



# BuffaloPharmacy

MAGAZINE

VOLUME 4 | 2021

## **\$12 Million** in 2020

Four faculty researchers  
net nearly **\$12 Million** in  
federal funding for 2020

**p6**

**LEADING COVID-19  
RESEARCH EFFORTS p8**

**PANDEMIC  
LESSONS p10**

**SCIENTIFIC  
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## Message From The Dean

My message for this year's magazine was a challenging one to compose. The year 2020 brought with it many complex issues and events: the COVID-19 pandemic, widespread social activism addressing racial injustice, and an election experience unlike any other. But, even in the face of these events, our collective human spirit and need to come together has sustained us and has sustained our school, allowing us to support each other and especially our students.

Also, difficult to address is my formal announcement of my departure as dean. Since joining the school in 2013, it has been my sincere privilege to help lead and guide the many impressive accomplishments of our faculty, staff and students. We are among the most elite schools of pharmacy in the country, and I am confident we will continue to excel in research and in the training of outstanding pharmacists and pharmaceutical scientists.

I have enjoyed the opportunity to meet with many of you: our alumni, donors, friends and partners. Your dedicated support of UB made my job easier and more fulfilling. My sincere thanks to you and to our faculty, staff and students -- all have made this journey one I will look back upon fondly and never forget.

The stories in our 2021 Buffalo Pharmacy Magazine showcase the resiliency, creativity and strength of our pharmacy and pharmaceutical sciences community. I am immensely proud of our collective efforts throughout this year and have no doubt we can address and solve any new challenges we may encounter. I hope you enjoy the stories and articles in the pages that follow -- they represent the best of us.

Warm Regards,



James M. O'Donnell, PhD  
Professor and Dean



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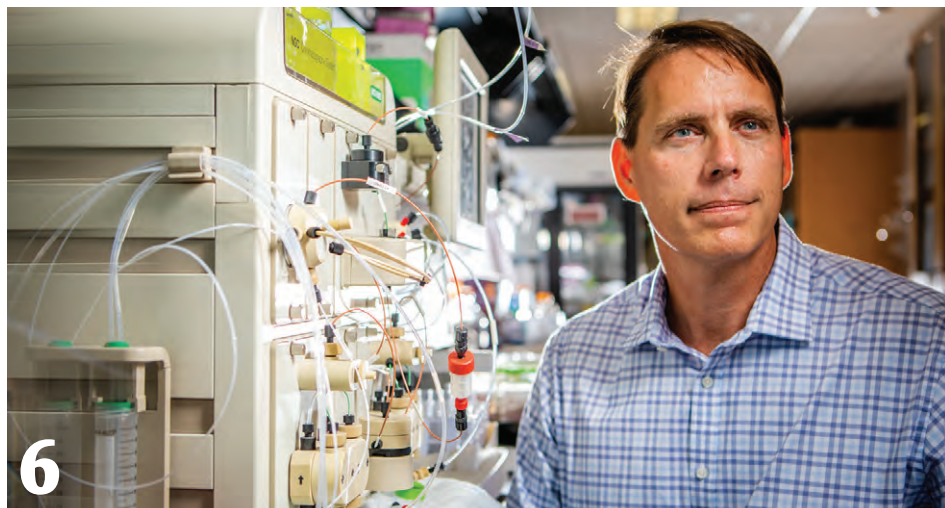
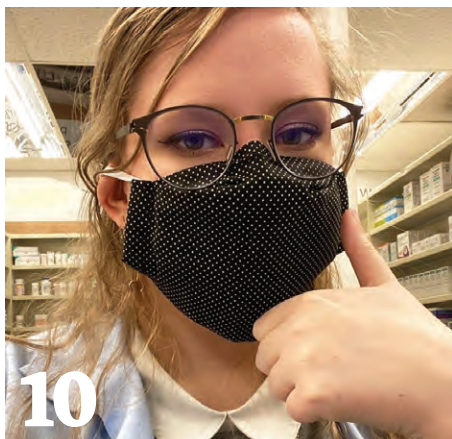
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# 2020 Commencement: A Virtual Celebration

BY KARA SWEET

The University at Buffalo School of Pharmacy and Pharmaceutical Sciences graduated 150 students at its 173rd commencement ceremony on May 16, 2020. It was the first virtual commencement ceremony in the school's history.

The event was followed by a live Zoom program to acknowledge graduates for their achievements and provide an opportunity for them to share comments and well wishes with faculty and fellow students.

Dean James M. O'Donnell, PhD, addressed the graduates with optimism for their future.

*"When you look back on this time, remember the inspiring ability of humanity to come together in times of adversity and elevate the common good."*

"We have seen the introduction of new terms and acronyms: COVID-19, PPE, community spread, social distancing and Zoom," he said. "However, the advent of these new terms has also brought a reemergence of even stronger terms: altruism, empathy, compassion and communication."

"I hope these are the terms you will remember when you look back on this time, remember the inspiring ability of humanity to come together in times of adversity and elevate the common good."



**Mark Sinnett, BS '83 and PharmD '87**, was the keynote speaker, offering students his tips for success in the pharmacy profession. "You are all leaders, leading both the patient and health care provider to the most effective and safe pharmacotherapy," he remarked. "There is no professional more up to the task."

Sinnett is director of clinical and educational services and former director of the PGY1 Pharmacy Residency for the Department of Pharmacy at Montefiore Medical Center in Bronx, N.Y. He is an ASHP fellow, a 1999 ASHP Best Practices in Health-system Pharmacy Management awardee, and was honored as the 2014 recipient of the school's Orville C. Baxter Memorial Professional Practice Award.



**PharmD Class of 2020 president Marissa Guskowski** reflected on the graduates' personal and professional growth during their time in pharmacy school. "I'm so grateful for the past four years with you all," she said. "You became my family, and I'm so lucky I got to meet all of you."

In addition to degree conferrals, more than 35 student awards were presented at the ceremony to recognize high academic achievement and professionalism.

## 2020 COMMENCEMENT STATS

**118** Doctor of Pharmacy degrees conferred

**5** Doctor of Pharmacy/Master of Business Administration degrees conferred

**1** Doctor of Pharmacy/MS in Pharmaceutical Sciences degrees conferred

**9** Bachelor of Science in Pharmaceutical Sciences degrees conferred

**19** Master of Science in Pharmaceutical Sciences degrees conferred

**4** Doctor of Philosophy in Pharmaceutical Sciences degrees conferred



# Expanding Summer Educational Outreach

BY KARA SWEET

Jennifer Rosenberg, PhD, associate dean of admissions and advisement, wasn't going to let a pandemic interfere with the fifth annual Pharmacy Summer Institute.

"We wanted to continue our engagement with talented students interested in a career in health care," she says.

The decision to go virtual was a good one. More than 100 students from around the world logged on to

participate in interactive sessions on patient counseling, medication compounding and other clinically focused health care activities.

**"The experience gave me tools, direction, experience, techniques and lots of valuable information!"**

—Raquel Ortiz-Merced (Lajas, Puerto Rico)

The online experience was further enhanced through UB and pharmacy-themed Zoom backgrounds for students to use, a custom Spotify playlist and informative online quizzes about pharmacy and pharmaceutical sciences.

Students were also able to take video tours of local clinical practices and research labs, and watch lectures by faculty and alumni on topics ranging from vaccinations to medical marijuana.

"The circumstances this year made us think differently about the summer institute," Rosenberg says. "We're really happy that we were able to make it more accessible to prospective pharmacy students worldwide."

**"I truly enjoyed attending and was able to gain a lot more insight into the pharmacy field."**

—Dasang Dolma (East Amherst, N.Y.)

**"Thank you for an awesome three days of informative sessions!"**

—Nadia Ashraf (Brooklyn, N.Y.)

## Tammie Lee Demler

BS '92, PHARMD '02

ADJUNCT ASSOCIATE PROFESSOR, PHARMACY PRACTICE



**What do you like best about being a professor?**

The old adage "to teach is to learn" is core to my teaching philosophy. Throughout my journey in academia, I have learned that my students continuously inspire me to learn new things. This energy, in turn, encourages lifelong learning for all of us!

**What is your favorite topic to teach and why?**

Although I love psychiatry, my favorite topic to teach is communication and enhancing emotional intelligence (EQ). As a manager, I have learned the most successful people are aware of the impact of emotions—how to identify and manage their own emotions, as well as those of others, to empathetically guide thinking and behavior to optimize outcomes.

**What are the 'hot topics' in pharmacy now and why do they interest you?**

As past president of Pharmacists Society of the State of New York and the Pharmacists Association of Western New York, I've been drawn to the political side of professional issues. Whether formalizing provider status for pharmacists, or expanding our scope of practice, my hot topic is: How we can collaborate as a unified voice to move our agenda ahead to improve patient safety. Bottom line—determining the best way to unify pharmacists despite our differences of practice setting and training.

**What has been your proudest professional accomplishment?**

I have had so many, but the best was watching my son pursue the same career path as I did by becoming a pharmacist. Even more satisfying is that he found his passion in infectious disease, completing a PGY2 infectious disease pharmacy residency and accepting a position overseeing his own infectious disease clinic. In a recent New York Times article, "The Jobs You're Most Likely to Inherit from Your Mother and Father," the author highlights the importance of the "breakfast-table effect," stating that family conversations strongly influence our children. So do not disregard the impact we have in supporting their career paths!

**If you were stranded on a desert island and could bring only one book, one movie and one record, what would each be and why?**

**Book:** The Bible. I figure I would need all the help I could get and also because I have actually never had time to read the whole thing! I consider myself a spiritual person. Even secular authors encourage us to take the plunge to read this historic classic, acknowledging its relevance beyond just history and art, and exposing paths of practical wisdom and guidance.

**Movie:** "Cast Away." I hope I could learn some survival tips!

**Record:** Bob Marley's "Three Little Birds" ("Don't worry about a thing, every little thing is going to be alright!").

Buffalo Pharmacy  
Summer Institute



# 2020 Awards: Honoring Exceptional Alumni, Preceptors, Faculty and Staff

BY KARA SWEET

Spring 2020 brought many event postponements, including our highly regarded Annual Awards Ceremony. We now take the opportunity to officially recognize our 2020 award recipients—they represent the best of our school and the top of their professions.

## Willis G. Gregory Memorial Award: John Pieper, PharmD '79



John Pieper is currently president and professor at St. Louis College of Pharmacy. He previously served as professor and dean of the College of Pharmacy at the University of

New Mexico and has held faculty positions in the colleges of pharmacy at the University of North Carolina at Chapel Hill, University of Colorado, University of Tennessee and University of Florida.

He is a past president of the American College of Clinical Pharmacy, past honorary president of the Missouri Pharmacy Association, past speaker of the House of Delegates of the American Association of Colleges of Pharmacy and past chair of the Board of Pharmacy Specialties. He was recognized by the American Pharmacists Association's Academy of Student Pharmacists as the Outstanding Pharmacy Dean in the U.S. in 2006.

Pieper is a fellow of the American College of Clinical Pharmacy, the American Pharmacists Association and the International Pharmaceutical Federation (FIP). He has more than 80 peer-reviewed research publications and approximately 100 published research abstracts in the areas of cardiovascular pharmacotherapy, pharmacokinetics and drug metabolism.

