Buffalo Pharmacy MAGAZINE

VOLUME 6 | 2023

A New Path for Academic Success

Reimagining How we Prepare the Next Generation of Pharmacists. **p8**

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Message From The Dean

In 2022, we adopted a new strategic plan focused on maximizing our impact across each of our mission areas, beginning with innovative changes in student grading, and thoughtful review and assessment of our PharmD curriculum. As we end 2022 and begin 2023, we will launch a major expansion of our teaching and research operations through a transformational faculty hiring process and diversification of our research and scholarly enterprises.

I welcome you to read the following pages, which showcase our leadership and expertise in a variety of high-impact patient care initiatives, innovative educational programs and pioneering research. I am immensely proud of all that this school has accomplished and look forward to the journey we are embarking upon.

Warm regards,

Gary M. Pollack, PhD
Professor and Dean

In This Issue

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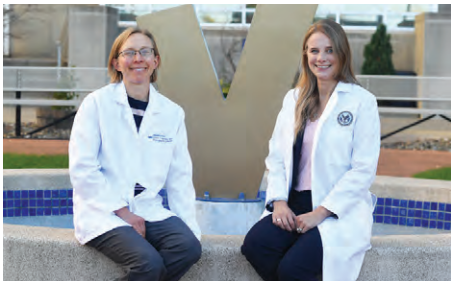
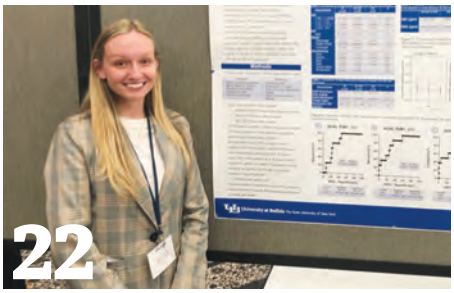
FEATURE STORIES



DEPARTMENTS



2022 Commencement

The University at Buffalo School of Pharmacy and Pharmaceutical Sciences held its 2022 Commencement Ceremony on Saturday, May 21, at the Center for the Arts on the North Campus. The ceremony honored pharmacy and pharmaceutical sciences graduates who completed their degrees in Summer 2021, Winter 2022 and Spring 2022 graduation terms.

Patricia Kroboth, PhD, a 1971 BS Pharmacy graduate of the University at Buffalo, delivered the commencement address. Kroboth's career spanned more than 30 years; she served as dean of the University of Pittsburgh from 2002 until her retirement last year along with overseeing a well-funded research program. She is the recipient of numerous awards, including the American College of Clinical Pharmacology Award for Mentoring in Clinical Pharmacology and the national APhA-ASP Outstanding Dean Award.

"We have gone through the gauntlet that is pharmacy school and we did it during a pandemic. The resilience we've developed will carry us into the next chapter of our lives, and the chapters after that, as we lead and advance the profession of pharmacy."

– Ali Zahid, PharmD '22 Class president

Ali Zahid, PharmD Class of 2022 president

DEGREES CONFERRED

98 Doctor of Pharmacy degrees conferred

11 Bachelor of Science in Pharmaceutical Sciences degrees conferred

10 Master of Science in Pharmaceutical Sciences degrees conferred

4 Combined

4 Doctor of Philosophy in Pharmaceutical Sciences degrees conferred

Patricia Kroboth, PhD, keynote speaker

PharmD graduating students

Commencement platform party

Bachelor of Science graduating students

2022 Awards Ceremony: A Celebration of Excellence

BY KARA SWEET

Our 2022 Awards Ceremony recognized the outstanding achievements of our alumni, preceptors, faculty, staff and students.

WILLIS G. GREGORY MEMORIAL AWARD

Lisa Benincosa, PhD '93

Lisa Benincosa's career has spanned more than 30 years with positions at SmithKline Beecham Pharmaceuticals, Pfizer and Roche. She is currently the senior vice president, global head of translational medicine at EMD Serono, a business of Merck KGaA in Darmstadt, Germany.

Benincosa has received numerous leadership awards throughout her career, including the Pfizer People Leader Award, the Tribute to Women and Industry Award, and the Leadership Excellence Award from Roche pRED.

She has more than 30 peer-reviewed publications and is a long-standing member of professional societies serving as a journal reviewer. She was recently named to the Board of Directors of the American Society for Clinical Pharmacology and Therapeutics.

ORVILLE C. BAXTER MEMORIAL PROFESSIONAL PRACTICE AWARD

Elizabeth Ludwig, BS '81, PharmD '84

Elizabeth Ludwig has more than 20 years of experience in the pharmaceutical industry, with a focus on population pharmacokinetic model development. She currently serves as associate vice president of quantitative clinical pharmacology at Cognigen Corporation. Prior to her work at Cognigen, Ludwig focused her work on leading clinical research, pharmaceutical education and training, and served as an adjunct associate professor for the school.

She has received various research grants and teaching awards and is an active member of several professional organizations. She has co-authored 40 research publications along with numerous posters and presentations. Ludwig currently serves as a manuscript reviewer for several pharmacometrics journals.

JULIE KOPFER MEMORIAL STAFF MEMBER OF THE YEAR AWARD

Rebecca Brierley

Rebecca Brierley, assistant dean and director of communications and alumni relations, received extensive praise from SPPS faculty and staff for her dedication and hard work: "Becky has been confronted with several challenges that were unique/unusual and she really stepped up to help the school put its best foot forward." "She has done an excellent job and has been very helpful in reaching out and crafting communications." "She's very much a team player and a great citizen of the school."

DANIEL H. MURRAY MEMORIAL PROFESSIONAL DEVELOPMENT AWARD

Jiajie Guan, PharmD '22

L-R: Jiajie Guan, PharmD '22; Jasdip Singh, PharmD '22

Guan was recognized for receiving the Best Student Poster Award at the 2021 American College of Clinical Pharmacy Annual Meeting. His poster was titled "Association between Potentially Inappropriate Medication Prescribing and Health-related Quality of Life among U.S. Older Adults."

Jasdip Singh, PharmD '22

Singh was recognized for his research project studying pediatric patients with Kawasaki Disease (KD). He created a novel risk assessment tool to identify factors that may predict a failure response in patients receiving first-line KD treatment. He is the first author on the manuscript titled "Predicting Intravenous Immunoglobulin Resistance Among Children Hospitalized with Kawasaki Disease."

2022 PRECEPTOR AWARDS

IPPE Outstanding Contribution Award
Collin Clark, PharmD '17

Professional Practice Elective Preceptor of the Year
John Siejak, PharmD '08

J. Fred Bennes Outpatient Care Preceptor of the Year
Alexandra Thomas, PharmD '15

Inpatient Care Preceptor of the Year
Elliot Marino

Pharmacy Practice Faculty Preceptor of the Year
Nicole Cieri-Hutcherson, PharmD '10

2022 White Coat Ceremony

Thursday, Sept. 1, 2022 | Slee Hall, UB North Campus

Our annual White Coat Ceremony symbolizes passage into the initial stages of the profession of pharmacy practice and represents a contract for excellence in providing compassionate patient care. Our 2022 event welcomed 128 first-year PharmD students to the UB family.

2022 Orientation

PharmD Class of 2026 and pharmaceutical sciences students participated in orientation programs to learn about school policies, spend time with student organization representatives, and meet with faculty and staff who will help support and guide their academic journey.

"This ceremony marks your entry into a professional degree program, and we welcome you as young professionals and junior colleagues."

– Gary M. Pollack, PhD '84, Dean

Pharmaceutical Sciences graduate students

Pharmaceutical Sciences undergraduate students

Victor E. Bull and Gary Pollack, PhD '84, Dean

Faculty and staff welcoming students during Orientation 2022

PharmD Class of 2026

Pharmaceutical Sciences Trailblazer Retires: Marilyn Morris and 37 years as a UB scientist, educator, mentor and leader

BY DEVON DAMS O'CONNOR

Marilyn Morris, PhD '84, arrived at UB in 1978 as a promising PhD student and retires this year as an indelible part of the school's history.

Morris was first drawn to the Department of Pharmaceutical Sciences because of its strong reputation in pharmacokinetics and pharmacodynamics, a field in which her research would later become paramount.

"As a student she was the best in her cohort," remembers Ho-Leung Fung, PhD, UB Distinguished Professor Emeritus, Department of Pharmaceutical Sciences, who was a professor in the department when Morris arrived at UB and would later become her colleague. "It was very clear when she came in that she'd be the best, and she remained at the top of her class."

After graduation, Morris left briefly for a postdoctoral position at the University of Toronto but returned a year later in 1985 to accept a faculty position thanks to the school's reputation and supportive culture. Over the next three decades, Morris became one of the world's preeminent scholars in the areas of drug membrane transport, pharmacokinetics and pharmacodynamics. She is widely recognized for her groundbreaking discoveries regarding the role of dietary flavonoids in drug interaction and drug resistance—research with enormous implications for patient care and drug therapy, particularly in cancer treatment. But when she began her studies, much of what is standard science now was still unknown.

"When I started my career, there was little information on any type of facilitated or active transport across membranes," says Morris. "It was felt that everything transferred by passive diffusion. This was an area that I got into very early and got to contribute knowledge. There was so much we didn't know, and so much opportunity to learn. This transport process was important for absorption, clearance by renal elimination and the impact of the drug itself."

The subject of facilitated transport is now so fundamental that there's an entire course dedicated to it, which Morris taught for years. The opportunity to inspire students, she says, has been the highlight of her career.

Love of teaching and science

"I love the teaching and interacting with PharmD, graduate and undergraduate students," says Morris. "The graduate level is my favorite because the students are so motivated, they go beyond their own expectations. At that level, the students have come to UB to learn and train with faculty here, and they recognize the caliber of faculty in the department."

Melanie Felmlee, PhD '11, assistant professor in the Department of Pharmaceutical Sciences and Medicinal Chemistry at the University of the Pacific Thomas J. Long School of Pharmacy, was one of those students. Her interest in Morris' research drew her to UB, and then into her classroom, where Felmlee found an engaging teaching style that made the material exciting.

"She explains things in many different ways," says Felmlee. "She was always really interested in and excited about the material. Someone who's engaged in the topic makes it interesting—sometimes the topics are dry. But if you show passion, it's more interesting to the students."

Guohua An, MD, PhD '10, associate professor of pharmaceutical sciences and experimental therapeutics at the University of Iowa College of Pharmacy, says Morris' flexibility in communication and mentorship extended to her lab, too.

"She basically trained every PhD based on their individual style," explains An. "That's very valuable. We have different strengths and different progressions in research, and she met each student where they were."

Working closely with Morris in the lab influenced both Felmlee's and An's own teaching and mentoring styles, which center around giving students freedom, room to grow and try things, empathy, and understanding. For Felmlee, Morris was also living proof that as a mom of three daughters, women could balance research and raising kids.

"I also have three children, and two of them were born while I was in Marilyn's lab," explains Felmlee. "I had someone to show me that I could be a parent and a scientist. With my third, I went into labor in the lab and had my daughter an hour later. Marilyn was the first visitor at the hospital."

Leading the way for women in academia and research

While Felmlee was able to take some maternity leave, this was challenging for Morris since maternity leave for female tenure track faculty members was not yet formalized. In the 1980's Morris was one of a few UB female faculty members and gave birth during the semester. She began her career at UB with a one-year-old daughter and no family support nearby. She navigated the birth of her second and third daughters during her first three years of teaching.

"I had to work it out on my own," says Morris. "But I never missed teaching any classes. I did record a few classes on video

because I was due at the beginning of the semester."

Throughout her early career, Morris divided her time and focus between research and family. Not only was she contributing significant scientific understanding, but she was also chaperoning school events and serving as room mother. At the time, she was working in a department full of men with different concerns, but they did have tremendous respect for all she was able to manage.

