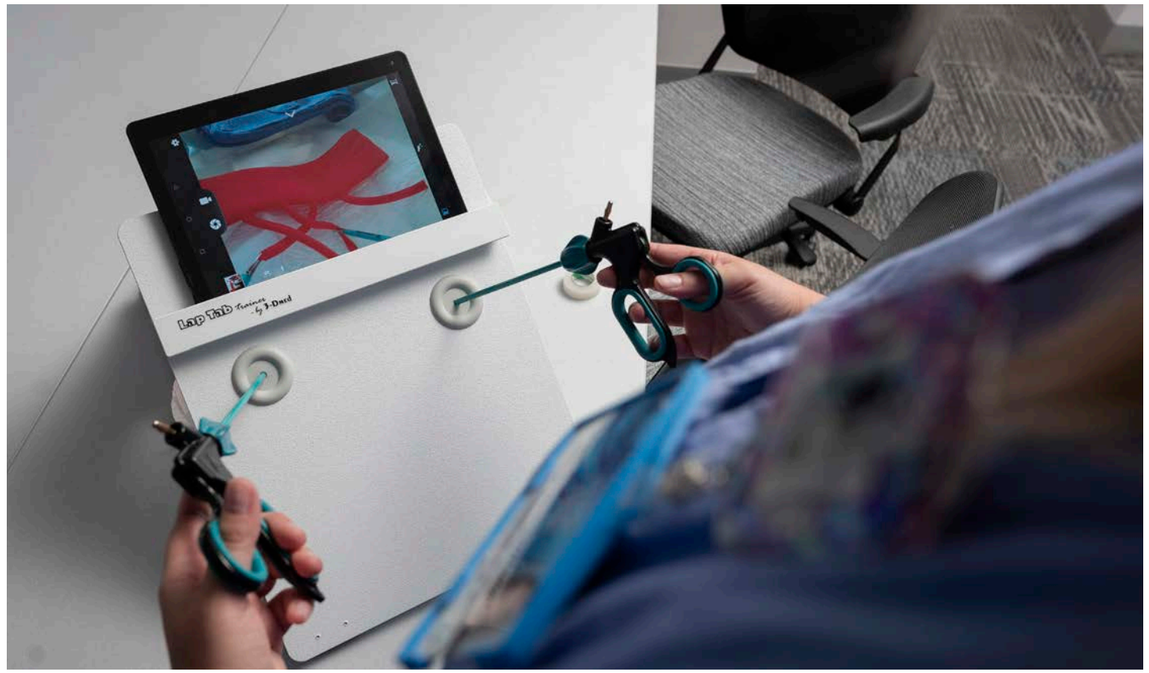
He discovered the SFA program was the route for him when he watched a friend and fellow UMR graduate go through the program. "The BSHS degree was the perfect academic base and the SFA program's relatively short path to start working sealed the deal for me," he said. "It gives a solid base for new hires, so their transition into the OR is seamless."

Clinicals were the toughest part of the program for Baker, but they were also the most critical. The challenge for him was applying the book knowledge from class to real patients and procedures. "Realizing there were experienced preceptors there to share their hard-earned knowledge with me and gathering their good habits helped get me through clinicals," he said.

He has been a CSA at Mayo Clinic for the past eight years. His first four years focused on assisting in the OR, and for the last four years he has served as one of the leads for the surgical assistants at Saint Marys campus.

"The biggest impact UMR had on my work today is the focus on group work and the communication a good team

Nick Baker '14, Elsa Baker '14 and their children, Mona, Cal and Gus, outside of the University of Minnesota Rochester, where Elsa and Nick met. Elsa is expecting their fourth child.



Allison Henning uses a tabletop Laparoscopic Trainer to practice her technical skills to competently assist the surgeon during a surgical procedure. Simulation is beneficial in the early formation of psychomotor skills and dexterity required during the performance of surgery.

requires," he said.