## Orville C. Baxter Memorial Professional Practice Award: Andrew DiLuca, BS '81



Andrew DiLuca is currently senior director of pharmacy for Kaleida Health, where he oversees pharmacy operations for the 950-bed, four-hospital system.

As a preceptor for the school, he has helped implement hospital/health-system pharmacy rotations at Buffalo General Medical Center for many pharmacy students. DiLuca is also an SPPS adjunct assistant professor and a longtime Dean's Alumni Ambassador. He also serves on a number of school-based committees.

DiLuca is a member of the American Society of Health System Pharmacists and is on the professional affairs committee for the New York State Council of Health System Pharmacists. He is also a member of the Western New York Society of Health System Pharmacists, where he has served as president and a New York State delegate.

## Teacher of the Year Award: Erin Slazak, PharmD '04



Erin Slazak is a clinical assistant professor in the Department of Pharmacy Practice and administrative director of the SPPS Residency Program. Students praised her as a mentor and instructor:

*"She is a great and outstanding teacher!"*

*"Dr. Slazak has always gone above and beyond to help students in any way she can."*

*"Dr. Slazak is a compassionate pharmacist and professor who goes out of her way to help anyone who asks for advice or guidance in their career path."*

## Julie Kopfer Memorial Staff Member of the Year Award



This year's Staff Member of the Year Award took on special meaning when it was renamed in honor of beloved former staff member Julie Kopfer, who was given the award posthumously.

*"Julie was one of the kindest people I've ever known."*

*"Julie cheerfully and enthusiastically offered assistance whenever our office requested it."*

*"She was always smiling."*

## Daniel H. Murray Memorial Professional Development Award: Mary Hejna, PharmD '20



Mary Hejna was bestowed with the Daniel H. Murray Memorial Professional Development Award for her prolific scholarship and clinical work in medication therapy

management, particularly with regard to elder care. "It's rare that a PharmD student can produce the scholarship that Mary has," says Robert Wahler, PharmD '00, clinical associate professor, pharmacy practice, who was Hejna's mentor throughout her time in the PharmD program.

## PRECEPTOR AWARDS

**IPPE Outstanding Contribution Award**  
Alexa Keller PharmD '16

**Professional Practice Elective  
Preceptor of the Year**  
Natalie Hathaway, PharmD '13

**J. Fred Bennes Outpatient Care  
Preceptor of the Year**  
Kenneth Kellick

**Inpatient Care Preceptor of the Year**  
Kristin Hall

**Pharmacy Practice Faculty  
Preceptor of the Year**  
Nicole Albanese



# 2020 Halfway Gala

BY KARA SWEET

The school's annual Halfway Gala took place on Feb. 8, 2020.

The event, sponsored by the PharmD Class of 2022, raised over \$2,000 for the YWCA of the Niagara Frontier to support those afflicted by domestic violence and sexual abuse.

"This [organization] really resonated with us, and we were honored to be able to make a contribution to their effort on behalf of our class and our school," says Ali Zahid, Class of 2022 president.







# \$12 Million in 2020

Four faculty researchers  
net nearly **\$12 Million** in  
federal funding in 2020

BY DEVON DAMS O'CONNOR

Last year, four faculty researchers in the UB School of Pharmacy and Pharmaceutical Sciences were awarded nearly \$12 million in combined National Institutes of Health grant funding to advance novel therapies to combat several serious threats to human health including HIV, cancer, obesity and superbugs.

But what might be as impressive as the total dollar amount is the fact that the UB School of Pharmacy and Pharmaceutical Sciences remains so competitive despite its much smaller size than similar programs around the country.

"The School of Pharmacy is very small overall," explains Joseph Balthasar, BS '91, PhD '96, professor, pharmaceutical sciences. "We have fewer than 20 faculty pursuing basic science research; several of our peer schools have more than 60 faculty in basic science areas. So for us to be as competitive as we are in respect to federal funding is really notable."

Despite its size, the institution has earned a reputation for excellence that dates back decades and has produced an impressive array of groundbreaking therapeutic discoveries.

"Our pharmacy school is ranked No. 14 nationwide," says Qing Ma, PharmD, PhD, associate professor of pharmacy practice. "We have a very long tradition that is evident to the NIH reviewers. We also have a very good, supportive environment for career development here. We will have a brilliant future because we are trying very hard to build that clinical and translational pharmacology."

"The most impressive feat of these grants isn't just the dollar amount, but more the cutting-edge nature and timing of them," says Brian Tsuji, PharmD, professor of pharmacy practice and associate dean for clinical and translational sciences. "All the grants are focused on new therapeutic approaches to fight really urgent threats. Our investigators are coming up with novel therapeutics to treat real medical needs, fill substantial gaps, help patients who are very sick, and think outside the box at a time when traditional therapies weren't working."

## Managing Multiple Medications to Treat HIV, Chronic Disease and mood disorders

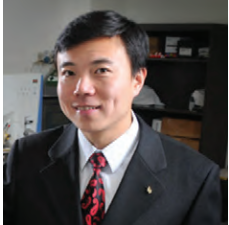
Ma was awarded a five-year, \$4 million award by the National Institute on Aging in the NIH to study drug toxicity in older adults with HIV. The grant is the largest active R01—a competitive grant that supports mature health-related research—at the UB School of Pharmacy and Pharmaceutical Sciences, and the second largest active R01 at the university.

Using data and specimens from nearly 20,000 comprehensive medical and neurobehavioral assessments collected over more than 20 years from the National NeuroAIDS Tissue Consortium, Ma and Scott Letendre, MD, professor of medicine at the University of California San Diego, will look at the underlying mechanisms of drug toxicity from over-prescription, as older HIV patients take a host of medications to manage HIV, plus many other chronic conditions and mood disorders.

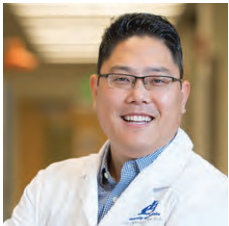




Joseph Balthasar, PhD



Jun Qu, PhD



Brian Tsuji, PharmD



Qing Ma, PharmD, PhD

“The question we want to answer is, ‘How can we change drug dosing to minimize toxicity while maintaining therapeutic effects?’” says Ma. “If we can identify certain drug categories, or at least have some initial evidence that polypharmacy might be the cause of a neurocognitive disfunction, then figure out how to optimize the medical approach, we can apply those skills to other scenarios. Maybe polypharmacy is what makes the elderly become vulnerable to Alzheimer’s or dementia. The HIV medication study model is a baby step that we can expand later to other categories.”

### Improving Drug Distribution within Cancerous Tumors

Balthasar earned a \$1.8 million R01 grant from the National Cancer Institute (NCI) to investigate three new approaches to enhance the uptake and distribution of antibodies in solid tumors. The first approach looks at ways to help antibodies make their way deeper into the core of a cancerous mass, rather than binding tightly to the outer cells and preventing their penetration inward. The second uses cells’ natural recycling systems to circulate pH-dependent antibodies within a tumor. The third uses nanobody-enzyme conjugates to break down the matrix that weaves between the cells of tumors enough to let antibodies get through, but not so much that it creates toxicity.

Balthasar’s work develops “platform strategies,” meaning his findings in these studies could be applied to a whole range of anti-cancer antibodies currently in development and use.

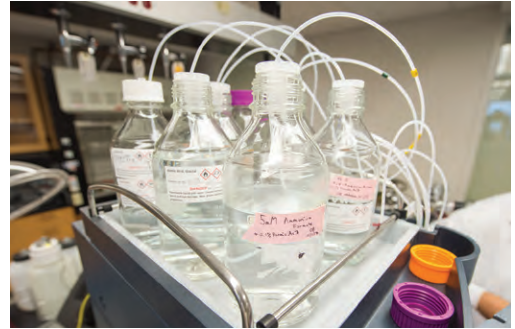
“We’re developing adjuvant agents that are designed for co-administration with current drug therapies to make them work better,” says Balthasar. “The findings could be applied to all antibodies used to treat solid tumors, which make up about 90% of cancers.”

### Crafting Multi-Drug Cocktails to Combat Deadly Superbugs

Tsuji won a \$3.9 million award from the National Institute of Allergy and Infectious Diseases (NIAID) to lead an investigation of a drug-resistant bacteria that can be deadly in half of patients who develop bloodstream infections, according to the Centers for Disease Control and Prevention (CDC).

The Carbapenem-resistant Enterobacteriaceae (CRE) superbug in Tsuji’s study, which is prevalent in New York City and global locales including Thailand, India and China, produces a specific enzyme that makes the bacteria fully resistant to every existing antibiotic. To combat this, Tsuji and his team are investigating how a multipronged attack by a combination of several drugs might be enough to disarm the CRE.

“Most infections are treated in a single or traditional fashion,” explains Tsuji. “We’re using



### “For a small school to achieve this level of extramural funding is truly impressive.”

existing drugs that are already approved to develop a practical approach. Using a cocktail of three or four drugs, we try to overwhelm the bacteria’s individual resistance mechanisms to each individual drug. It’s finding the magical sweet spot of the right drugs, the right combo and the right concentration.”

### Pinpointing Predictive Biomarkers for COPD and Obesity

Jun Qu, PhD, professor of pharmaceutical sciences, was awarded a three-year, \$1.2 million grant from the U.S. Department of Defense to develop new treatments for Chronic Obstructive Pulmonary Disease (COPD), a combination of diseases with common symptoms that affect the lungs. Qu will use his recently developed, groundbreaking technique in quantitative proteomics to examine mucus and saliva samples for biomarkers that can help pinpoint the specific type of disease within the COPD category.

Qu shares the co-principal investigator role with Sanjay Sethi, MD, professor and chief of the Division of Pulmonary, Critical Care and Sleep Medicine in the Jacobs School of Medicine and Biomedical Sciences at UB.

Qu is also the co-principal investigator on a four-year, \$1 million grant from the National Institute of Diabetes and Digestive and Kidney Diseases to study hormones and proteins associated with obesity in order to standardize and improve testing, monitoring and treatment.

“In both studies, if we can measure biomarkers, we can inform the diagnostics and the therapeutics,” says Qu. “Doctors might be able to predict how disease will advance in a specific patient, take preventative measures and personalize treatment.”

FEATURE

# Helping to Establish a Delivery Framework: Internationally Renowned Pharmacotherapy Specialist Leads COVID-19 Research Efforts

BY DEVON DAMS-O'CONNOR





When the HIV-AIDS epidemic began to emerge in the 1980s, there were more questions than answers. What is it? How does it spread? Who is at risk? How do we treat this? Those same questions echoed as clinicians and researchers scrambled to understand the COVID-19 pandemic that is sweeping across the United States and the world 40 years later.

**G**ene Morse, PharmD, SUNY Distinguished Professor in the School of Pharmacy and Pharmaceutical Sciences, has been at the forefront of finding answers to the crisis both nationally and internationally. Morse has earned international recognition for his work in infectious disease pharmacology, pharmacotherapy and global health over more than 40 years. A prolific researcher who has secured millions in federal funding over several decades, Morse has been actively involved in drug development research since the introduction of antiretrovirals for HIV in 1986, with more recent emphasis on the hepatitis C virus, Zika virus and tuberculosis.