"She basically trained every PhD based on their individual style. That's very valuable. We have different strengths and different progressions in research, and she met each student where they were."

-Guohua An, MD, PhD '10

"When you talk about juggling, the most difficult time is when you're an assistant professor," says William Jusko, PhD '70, SUNY Distinguished Professor, Department of Pharmaceutical Sciences. "You're striving in a new job, you're expected to be productive in your research, garner grant support for your research and to publish often. For her to do that while raising three young daughters is remarkable."

Morris took the challenges in stride—and then worked to change the circumstances for future women in STEM at UB.

"I reached out to the president of the university at the time and said we need to really reconsider this if we want women to be science faculty," she explains.

It took some time, but her advocacy paid off. The university now allows tenure stop, which means that missing class time for labor and delivery no longer impacts the probationary period for tenure-track faculty, thanks to Morris. In hiring, the School of Pharmacy and Pharmaceutical Sciences also now considers spousal accommodation, which she says is important in attracting female talent.

As Morris ascended the ranks to the highest possible post of SUNY Distinguished Professor, she took on additional leadership roles both at the university and in professional associations. From 2006-2012, she served as associate dean of UB's Graduate School and was appointed chair of the Department of Pharmaceutical Sciences in 2017. She is a fellow of the American Association for the Advancement of Science, the International Pharmaceutical Federation, and the American Association of Pharmaceutical Scientists, of which she is also past president. Morris was also a member of the Food and Drug Administration's Advisory Panel for Clinical Pharmacology and Pharmaceutical Sciences and was elected a member of the executive committee of the Board of Pharmaceutical Sciences for the International Pharmaceutical Federation.

High standards with kindness and compassion

"This is so rare that a person can do all of these things well and do it with a style that is comfortable to herself and also comfortable to the people around her," says Fung. "She's a superwoman in many ways, from my perspective, but not one who pushes everyone out of the way. She carries herself with a great deal of kindness, grace, competence and excellence."

Joseph Balthasar, PhD '96, David and Jane Chu Endowed Chair in Drug Discovery and Development, professor of pharmaceutical sciences, director of the Center for Protein Therapeutics, and executive director of University Research Initiatives, was a student and then a colleague of Morris. In both roles, he says that while her kindness made the work enjoyable, it didn't mean she let anything slide.

"Marilyn has always been a very thorough and thoughtful researcher," says Balthasar. "I could always count on her as wanting to uphold the standards in our area of study. She felt strongly about maintaining a high level of rigor in our program."

Not only has the program continued to earn accolades under her tenure, Morris herself has also received a wealth of recognition for both her research and her leadership. She has been the recipient of American Association of Pharmaceutical Scientists Research Achievement Award in Pharmacokinetics, Pharmacodynamics and Drug Metabolism and Distinguished Service Award, Francis Dudley Meyer Award for Breast Cancer Research from the Cancer Research and Prevention Foundation, the SUNY Chancellor's Award for Excellence in Research and Creative Activity, the American Association of Pharmaceutical Scientists' Innovation in Biotechnology Award, and the American Association of Colleges of Pharmacy (AACP) Volwiler Research Achievement Award.

The Morris legacy

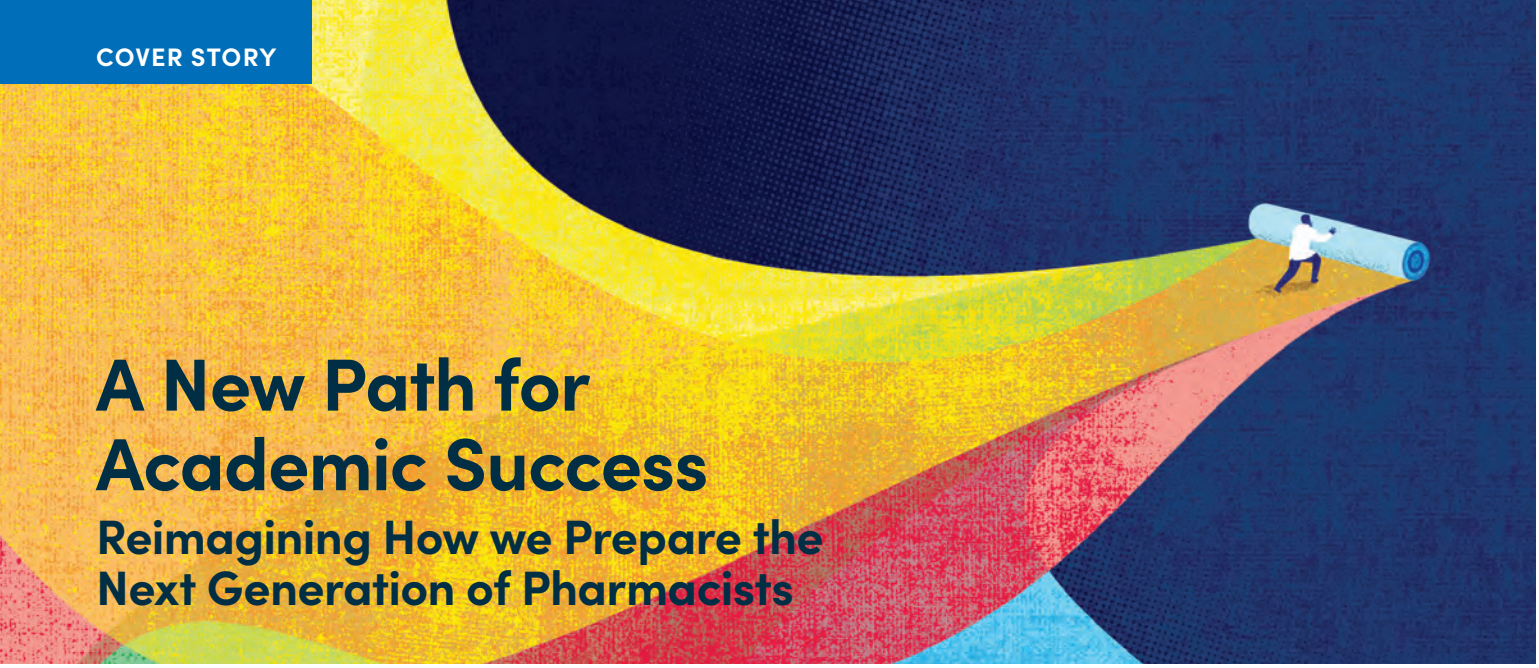
Following her retirement, Morris plans to stay involved in the school. She'll assist with admissions interviewing, wrap up one project, and continue to stay involved with special projects and scientific associations. Although she is not in the office regularly, her planner continues to be full.

"There are other things to do now," she explains. "My husband and I are building a home in Florida. I love to write; part of it will be scientific and part of it won't. I'd like to get back into tennis; my husband says we need to get into pickleball. I love hiking and skiing and plan to do more of both. We'll be visiting our children who all live in different places and spending time with my seven grandsons."

L-R: Ho-Leung Fung, PhD, UB Distinguished Professor Emeritus, Department of Pharmaceutical Sciences; Morris; William Jusko, PhD, SUNY Distinguished Professor, Department of Pharmaceutical Sciences

When Morris talks about her biggest accomplishments, she mentions her research only briefly before moving on to her proudest achievement: the hundreds of students whom she prepared to earn notable roles in academia and science.

"My legacy is in the students and postdocs I've mentored over the years," says Morris. "They're doing great things. That's the greatest contribution I could make—professionals making great breakthroughs in the pharmaceutical industry, U.S. Food and Drug Administration and academia."



A New Path for Academic Success

Reimagining How we Prepare the Next Generation of Pharmacists

BY DEVON DAMS O'CONNOR

Pharmacy is perhaps one of the fastest-changing professions in the health care landscape—as the world just witnessed during the COVID-19 pandemic. Seemingly overnight, topics previously absent from mainstream conversation like vaccines, testing and where to access both became urgent dialog, with pharmacies and pharmaceutical labs serving as center stage.

As the profession advances, so, too, must the preparation of the people who practice it. Gary Pollack, PhD '84, dean of the School of Pharmacy and Pharmaceutical Sciences, points to the pandemic as the largest among a confluence of forces prompting the school to reconsider how it educates and assesses tomorrow's pharmacy leaders.

Technology, which has been altering the way people teach and learn for generations, is another factor that underscored the need to consider how PharmD students learn best.

"If our student-age population wants to learn something, they pull up a YouTube video and learn how to fix their gas grill or how earthquakes happen," says Pollack. "They're very used to getting targeted information to help them solve problems. The old-fashioned way was to present everything on a particular topic all at once and ask them to pull out what they need. But that doesn't resonate with today's learners. We have to understand how students are used to learning in order to engage them as effectively and efficiently as we possibly can."

During COVID, the school also found that students can—and want to—learn in nontraditional formats that include flexible scheduling, which has led to efficiencies in educational workload as faculty didn't have to be present in classroom as often.

These subtle and sudden shifts have prompted a resurgence across the health care education spectrum in recent years, including in pharmacy, to examine how university labs and classrooms can better prepare graduates to enter these constantly evolving professions.

Many schools and colleges, including UB, are moving toward a learning-based framework, which focuses on outcomes and real-world performance.

To envision how the School of Pharmacy and Pharmaceutical Sciences could advance its educational experience, in January 2022, faculty and students representing pharmacy practice and pharmaceutical sciences formed three distinct committees. The groups were tasked with researching best practices and exploring answers in three key areas of inquiry: Which parts of UB's existing methodologies are core to its success and should not be changed? What are other leading pharmacy programs doing? How would the school approach teaching if resources and time were limitless?

Advancing the Educational Experience: Homefield, Green Grass and Blue Sky

The group that assessed the school's current offerings, nicknamed the Homefield Team, was led by Nicholas Fusco, PharmD '10, clinical associate professor and vice chair, Department of Pharmacy Practice.

"We looked at the existing curriculum as objectively as we could to identify what we excelled at, and how we could make sure those items were preserved in a future curriculum," Fusco explains. "We explored how we can leverage the strengths of our faculty and preserve innovative elements of the curriculum we've invested in that are beneficial. One example: We have a strong foundation in basic sciences in pharmacy practice. When we look at graduates from UB, they have a stronger foundation than students from other programs because of the faculty at our school. So whatever changes we make moving forward would need to reinforce that asset."

Next, the Green Grass team looked to other pharmacy programs that had begun to implement learning-based practices to see what was already working. Led by Kathleen Boje, PhD '88, associate dean for academic affairs and associate professor, Department of Pharmaceutical Sciences, the group began by selecting comparative programs based on three different rating schemes: NAPLEX exam success rate, their U.S. News and World Report ranking and their residency placement rate. Of those, the group focused on public research schools and private schools that were on par with or ranked higher than UB, or were identified by colleagues at other institutions as having programs that were also undergoing notable curricular revisions.

"One of the main things we kept in mind was that different schools have different talents, structures and university support," Boje explains. "We looked for the best of other schools, but also at how well their practices would fit with our talents and strengths to find the bits and pieces we felt we could integrate successfully."

Finally, the Blue Sky team imagined what UB would do if the sky was truly the limit. William Prescott, PharmD '02, department chair and clinical professor, Department of Pharmacy Practice, chaired the committee and says that while innovation and creativity played a big part in his group's assignment, they grounded their ideas in proven reality.

"We already do a lot of novel things here," says Prescott. "So, our role was to look at the curriculum as a blank slate and determine what we want to design to encourage student learning using evidence-based practices."

Following two months of careful study and discourse, each committee produced a white paper that outlined and prioritized their findings. The school then convened for a several-day retreat to outline the concepts, come to consensus on which ones to move forward with, and then guide needed content and logistics to reach the desired outcomes.