Baker is often surprised how little is known about CSAs. "Surgical assisting is a hidden gem in allied health careers. Every surgical operation needs the patient positioned, extra hands assisting the surgeon and sutures thrown for closure."

Currently, in a lead role, he works the evening shift and coordinates the transition to relieve day staff while bringing in the evening shift. He organizes between 40–50 CSAs across more than six surgical departments. When making assignments he considers best fit by department and tries to make efficient choices that reduce overtime. "Happy, well-balanced staff get the best results for patients," he said.

That's a value Baker practices in his own life. "I'm lucky enough to have a job where work stuff stays at work. When I am home, I can give all my attention to my four kids (Mona, Cal, Gus and one on the way) and my wife Elsa, also a UMR grad. The kids aren't school age yet, so the evening work schedule works for us in this stage of life." Outside Mayo Clinic, he has been a long-time member at Detour Athletics and Mario Roberto's Jiu Jitsu Academy.

While his current role gives him less direct patient contact, Baker still prioritizes patient care while he manages fellow CSAs. "Knowing that I helped organize a better work-life balance for my coworkers, in turn helping patients, means a lot to me."

ALEC JAMES '23

Current Student in the Surgical First Assistant Program

"UMR had my name written all over it," said Alec James '23. "It offered me the medical education background that I was looking for so that no matter where I decided I wanted to go after undergrad, I was ready and able."

He recalled fondly classes that enthralled him with their relevancy. "These lessons weren't your stereotypical class lecture, but ones that utilized real-life scenarios and examples and made the learning not only enjoyable, but easier to understand. This largely contributed to my ability to take in concepts so well. I was also able to take more elective classes towards the end of my time at UMR; one that particularly stood out was a medicinal plants course. It brought a new perspective of medicine into my education."

While James originally aspired to be a doctor, he ultimately realized his values didn't align with that career. "I switched to the physician assistant pathway and based my time at UMR around this career goal. I then came to realize that the duties of a physician assistant were not what I had in mind for my career as I wanted to be on the surgical/procedural side of medical treatment."

Alec James '23 is a current student in the Surgical First Assistant Program at Mayo Clinic.

After some research and hard decisions, he applied to the SFA program.

"Speaking with the director of the program was one of the best decisions that I could have made prior to joining. She provided me with further details, gave me insight on how my personal values aligned with the program and provided a staff-student relationship."

Now, as a student in the SFA program, he's on the right path. "I aspire to help those that are unable to physically help themselves. That is the motivation that has gotten me to where I am today. Now, I am doing exactly what I have lived by and I couldn't be happier with this decision. My role in the care of each individual patient may be similar, but the little nuances are what make each patient situation unique and allow me to fulfill my role to the highest degree by providing the best patient care that I can."

James also enjoys educating people about the role of the CSA in the OR. "It's always a pleasure to explain what I get to do on a day-to-day basis. The field of surgery is vast and wide and I get to be involved in so many life-changing surgical procedures for my patients."

In clinical rotations, James now spends each day with a preceptor who teaches their method of working in each specialty and the inner workings of the operating room.

As he grows more comfortable, James implements these new methods and his base skill set into practice. "It has been described as 'creating your own toolbox' with the many tools that you are being handed, and it couldn't be more true. With each case, I am utilizing my knowledge of suctioning, retracting, maintaining hemostasis and providing visualization to assist the surgeon." He finds each day is an intense hands-on learning experience and builds his toolbox with every procedure.

"As the Surgical Assistant, it is my responsibility to make sure the vulnerabilities of the patient are handled with delicacy, decency and utmost respect. A great example of this is positioning a patient for a procedure. Matters that we may find unimportant in our awake life are completely different for a sleeping patient. Things such as an overextended arm, inadequate padding or even a cord being laid incorrectly are all detrimental to the patient's health and recovery. It is vital that I take these things into account and learn to do them properly so that my patients come out of surgery with the best possible outcome." ■

LEANING INTO THE UNKNOWN OF ARTIFICIAL INTELLIGENCE

Written by **FELICIA SCHNEIDERHAN**

Three UMR faculty are digging deep to learn how emerging Artificial Intelligence (AI) technology can support students' learning and career training to improve health care outcomes.