As director of UB's Global Virus Network Center of Excellence, Morse has spent years building scientific collaborations with research institutions in Buffalo and around the globe that explore the interface of virus-cancer-immunology research initiatives.

As questions around COVID-19 surged and lockdown measures halted his ongoing HIV-related work, Morse applied decades of insight and institutional connections to combat this new pandemic. He now heads two groundbreaking efforts to gain greater insights into COVID-19.

## WNY COVID-19 Research Collaborative

The first is a clinical trial partnership between UB and Roswell Park Comprehensive Cancer Center called the WNY COVID-19 Research Collaborative. The collaboration brought an international clinical trial to Western New York, allowing eligible patients diagnosed with COVID-19 at four local medical facilities to access an early investigational treatment option. The drug, an anti-inflammatory agent called sarilumab approved by the U.S. Food and Drug Administration to treat rheumatoid arthritis, may help control the overactive inflammatory response in the lungs of critically ill COVID-19 patients. The drug, a monoclonal antibody, targets interleukin-6, an inflammatory marker for severe COVID-19. Tocilizumab, a similar agent, has shown promise in preliminary

studies in China. Working with colleagues from the Jacobs School, Morse will oversee protocol activities for the three additional study sites: Erie County Medical Center, Buffalo General Medical Center, and Millard Fillmore Suburban Hospital.

The speed with which this clinical trial came together over a few days in late March is due in large part to the fact that Morse, his colleagues at Roswell, and their medical partners in the area were already working together to bring opportunities to Western New York long before the pandemic hit.

"The goal of the collaborative was to invite projects to the region and determine which projects would be good at which sites," says Morse. "It allows us to facilitate faster access to drug treatments and vaccines."

**"The goal of the collaborative was to invite projects to the region and determine which projects would be good at which sites," says Morse. "It allows us to facilitate faster access to drug treatments and vaccines."**

## WNY Immunogenomic COVID-19 Study

Morse also plays a crucial role in the Western New York Immunogenomic COVID-19 Study, a new initiative that unites three leading regional health care organizations: UB through the Jacobs School of Medicine and Biomedical Sciences and Morse's team at the School of Pharmacy and Pharmaceutical Sciences; Roswell Park Comprehensive Cancer Center; and Catholic Health. The study is working to develop a blood test that could help doctors predict which patients diagnosed with COVID-19 are likely to become critically ill.

"Early on, we saw people going to the ICU and others getting better," explains



Morse. "We're trying to figure out if there is a predictive test to determine which way someone would go. The study is based on genetic variation in immune responses; we're testing individuals' immune systems and whether they're geared up or not to fight the virus."

The research will focus on sequencing immune receptors from both T cells and B cells, the two major types of immune cells the human body recruits to fight off viruses, including HIV and the particular coronavirus that causes COVID-19.

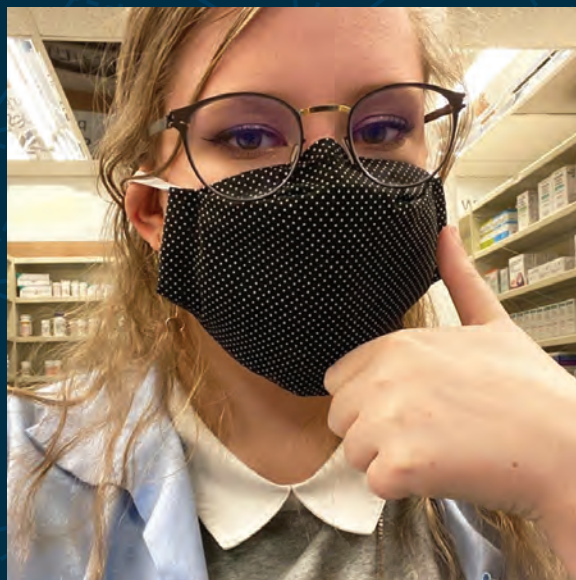
Morse will examine the blood samples of consenting COVID-19 patients for immune-pharmacodynamic markers to measure antiviral and immune-therapeutics activity, as the patient progresses through the stages of COVID-19 infection and develops antibodies following infection.

Not only will the study help clinicians better understand how the virus works, but the blood test, when available, would also help medical facilities be prepared to avoid the ICU onslaughts that defined the early days of the pandemic.

"If we know, for instance, that if 100 people come into the ER and 20 will end up in the ICU, it helps hospitals plan for new ICU space, arrange for patient transfers or request more physicians," says Morse.

Morse is confident that the protocols, plans and partnerships he and his colleagues have honed through these studies will make it easier to introduce new therapeutics to patients as soon as they're ready.

"As we get ready for a possible vaccine and treatments, we're establishing the framework to support plans to disseminate them," says Morse. "These Western New York collaborations will be the multipronged efforts to help people get access to whatever treatments become available."



# PANDEMIC LESSONS

BY REBECCA BRIERLEY

When the COVID-19 pandemic hit, every educational institution across the country had to shift immediately to remote learning. This massive and unexpected change brought unique ripple effects to pharmacy schools: How do we continue to deliver clinical rotations, experiential learning, labs and other critical in-person aspects of our curriculum?

UB School of Pharmacy and Pharmaceutical Sciences faculty went into action, quickly and creatively revamping content delivery, rotational experiences and clinical skills development. Nicole Albanese, PharmD program director, and Richard O'Brocta, director of experiential education, give their insights into how we shifted, the lessons learned, and how they moved forward better prepared for the 2020-21 academic year.

Above: Chloe Matecki, PharmD '23, working as an intern at Rite Aid in Kenmore, NY



## Nicole Albanese and the PharmD Program Curriculum

### Shifting from Didactic to Remote Courses

In hindsight, we did the best we could during the spring 2020 semester, but it was not optimal. As educators, we were worried about how we “taught” and at times may have lost sight of how students would “learn” during a pandemic. We now know we needed to take a step back and consider the entire educational process. This means assessing inputs: student and professor characteristics, along with outputs: student achievement, all while including pandemic stressors: psychosocial [factors], relentless news and rapidly shifting health policy guidance. We made assumptions about how to run a “virtual” block schedule curriculum that seemed logical at the time, without realizing how outside stressors would affect everyone. Many students had to work irregular shifts or take care of younger siblings while their parents went to work, making attending block scheduled classes nearly impossible.

What we learned in the spring was what not to do in the fall. But we also learned that our students are pretty resilient and able to put some of these outside forces aside and be successful. Most importantly, we learned that the old way of standing in front of a class, reading our slides and expecting students to learn was not going to work in this virtual environment. It forced us to throw all our old pedagogical methods out the window and start with a blank slate that put student learning first, along with reevaluating how we assess learning.

### Labs and Clinical Skills: Lots of Videos

Spring was rough for hands-on, practical psychomotor skills. Luckily, the shutdown occurred mid-March, so most required material had been delivered, especially in the compounding lab. For remaining clinical skills (patient assessment, pharmaceutical care), it forced us to really think about how students should model skills and how faculty should assess these skills. So we had students make videos of themselves completing clinical skills along with patient counseling. The use of video resulted in better student performance. Allowing students time to

prepare and rerecord themselves improved their mastery of the clinical skill.

### Applying Lessons Learned to Fall 2020: Novel Approaches

The successful use of technology and novel pedagogical approaches were cornerstones of our Fall 2020 planning. These successes allowed us to examine specific curricular content and evaluate its role in meeting both SPPS and AACCP program outcomes. We asked, “Is this vital for a generalist pharmacist to know to be a practice-ready graduate?” These opportunities allowed us to streamline course material and implement exciting new delivery methodologies, resulting in students becoming active participants, as opposed to passive classroom listeners.

### Pharmacotherapeutics: Active Reflection

Pharmacotherapeutics is the largest clinical sequence, spanning over two and half years, and a critical component of our curriculum. Over the spring semester, we learned that students were craving interaction and connection with the faculty and their classmates, so we decided to apply some unique and creative approaches to address this. We moved all knowledge-level content to prerecorded asynchronous lectures with embedded questions, allowing students to actively engage and reflect on course material. We also started synchronous recitation classes for group work and clinical cases. Delivering course content in this way was not something the students were used to. They had to shift how they prepared and interacted, which allowed them to take on a more active learning role. Using Bloom’s Taxonomy Scale for distinguishing human cognition, we are now teaching and assessing students at the “apply” and “analyze” levels instead of the “remember” and “understand” levels, thus allowing for higher cognitive retention.

### Pharmaceutical Care Re-imagined

Additionally, pharmaceutical care activities had to be re-imagined. In the past, students counseled a standardized patient on how to use a blood glucose monitor, a fairly routine counseling activity. The students would prepare by watching the professor use the meter, practice using it, and then counsel and be evaluated. For Fall 2020, we completely transformed the activity with outcomes

in mind. Students now watch a video of the professor counseling on the meter and use a rubric for grading. The students are then evaluated on how well they appraised the counseling session, along with their constructive feedback. Maya Angelou once said, “When you learn, teach.” That quote is the backbone of re-imagining these activities.

## Richard O’Brocta and the Office of Experiential Education

### Phenomenal Preceptors

We are very fortunate to have an amazing group of preceptors who are dedicated to student success, even through a pandemic! Our faculty, community and volunteer preceptors went “above and beyond” while also assuring that learning outcomes were achieved. Preceptors took more students,

**“When you learn, teach.”**

*Maya Angelou*

embraced flexible scheduling and utilized Zoom and other online platforms. Overall, our dedicated preceptors are the primary reason for our success!

### Long Days with a Great Team

The EE Office staff worked 20-plus-hour days along with employing really out-of-the-box thinking to ensure that all students received the needed number of experiential hours, while maintaining all required learning outcomes. I am so grateful for my EE team. I cannot thank Bill Prescott, Nick Fusco, Kris Jordan and Pam Coniglio enough for the efforts they made to make the experiential curriculum work.

### Creative Remote Experiential Activities

We really worked hard to address the need for social distancing at sites, while maintaining experiential learning objectives. We found that telemedicine was an efficient way for sites to deliver care while still engaging student learning.



## Dual and Collaborative Degrees

These innovative degree programs combine multiple interests into one degree, saving time and money, and enhancing career opportunities.

**2020:**  
**73**

HIGHEST NUMBER  
OF STUDENTS ENROLLED

**42** MBA

**12** MPH

**13** Pharmaceutical Sciences MS

**6** Pharmacometrics and Personalized Medicine MS

# Creating an Inclusive Community

BY KARA SWEET

In June 2020, the School of Pharmacy and Pharmaceutical Sciences welcomed Kalpesh Desai, BSc.Pharm, PharmD, as our new director for diversity initiatives. In this newly enhanced position, Desai leads the school's efforts to increase diversity and foster inclusiveness among students, staff and faculty. He is also a liaison between the school and the UB Office for Inclusive Excellence and the UB Office of Equity, Diversity and Inclusion, serving as a critical connector for outreach, programming and issues management.

The position holds special meaning to Desai. "When I was growing up, I was one of very few minorities in school and early on, I didn't feel included," he says. "I felt I was an outsider because of my skin color and having been born in a different country. I want everyone here to feel they are welcome, respected and included."