> **"We have to understand how students are used to learning in order to engage them as effectively and efficiently as we possibly can."**
>
> *– Gary M. Pollack, PhD '84, Dean*

Ensuring Academic and Professional Success

Proposed changes will address how student learning and mastery of subject matter are assessed and graded.

Honors/Satisfactory/Unsatisfactory

Starting with the incoming fall 2022 class, the school shifted away from letter grading and toward a more holistic system that will better assess student academic performance. Under the new system, students earn marks of Honors, Satisfactory or Unsatisfactory, similar to a pass/fail approach with the opportunity to achieve at a higher level, too. While current and incoming first-year students will be graded on the H/S/U scale through graduation, students who began their academic career under the A-F system will continue to be letter graded. It's a system that most medical schools—including UB's Jacobs School of Medicine and Biomedical Sciences—now employ, and there's growing interest among pharmacy schools to follow suit.

The essential goal of this change is to graduate students who are healthier and more well-rounded.

"Student stress and well-being is a main driver in us doing this," explains Fusco. "Students are generally high achievers and there's a lot of competition, and the A-F system fuels pressure that can really affect their well-being and lead to burnout. Our goal is to train students to be competent to enter practice, but also have time for extracurricular and co-curricular activities that can complement their practice. Professional development isn't just about grades."

Core Concepts

The second shift will assess how material is taught and may be implemented with the incoming fall 2023 class based on needed reviews and approvals. The evolving new curriculum intends to assess teaching elements of a core concept together rather than parsing out connected material over several courses and years.

In looking at the curriculum to determine how exactly faculty might implement this idea, the group found other areas for improvement.

"We've noticed that there may be elements of unintentional redundancy, which isn't a good use of students' time and it's not helping their learning," says Boje. "I think there will also be a potential for greater collaboration among faculty in figuring out where those redundancies are and where their coursework and syllabi could complement or build upon one another."

While newer students will benefit most, this exercise benefits current students, too. Some of the changes all students may see include moving away from traditional lectures to more interactive approaches and a broader range of learning opportunities."

"Existing students will have the advantage of faculty who are carefully considering all aspects of the approach to learning," says Pollack. "Anything we can do to improve our educational product helps everyone associated with the program, including alums."

Assessing for the Future

As a leading research institution, the school will carefully and continually evaluate these proposed changes and communicate its findings to the outside world—even if the results are not positive.

"It might be that something doesn't work very well and it's important to let people know that, too," says Pollack. "We're committed to the scholarship of education in studying what we do and basing future decisions on what we've already done."

Following months of due diligence, collaboration, discussion and planning, the steering committees are confident these new approaches will enhance both teaching and learning. And now is an opportune time for the UB School of Pharmacy and Pharmaceutical Sciences to begin to move forward.

"There has been new investment in UB on the heels of being named a flagship SUNY institution," explains Pollack. "The pandemic really highlighted the role of pharmacy and the various ways in which students can learn—so the timing is interesting and advantageous for us. We're a school in a university that's willing to take on these challenges, and I'm very interested in UB becoming an international leader and defining the path that others may follow."

Q&A

With Lee Vermeulen, BS '90

Seventh Executive Vice President and CEO, American Association of Colleges of Pharmacy

BY REBECCA BRIERLEY

For Lee Vermeulen and his family, the profession of pharmacy and the University at Buffalo play an important and proud role. His father, Lee Vermeulen Sr., is a 1966 UB pharmacy graduate and was employed as a pharmacist for 30 years at Inter-Community Memorial Hospital in Newfane, New York. His uncle, John Malke, was a 1965 graduate.

As Vermeulen embarks on a new pharmacy education leadership position as executive vice president and chief executive officer of the American Association of Colleges of Pharmacy (AACP), we asked Vermeulen about his life in Western New York and how his UB pharmacy degree prepared him for this important national role.

What were your top reasons for wanting to be the next executive vice president/chief executive officer at AACP?

Over the past 15 years, I have taken administrative positions in two different academic medical centers, UW Health at the University of Wisconsin-Madison and UK HealthCare at the University of Kentucky, but my responsibilities were primarily outside of pharmacy. I struggled to stay connected to my professional "home" in pharmacy throughout those years, but during the pandemic I realized I truly missed leadership roles in my profession. When this position came along, it was incredibly attractive and seemed like a perfect opportunity to get back "home."

While my primary positions have been in the executive leadership space, I have also taught and done research, and those aspects of my career have meant a great deal to me. Being able to contribute to the pharmacy academy is a tremendous opportunity.

Finally, few people have the chance to follow in the footsteps of a truly iconic leader, and that was something that I have been able to do—succeeding Lucinda Maine as AACPs seventh CEO is an honor!

You are an accomplished health systems researcher/administrator/educator. How will you use your skills in these areas to help advance pharmacy education?

I believe the greatest strength I will bring to AACP will be my experience as an executive leader, bringing innovative and creative solutions to challenges that are facing the academy. My understanding of the health care delivery market will help me express the value proposition regarding the care we provide and research we lead—advocating for the amazing things pharmacists and pharmaceutical scientists do. As I have mentioned, I also value my work as an educator and health services researcher, and my ability to teach and contribute to scholarship in pharmacy education. I feel that I can help support those essential aspects of pharmacy education in the same way!

What do you think are the three biggest challenges facing pharmacy education, and what can AACP do to help address these challenges?

Every night when I go to sleep, and every morning when I wake up, I am thinking about increasing enrollment in our colleges of pharmacy. That would be all top three

challenges rolled up into one! Many suggest we have a supply problem in our profession—we opened too many colleges, enrolled too many students, and now are struggling with lower salaries, less opportunity and poor workplace conditions. I think that is absolutely wrong. We do not have a supply-side problem—we have a demand-side problem.

We are about to face a massive pharmacist shortage, just as we are developing and implementing some of the most impactful pharmacy practice models ever offered in health care delivery. We need to refocus our professional identity—not around simply dispensing medications, but in providing essential care to patients who use medications, with our core responsibility of always ensuring the right medication is given to the right patient at the right dose. There are amazing new practice models being implemented around the country, rewarding and compensating pharmacists for the care they give, not what they dispense. As those models spread, providers, payers, regulators, legislators and community members will further recognize the value of what pharmacists can do; we will not be able to put enough pharmacists into practice to meet the demand! Luckily, these practice models will be very attractive to those considering a career in pharmacy, so I feel we will be able to meet that demand.

> **"If we shift our professional identity and expand care models that bring value to patients, these changes will allow us to accomplish all we need to and more!"**

We also have other challenges: ensuring our pharmacy curricula incorporates the right skills and is delivered in the most efficient way. We also need to ensure our workforce is diverse and inclusive, which is predicated on having a diverse and inclusive student body. As difficult as some of those challenges will be, if we shift our professional identity and expand care models that bring value to patients, these changes will allow us to accomplish all we need to and more!

As a Western New York native and 1990 graduate of the UB Pharmacy program, how do you think growing up in WNY and getting your pharmacy degree from UB helped prepare you for this new leadership opportunity?

I am very proud to have been raised in Western New York, and to be a UB Pharmacy grad, just like my dad and uncle were. All the other professional opportunities I have experienced are predicated on those five years at UB. Not only did I receive an incredible professional education, I was also given the chance to build leadership skills—both at the School of Pharmacy and Pharmaceutical Sciences (where I was co-editor of Signa, our yearbook, with my friend Paul Zagami, and as a leader in Kappa Psi), and also through campus-wide leadership programs. All the other education, training and experience I have gained since graduating from UB was built on that foundation—something I am very grateful for.

What is your favorite memory as a UB Pharmacy student?

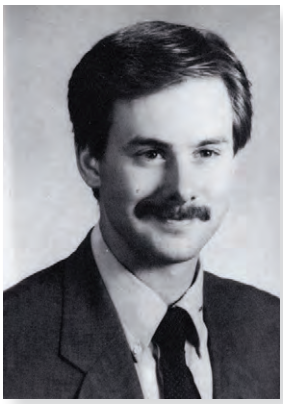
It is hard to pick just one. However, I think time spent with classmates, studying ... and not studying, would be my favorite. Building and relying on a cohort of friends is one of the most critical survival skills any student can have when it comes to thriving through the rigors of pharmacy school.

Who was your favorite UB Pharmacy professor and why?

There were several faculty members who taught both me and my dad—Gerda Klingman, Bob Gumtow, Orville (OB) Baxter—those were clearly favorites—probably because they remembered my father (and I hope I stacked up OK against him as a student!). However, the one person who made the most impact and was my favorite, was the late Dr. Bob Cooper, associate dean for student affairs. When I was in high school and decided to go to pharmacy school, my dad took me to meet him for advice and I received very, very good advice, indeed. Bob provided encouragement, sometimes a less-than-gentle nudge in a better direction, but always was supportive of my career direction.

What advice would you give to a first-year PharmD student?

I usually do not like to give general advice. As an advisor and mentor to many PharmD and graduate students, residents and fellows, I have found that guidance must be tailored to the needs and interests of the trainee. So, the best advice I can give is, students need to find someone who can provide personalized guidance, and then deliberately foster that relationship. Mentors and mentees need to be clear and intentional about the nature of their relationship, and like any relationship, it takes work, but it is worth it.



Above: Vermeulen's 1990 yearbook photo.

Right: Assistant Editor Vermeulen (center, back row) with the 1989 Signa yearbook committee.

UB at the VA

L R: Kari Mergenhagen, PharmD '07 and Kristin Krajewski, PharmD '05, Buffalo VA Medical Center tribute garden

UB Pharmacists Make an Impact at the Federal Level with Veterans Affairs

BY DEVON DAMS-O'CONNOR

Some people select a career based on the variety of work they'll get to do. Others choose based on whom that work will benefit. For UB School of Pharmacy and Pharmaceutical Sciences alumni working as pharmacists at medical centers run by the U.S. Department of Veterans Affairs, the role presents a unique opportunity to satisfy both criteria.

The people who seek medical care through the VA are, of course, veterans of the U.S. Armed Forces. They include older men who fought in Korea and Vietnam, who tend to be sicker than the general population with complex cases and co-morbidities including congestive heart failure, COPD and diabetes, plus pneumonia and other infectious diseases. They are also younger men—and increasingly, women—who served in recent conflicts in Iraq and Afghanistan and often struggle with substance abuse and mental health issues.

For pharmacists, opportunities to practice their profession are as varied and complex as the brave men and women they serve.

Enhanced Scope of Practice

Kristin Krajewski, PharmD '05, a clinical pharmacy specialist at the Buffalo VA Medical Center, says the biggest difference in practicing under federal law rather than state law is the freedom to do more.

"Federal pharmacists have a broader scope of practice than pharmacists licensed in New York State," she explains. "We're able to practice at the top of our license. If I'm doing anti-coagulation management, I don't need a doctor to sign off on everything. I have provider status, and I can order the labs and prescribe within my scope. We just get to do more to help our patients."

Krajewski's position is one she helped create more than 15 years ago when she was a resident fresh out of UB, and the VA began to implement a medication reconciliation and transitions of care program. Before the program existed, doctors would order a host of medications when a patient was discharged, and the pharmacy would simply fill them, resulting in a lot of waste and gaps in education (for example, when one medication should replace another, not be taken in addition to). Now there are five people in Krajewski's role, all of whom have made a big impact on patients.

"We see everyone on their way out, counsel them on their meds right at their bedside, or call a family member who's responsible for the patient's meds," explains Krajewski. "It increases patient safety—everyone should know what the plan is for medication on their way out of the hospital; they shouldn't have to guess."