Tim Doherty, Rachel Doughty and Xavier Prat-Resina recognize that their vital role as educators is to prepare UMR graduates for a changing world — a world that now includes AI.

"Rather than shying away from AI, we are leaning into it to help students discover for themselves where it is useful and where it isn't," said Dr. Rachel Doughty, lecturer of chemistry in the Center for Learning Innovation (CLI).

"Often the focus is on how AI will weaken education by allowing assignments to be completed by AI," said Dr. Tim Doherty, senior lecturer of chemistry in the CLI. "There are many reasons for concern there, but there is also an opportunity to use AI to enhance education. I am interested in exploring those opportunities while finding ways to mitigate the downsides of AI in education."

The Emerging Technology Fellowship, a U of M internal fellowship, gave Doherty the support to implement AI lessons in General Chemistry 2 Lab (CHEM 2336), which he co-teaches with Doughty. They are using AI primarily to help students with scientific writing.

"Students are iterating prompts, editing output and writing their own to put together classic sections of lab reports. As students do this, they are learning what is required for these writing tasks and where AI can be helpful," said Dr. Doherty.

"There are many reasons for concern... but there is also an opportunity to use AI to enhance education. I am interested in exploring those opportunities while finding ways to mitigate the downsides of AI in education."

Faculty members Tim Doherty and Rachel Doughty are embracing emerging technology to enhance education and improve student outcomes.

"We know many students have already begun experimenting with AI, so we have opted to require students to use it for a variety of writing styles," said Dr. Doughty. "As they use AI to assist their writing of the different sections of a lab report, students see firsthand how useful AI is for writing more general, wordy sections and how much revision and repetition is required for more specific, data-heavy sections. Just like any other tool, students need to be able to recognize an appropriate time to use AI in their writing."

For example, AI can generate a relatively mistake-free introduction with very little prompting. It is much more challenging for AI to write a discussion or conclusion section because the software does not know what the student did or what their data looked like. "The student must provide AI with a summary of their main findings, a rubric of items that must be discussed and sometimes even an example discussion section on a different topic before AI produces anything acceptable," said Dr. Doughty.

The assigned AI submissions are graded according to the same rubric used for student-written submissions, so it is up to the student to ensure AI follows the rubric and provides high-quality work.

Overall, said Dr. Doherty, "The students are doing a great job integrating AI for the useful pieces while not using it in places where AI isn't helpful."

For chemistry professor Dr. Xavier Prat-Resina, it was his own use of AI that inspired him to include it in his courses. "When ChatGPT3 launched in fall 2022, it completely changed how I do computer programming, so I decided to revamp my small independent study and allow students to use it. I've been paying attention to every new advance and how it can affect my students' learning."

He insists that AI can help facilitate the work of the expert, but it is essential that the student first learns to do the tasks without the AI tool.

"I allowed the use of ChatGPT for my students who were just learning computer coding. Given that the course was at the very introductory level, most of my students could not identify good answers or could not write the correct prompt to ChatGPT in order to obtain the desired outcome."

A potential problem is that students at the novice level try to use AI for tasks they don't yet have the skills to do by themselves or even to assess the quality of the product. "Then there is a mismatch, and I believe this is creating so much mistrust among educators," added Dr. Prat-Resina.

The biggest potential benefits of AI in education will occur when educators find the right AI tool for the student's level of expertise, said Dr. Prat-Resina. Currently, the AI tool that identifies an error in a novice programmer's computer code (like spellcheck for computer code) can be useful.