He adds: "I would like to foster an environment at the school where everyone



Kalpesh Desai,  
BSc. Pharm, PharmD

### 2020-21 objectives include:

- Developing new strategies to increase the number of students, faculty, staff, mentors and preceptors from underrepresented backgrounds
- Incorporating health disparities and cultural competence in future PharmD and pharmaceutical sciences courses
- Increasing student wellness clinics and student direct career mentorship in local underserved communities

**We, as the School of Pharmacy and Pharmaceutical Sciences, find racism, racial injustice, inequity and discrimination towards any group intolerable and unacceptable. It falls on every one of us (faculty, staff, students and community), regardless of our race, to work together to eliminate racism and discrimination.**

feels that they are welcome to share their ideas and feelings. All of us can learn from each other's varied experiences and become more equitable and inclusive. When we all act better, humanity benefits."

Desai has taken on his new role with vigor. He implemented multiple open forum listening sessions, created an alumni mentorship program for students called Underrepresented in Pharmacy (UIP), and engaged with student leaders on how SPPS can better achieve an environment of racial sensitivity and inclusion, and foster a sense of community.

- Forming a Diversity and Inclusion Committee composed of faculty, staff, students, alumni and preceptors from both the PharmD program and the pharmaceutical sciences programs with diverse backgrounds and cultural experiences

Desai also serves as a senior research scientist in the Department of Pharmacy Practice.



# SPPS, Local and Community Pharmacies Lead Flu Shot Efforts on Campus

BY REBECCA BRIERLEY

Over the fall 2020 semester, the pharmacy school took the lead in ensuring that all members of the university community had safe and easy access to influenza vaccinations across UB's three campuses. Championing these efforts was Karl Fiebelkorn, senior associate dean, student, professional and community affairs, who, in partnership with UB Student Health Services, Tops Markets, J. Rutowski Pharmacies and Family Medical Pharmacy, organized and hosted the flu shot clinics.

20

TOTAL NUMBER  
OF CLINICS

OVER  
700

IMMUNIZATIONS  
PROVIDED

175

STUDENTS  
PARTICIPATED

## Thanks to these student organizations for their leadership and support:

- American Pharmaceutical Association Academy of Student Pharmacists, Operation Immunization
- Lambda Kappa Sigma, Fall Back on Track
- Student Pharmacists Association of Western New York



# Leading the Future of Specialty Pharmacy

BY KARA SWEET

Specialty pharmacy is a field on the rise.

Its focus on providing medication management and continuous patient interaction makes it an essential health care component for those with complex diseases such as multiple sclerosis, rheumatoid arthritis, Crohn's disease and HIV/AIDS.



Nicholas Cashman

The growth of the field is what sparked the interest of Nicholas Cashman, PharmD/MBA '22. "I started looking into the intricacies of how specialty pharmacies provide care to their

patients and the relationships they have with different stakeholders in the patient care supply chain," he says. "It's a really unique dynamic."

Together with fellow students Lydia Deinhart, PharmD/MBA '22, and Andrey Polukhin, PharmD/MBA '22, Cashman founded the Student Association of Specialty Pharmacy (SASP) chapter at UB in 2018. Their goal was to promote student engagement through education, professional development, and networking with members and affiliated partners of the National Association of Specialty Pharmacy (NASP).

## A Nationwide Model

UB's pioneering efforts were recognized at the NASP 2019 Annual Meeting & Expo, where the UB chapter was featured as a model to inspire creation of additional student chapters.

The conference inspired Cashman.

He approached NASP's president and CEO, Sheila Arquette, BS '89, with a proposal to form a committee that would act as a liaison between NASP and officers of all individual SASP student chapters.

Cashman's novel ideas included informational starter kits for each new student chapter, distribution and review of a student chapter report card at the end of each academic year, and biannual student leader meetings.

"The NASP Executive Committee was so impressed, they approved Nick's proposal

and invited him to serve as the first student president," Arquette says.

Cashman is the 2020-21 NASP-SASP National Executive Committee (NEC) student president. His goal is to continue to spread awareness across the country through the establishment of new SASP chapters.

"UB acted as a catalyst for many of the successes that the local chapter has achieved," Cashman says. "The other SASP chapters across the country are capitalizing on the framework we built."

## Growing Student Leadership

Harriet de Souza, PharmD/MS '22, was one of the students who saw the newly formed



Harriet de Souza

SASP as a perfect match with her professional goals. "I want to pursue a career in research and development of the very same drugs dispensed at specialty pharmacies," she says. "SASP was a fantastic

opportunity to network and learn about this field from a patient-centered viewpoint."

She quickly climbed the ranks. As a P1, she was the UB SASP liaison. By her second year, she was secretary and chair of social media and marketing. Currently, she serves as vice president for the UB chapter and, in 2020, was elected director of social media and marketing for the SASP-NASP National Executive Committee.

In her national role, she manages a LinkedIn group, distributes a newsletter each semester and helps student chapters set up their social media accounts. "In a world where we rely so heavily on computer-based communication, I want to keep SASP a community rather than a collection of chapters separated by distance," she says.

## From Connections to Career Possibilities

As a PharmD/MBA student, Cashman is aiming for a management position in the specialty pharmacy field. His leadership roles at UB and NASP will help make that dream a reality.

"I've been fortunate to make a lot of connections across the U.S. during my time as student president of the NASP-SASP National Executive Committee," he says. "I'm confident that I can leverage my skills and experiences as a student into a professional role."

SASP has also turned possibilities into realities for de Souza.

"I am so very grateful that UB was the institution I chose to attend," she says. "I have made countless connections and I've been given the unique opportunity to pursue two of my dreams: working with patients in a clinical setting, and developing the skills necessary to keep searching for better ways of treating their diseases."



UB SASP members, 2019 NASP Annual Meeting & Expo



# Scholarships for Student Excellence

BY KARA SWEET

**Our students are continually held in high esteem for academic excellence and their commitment to community health.**

## J.N. Tata Scholarship

Pharmaceutical sciences PhD student Mokshada Kumar has been awarded the prestigious J.N. Tata Scholarship, a merit-based award given to select graduate students who perform exceptionally well during their overseas studies. The scholarship is highly competitive and considered one of the most prestigious scholarships in India.

Kumar joined the University at Buffalo pharmaceutical sciences master's program in January 2019 under the mentorship of Associate Professor Dhaval Shah (PhD '10), and is currently a PhD student. Her research focus is on yeast surface display projects for antibody engineering. She hopes to one day enter the field of oncology research.

"She is an exemplary student and a hardworking researcher," Shah says.



Mokshada Kumar

## ASCEND Scholarship

Michael Danilov, PharmD '21, and Roksolana Lypka, PharmD '21, were selected from 60 applicants across the UB health science schools to receive the 2020 ASCEND Trial Healthcare Recruiting Scholarship.

The scholarship, presented by the UB Office of the Vice President for Health Sciences, provides tuition assistance to professional students who are in their final year of pursuing a degree in the health sciences, and who have a desire to contribute in a meaningful way to their community.

Danilov was a 2019 American Society of Consultant Pharmacists (ASCP) Student Scholar Award recipient, and captain of the 2019 first-place team in the Pharmacists Society of the State of New York (PSSNY) Student Business Plan Competition. He was also the 2019-20 president of the National Community Pharmacists Association (NCPA) UB student chapter.

His future plans include opening a community pharmacy in a socioeconomically disadvantaged neighborhood that provides services beyond traditional pharmacies. "I want to continue clinical research focused on patient education to see which methods can help my patients meet health metrics," he says.

Lypka was the 2019-20 ASCP Student Chapter president, and was first author on the 2019 article "Effect of Pharmacy Referral on Connecting Caregivers with the Alzheimer's Association in Western New York Region," published in the ASCP journal, The Senior Care Pharmacist.

Her career goal is to work in community pharmacy, with a focus on geriatric care. She also plans to volunteer in underserved communities to promote education for women. "As a woman who emigrated from Ukraine, I'm so grateful for the opportunities I received to pursue an education," she says. "It's incredibly important to me to find ways to help others do the same across the world."



Michael Danilov



Roksolana Lypka

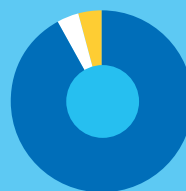
## CLASS OF 2024 BY THE NUMBERS

Middle 50th\*  
Percentile of PCAT  
Composite Score:

**51%-83%**

Middle 50th\*  
Percentile Science  
& Math GPA:

**3.4-3.9**



In-State: **92%**  
Out-of-State: **4%**  
Foreign Citizen: **4%**



Females: **63%**  
Males: **37%**

INTERVIEWED: **241**

ENROLLED: **108**

AVERAGE AGE: **21**

**7**

Number of U.S. States/Canadian  
Provinces/International  
Countries Represented

2 YEARS OF LESS  
OF COLLEGE:

**65%**

3 YEARS OR  
HIGHER:

**8%**

BACHELOR'S OR HIGHER:

**27%**

\*The middle 50th percentile reflects those between the 25th and 75th percentiles.

# National Leadership in the Class of '21

BY KARA SWEET



Laurie Plewinski

**Laurie Plewinski, PharmD '21, was appointed to serve a second term as chair of the American Pharmacists Association Academy of Student Pharmacists (APhA-ASP) National Communications Standing Committee for 2020-21.**

She is one of only six student pharmacists from across the country selected for this committee.

As chair, Plewinski helps to develop communications for social media, email, printed publications and online resources to distribute to student chapters across the country.

"Thanks to the networking offered by APhA-ASP, my fellow student pharmacists have had much success in acquiring fellowships, residencies and dream careers," she says. "I know that APhA-ASP is setting me up for my dream career, too."



Kira Voyer

**Kira Voyer, PharmD '21, was elected as a member-at-large for the Phi Lambda Sigma National Executive Committee.**

Voyer's term runs through the summer of 2021.

In her speech to the Phi Lambda Sigma House of Delegates, she said, "I want to make our mission and our organization more known on campuses to encourage pharmacy leadership that will continue outside of pharmacy schools and into our future careers."

Voyer was also selected as one of 85 student/faculty recipients across the country for the 2020 American Association of Colleges of Pharmacy (AACP) Walmart Scholars Program. The program gave her the opportunity to learn more about academic pharmacy from colleagues and professors. "I was able to network with other professional students, both during my year and with those who had progressed onto residencies and fellowships, to gain insight into what my future could look like and how to get there."



Jake Kinley

**Jake Kinley, PharmD/MBA '21, was appointed regional student officer for the Northeast Region of the Industry Pharmacists Organization (IPhO) for the 2020-21 academic year.**

Kinley will oversee chapter communications, training and elections at seven pharmacy schools. He'll also ensure that chapters are represented at regional and national student events, and collaborate with the national organization on outreach.

Kinley joined IPhO in his first year of pharmacy school and has developed leadership skills that will complement his career aspirations. "IPhO has prepared me to utilize my clinical knowledge to add value in the pharmaceutical industry and provided me with amazing resources to prepare for fellowship interviews," he says.

## SPAWNY: Overcoming Pandemic Obstacles and Improving Community Health

BY KARA SWEET

At the onset of the COVID-19 pandemic, Anna Augustini, PharmD '21, was presented with a community health challenge.