Eliminating Inequities in Nationwide Health Care

The variety of roles and responsibilities for pharmacists within the VA is especially apparent for Kari Mergenhagen, PharmD '07. She serves as the PGY1 pharmacy practice and PGY2 infectious diseases

residency program director, as well as the infectious diseases pharmacist at the VA WNY Healthcare System. She started the hospital's pharmacy-lead antimicrobial stewardship program, which has been added to the best practice library of The Joint Commission, the national organization responsible for accrediting U.S. health care organizations.

Each morning, she reviews the charts of all 50 to 80 patients who are on antibiotics throughout the hospital and determines a comprehensive approach to monitor and mitigate their infectious diseases. Mergenhagen makes recommendations, talks to care teams, prescribes antibiotics as necessary and orders labs. She'll visit the microbiology lab to look at plates and cultures, go on rounds with infectious disease teams, and visit patients' bedsides to answer questions and make sure the appropriate antibiotic is chosen.

Each year, Mergenhagen leads several projects to improve the stewardship program, many of them based on her passion and penchant for research. With one centralized electronic medical record system dating to the 1980s that contains data for millions of veterans, the VA is uniquely qualified to contribute to large-population research studies that can help health care professionals improve patient outcomes. So far, Mergenhagen's research has been published more than 50 times. She recently led a study that looked at the records of 500,000 patients to reduce the empirical treatment of MRSA and found opportunities to potentially eliminate certain medications earlier to reduce the risk of kidney damage.

Nontraditional Programs and Approaches

Working for a federal entity also gives medical professionals the freedom to move between different VA Medical Centers around the country without having to retest for state licensing. For Brenda Olivo, PharmD '18, that meant an easy relocation from the VA White River Junction Healthcare System in Vermont back to the Bronx to be closer to family during the pandemic. She's now the evening pharmacy supervisor at the James J. Peters VA Center, located in the neighborhood where she grew up.

"I love the flexibility of it," explains Olivo. "I feel like at any point I could decide I'm passionate about primary care, and that door would be open for me. I could seek those opportunities within the VA either here, or within the system nationwide."

When Olivo was working in Vermont, she was part of a Patient Aligned Care Team (PACT) overseeing pharmacies that served the VA's community-based outpatient centers in the state's rural communities. That work was totally different from her current position, where she works overnights at a hospital in a city. While the hours are out of the ordinary, her responsibilities are typical for pharmacists working in an inpatient setting at the federal level.

> "We see everyone on their way out, counsel them on their meds right at their bedside, or call a family member who's responsible for the patient's meds."
>
> – *Kristin Krajewski, PharmD'05*

Brenda Olivo, PharmD'18

Olivo interfaces with providers, who call the hospital's pharmacy for drug information, questions regarding the best way to communicate an order, or appropriate dosing. She coordinates pharmacy services to all inpatient floors and the emergency department throughout the night and provides patient counseling during discharge or intake. Sometimes she'll process non-formulary requests and review the case to either approve or suggest an alternative.

While it's not uncommon for Olivo to counsel patients at 3 a.m., Kaitlyn Starr, PharmD '18, might be doing the same—but from the comfort of her own home. She's the clinical contact center facility program manager, a highly competitive new remote-work role that was created in October 2021 to help manage the increasing volume of calls VA pharmacies were fielding from veterans, doctors and caregivers. Now, any patient who calls one of the VA's VISN2 region sites (which encompasses New York and New Jersey), reaches the virtual call center, where pharmacists, nurses and providers are available 24/7 via phone or video to answer urgent questions. There's also a health chat where patients can type a message and get a response, too. The pilot program is now rolling out to other VA regional sites across the country to help connect veterans to care more quickly.

Kaitlyn Starr, PharmD'18

"We have a lot of veterans out in the country, and that was a huge push within the VA to get more access for rural and homebound veterans," explains Starr. "Instead of veterans having to wait for someone to drive them to a center, this allows us to keep them up to date on medications and lab tests, not have to go as long without seeing someone, and catch issues before they get worse."

She adds that younger vets seem to prefer the video and chat modalities, which make it easier for someone to reach out for immediate help when there's a drug interaction or a mental health crisis. Whether in person or on the phone, the UB School of Pharmacy and Pharmaceutical Sciences alumni working for the VA all say that one of the most rewarding parts of their careers has been the opportunity to care for this very special group of men and women.

"I love my patients," says Krajewski. "I get to know them and have so much respect for them. I strongly prefer to work with veterans. You have to be open and honest with them; they want someone to tell it to them straight. They've been through a lot. Some of the stories have opened my eyes. It's a higher purpose almost—not only do I get to help people, but I get to help veterans. It's a different point of view every day."

Advancing Global HIV Research:

Morse Lab Receives $12.8 million from NIH to Improve Quality of HIV and Infectious Disease Research Around the World

BY MARCENE ROBINSON

The University at Buffalo School of Pharmacy and Pharmaceutical Sciences was awarded $12.8 million from the National Institutes of Health (NIH) to lead a clinical pharmacology quality assurance program for NIH-funded laboratories and research networks across the globe conducting HIV and infectious disease research.

The seven-year grant is the third contract awarded to the UB program, which began in 2008. The contract has the potential to increase by $4.7 million through the exercise of options that increase the number of participating research sites and labs.

"We are very proud of our successful re-competition for this contract and the recognition by NIH that our research program has the experience and expertise to contribute to the ongoing global effort to investigate new therapeutics for HIV prevention and treatment, as well as treatment of related infectious diseases," says principal investigator Gene D. Morse, PharmD, SUNY Distinguished Professor of Pharmacy Practice and director of the UB Center for Integrated Global Biomedical Sciences.

The UB Clinical Pharmacology Quality Assurance (CPQA) program works with clinical research programs and labs in the United States, Africa and Asia, participating in HIV clinical trials supported by the National Institute of Allergy and Infectious Diseases to improve the quality of pharmacology data; ensure the validity and comparability of pharmacological study data; and to increase awareness of best practices for conducting clinical pharmacology protocols and collection, and processing and storing biospecimens at clinical research sites.

The award renews a longstanding subcontract with Frontier Science and Technology Research Foundation, a Western New York company that supports the program's data management and analytics.

NIH's continued support of the program spotlights the important role that UB researchers play both locally and globally in fighting infectious diseases, says Venu Govindaraju, PhD, UB vice president for research and economic development.

"UB has strategically developed a supportive infrastructure for scholarship that has well-positioned the university to lead projects that address society's most challenging programs, such as the treatment and prevention of HIV and other infectious diseases," Govindaraju says. "The UB Clinical Pharmacology Quality Assurance program exemplifies just how wide-ranging and impactful UB's research enterprise is." Govindaraju also noted how the award will help UB situate itself among the Top 25 public research universities in the country.

Additional UB faculty working on the grant include Robin DiFrancesco, scientific manager and research associate professor, Department of Pharmacy Practice; Richard W. Browne, PhD, professor, Department of Biotechnical and Clinical Laboratory Sciences at the Jacobs School of Medicine and Biomedical Sciences; and Troy D. Wood, PhD, associate professor, Department of Chemistry, College of Arts and Sciences.

Woo receives $2.3 million from the National Cancer Institute to Develop Drugs to Treat Ovarian Cancer

BY MARCENE ROBINSON

Sukyung Woo, PhD, associate professor of pharmaceutical sciences, received a $2.3 million grant from the National Cancer Institute to identify metabolic vulnerabilities of ovarian cancer and to develop potential treatments for the disease.

The research aims to fast-track the development of drugs that target apelin—a peptide that when expressed within body fat helps ovarian cancer cells better consume lipids—and the apelin receptor (APJ) by utilizing a combined experimental and computational mathematical modeling approach.

High-grade serous ovarian cancer is the most common and malignant form of ovarian cancer, accounting for nearly 80% of ovarian cancer deaths, says Woo. The high mortality rate is largely due to most patients being diagnosed with advanced-stage disease when tumors are widely metastasized and have developed drug resistance, she adds.

Unlike most other cancers, ovarian cancer cells primarily metastasize within the abdomen, preferably in lipid-rich areas such as the omentum. Ovarian cancer cells rely on lipids as an energy source for survival, spread and drug resistance.

"By completing these studies, we will establish the importance of apelin and APJ as a therapeutic target in ovarian cancer—a malignancy for which effective therapies are desperately needed to improve patient outcomes," says Woo.

The investigators will also explore the significance of ovarian cancer cells' capacity to form cell clusters called spheroids, which travel through bodily fluids to reach new sites within the abdomen.

APJ promotes the spread and chemoresistance of ovarian cancer cells by regulating their capacity to form spheroids and their metabolic switch to using lipids as energy, and by supporting the formation of new blood vessels through a process called angiogenesis, says Woo.

Previous studies led by Woo have found that greater expression of apelin and APJ within tumor microenvironments resulted in increased use of lipids as energy by ovarian cancer cells, leading to better survival, fitness and spread of the cells.

The findings also demonstrated that blocking the APJ pathway is possible, reducing the risk of cancer spread and improving the effectiveness of chemotherapy targeted at ovarian cancer, says Woo.

NIH Gives Perfect Score of 10 to UB Program Nurturing Next-Generation Clinical Scientists, Over 5 Years

BY ELLEN GOLDBAUM

Fewer health professionals are choosing to be clinician scientists like Anthony Fauci: A UB program aims to reverse the trend

Since the COVID 19 pandemic began, the world has seen an astonishing number of life saving breakthroughs, from the mRNA vaccines to Paxlovid and Evusheld. But long before the pandemic, the U.S. was starting to see a dramatic shortage of clinical scientists the very people who develop such breakthroughs. In the 1980s, nearly 5% of physicians said that research was a significant part of their work, whereas in 2019, just 1.5% were engaged in research.

It s a shortage that the University at Buffalo is working hard to address. And the National Institutes of Health (NIH) has noticed.

This summer, the NIH gave UB s Clinician Scientist summer training program a rare and perfect score of 10, along with funding of nearly $300,000 over the next 5 years. The funding renews a program that UB runs with Roswell Park Comprehensive Cancer Center as a partner and that aims to attract into biomedical research current health sciences students. Previously only for medical students, the program is now open to eight MD students and two PharmD students.

While the majority are from UB, students from any medical school or pharmacy school are eligible. The program also partners with Meharry Medical College and the University of Puerto Rico and has welcomed their students into UB laboratories to conduct research with UB faculty.

Over the past ten years, UB s program has had a 100% success rate, meaning all 70 participating medical students over the past decade completed the nine week summer research program; many of them published impactful research papers with their UB mentors.

The program has successfully recruited underrepresented students from UB s post baccalaureate medicine program and through its partnerships with Meharry Medical College and the University of Puerto; 30% have been underrepresented students and 63% have been female. For the UB pharmacy school, this new grant will help support the training of students to help support and foster an inclusive community of future pharmacy practitioners.

Training 'the next generation of Anthony Faucis'

To envision what a clinician scientist is, think no further than the example of Anthony Fauci, MD, who stepped down in December 2022 from his post as head of the National Institute of Allergy and Infectious Diseases.

Anthony Fauci is the ultimate clinician scientist," says Tim Murphy, MD, SUNY Distinguished Professor in the Jacobs School of Medicine and Biomedical Sciences and director of UB s program. "People like him are the ones who are responsible for developing the COVID 19 interventions that were so successful. When you think of treating the virus now, fewer people get seriously ill. That s largely because of the vaccines and Paxlovid. In essence, we are training the next generation of Anthony Faucis.

Fewer clinician scientists means fewer lifesaving breakthroughs, says Allison Brashear, MD, vice president for health sciences and dean of the Jacobs School of Medicine and Biomedical Sciences. It s that simple. That s why we are especially pleased that the NIH is again funding this program, a testament to Dr. Murphy s many years of research leadership and his unwavering commitment to fostering the next generation. Students who experience the joy of research early on are more likely to pursue research in their careers.