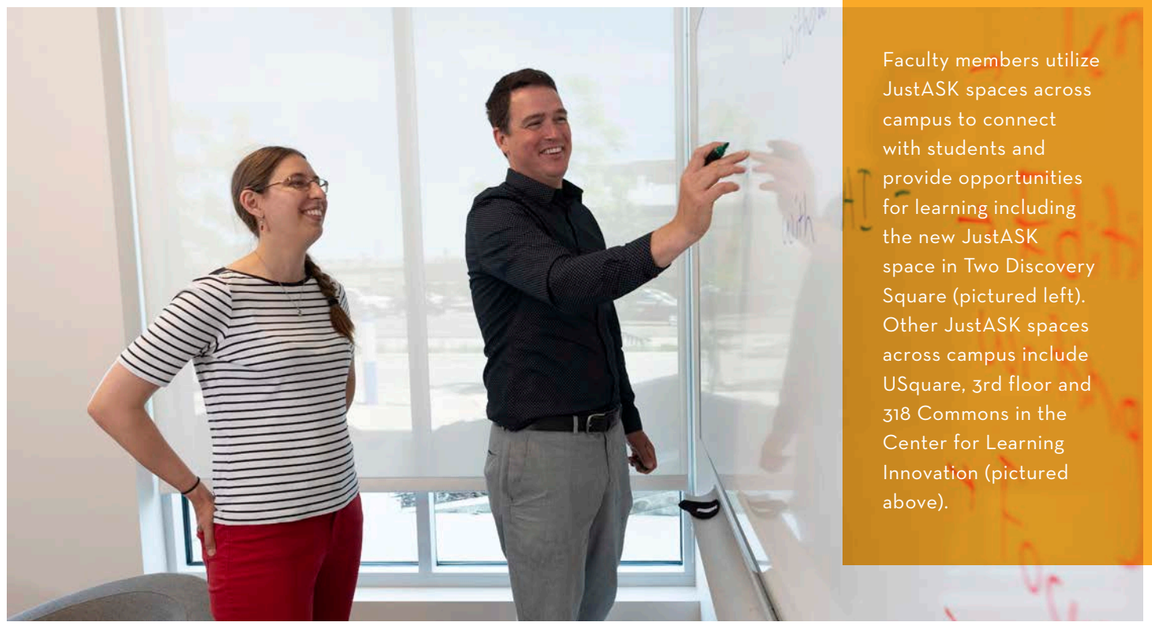
"I think we will very soon realize that AI cannot yet substitute for human expertise. It is a great tool that helps speed up and automate tasks." But Dr. Prat-Resina sees two potential risks. "On one hand, I see educators who deny the usefulness or at least the necessity to live with AI. To these educators I would say that they have to let our students be exposed to it. On the other hand, some people have too quickly jumped on the bandwagon and claim that today's students do not have to learn to be an expert on the tasks that AI can already do. I don't think that's true either."

Dr. Doughty sees the same benefits and pitfalls. "AI can be used as your private study buddy or tutor. It can generate flashcards, define unfamiliar terms and search the syllabus for the date of your next exam. It is an incredibly useful tool as long as it doesn't become a crutch that prevents you from learning to do things on your own. No matter how adept AI is, there will always be situations where it is necessary to be able to do it yourself."

Broadly speaking, said Dr. Doherty, technological improvements over time have changed the required skills from memory recall to the ability to use information, which is where AI comes in. "Some tasks will be automated, knowledge recall requirements will be reduced, and a premium will be placed on interpreting and using information while working with others."

Like his colleagues, Dr. Doherty sees the need to "make an effort toward ensuring students are literate in using AI so they can avoid common problems and enhance their learning while being ready to use AI in their careers."■

Chemistry professor Xavier Prat-Resina is known for his Pooh espresso mug that ventures with him across campus to class and JustASK spaces.



Faculty members utilize JustASK spaces across campus to connect with students and provide opportunities for learning including the new JustASK space in Two Discovery Square (pictured left). Other JustASK spaces across campus include USquare, 3rd floor and 318 Commons in the Center for Learning Innovation (pictured above).

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Khosiyat (Hosi) Mamatraimova '22

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