As community outreach chair for the Student Pharmacist Association of Western New York (SPAWNY), she had worked with local partners to distribute Detera Drug Deactivation Systems at events such as senior wellness clinics and DEA Prescription Drug Take Back Day.

But pandemic restrictions meant that face-to-face/in-person community support was no longer an option.

"During times of isolation and social distancing, it's difficult for older community members to safely dispose of their medicine," she says. "Town halls are closed to the public. The annual Drug Take Back Day was postponed. Medicines that languish in home cabinets are highly susceptible to diversion, misuse and abuse."

Augustini reached out to FeedMore Western New York, an organization that provides nutritious food and support through its more than 300 agencies and programs, including Meals on Wheels. A new partnership was formed to continue—and even expand—distribution of the drug disposal pouches to the aging community during the spring.

The pouches were included in Erie County Senior Service bags, which also contained face masks and hand-sanitizer. The bags were given to seniors with their meal deliveries.



Detera Drug Deactivation System packet distributed in Erie County Senior Services bags



# Navigating a New Way of Learning

BY KARA SWEET

With most courses shifting online, PharmD students have had to adapt to a very different way of learning and connecting with one another.

Fortunately, members of the Rho Chi honor society were prepared to help their fellow students navigate this new academic landscape.

The "Rho Chi P1 Survival Guide" was developed to help first-year students adjust to the challenge of pharmacy school, especially during this unique academic year. The new initiative received overwhelmingly positive feedback. "We worked hard to develop this handbook of resources for P1s to use on a class-specific basis," says Nicholas Cashman, PharmD/MBA '22, president of the UB Rho Chi chapter. "We also included administrative information for them to have at their disposal to stay in touch with faculty and staff."

Rho Chi therapeutics review sessions have seen an uptick in attendance. The virtual meetings are easier for students to view from home and are an opportunity for collaborative studying. Students

also set up class-wide group chats to make sure everyone is on the same page for assignments and exams.

## Staying Connected Beyond the Classroom

Beyond the virtual classroom, students have gotten creative, combining education with socialization.

"We're signing up for wellness clinics together so we can help the community and catch up with each other at a safe distance," says Marisa Masi, president of the PharmD Class of 2023. "We're also trying to do more outdoor things like socially distant hikes. We hope to be able to do more of these types of events."

Professional student organizations have worked hard to ensure that students remain engaged with one another.

"It has been pretty amazing to see that membership has remained high," says Anant Shah, PharmD '22, president of UB Formulary. "Student organizations have been diligent in creating unity by hosting Netflix parties and social nights over Zoom. We'll do everything we can to get the most out of our education."

Rho Chi is a national pharmacy honor society that promotes student scholarship.

SPPS Rho Chi Consultants provide one-on-one review sessions to help students improve grades and better comprehend course content.



# Rutgers Fellowship Program Welcomes UB PharmD Students

BY KARA SWEET

Class of 2020 PharmD graduates Frencina Monteiro and Kory Zelen were accepted into the Ernest Mario School of Pharmacy postdoctoral Rutgers Pharmaceutical Industry Fellowship (RPIF) Program. They were two of 143 students selected from a candidate pool of more than 800 pharmacy students nationwide. The RPIF Program helps drive the demand for the growing number of employment opportunities for clinical pharmacists in industry by fostering innovation and scholarly endeavors between Rutgers and its industry partners through teaching, publications, seminars and research.

This is the fourth year in a row that University at Buffalo PharmD students were accepted into this prestigious program.

Kory Zelen has always been interested in the commercial side of the pharmaceutical industry. "I wanted to leverage my scientific background to bring a new perspective to the table," he says.

He had a strong interest in oncology and UB helped build his career path. "My time in pharmacy school prepared me with an abundance of clinical knowledge across many different disease states," he says. "This fellowship role will help me develop the business skills and real-world experience needed to

promote and educate patients, payers and health care providers about oncology medications."

Frencina Monteiro recognized that her passion for project-based work was steering her toward a career in industry. "In my last year of pharmacy school, I started looking into various career options and realized that based on my personality and professional interests, the pharmaceutical industry would be the best fit for me."

UB SPPS played an integral role in her decision to apply for the fellowship. "UB gave me the platform to sharpen my leadership skills, which have been invaluable for my professional growth."



Frencina Monteiro



Kory Zelen

# Scientific Trailblazers

BY REBECCA BRIERLEY

Ralph Waldo Emerson once stated, “Do not follow where the path may lead. Go instead where there is no path and leave a trail.”

This quote aptly represents the lifelong career paths of SUNY Distinguished Professors William Jusko, PhD, and Marilyn Morris, PhD. Both are internationally recognized pharmaceutical scientists, and their work has been responsible for groundbreaking advances in drug discovery and drug development.

Both trailblazers have been honored many times over the course of their careers for significant impact on advancing the health and well-being of the world's population. But this past year has brought some of the highest recognitions one can receive from their peer pharmaceutical scientists.

## William Jusko, BS '65 & PhD '70

**2020 recipient of the American Association of Pharmaceutical Scientists (AAPS) Distinguished Pharmaceutical Scientist Award**

The AAPS Distinguished Pharmaceutical Scientist Award recognizes an individual's lifetime achievement for substantial contributions in research and the advancement of pharmaceutical science that have had a lasting impact. It is the AAPS's highest honor.



Jusko was honored for his groundbreaking research in pharmacokinetics and pharmacodynamics, wherein he studies the disposition and pharmacological effects of drugs, and the optimization of dosing for

immunosuppressive, anti-diabetic and cancer treatments. His work has led to significant advances in mathematical and computer modeling

of the time-course of responses following drug dosing.

Jusko's research has been continuously funded through the National Institutes of Health since 1977. His numerous awards include the Volwiler Research Achievement Award, American Association of Colleges of Pharmacy; the Oscar B. Hunter Career Award in

Therapeutics, American Society for Clinical Pharmacology & Therapeutics; a coveted MERIT (Method to Extend Research in Time) NIH award, and the Lewis B. Sheiner Lecturer Award, International Society of Pharmacometrics (ISoP).

From 2001 to 2016, Jusko served as chair of the school's Department of Pharmaceutical Sciences and has mentored more than 100 students and fellows. He is a fellow of the ACCP, AAPS, ISoP and the American Association for the Advancement of Science (AAAS).



## Marilyn Morris, PhD '84

**Appointed Fellow of the International Pharmaceutical Federation (FIP)**

An FIP fellowship designation is one of the organization's highest honors. It recognizes members who have exhibited strong leadership internationally, distinguished themselves in the pharmaceutical sciences and/or practice of pharmacy, contributed to the advancement of pharmaceutical sciences and/or practice of pharmacy, and who have served FIP.

As one of the world's preeminent scholars in the areas of drug membrane transport, pharmacokinetics and pharmacodynamics, Morris was recognized for her groundbreaking discoveries concerning the role of dietary flavonoids in drug interaction and drug resistance—research with enormous implications for patient care and drug therapy, particularly in the treatment of cancer.

Morris is also the recipient of numerous prestigious awards, including the AAPS Research Achievement Award in Pharmacokinetics, Pharmacodynamics and Drug Metabolism; Francis Dudley Meyer Award for Breast Cancer Research, Cancer Research and Prevention Foundation; and the AAPS Innovation in Biotechnology Award. She is a fellow of both the American Association for the Advancement of Science and the American Association of Pharmaceutical Scientists, of which she is past president.

Since 2016, Morris has served as the school's chair of the Department of Pharmaceutical Sciences, carrying on the work of William Jusko, her predecessor. She has advised more than 100 pharmacy, graduate and postdoctoral students.





# Prescott Appointed Department Chair: Then a Pandemic Hit

BY REBECCA BRIERLEY

In January 2020, William A. Prescott, Jr., PharmD '02, was appointed chair of the Department of Pharmacy Practice. He had served as interim chair since 2017, cultivating strategic hiring, faculty mentorship and strengthening relationships with clinical partners.

Prescott was eager to begin this new journey and developed innovative goals to help inspire and direct his team. Specifically, he wished to enhance pre-AAPE active learning, expand transitions of care clinical practice and research, advance infectious disease research programs, and establish a clinical training hub in downstate New York.

Less than two months after beginning his appointment, two unexpected events occurred: a pandemic and a directive from the Accreditation Council for Pharmacy Education (ACPE) to enhance various aspects of the experiential education program. These events led to some critical questions: How

"In the end, we greatly improved our experiential program, developed a remote curriculum that is designed to encourage learning, figured out how to effectively work remotely, and became a stronger team along the way."

would students complete rotations with new ACPE requirements during a pandemic? How would the faculty quickly transition their courses to the remote learning environment? How could more than 50 faculty and staff members immediately transition to telework? How could all these and so many other needs be successfully met? Prescott knew he had a strong team that would rise up to meet—and even exceed—these new crucial goals. They

did so in the midst of one of the greatest challenges the school has ever faced.

One of Prescott's favorite quotes is, "I can do things you cannot, you can do things I cannot; together we can do great things." Beginning in mid-March, this sentiment was immediately incorporated into everything he and his team set out to do. He was amazed at how everyone came together during this time. "The Office of Experiential Education worked overtime, our clinical partners across the state stepped up in a big way. And our faculty, regardless of their track or department, took on additional responsibilities without hesitation," Prescott says. He firmly believes it was both the internal and external relationships built prior

to the pandemic that allowed the department to address these unexpected needs. "In the end, we greatly improved our experiential program, developed a remote curriculum that is designed to encourage learning, figured out how to effectively work remotely, and became a stronger team along the way."

Now many months later, Prescott is proud of what his team learned and accomplished during the crisis. He is pleased to report that some strategic goals were accomplished, including establishment of the downstate training hub with Montefiore Medical Center, which gives PharmD students access to some of the most innovative hospital-based pharmacy experiences in the country. Success was also found on the research front with over \$4 million in continued federal funding secured



for infectious disease research, and attaining a top 10 ranking in published educational research articles, per the American Journal of Pharmaceutical Education. Other strategic goals are still on the horizon and give Prescott and his team post-COVID objectives to work toward.

"Our department has the right mix of strong leaders, effective teachers and skilled researchers," Prescott says. "Much like a championship sports team with a strong offense and defense, we need each other, we elevate each other. As a result, we are able to achieve great things.

"I very much look forward to serving and leading this team for years to come."

# Recognizing Greatness

These faculty members are also recognized for awards and distinctions in 2020:



**Nicole Albanese, PharmD**, associate professor, pharmacy practice, was appointed assistant director of experiential education.



**Nicholas Fusco, PharmD '10**, clinical associate professor, pharmacy practice, received a 2020 American Association of Colleges of Pharmacy, Emerging Teaching Scholar Award. Fusco was also appointed vice-chair, pharmacy practice, for education, practice and service.



**Donald Mager, BS '91, PharmD '00, PhD '02**, professor, pharmaceutical sciences, was elected president of the American College of Clinical Pharmacology for 2020-2022.



**Calvin Meaney, PharmD '11**, clinical associate professor, pharmacy practice, was appointed president-elect, New York State Chapter, American College of Clinical Pharmacy. Meaney was also appointed vice-chair, pharmacy practice, for research.