First for PharmD Students

This is the first year that PharmD students as well as MD students are eligible to apply, an important advantage, according to Brian T. Tsuji, PharmD, professor of pharmacy practice and associate dean for clinical and translational science in the School of Pharmacy and Pharmaceutical Sciences.

Brian Tsuji, PharmD

Tim Murphy, MD

The dearth of pharmacist clinician scientists has delayed rational drug development in clinical trials and therapeutic optimization of drugs in patients, he says. Having PharmD students involved in this program right from the get go in their first year will enable critical bench to bedside research to individualize patient care.

The program provides a $4,000 stipend to students who conduct research during the summer between their first and second year in professional school, the only summer that they have "off" from school.

This year, the program also features a digital badge, and the opportunity to earn a micro credential that students can put on their online resumes, directly linking to the specifics of the research they did. "Our program is unique, as we will offer both a digital badge or a micro credential to differentiate students and provide them with a competitive workforce advantage," says Tsuji.

The focus is on research in infectious disease, microbiology and immunology, and it pairs students with researchers in those fields.

Considering they have such a short period, just nine weeks, to do their research projects, these students have been tremendously successful," says Murphy. "Many of them manage to become authors on peer reviewed published papers. And since they have that experience so early in their training, it tends to positively influence their career choices.

Paying it Forward to Build Stronger Communities:

UB SPPS Faculty and Students Lead Efforts in Buffalo Public Schools

BY REBECCA BRIERLEY

Community support and advocacy have always been hallmarks of UB School of Pharmacy and Pharmaceutical Sciences (SPPS) students and faculty, and recent partnerships with the Buffalo Public Schools have further strengthened opportunities for community support.

Over the past few years, including during the pandemic lockdowns, PharmD student volunteers, guided by Raymond Cha, PharmD, clinical associate professor, pharmacy practice, have been finding creative ways to bring health care information and advocacy to children and their families in underserved communities throughout Buffalo.

It all started with Cha wanting to make good on a promise he made while growing up in Jersey City. His family immigrated to the United States, where they were able to launch a new life. Cha never forgot how the support of that urban community helped boost and foster the lives of his family, and how he wanted to "pay forward" the help they received. Since then, he has been finding ways to volunteer within urban communities both personally and professionally.

Paying it Forward

When Cha was hired by UB, he began paying forward his time and energy to inner-city Buffalo community projects, which led him to the Buffalo Public Schools. As this relationship grew, he began to draw in like-minded PharmD student leaders to help elevate this important community outreach. "Lifting up neighbors is a reflection of our great Buffalo community. Our pharmacists in this city witness that everyone, of all backgrounds and identities, deserves a strong community, and so we pass on what we can because we can," says Cha.

In early 2020, the first SPPS student, Jerrica Tang, PharmD '21, began working with Cha on student-centered programming focused on hygiene and communicable diseases—perfect timing as the pandemic began to take hold. As Tang entered her P4 year, she was unable to continue her outreach work due to clinical rotations. This led to Tang paying it forward by training Chloe Matecki, PharmD '23. And once Matecki began her year rotations, she paid forward her knowledge and experiences to current student leaders, Rylee Tepoel, PharmD '24, and Alex Leidolf,

PharmD '24, who are now coordinating the pharmacy school's efforts within the Buffalo Public Schools, specifically with the Frank A. Sedita Elementary School.

"Our pharmacists in this city witness that everyone, of all backgrounds and identities, deserves a strong community, and so we pass on what we can because we can."

– Raymond Cha, PharmD

The Sedita School has been partnering with UB SPPS along with the "Say Yes to Education Buffalo" partnership. Say Yes Buffalo is a community advocacy organization to help increase economic and educational mobility among the Sedita School's diverse and underserved urban population, with school data showing 96% minority student enrollment, and test scores showing 12% math proficiency and 21% reading proficiency (per 2021 U.S. News & World Report rankings).

Matecki recalls her early community outreach work: "When I started working on what would become the Say Yes partnership, I was a P1 student involved in making health fair materials. Then in March of 2020, the pandemic started. We knew we had to shift our outreach and one of the first things we did was create and distribute videos for the schools, and the videos included handwashing techniques!"

Pharmacy Leads and Engages Other Health Professions

UB PharmD students lead a cadre of other health professions students to create and lead mini-health care educational programs geared to middle school- and elementary school-age children at the Sedita School and other Buffalo Public Schools. Popular health care programs include "slime making with glow germs" to show students and their families how to stop the spread of germs and infectious diseases. These and other health care topics were presented virtually during the pandemic and in person beginning in 2022. Cha and the students prefer the ability to be in person so as to have direct interaction with community members and to talk directly to students about what pharmacists do, and how interesting science is!

Matecki feels a huge sense of pride for what she has been able to give back. "Now that I have handed off the program to Rylee and Alex, I know the program is in good hands. This has been an absolute pleasure and I know these experiences will shape the core of my future practice!"

"I hope to continue to grow and expand our efforts in the Buffalo area this year," says Tepoel. "Currently, there is a lot of interest from the community to provide programming. I believe providing the high-impact programming across the Buffalo school district is essential to our ability to support, educate and enhance the lives of our fellow Buffalo neighbors and community members."

Continued Community Development

The value of interdisciplinary work will be key to future success, says Leidolf. "The Say Yes program has a lot of potential opportunities to include even more health care professionals. We will continue to enhance relationships with UB medicine, dentistry, dietitian interns and others, so we can continue to provide even better programs to more schools, further extending our helping hand."

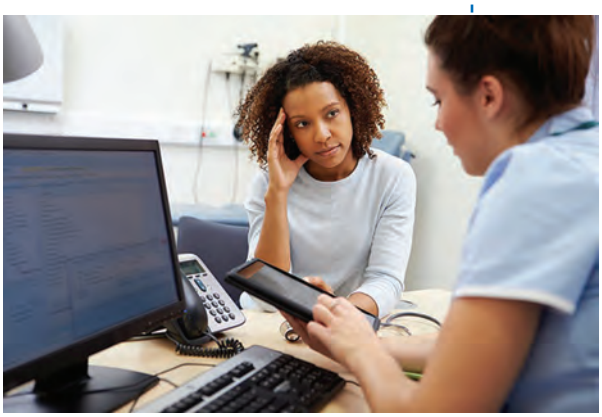
The work UB PharmD students are doing to support and guide Buffalo Public Schools students is just another way the profession is "paying it forward" to help build stronger communities, and highlight the close connection pharmacists have always had with the communities they serve. Leidolf understands how important this is. "With pharmacists being one of the most accessible health care professionals, it is fundamental that we promote inclusion and unity at all times. I believe as a pharmacist it is important to help foster the development of our communities in any way possible."

UB pharmacy students with students and family members at the Frank A. Sedita Elementary School

UB Receives National Grant to Teach Health Sciences Students How to Tackle, Overcome Medical Disinformation

BY ELLEN GOLDBAUM

The University at Buffalo is one of five universities nationwide that have been awarded an important $35,000 grant from the Association of American Medical Colleges (AAMC) to support teaching health sciences students how to dispel medical disinformation. The grants are part of a national strategic initiative developed by the AAMC with the U.S. Centers for Disease Control and Prevention to increase confidence in COVID-19 vaccines and address medical misinformation and mistrust by educating health sciences students.



"Achieving this national recognition is extraordinary for the University at Buffalo and an important step in stopping the spread of disinformation that negatively impacts efforts to combat COVID-19," says Allison Brashear, MD, vice president for health sciences and dean of the Jacobs School of Medicine and Biomedical Sciences. "Clinicians and learners across UB's health sciences schools are uniquely positioned to work with their patients and public audiences to address health misinformation."

The goal of the UB project is to develop an interprofessional education (IPE) experience for all UB's health sciences students in the Jacobs School, the School of Pharmacy and Pharmaceutical Sciences, the School of Nursing, the School of Dental Medicine and the School of Public Health and Health Professions. UB students will begin the new training program as a pilot starting this fall.

The UB project was developed by UB co-principal investigators Nicholas M. Fusco, PharmD, clinical associate professor in the Department of Pharmacy Practice; and Alison M. Vargovich, PhD, clinical assistant professor in the Division of Behavioral Medicine.

Innovation in Interprofessional Education

"Medical misinformation and vaccine hesitancy are touched on in each respective program's curricula," says Fusco. "What makes this innovative is the program's interprofessional foundation which provides students the opportunity to practice skills they are taught in a team-based environment."

UB Health sciences students will learn together with their peers from other professions about how they can work as a team to tackle medical misinformation and disinformation.

The goal is to improve trust between health professions students and the patients and communities they serve. A key step is providing trainees with a framework to approach these conversations effectively and respectfully.

"The public may see or hear things that are misrepresented or false," says Fusco. "Convincing them otherwise is challenging, given the emotional and politically charged relationship that has developed between health care and the public. It is a team effort to dispel medical misinformation and vaccine hesitancy, as well as a team effort to develop this educational innovation, which would not be possible without the creative expertise of our research team."

Educational modules will focus on misinformation, interprofessional approaches, vaccine hesitancy and evidence-based communication practices. Students will be asked to apply this knowledge first to virtual simulation scenarios, and then to in-person simulations using standardized patients to reinforce the information they have learned.

"Educating our health professions students to approach conversations with patients about vaccine hesitancy using specific evidence-based strategies reduces variability and strengthens patient outcomes," says Patricia J. Ohtake, PhD, assistant vice president for interprofessional education and associate professor of rehabilitation science.

Toward Productive Conversations

"The idea is never to force a patient to change, in part because that doesn't work," Vargovich says, "but to learn how to have productive conversations that hopefully result in patients reconsidering their viewpoint, or at least being more open to continued discussion."

Two strategies are typically used when addressing misinformation and the development of false beliefs held by patients. One focuses on the information deficit model, where providing education may be all that is needed to help a patient update their beliefs. The second strategy provides a framework for patients who are resistant to change and have more strongly held views related to misinformation.

> "It is a team effort to dispel medical misinformation and vaccine hesitancy, as well as a team effort to develop this educational innovation, which would not be possible without the creative expertise of our research team."
>
> *- Nicholas Fusco, PharmD*

In addition to Fusco and Vargovich, the UB team on the AAMC grant includes Kelly Foltz-Ramos, PhD, director of simulation and assistant professor, School of Nursing; Jessica Kruger, PhD, clinical assistant professor, Department of Community Health and Health Behavior; and William A. Prescott Jr., PharmD, chair of the Department of Pharmacy Practice.

Tsuji Receives $4 million from NIAID to Develop New Treatments that Combine Antibiotics and Non-Natural Nucleotides

BY MARCENE ROBINSON

To combat "hypermutated" strains of deadly, antibiotic-resistant bacteria, the National Institute of Allergy and Infectious Diseases has awarded the University at Buffalo a $4 million grant to study the underlying mechanisms by which rapidly acquired mutations interfere with antimicrobial therapies and develop new treatment strategies to combat these deadly infections.

The five-year study, funded by the agency's Research Project Grant (R01) program, will focus on antibiotic resistant strains of Pseudomonas aeruginosa, which, in 2017, caused an estimated 32,600 infections among hospitalized patients and 2,700 deaths in the United States, according to the Centers for Disease Control and Prevention.

The investigation is led by Brian Tsuji, PharmD, professor of pharmacy practice and associate dean of clinical and translational sciences, School of Pharmacy and Pharmaceutical Sciences; and Mark Sutton, PhD, professor of biochemistry, Jacobs School of Medicine and Biomedical Sciences at UB. The award is the largest current R01 grant awarded to UB by the National Institutes of Health (NIH) in 2022.

The award is the largest current R01 grant awarded to UB by the National Institutes of Health (NIH) in 2022.