**William Prescott, PharmD '02**, professor and chair, pharmacy practice, was appointed treasurer, New York State Council of Health-system Pharmacists.





**Joseph Balthasar, BS '91, PhD '96**, professor, pharmaceutical sciences, received a 2020 University at Buffalo Exceptional Scholar Sustained Achievement Award.



**Javier Blanco, PhD**, professor, pharmaceutical sciences, was invited to serve in the Cardiac Contractility, Hypertrophy, and Failure Study Section, Center for Scientific Review, National Institutes of Health.



**Brian Tsuji, PharmD**, professor, pharmacy practice, received a 2020 State University of New York Chancellor's Award for Excellence in Scholarship and Creative Activities.

RANKED

**#14**

IN THE UNITED STATES AND

**#1**

IN NEW YORK STATE

by U.S. News & World Report  
in its ranking of Doctor  
of Pharmacy  
(PharmD)  
schools and  
programs.



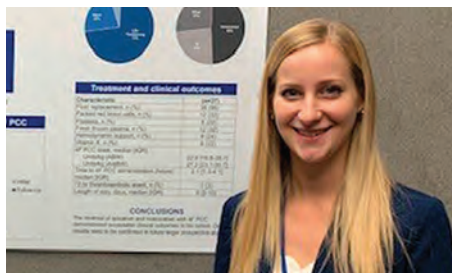
**UB SPPS Climbs 8 spots from 2016  
and is proud to be in the Top 15  
highest ranked pharmacy schools  
in the nation.**

"It's gratifying to see this recognition of the excellence of our pharmacy and pharmaceutical sciences programs by our peers," says Dean James M. O'Donnell, PhD. "This is the result of the outstanding contributions of our faculty, staff and students, as well as our many partners at UB, our clinical sites, and in the community. I look forward to many future accomplishments in research, education, clinical practice and community outreach."

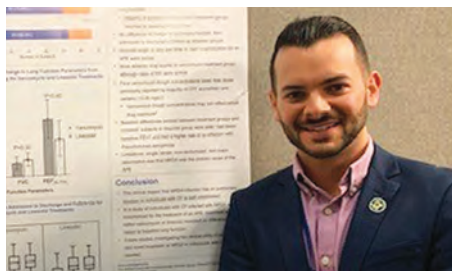
# Clinical Research to Improve Patient Outcomes



L-R: Habibur Rahman, PharmD '21; Cecilia Fratus, PharmD '21; Gina Prescott, PharmD



Maya Chilbert, PharmD '17



Nicholas Fusco, PharmD '10

BY KARA SWEET

The 2019 American College of Clinical Pharmacy Annual Meeting provided an opportunity for faculty, students and alumni to demonstrate their productivity in clinical research.

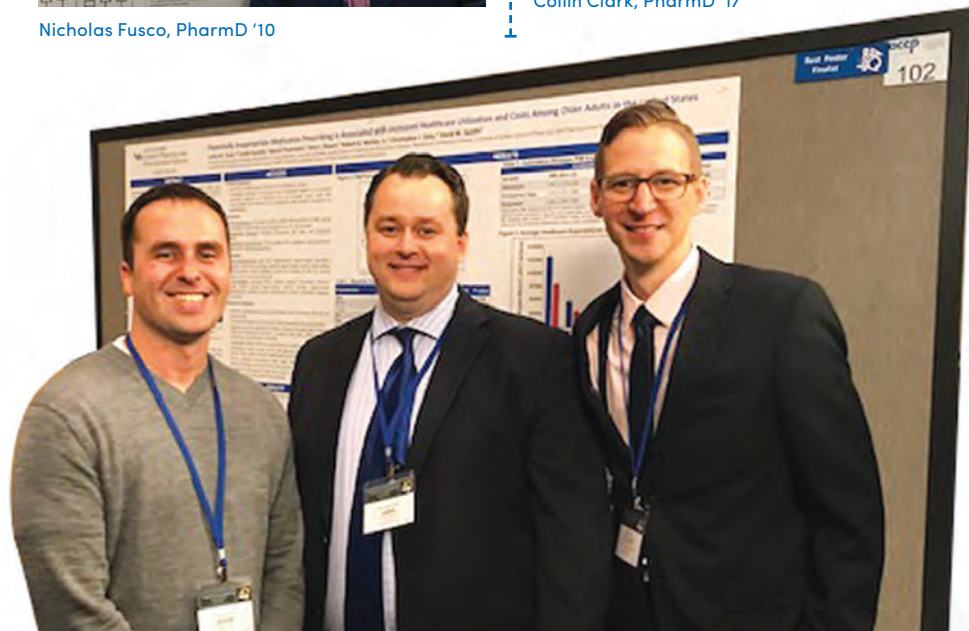
The meeting was held in October in New York, N.Y.

Members of the UB School of Pharmacy and Pharmaceutical Sciences presented 10 posters. Collin Clark, PharmD '17, clinical assistant professor, pharmacy practice, was selected as a Best Poster finalist for his poster titled "Potentially inappropriate medication prescribing is associated with increased health care utilization and costs among older adults in the United States."

A reception was also held for friends and alumni of all New York State schools of pharmacy, with more than 120 attendees.

## Below:

David Jacobs, PharmD '11 & PhD '18,  
Christopher Daly, PharmD/MBA '12,  
Collin Clark, PharmD '17



## Posters Presented:

MeRIT Project: Comprehensive Medication Management for High Risk Patients in the Primary Care Setting: A Deprescribing Approach Merit-10

Transplantation Immunosuppressive Pharmacology Research Program

Four-Factor Prothrombin Complex Concentrate for Reversal of Apixaban and Rivaroxaban

Comparative effectiveness of vancomycin versus linezolid for the treatment of acute pulmonary exacerbations of cystic fibrosis

Prevalence and Predictors of Potentially Inappropriate Medication Prescribing among Older Adults in the United States: A Population-based Study

Acute Kidney Injury in Critically Ill Patients on Vancomycin with Concomitant Piperacillin/Tazobactam, Cefepime, or Meropenem: A Drug-Shortage Driven Quasi-Experimental Study

Zidovudine in combination with a beta-lactam regimen, aztreonam/avibactam, increases efficacy and bacterial killing

Teaching cultural awareness to pharmacy students through a refugee education training session

Analysis of an Interprofessional Hotspotting Pilot Program for Super-utilizers

Evaluation of erythropoiesis-stimulating agent dose adjustments for target hemoglobin attainment in hemodialysis patients



# Recent Hires Position School for Success

## You and Woo lead efforts in drug delivery and quantitative systems pharmacology

### Youngjae You, PhD, Professor of Empire Innovation



Youngjae You is an internationally recognized for his original research contributions on click- and photo-unclicking chemistry to enable light-controlled precise drug release at the disease site. This work has the potential to maximize tumor cell killing while minimizing systemic cytotoxic drug levels, a major clinical challenge in cancer medicine. He was recruited to UB with support from The Empire Innovation

Program (SUNY EIP), a state-funded competitive grant program dedicated to recruiting and retaining world-class faculty at the State University of New York.

You received his BS and MS in pharmacy, followed by his MS and PhD in pharmaceutical chemistry, from Chungnam National University in Korea. He conducted his postdoctoral research at the University at Buffalo, and was a faculty member at South Dakota State University and the University of Oklahoma before joining UB.

### Sukyung (Sue) Woo, PhD '07 Associate Professor



Sue Woo's translational research involves computational modeling to advance development of new therapies and potential combination strategies to improve treatment outcomes. Her research evaluates complex biological systems in cancer to better understand therapeutic response and resistance using quantitative systems pharmacology (QSP) modeling.

Woo obtained her BPharm and MS in pharmacy from Chungnam University in Korea. She received her PhD in pharmaceutical sciences from the University at Buffalo; her postdoctoral fellowship was in clinical pharmacology with the National Cancer Institute. Woo was a faculty member at the University of Oklahoma before accepting this position at UB.

## Chilbert and Clark lead efforts in cardiology and transitions of care

### Maya Chilbert '17, Clinical Assistant Professor



Maya Chilbert's research focuses on cardiology with a concentration in thrombosis and hemostasis. Her interest in these areas helped her secure a recent seed grant from the American College of Clinical Pharmacy (ACCP) Cardiology Practice and Research Network to investigate future antithrombotic research in the area of combination therapy.

After completing her PGY1 and PGY2 residencies at The Ohio State Medical Center, she returned to UB to begin her work as a faculty member. Chilbert teaches advanced therapeutics with a focus in cardiology. Her practice site is the Cardiac Intensive Care Unit at Buffalo General Medical Center, where she precepts PharmD students and pharmacy residents.

### Collin Clark, PharmD '17, Clinical Assistant Professor



Collin Clark's research centers on the implementation and assessment of pharmacist-provided clinical services. He has a particular interest in studying the pharmacist's role in transitional care management across the continuum of care, and medication optimization strategies for older adults with complex medical conditions. He is currently helping to develop a layered-learning practice model with pharmacy

students and residents at Buffalo General Medical Center to enhance transition of care efforts.

Following a PGY-1 Pharmacy Practice residency at the VA Western New York Healthcare System, Clark completed a National Research Service Award (NRSA) T32 Postdoctoral Research Fellowship in Health Services Research at the Primary Care Research Institute within the Department of Family Medicine, University at Buffalo Jacobs School of Medicine and Biomedical Sciences.

# UB Pharmacists on the Front Lines

## Class of 1981 and the local fight against COVID-19

BY KARA SWEET

Western New York is fortunate to have several prestigious health care systems. Moreover, these systems were fortunate to have members of the SPPS Class of 1981 leading the charge during a pandemic, propelling these notable alumni into new roles. They are now guiding present and future health care initiatives, as the community continues to fight the disease.

### Adele (Grys) Battaglia

PharmD, BS '81, Lead Pharmacist,  
St. Joseph's Hospital (formerly  
COVID-19 Treatment Center),  
Catholic Health



ADELE GRYS

In early spring 2020, Adele Battaglia's hospital was converted into the Catholic Health System's official COVID-19 Treatment Facility. "As part of the transformation, the most important task we had was preparing our medications inventory to treat more critically intensive patients," Battaglia says. "We went from managing a dozen critical care beds to potentially managing 60 intensive care beds, while creating multiple dedicated COVID-19 medical floors."

The pandemic was a crash course for

pharmacists, but her team's ability to adapt and evolve was no surprise.

"COVID made us learn at warp speed

**"We went from managing a dozen critical care beds to potentially managing 60 intensive care beds, while creating multiple dedicated COVID-19 medical floors."**

because new treatment algorithms were constantly emerging," she says. "All of the pharmacists

involved in the care of these patients were ready and prepared to accept each challenge as it presented itself, because that is what we are trained to do."

### Andrew DiLuca

BS '81, Senior Director of Pharmacy,  
Kaleida Health



ANDREW J. DILUCA  
VICE PRESIDENT

Andrew DiLuca's biggest challenge during the pandemic was supply chain issues.

"Drug shortages are nothing new to us, but the shortages we saw during the spring were magnified," he says. "We had to review medication availability and inventories daily

**"For me personally, the reward has been to see how the pharmacy departments across Kaleida Health showed up and stepped up."**

to not only maintain enough supply to treat the current patient load, but also to plan for the predicted surge of inpatients."

DiLuca is proud of his team. "For me personally, the reward has been to see how the pharmacy departments across Kaleida Health showed up and stepped up," he says. "I am impressed by the knowledge and tenacity the clinical pharmacists and pharmacy residents have demonstrated during this crisis."

# CLASS OF 1981





**Walter Ludwig**  
BS '81, President,  
Kenmore Mercy Hospital,  
Catholic Health



WALTER LUDWIG

Walter Ludwig took on a number of new projects during the pandemic, including coordinating community outreach with the Town of Tonawanda Emergency Response Team, developing a COVID-19 transition unit, educating staff on personal protection equipment (PPE), and providing screening protocols for facility entry.

Ludwig was impressed with the remarkable innovation shown by pharmacists. "The increase in ventilator use requires a great

**"The increase in ventilator use requires a great deal of input from pharmacists due to the need for a wide range of infusion therapies."**

deal of input from pharmacists due to the need for a wide range of infusion therapies," he says. "Also, because of reduced drug supply, pharmacists were needed to help develop new protocols and substitutes."

Despite the challenges, Ludwig remembered to celebrate the successes. "When our first COVID-19 ventilator patient was successfully extubated and moved out of ICU, we went around passing out congratulations and 100 boxes of Girl Scout cookies! Those were the good moments."

**Barry Martin**

BS '81, Director of Pharmacy,  
Millard Fillmore Suburban Hospital,  
Kaleida Health



BARRY MARTIN

Barry Martin observed his team of pharmacists at Millard Fillmore Suburban Hospital adapting to the mounting challenges presented to them during the height of the pandemic.

"Pharmacists, in conjunction with other health care providers, were instrumental in developing algorithms that ensured patients on needed medications met certain criteria before those drugs could be administered," he says. "Due to short supply of

albuterol inhalers, our staff also helped lead development of algorithms to preserve our supply."

Through it all, Martin still enjoyed coming into work every day. "We are all in this together, and we will only defeat this pandemic by working together."

**"[W]e will only defeat this pandemic by working together."**

**James Millard**

BS '81, Former Incident Commander,  
Catholic Health COVID-19  
Staffing Command Center



JAMES MILLARD

The start of the pandemic brought Jim Millard out of retirement and back into the workforce to lead efforts at Western New York's only dedicated COVID-19

treatment center. He worked with system leadership, hospital presidents, chief nursing officers and managers to ensure that all Catholic Health's facilities were appropriately staffed.

**"We needed to take care of patients today, while building the capacity to take care of a significantly higher number of very sick patients tomorrow."**

"I used the phrase, 'We're treading water while we're building the ark,'" he says. "We needed to take care of patients today, while building the capacity to take care of a significantly higher number of very sick patients tomorrow."

Millard says it was extremely rewarding to work with such dedicated and compassionate health care professionals. "I was proud to be part of a team so focused on providing excellent care to our patients, protecting our staff and serving the community during a time of crisis."

**Edward Swinnich**

BS '81, System Director of Pharmacy  
Services, Catholic Health



EDWARD SWINNICH

Edward Swinnich has spent his 40-plus-year career at Catholic Health. Swinnich's team was integral in transitioning St. Joseph's Campus from a community hospital to a COVID-19 Treatment Center with 24-hour pharmacy services.

"Supporting patient care at our COVID site was a massive undertaking," he says. "Our IV room was active around the clock batching infusion, as well as preparing patient-specific IVs. We also had to reconfigure dispensing equipment throughout our system."

**"I have never been prouder of our profession than I have during the COVID-19 pandemic."**

Swinnich says the pandemic really showed what pharmacists can bring to all aspects of the profession, from clinical services to

operations and drug distribution. "I have never been prouder of our profession than I have during the COVID-19 pandemic," he says. "The response we had in the form of pharmacists stepping up in all areas of hospital pharmacy practice was inspiring."

# Student Business Plan Becomes a Reality

BY KARA SWEET

In 2007, Kathryn (Jones) Seelman was a second-year PharmD student with a vision for her future.

She was a member of the University at Buffalo team for the National Community Pharmacists Association (NCPA) Pruitt-Schutte Student Business Plan Competition, along with team members and fellow PharmD Class of 2009

students Alexandra Centeno, Christina Ramsey and Liliana Yohonn.

Their plan for Isabella's Apothecary, a woman-owned, woman-operated pharmacy in the Rochester suburb of Pittsford, won



**Top:** Kathryn Seelman, PharmD '09  
**Bottom:** Twelve Corners Apothecary



2007 NCPA Business Plan Winning Team L-R: Christina Ramsay, PharmD '09; Alexandra Centeno, PharmD '09; Karl Fiebelkorn, BS '78, MBA '88; Kathryn (Jones) Seelman, PharmD '09; Liliana (Rodriguez) Yohonn, PharmD '09



THE HISTORY BEHIND  
NOVEL ITEMS IN OUR  
SCHOOL'S APOTHECARY

## Take a Sip (or Two) and Call Me in the Morning

BY KARA SWEET

The National Prohibition Act of 1919 included an exemption that allowed doctors to prescribe alcohol to patients, and pharmacists to dispense it. The only other exemption was the use of alcohol for religious sacraments.

The American Medical Association, initially a supporter of Prohibition, adjusted its stance in 1922 and stated that alcohol could be used to treat 27 different ailments, including asthma and cancer. The standard amount prescribed was a pint every ten days.

In reality, these spirited prescriptions were more of a way for doctors and pharmacists to make a little extra money, than to treat diseases. In fact, it proved to be quite lucrative: "Patients" would pay their doctor \$3 for the prescription, then pay their pharmacist another \$3 to fill it. Adjusted for inflation, that's about \$40 each!

By the late 1920s, the number of violations was more than state and local law enforcement officials could handle. The jails were overflowing and the number of federal court cases had quadrupled. The act was finally dismantled in 1933.



## TOP 5 Binge-Watched Shows



### FACULTY AND STAFF:

1. "Schitt's Creek"
2. "Ozark"
3. "The Umbrella Academy"
4. "Grey's Anatomy"
5. "Star Trek"

### STUDENTS:

1. Therapeutics/Cardiovascular/  
Renal/PKPD Lectures
2. "The Office"
3. "Grey's Anatomy"
4. "Breaking Bad"
5. "Scrubs"

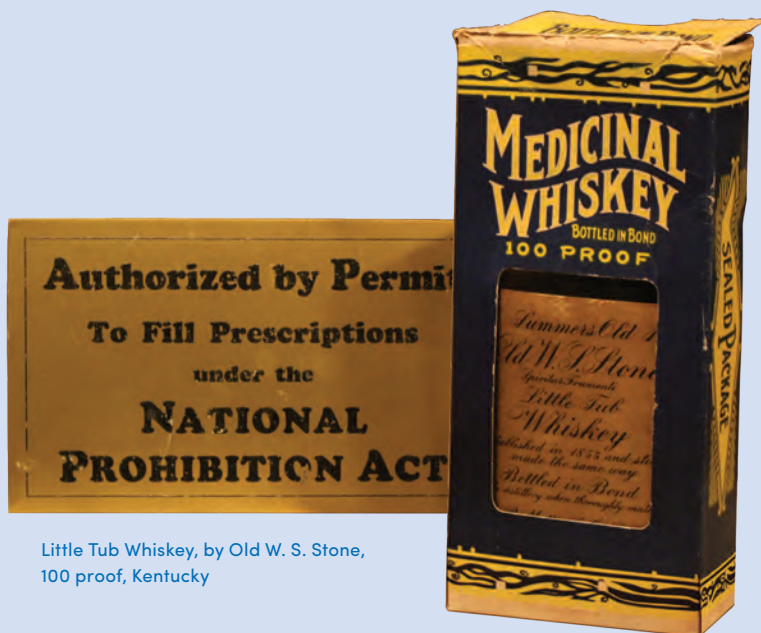
first place. It also gave Seelman an understanding of what goes into opening a business. "Typically working in a pharmacy, you aren't thinking about the costs or cash flow or how to bring patients in the door," she says. "The business plan opened those conversations."

During her last year in pharmacy school, she did an Advanced Pharmacy Practice Experience (APPE) rotation at a compounding pharmacy where the pharmacist was doing patient hormone consults. She witnessed the impact that hormonal imbalances had on women and their struggle to find proper treatment. The experience further ignited her passion to focus her career on women's health.

Seelman and her husband (and business partner) David Seelman, PharmD '10, founded Rochester's Irondequoit Pharmacy in 2019. Then, in April 2020, she took ownership of Twelve Corners Apothecary, a compounding pharmacy, also in Rochester.

The groundwork laid over a decade ago has come full circle. Through her new business, Seelman hopes to expand hormone and functional medicine consults, making them more accessible to more patients.

"When I graduated from UB, I did not set out with the goal of completing my exact plan," she says. "It just happened that my career opportunities led back to it!"



Little Tub Whiskey, by Old W. S. Stone,  
100 proof, Kentucky

# Working at the Top of His License

BY JENNIFER BOSCIA-SMITH

"Montefiore is the largest site for UB residents outside of Buffalo," says Mark Sinnett, PharmD '87, BS '83, a health system pharmacist at the comprehensive, Bronx-based medical center he has called his professional home for 32 years. "That's a real joy of mine."



A natural leader and mentor, Mark has spent the last 25 years at Montefiore Medical Center in his role as director of clinical and educational pharmacy services and director of the

PGY1 pharmacy residency program. He leads and inspires a team of 25 professionals and numerous residents during the year, and plays a critical role in placing fourth year PharmD students from UB at Montefiore.

"Residency training is the future of pharmacy," he says. "We are moving from the drug being the center of our industry to the patient being the center."

Never was that more apparent than when Mark played an intricate part in the medical center's response to New York City's COVID-19 outbreak. During the most acute infection period in March and April, the hospital had more than 6,200 patients actively being treated for COVID-19. "We were trying to dampen the infection," recalls Mark. "We were about a half day ahead of running out of medications; it was very scary and stressful." Patients were intubated on all floors of the hospital and numerous spaces converted into much needed bed space.

Mark was there day in and day out, as was a cadre of UB-trained residents. "They learned how to work in a pandemic," says Mark. "We train for this, but there's nothing like experiencing it."

Ultimately Montefiore, the Bronx, and New York State got the COVID-19 outbreak under control – in early October the daily patient census had decreased to about 25 from the highs in March and April. "We know how to treat it better now," says Mark.

"I love the science, but I really like the leadership aspect of our profession," says Mark, noting his

real passion is inspiring and energizing people and helping direct them to the aspects of their jobs that will give them "a buzz."

Mark and his wife, Merrette, will be giving a new generation of SPPS PharmD students their own kind of buzz later this year when their new scholarship funds will be available for students. Called the Mark J. Sinnett Scholarship, this endowed fund supports PharmD students who demonstrate financial need. But it will also support students who are interested in outcomes-based research and performance improvement science, something Mark became interested in during his first seven years at Montefiore, when he was doing neuroscience research.

"I learned an important thing in my early research years working on brain tumors. I learned this at Buffalo too. To really improve the outcomes for a patient – to get them out of the hospital faster, to reduce their readmission, to lower rates of adverse

## "Buffalo gave me everything I needed to succeed."

events, it's not about the result of the study, it's about the methodology that gets you to an answer," he says.