Pseudomonas aeruginosa is an urgent, global, public health threat. Highly resistant strains have emerged that possess a remark able evolutionary capacity to adapt and persist in the face of therapy," says Tsuji. "The scarcity of treatment options and the broken antibiotic pipeline demands the development of new therapeutic strategies that target nontraditional, unexploited pathways. Our results will set the cornerstone for future test ing of anti mutators in clinical trials and pro vide unprecedented insight into combination therapies for bacterial strains that are urgent threats," says Sutton.

There is mounting evidence that hypermutator' strains, which have a significantly increased frequency of spontaneous mutations, may help bacteria to develop antibiotic resistance and become more pathogenic, says Sutton. These mutations in the bacteria develop when errors occur during DNA replication and repair.

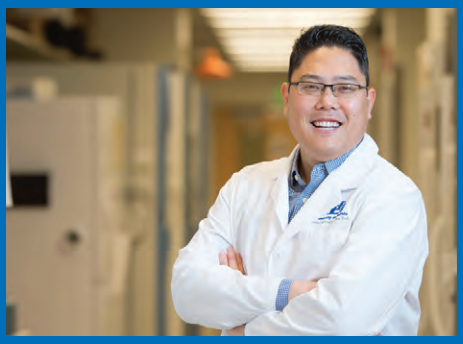
Tsuji and Sutton aim to define the contributions of hypermutators to antibiotic resistance. In collaboration with Anthony Berdis, PhD, professor of chemistry at Cleveland State University, who previously pioneered the synthesis and testing of non natural nucleotides as anti cancer therapies, the researchers also aim to develop new treatment strategies for antibiotic resistant strains of Pseudomonas aeruginosa by combining the delivery of antibiotics with non natural nucleotides.

Other co investigators include Thomas Russo, MD, SUNY Distinguished Professor of Medicine and professor and chief of the Division of Infectious Disease, Jacobs School of Medicine and Biomedical Sciences; and Nicholas Smith, PharmD, PhD, assistant professor of pharmacy practice, UB School of Pharmacy and Pharmaceutical Sciences.

The early stages of the project, including the establishment of the research team, were supported by the UB Genome, Environment and Microbiome (GEM) Community of Excellence. GEM provided the seed funding to build new bridges so that our R01 could be a leading example of team science at UB and across the U.S., says Sutton.

I am so grateful to our incredible team of interdisciplinary scientists, students and investigators who had to think outside of the box to propose new strategies to combat resistance. Without them, none of this would be possible. They deserve all the credit, says Tsuji.

NIH National Institute of Allergy and Infectious Diseases



"I am so grateful to our incredible team of interdisciplinary scientists, students and investigators who had to think outside of the box to propose new strategies to combat resistance. Without them, none of this would be possible. They deserve all the credit."

– Brian Tsuji, PharmD

Lyle Elected National President-Elect for APhA-ASP

BY KARA SWEET

Victoria Lyle, PharmD '24, was elected national president-elect of the American Pharmacists Association Academy of Student Pharmacists (APhA-ASP) for 2022-2023.

Her duties include serving as a liaison on the APhA-ASP Awards Standing Committee and the International Standing Committee, and as a delegate to the APhA House of Delegates. Her position also includes outreach visits to various pharmacy schools, and presenting during the APhA-ASP Midyear Regional Meeting and APhA Annual Meeting.

"I ran for APhA-ASP national president-elect to empower student pharmacists to use their voice to make meaningful changes within the profession of pharmacy," Lyle says. "APhA-ASP gives student pharmacists the incredible platform to advance the profession, and I want to utilize the president-elect position to encourage student pharmacists to do so."

"APhA-ASP gives student pharmacists the incredible platform to advance the profession, and I want to utilize the president-elect position to encourage student pharmacists to do so."

Adams, PhD Student, Receives ISoP Unsung Hero Award

BY SAMANTHA RZESZUT

Kimberly Adams, PhD student, received a 2022 Unsung Hero Award from the International Society of Pharmacometrics (ISoP).

This award recognizes noteworthy candidates who are ISoP members and have demonstrated significant dedication, commitment and contributions to the effective operations of ISoP. Adams has been a volunteer on the ISoP Education Working Group, working to identify and index resources and training programs for those interested in learning pharmacometrics.

Adams and the working group created and administered a survey to all ISoP members and published the results of their findings, titled "Knowledge dissemination and central indexing of resources in pharmacometrics: an ISOP education working group initiative," in the Journal of Pharmacokinetics and Pharmacodynamics.

"I truly appreciate the acknowledgement of my contributions within this working group, and I am honored to receive the Unsung Hero Award," says Adams. "I look forward to future ISoP initiatives for the opportunity to continue working and collaborating with other scientists who are passionate about the field of pharmacometrics."

Gentz, 2022 SUNY Chancellor's Award Recipient for Student Excellence

BY REBECCA BRIERLEY

Kathryn Gentz, PharmD/MBA '22 was one of 15 UB students who received a 2022 State University of New York (SUNY) Chancellor's Award for Student Excellence, created in 1997 and given annually to recognize high achieving SUNY students who also excel in such areas as leadership, community service, campus involvement or the arts.

Gentz's accomplishments include being named to Buffalo Business First's list of "Movers and Shakers" under 25, and working as a graduate assistant in UB's Blackstone LaunchPad, an experiential campus program designed to introduce entrepreneurship as a viable career path. Gentz is also a three-time recipient of the Western New York Prosperity Fellowship to help foster economic development in her community. She has served as president of her pharmacy class and was inducted into both Rho Chi Society Omega Chapter, a national pharmacy honor society that promotes the encouragement and recognition of sound scholarship, and Phi Lambda Sigma, a national pharmacy leadership society that supports leadership commitment by recognizing leaders and fostering leadership development.

Cheng Appointed to ACCP National Student Network Advisory Committee

BY SAMANTHA RZESZUT

Christina Cheng, PharmD '24, was appointed member-at-large for the American College of Clinical Pharmacy (ACCP) National Student Network Advisory Committee for 2022-2023. As member-at-large, Cheng and the committee will develop new programs and services for student members and those attending the ACCP Global Conference on Clinical Pharmacy, allowing students to connect with clinical pharmacists, practitioners, researchers and educators from around the world.

"I was interested in this position as it offered development of leadership skills and expansion of opportunities for student pharmacists who were interested in clinical pharmacy," Cheng says. "I hope to learn and grow as a student leader and an aspiring clinical pharmacist. I know this appointment will help me expand my horizons and push me to become a better student leader, more open-minded, and more well-rounded as a residency candidate."

Spyhalsky Wins ACCP Best Student Poster Award

BY SAMANTHA RZESZUT

Autumn Spyhalsky, PharmD/MS '24, won the Best Student Poster Award at the 2022 American College of Clinical Pharmacy (ACCP) Global Conference on Clinical Pharmacy. This is the second consecutive year a student from the UB School of Pharmacy and Pharmaceutical Sciences has received this award.

Spyhalsky's poster titled "Dynamics of Urinary Biomarkers to Detect Acute Kidney Injury in Critically Ill Children Receiving Vancomycin" examined the concentrations of novel urinary biomarkers in Pediatric Intensive Care Unit (PICU) patients receiving vancomycin, and compared concentrations across subjects with Acute Kidney Injury (AKI) and those without it.

Her research team found PICU patients with AKI had a significant difference in biomarker concentrations from baseline to peak values, and found biomarker concentrations increased significantly more among patients with AKI during the first 72 hours of vancomycin treatment, compared to those without it. Their research aims to help clinicians employ early therapeutic modalities that will prevent further renal damage in PICU patients.

"Winning this award encourages me to continue seeking experiences within research that allow my curiosity in the practice of pharmacy to be dispersed and varied," says Spyhalsky. "It's an incredible recognition, and I am thankful beyond words to my mentors who helped me along the way."

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This is the second consecutive year a student from the UB School of Pharmacy and Pharmaceutical Sciences has received this award.

Stein, Awarded 2022-2023 AFPE Gateway to Research Scholarship

BY SAMANTHA RZESZUT

Melissa Stein, PharmD '23 was awarded the 2022-2023 Gateway to Research Scholarship by the American Foundation for Pharmaceutical Education (AFPE) for her research titled "Characterization of Treatment of Diabetes in COVID-19 Hospitalized Patients."

This scholarship supports PharmD and undergraduate students considering a career in research and allows them to work with a faculty mentor on that mentor's research project. Stein was one of 29 awardees selected for the 2022-2023 academic year.

"In this study, we hope to rationalize treatment of diabetes in the hospitalized population and between U.S. and Jamaica cohorts. Impactful parameters will be assessed through multivariate matrices encompassing the contribution of severity factors, diabetic management, demographics, biomarkers and SARS-CoV-2 variants, among others," Stein says.

Nguyen Invited Presenter at 2022 American Transplant Congress

BY REBECCA BRIERLEY

Thomas Nguyen, PharmD/MS '24, was an invited presenter at the 2022 American Transplant Congress for both a Rapid-Fire verbal presentation and What's Hot, What's New in Clinical Sciences Section presentation.

At both invited sessions, Nguyen presented his research abstract: "Tacrolimus Exposure Estimation in Stable Kidney Transplant Recipients using Maximum a Posteriori-Bayesian Approaches."

"At first, this seemed like an overwhelming experience which quickly turned into a rewarding experience. As a student, it was an honor to present our team's work and I would not have been in this position if it wasn't for my mentors and everyone else who contributed to this project," Nguyen says.

"As a student, it was an honor to present our team's work and I would not have been in this position if it wasn't for my mentors and everyone else who contributed to this project."

Mager Appointed Chair of the Department of Pharmaceutical Sciences

BY REBECCA BRIERLEY

Donald E. Mager, PharmD, PhD, an internationally recognized pharmaceutical scientist with a record of accomplishment in pharmacokinetics and pharmacodynamics, was appointed chair of the Department of Pharmaceutical Sciences in July 2022, following the retirement of Marilyn Morris, PhD, chair since 2017.

Mager received his BS in pharmacy from the University at Buffalo in 1991, and his PharmD and PhD from UB in 2000 and 2002. He was first appointed to the faculty in 2004, granted tenure and named associate professor in 2010, and promoted to full professor in 2016. He began his tenure as vice chair in 2017.

In his past work as vice chair of the department, Mager played a key role in developing and maintaining strong relationships throughout the pharmaceutical industry, along with increasing understanding and appreciation of the unique role the department has played in the development of contemporary pharmaceutical sciences. As chair, he will continue to strengthen these important roles, as well as focus on the leadership of the department in drug development and other trending areas within the pharmaceutical sciences. Mager succeeds Morris, SUNY Distinguished Professor of Pharmaceutical Sciences, who during her six years as chair was responsible for leading many key initiatives in the department.

"I am deeply humbled and honored to be named the next chair of the Department of Pharmaceutical Sciences. I would like to add my appreciation for Dr. Marilyn Morris and past chairs Drs. William Jusko and Ho Leung Fung for their outstanding stewardship," says Mager. "Our department has a rich tradition of excellence, and I am excited to be working with all members of our department and school in upholding this tradition, while advancing the discovery and dissemination of new knowledge in pursuit of innovative and improved therapeutics."

Mager's significant career contributions include creating new theoretical concepts and applications related to target mediated drug disposition, assessing properties of monoclonal antibodies and developing cancer chemotherapy models.

His achievements have been recognized with receipt of the American Association of Pharmaceutical Scientists New Investigator Award in 2007, and an International Society of Pharmacometrics Innovation Award, the American Society for Clinical Pharmacology and Therapeutics Malle Jurima Romet Mid Career Leadership Award, along with a State University of New York Chancellor's Award for Excellence in Scholarship and Creative Activity, all awarded in 2017, as well as tenure as a visiting professor, Université Paris Descartes.

"Our department has a rich tradition of excellence, and I am excited to be working with all members of our department and school in upholding this tradition."

Recognizing Greatness

Faculty and Staff Achievements

Nicole Albanese, PharmD, clinical associate professor, appointed secretary/treasurer of the Endocrine and Metabolism Practice and Research Networks, American College of Clinical Pharmacy.

Sathy Balu-Iyer, PhD, professor, recipient of a 2022 SPPS Teacher of the Year Award.

Collin Clark, PharmD, clinical assistant professor, appointed secretary/treasurer of the Geriatrics Practice and Research Networks, American College of Clinical Pharmacy, and 2022 SPPS Teacher of the Year recipient.

Nicholas Fusco, PharmD, clinical associate professor, appointed a fellow of the American College of Clinical Pharmacy and elected director-at-large, American Association of Colleges of Pharmacy Pediatrics Special Interest Group.

Kristin Gniazdowski, EdM, associate dean resource management, elected chair-elect, American Association of Colleges of Pharmacy, Administrative and Financial Officers Special Interest Group.

Marilyn Morris, PhD, professor, recipient of the 2022 American Association of Colleges of Pharmacy Volwiler Research Achievement Award.

Gina Prescott, PharmD, clinical associate professor, appointed a fellow of the American College of Clinical Pharmacy and 2022 SPPS Innovator of the Year recipient.

Sara Robinson, EdM, associate director admissions, recipient of 2022 SPPS Innovator of the Year award.

Jason Sprowl, PhD, assistant professor, recipient of $2.3 million National Institutes of Health grant to lead exploration of how tyrosine kinases affect drug removal by the liver.

Qu Receives 2022 SUNY Chancellor's Award for Excellence in Scholarship and Creative Activities

BY REBECCA BRIERLEY

Jun Qu, PhD, professor in the Department of Pharmaceutical Sciences, received the 2022 SUNY Chancellor's Award for Excellence in Scholarship and Creative Activities.

This award recognizes outstanding academic and creative achievements across a broad spectrum of scholarly and artistic fields, and is awarded to university faculty members who consistently go above and beyond their teaching and professional duties to make extraordinary contributions to their respective fields.

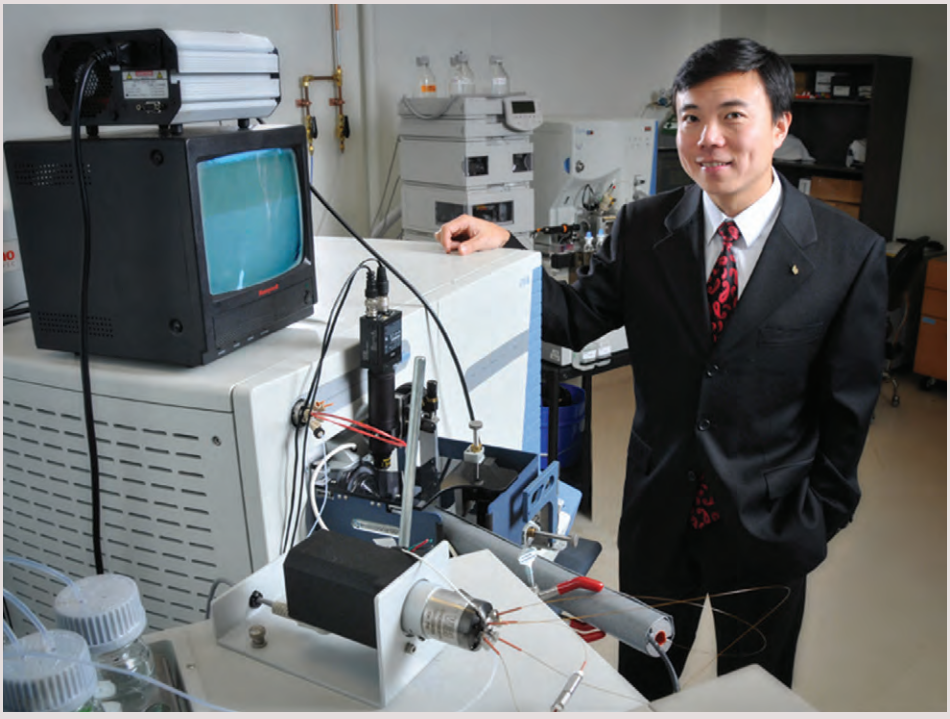
Redefining Protein Analysis

Qu has redefined cutting-edge methodologies and advanced scientific knowledge impacting the way cancer, infection and heart disease are diagnosed and treated. His research focuses on protein and drug analysis using liquid chromatography mass spectrometry (LC/MS) to discover new knowledge and develop novel research techniques that are applied throughout the field of clinical and pharmaceutical proteomics. His lab is one of the top laboratories in the world addressing label-free proteomics for large-scale analysis, and he is a world leader in the field of characterization of antibody therapeutics using LC/MS.

Prolific Scholarship

Along with publishing research in more than 130 peer-reviewed papers, Qu has been invited to present at numerous national and international meetings. He is the recipient of the Thermo Scientific Research Award, Outstanding Contribution Award for Medicinal Analysis, Beijing Conference and Exhibition on Instrumental Analysis Annual Meeting, and a University at Buffalo Exceptional Scholar Sustained Achievement Award.

Qu's innovative work in developing novel protein biotherapeutic platforms has been a key component in transforming the fields of LC-MS-based quantification of biotherapeutics and marker proteins. His unique and high-impact research, scholarship and teaching will allow him to continue to address the global need for innovative strategies to support ultra-sensitive bioanalysis.



Love, Judie

An archive of letters home details life of female UB pharmacy student in the 1960s

BY DEVON DAMS-O'CONNOR

Judie writes about knitting and sewing some of her own clothes based on the latest styles shown in magazine pages she sent home for her mom's opinion.

Between June of 1963 and May of 1966, Judith ("Judie") Baker, BS Pharm '66, wrote nearly 75 letters to her parents and her sister Jacqueline back home in Afton, New York. The letters provide a candid snapshot of the topics that were top-of-mind for a UB pharmacy student in the mid-1960s, a time when very few women were enrolled in the program and the world seemed to be changing by the minute.

Following Judie's death in 2018, the letters were donated to University Archives by her husband Alex Cardoni, BS Pharm '66, a fellow pharmacy student seated one alphabetical chair away from Judie in their first-year classes whom she married right after graduation.

The letters, each several pages in length, are written in beautiful cursive. Judie's keen sense of observation and inquiry, fluid writing style, and witty, dry humor provide an intimate narrative that covers both the mundane and the meaningful.

Some of the lines in her letters could be text messages sent home by current students, showing that some things haven't changed much in 60 years. In one note dated August 1963, she writes, "Dear Folks, [I] am having money trouble! After searching for a store or a bank to cash a personal check all this morning, I've discovered—after being told umpteen times—that I need a Buffalo account." Others thank her parents for sending food, ask her sister if she can borrow a dress for a formal, and provide updates about visits to the student health center for allergy troubles caused by the mice in her research lab. ("The Dr.'s appt and all the tests are covered by Student Health Insurance. Hurray.")

Alex remembers Judie as one of only six women who graduated with their pharmacy class of 44 students in 1966. Judie was a serious student who took meticulous notes and found her coursework and research fascinating. Her letters detail the highs and lows of life on campus—standing in line for hours to register for classes, a research grant she was awarded, comparing pharmacy programs with exchange students from a university in Toronto, and her job search in the months leading up to graduation. In a letter from February 1966 she reports, "There is a position here in Buffalo at Deaconess—a girl is wanted, no boy! The entire pharmacy is run by old maids but the hospital is very new and modern. They have one of those machines

which filters blood." There was also a lot commiserating about tests, papers and labs, many of them laced with her humor in light of hard times. "Have a terrible lab tomorrow. Will need all the rest and tranquilizers I can get."

Signs of the times were evident looking back through Judie's letters with a modern eye. She talks about knitting and sewing some of her own clothes based on the latest styles shown in magazine pages she sent home for her mom's opinion, with fabric from AM&As, a former Buffalo-area retail store. In April 1964, she scrawls a missive explaining that a long list of rules for off-campus living included one specifically for female students renting rooms in local families' houses. "Rule 4c," she writes, "States for girls renting a room with no living room, a room in the home should be made available for the girl to entertain guests." She quips that all she got was a back hallway in the house where she was renting, and later mentions that the baby of the host family was up most of the night teething.

One of Judie's longest letters was written just after the assassination of President John F. Kennedy on Nov. 22, 1963. Into its nine pages she pours her sadness, her disbelief and her Catholic faith. "Professors who in morning lecture had yelled at our stupidity wept unashamed with us in the halls at 2:10," she says. "All classes were dismissed, all buildings closed, all events cancelled. Attending church seemed much more appropriate than listening to the Four Preps." She adds one of her signature poignant observations: "Maybe the nation, and UB, will be stronger in its loss."

Amid both the serious and the silly, Judie includes Alex, or "Al" as she calls him, in most of the letters. The two fell in love immediately and dated throughout their time at UB. When Alex proposed to Judie in February of 1966, she wrote home to describe her engagement ring and included a carefully labeled drawing of it so her parents and sister could picture what it looked like.

"There isn't a lot of that out there as a resource. Her ability to be descriptive and write was a gift."

– Alex Cardoni, BS Pharm '66

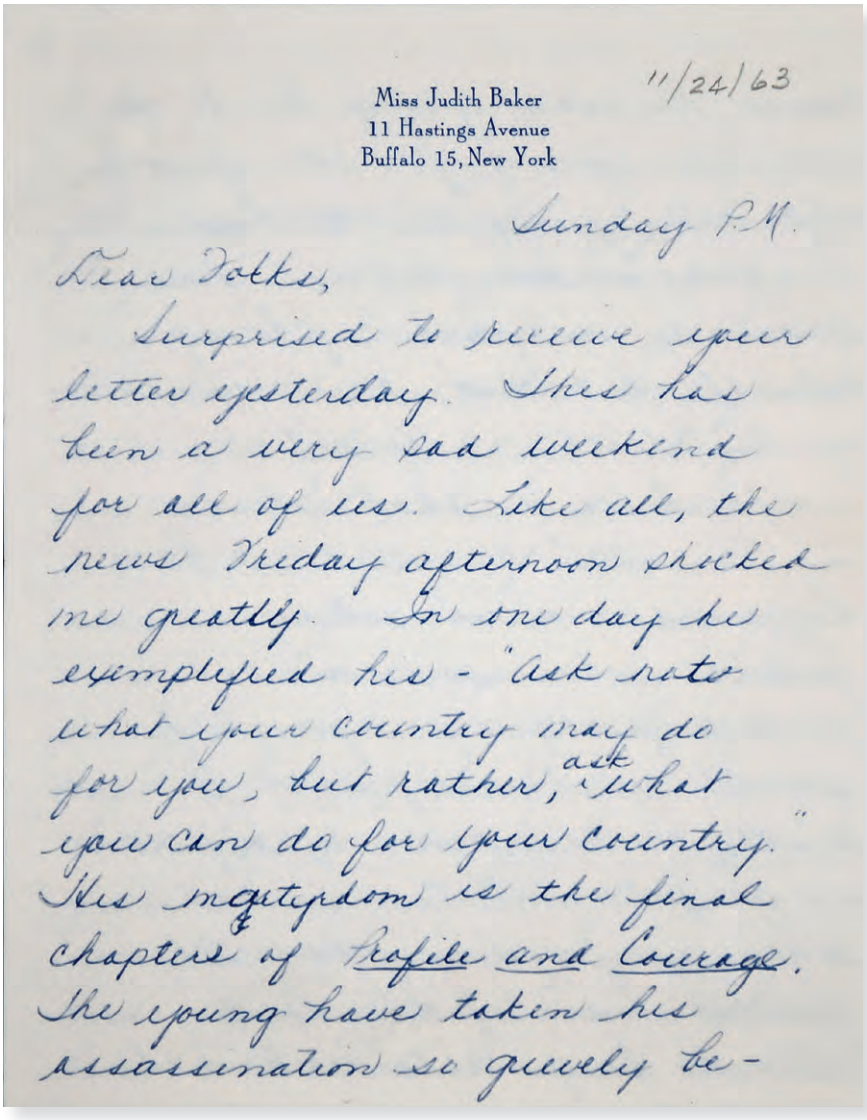
Following their graduation and marriage in 1966, Alex and Judie eventually settled in Connecticut, and both found long careers in pharmacy, Alex as a professor of clinical pharmacy and Judie as a community pharmacist, a calling she pursued in various capacities for 45 years. The couple had a daughter who became a teacher and a son who followed his parents' footsteps into the pharmacy profession. The Cardonis looked back at their time at UB fondly and established a scholarship in Judie's memory to support incoming pharmacy students at UB. As lifelong scientists, donating the letters to the archives allows Judie's words and observations to serve future generations of researchers, Alex explains.

Alex and Judie Cardoni

"The letters are impressive, and they provide a window into that time period for a person in that setting as a student in Buffalo, and as a female student, in a professional program where females were the exception," says Alex. "There isn't a lot of that out there as a resource. Her ability to be descriptive and write was a gift."

Those interested in viewing Judith Baker Cardoni's letters can make an appointment with the Robert L. Brown History of Medicine Collection by calling (716) 829-5737 or emailing historyofmedicine@buffalo.edu.

One of Judie's longest letters, written just after the assassination of President John F. Kennedy on Nov. 22, 1963.



11/24/63

Miss Judith Baker
11 Hastings Avenue
Buffalo 15, New York

Sunday P.M.

Dear Folks,

Surprised to receive your letter yesterday. This has been a very sad weekend for all of us. Like all, the news Friday afternoon shocked me greatly. In one day he exemplified his - "Ask not what your country may do for you, but rather, ask "what you can do for your country." His martyrdom is the final chapters of Profile and Courage. The young have taken his assassination so gravely be-

Sharing a Wonderful Life

BY JUDSON MEAD

Karen Miller ('65) chose to study pharmacy for practical reasons. Her decision worked out the way she'd planned. Now retired, she and her husband Bob Pompi recently endowed the Robert and Karen Miller Pompi Scholarship for Pharmacy Students.

In 1960, when Karen enrolled at UB, she didn't want to follow what were then the likely career paths for women: teacher, librarian, nurse—"I didn't want to be a nurse because I would rather have been a doctor," she says today.

And she had a role model in pharmacy. Her late sister, JoAnn Miller, was a 1957 School of Pharmacy graduate, making a handsome living as a hospital pharmacist. Karen was one of four women in a class of 58, the first in the school's new five-year undergraduate degree program.

One of her classmates was William Jusko. They worked together in a young Gerhard Levy's laboratory, which was pioneering in the fields of pharmacokinetics, biopharmaceutics and pharmacodynamics.

Jusko would himself become a renowned researcher in pharmacokinetics and pharmacodynamics. But at the time, it was Karen Miller who earned national attention as a researcher.

She was the 1964 recipient of the prestigious Lunsford Richardson Undergraduate Research Award for a paper she'd written as an assistant in Levy's lab. She was co-author on three of Levy's papers that year.

In addition to the honor and a trip to Detroit to present her work, the award brought her $500, which she used to buy a '56 Ford.

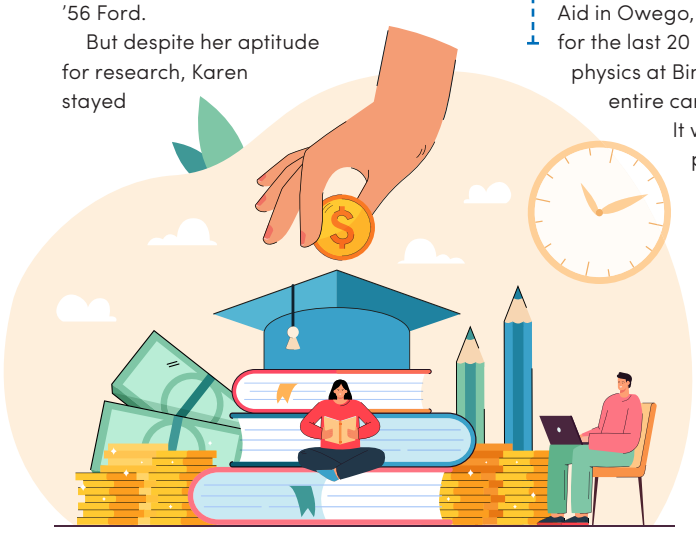
But despite her aptitude for research, Karen stayed on the practical track she'd planned, graduating with a bachelor's degree in pharmacy.

"Pharmacy was a lucrative profession for women," she says, "and I wanted a profession I could rely on if something happened to my husband and I had to support the family."

> "Going to college was going to be a challenge, and scholarship money meant a lot to me." And that was at a time when tuition and other costs were far lower than they are today.

Karen was planning that family with Bob Pompi. She and Bob had met in an economics class at UB in 1961 when they were randomly assigned to prepare a paper together on public versus private development of Niagara Falls power generation. They married in 1965.

Karen started her pharmacy career in Ithaca, New York, where Bob was studying for a PhD in physics at Cornell. Several stops later, fitted around raising three sons, she retired as supervising pharmacist of a Rite Aid in Owego, New York, a position she held for the last 20 years of her career. Bob taught physics at Binghamton University for his entire career.



It was a good combination of professional and family life. "Looking back, this is what I wanted," she says. But with another life to live, in another age: "Probably, if I went to school now, I would go on for a PhD."

When they could, Bob and Karen took advantage of his semester breaks and her scheduling flexibility to travel. They have visited 71 countries and all seven continents. At home, among other activities, they both take courses through the Binghamton University Lyceum Program.

Robert and Karen Miller Pompi

Their decision to endow a scholarship came after a long history of modest annual gifts to the school, beginning with $15 in 1976. Karen says that as the youngest of three children from a family with a modest income, she worked hard to find scholarships.

"Going to college was going to be a challenge," she says, "and scholarship money meant a lot to me." And that was at a time when tuition and other costs were far lower than they are today.

So four years ago, she and Bob decided to make the commitment to endow the scholarship that bears their name. They are establishing the endowment in yearly installments over five years, which will then continue as annual gifts during their lifetime through the mechanism of an IRA charitable rollover.

Charitable funds transfer: A convenient tool

"It's a really convenient tool," Bob says. "The trustee-to-trustee transfer of charitable funds through our required minimum distribution provides the benefit to the recipient and lowers our taxable income. And we don't even see the money go!"

This year's beneficiaries of Karen and Bob's scholarship are Anastasia Kurdziel, from Monroe, New York, and Andy Tse, from Brooklyn, both PharmD students.

Anastasia, who stepped out of the PharmD program last year to earn a master's degree in clinical and translational science, a new degree program housed in the pharmacy school, says scholarships helped her make the decision to add an extra year to her program.

And, she says, scholarships like the Pompi's are inspiring. "The donors are so generous and kind. It's awesome to see that alumni want to support us."

She should be proud

BY JUDSON MEAD

If Elaine Cozzarin, BS '69, were alive, she'd be reading the story on this page. Her daughter, Linda Andreano, remembers her mother reading every line in every UB Pharmacy and Pharmaceutical Sciences alumni publication "to see who was doing what."

Elaine Cozzarin died in February 2022. Her daughter says she would be astonished to find herself the subject of this story. She was that humble.

But that's not the whole Elaine Cozzarin, past president of the UB Pharmacy Alumni Association, former editorial board member of UB's Pharmacy Law Newsletter, fellow of the American Society of Consultant Pharmacists, 1990 School of Pharmacy Preceptor of the Year.

She may have had a humble side, but she wasn't shy—or retiring.

In a 37-year career, spent mostly in hospital pharmacy, culminating with a dozen years as pharmacy director at Lakeside Memorial Hospital in Brockport, New York, Elaine Cozzarin taught pharmacy students and consulted with physicians during the day, and came home to engage with UB alumni by night.

She was a chemistry whiz and star pupil at Clarence High School in Clarence, New York, graduating as co-valedictorian in 1963 and then enrolling at UB to study pharmacy.

She married and had her first child, Michael, during her studies, finding time to serve as an officer on the Student Union board and graduate with honors in 1969, taking home the A. Bertram Lemon Memorial Award "presented to a member of the graduating class who exemplifies the high ideals of scholarship and dedication to the profession of pharmacy."

Elaine had her second child, Linda, in 1970. Two months later she started working in retail pharmacy. Her marriage ended and she moved into hospital pharmacy, working at St. Mary's Hospital in Lewiston, New York, Women and Children's Hospital in Buffalo and Kenmore Mercy Hospital in Kenmore, New York, and as staff pharmacist at several local skilled nursing facilities. She was well known in the Erie County medical community.

Growing up in Tonawanda, New York, with her now single working mom, Linda says that her first word might have been "hydrochlorothiazide."

"Doctors called the house at all hours to consult," Linda remembers. "My mom was a walking Merck Manual."

She says her mother was always happy to help anyone—as a consulting pharmacist, preceptor, mentor, alumni friend—always attentive and respectful to everyone alike.

A co-worker remembers holding her in awe. "Elaine was amazing in the amount of knowledge she had stored in her head. I knew where to look up information about how drugs worked, or about interactions, or about actions in specific organs of the body. Elaine never had to hesitate; she just knew that information and was comfortable discussing it with anyone, be they doctors, nurses, administrators or patients."

Dedication to alumni work

At the same time, Elaine's alumni activities were just as important to her, according to Linda, who once helped out at an alumni event and was amazed at how hard she saw her mother work that day. "She was always busy with alumni work, but it never interrupted our lives."

Linda says that when her mother was on the phone, she couldn't tell whether she was talking with a friend or doing alumni business. "She was that friendly."

Her move to Lakeshore Hospital in Brockport was prompted by the birth of her granddaughter Mary in Rochester. After 12 years directing the system's two pharmacies, Elaine was forced by a debilitating back condition to give up the calling she loved.

But that didn't mean letting go of pharmacy altogether. As years passed, she continued to study for CE credits. When her daughter observed that she really didn't need to be doing that any longer, she says Elaine's response was, "Why would I stop?"

She mentored pharmacy students in their placements, she helped start careers, she tutored her grandchildren in chemistry, she judged at the annual Buffalo Science Fair, she once took in a pharmacy student for a year who might not otherwise have been able to stay in the U.S. She taught, she consulted, she encouraged and she never wanted the spotlight.

After her death, family created a memorial website to honor Elaine's life and career and as an opportunity to contribute to a pharmacy school scholarship fund in her name.

And now, through the generosity of friends and family in their memory of this fiercely competent, modest, generous pharmacist and teacher, one PharmD scholarship a year for the next five years will be awarded in her name.

She would be proud.

Elaine Cozzarin Is Named Preceptor of Year for 1990

NAMED PRECEPTOR OF THE YEAR FOR 1990 IN the School of Pharmacy's Professional Experience Program (PEP), UB pharmacy graduate Elaine Cozzarin stands, left, next to faculty member Frances Schneider, PEP director. They are holding a plaque from Syntex Laboratories recognizing Cozzarin, a pharmacist at Kenmore Mercy Hospital, for "outstanding contributions to the educational development of future pharmacists." *(Photo by Harold Reiss)*

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