"Buffalo gave me everything I needed to succeed," remembers Mark, who came to UB as a freshman and stayed for seven years. He recalls his first year in pharmacy school – getting to know his professors, sitting in the front row of classes and marveling that the esteemed professionals teaching his classes "really wanted to know me and know my name."

And now, whether helping students financially or in their residency years, Mark is the kind of pharmacy professional whose name will still be known throughout the school and the university. "I hope my contribution is going to go a long way," he says.

## Being Bold

Gifts to the University's Boldly Buffalo campaign are paving the way for our leadership in pharmacy and pharmaceutical sciences. The School of Pharmacy and Pharmaceutical Sciences has its eyes on the field's next revolution, and through the generosity of our donors we are advancing research, drug discovery and development and recertifying our commitment to training the next generation of pharmacy leaders in outstanding clinical practice and patient care. Join the thousands of alumni who have already contributed to our future through the Boldly Buffalo campaign. Visit [buffalo.edu/campaign](http://buffalo.edu/campaign) or contact Leigh Yates, Senior Director of Advancement, at [lyates@buffalo.edu](mailto:lyates@buffalo.edu) or 716-645-3432.

**BOLDLY  
BUFFALO**  
THE CAMPAIGN FOR UB



# Supporting Research to Discover New Therapies

## Chu Endowed Chair in Drug Discovery and Development



BY MICHAEL GLUCK

Joseph P. Balthasar, PhD, professor of pharmaceutical sciences, is a world-renowned researcher working toward life-changing treatments for cancer, COVID-19 and other diseases. He is a “brilliant” researcher who has changed the field of protein therapeutics, according to James M. O’Donnell, PhD, professor and dean of the School of Pharmacy and Pharmaceutical Sciences.

And now, he is the newly named David and Jane Chu Chair in Drug Discovery and Development.

The Chu chair was established recently by David C.K. Chu, PhD ’75, and Jane Chu, MS ’75, MA ’74, who are proud to support a researcher who shares their passion for education and research. “We had an excellent graduate education, which was the basis for our accomplishments in later life,” notes David.

From an early age, there were signs that Balthasar was destined for a career in research. “Growing up, I was always interested in science, messing around with things like model rockets, and basically conducting mini science experiments,” he says.

Today, Balthasar is the executive director of University Research Initiatives, and director of the Center for Protein Therapeutics—an increasingly crucial role, given that protein-based therapies now account for half of all new drugs. Funding from the endowed chair will allow Balthasar to conduct research designed to discover new therapies that are more effective and less toxic, especially for patients with autoimmune disorders, breast cancer and colorectal cancer.

Balthasar’s work applies mathematic modeling to discover better ways to treat diseases. “Our approach is really to be opportunistic,” says Balthasar. “We look for problems that our strategies can solve.”

While Balthasar’s research has earned him worldwide acclaim from his peers, he also cherishes the time he spends teaching the next generation. “I feel it’s the greatest job one could have, helping develop new young scientists,” says Balthasar, who is quick to recognize the importance of his numerous UB mentors, including Ho-Leung Fung, William Jusko and Gerhard Levy.

Now, thanks to the Chus’ generosity, Balthasar can continue to enrich the lives of his students in the classroom and lab—and potentially improve millions of lives around the globe through his research.

“Gifts like this play a critical role in making UB the best pharmacy school in New York, and among a relatively small group of elite, research-intensive schools in the United States,” notes O’Donnell, who appreciates the long-term impact of the Chus’ gift. “An endowed chair has a generational effect. Fifty years from now there will still be a Chu chair and an endowed scientist in that chair.”



David C.K. Chu and Jane Chu

“We believe that education is the most important investment we can make in young people.”

David Chu, PhD ’75

## The Hayes Society

The Hayes Society honors individuals who have made legacy gifts to the School of Pharmacy and Pharmaceutical Sciences through a bequest or other method of deferred giving.

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To learn more or notify the school of a legacy gift that you have planned, please call the Office of University Advancement at (716) 645-3432 or visit our web site at [pharmacy.buffalo.edu](http://pharmacy.buffalo.edu).

# 455

The number of current Hayes Society members across the university who have remembered UB in their will or through another deferred gift.

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**TOP 10:**  
Pharmacy ranks **9th**  
in endowment value at UB

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*Class of 1979, cont.*

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**INCLUDES EPUBS AHEAD OF PRINT\***

### PHARMACY PRACTICE

#### CHA, RAYMOND

Baalbaki NA, Fava JP, Ng M, Okorafor E, Nawaz A, Chiu W, Salim A, Cha R, Kilgore PE. A Community-Based Survey to Assess Knowledge, Attitudes, Beliefs and Practices Regarding Herpes Zoster in an Urban Setting. *Infect Dis Ther*. 2019 Dec;8(4):687–694. doi: 10.1007/s40121-019-00269-2.

Henig O, Pogue JM, Martin E, Hayat U, Ja'ara M, Kilgore PE, Cha R, Dhar S, Kaye KS. The Impact of Multidrug-Resistant Organisms on Outcomes in Patients With Diabetic Foot Infections. *Open Forum Infect Dis*. 2020 May 6;7(5):ofaa161. doi: 10.1093/ofid/ofaa161.

#### CHA, RAYMOND (cont.)

Wang P, Venuto C, Cha R, Miller BL. (2020) Simultaneous Quantification of Protease Inhibitor and Inflammatory Biomarkers in Serum for People Living with HIV. *Analytical Methods*. 2020; Anal. Methods, 2020,12, 1882–1888 doi: 10.1039/D0AY00098A.

#### CHILBERT (HOLSEN), MAYA R.

Holsen MR, Tameron AM, Evans DC, Thompson M. Intraleural Tissue Plasminogen Activator for Traumatic Retained Hemothorax. *Ann Pharmacother*. 2019 Oct;53(10):1060–1066. doi: 10.1177/1060028019846122.

#### CHILBERT (HOLSEN), MAYA R. (cont.)

Holsen MR, Wardlow LC, Bazan JA, Fussner LA, Coe KE, Elefritz JL. Clinical outcomes following treatment of *Enterobacter* species pneumonia with piperacillin/tazobactam compared to cefepime or ertapenem. *Int J Antimicrob Agents*. 2019 Dec;54(6):824–828. doi: 10.1016/j.ijantimicag.2019.07.008.

Wojakowski E, Cheruvil C, Hassan A, Holsen MR, Chen L, Rossi M, Wilcox N, Woodruff AE. Albumin and bleed risk in rivaroxaban treated patients. *J Thromb Thrombolysis*. 2020 Apr 11. doi: 10.1007/s11239-020-02092-w.

Boyce EG, Harris CS, Chan EK, Chapman SA, Chilbert MR, Dy-Boarman EA, Haines ST, Heavner MS, Marcus K, Smith SE, Strnad K, Yunker NS. ACCP White Paper: Striving for Excellence in Experiential Education. *Journal of the American College of Clinical Pharmacy*. 2020;3(3):678–691. doi: 10.1002/jac5.1240.

Boyce EG, Harris CS, Chan EK, Chapman SA, Chilbert MR, Dy-Boarman EA, Haines ST, Heavner MS, Marcus K, Smith SE, Strnad K, Yunker NS. ACCP Position Statement: Striving for Excellence in Experiential Education. *Journal of the American College of Clinical Pharmacy*. 2020;3(3):692–695. doi: 10.1002/jac5.1241.

#### CIERI-HUTCHERSON, NICOLE E.

Cieri-Hutcherson NE, Hutcherson TC, Conway-Habes EE, Burns BN, White NA. Systematic Review of L-glutamine for Prevention of Vaso-occlusive Pain Crisis in Patients with Sickle Cell Disease. *Pharmacotherapy*. 2019 Nov;39(11):1095–1104. doi: 10.1002/phar.2329.

Rafie S, Cieri-Hutcherson NE, Frame TR, Griffin B, Harris JB, Horlen C, Shealy K, Stein AB, Stone RH, Vest K, Westberg S, Yancey AM. Pharmacists' Perspectives on Prescribing and Expanding Access to Hormonal Contraception in Pharmacies in the United States. *J Pharm Pract*. 2019 Aug 7;897190019867601. doi: 10.1177/0897190019867601.

Hutcherson TC, Cieri-Hutcherson NE, Gosciak MF. Brexanolone for postpartum depression. *Am J Health Syst Pharm*. 2020 Feb 19;77(5):336–345. doi: 10.1093/ajhp/zxz333.

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#### CIERI-HUTCHERSON, NICOLE E. (cont.)

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Ciriello D, Cieri-Hutcherson N. Pharmacists and Contraception in the Inpatient Setting. *Pharmacy (Basel)*. 2020 May 9;8(2):82. doi: 10.3390/pharmacy8020082.

## #2 Ranked school for producing Deans and Chairs at other U.S. pharmacy schools

#### CLARK, COLLIN M.

Hart E, Nguyen M, Allen M, Clark CM, Jacobs DM. A systematic review of the impact of antifungal stewardship interventions in the United States. *Ann Clin Microbiol Antimicrob*. 2019 Aug 21;18(1):24. doi: 10.1186/s12941-019-0323-z.

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## SPPS:

# 5

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#### WOO, SUKYUNG

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UB spends more than  
**\$400M**  
on research annually

#### XU, YING

Cui SY, Yang MX, Zhang YH, Zheng V, Zhang HT, Gurney ME, Xu Y, O'Donnell JM. Protection from Amyloid  $\beta$  Peptide-Induced Memory, Biochemical, and Morphological Deficits by a Phosphodiesterase-4D Allosteric Inhibitor. *J Pharmacol Exp Ther*. 2019 Nov;371(2):250-259. doi: 10.1124/jpet.119.259986.

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# Grants

JULY 1, 2019–JUNE 30, 2020

## PHARMACY PRACTICE

### BEDNARCZYK, EDWARD

**Health Research Inc.**  
Opioid Prescriber Training Program and Enduring Program

**Dutchess County Department of Behavioral and Community Health**  
Pharmacy Role in Addressing the Opioid Epidemic

**Island Peer Review Organization**  
Special Innovation Project 1 for Innovations that Advance Local Efforts for Better Care at Lower Costs

### CHA, RAYMOND

**University of Rochester**  
University of Rochester Center for AIDS Research/ URF  
AWDC527703

**Alternatives Research & Development Foundation**  
Validation of a Mini-In Vitro Pharmacodynamic Model with Human Serum Constituents and Albumin

### DALY, CHRISTOPHER

**Community Pharmacy Enhanced Services Network**  
A Clinical Integrated Community Pharmacy Network-Academic Partnership to Improve Diabetes Care in New York State

**Community Pharmacy Foundation**  
Impact and feasibility of establishing a Community Health Worker Program within Community Pharmacy Settings

### DUNN, TERRY

**ASHP Research and Education Foundation**  
Evaluation of Health Outcomes Associated with a Pharmacist's Telephone Intervention in Transitions of Care in an Underserved Population

### JACOBS, DAVID

**Community Pharmacy Enhanced Services Network**  
A Clinical Integrated Community Pharmacy Network-Academic Partnership to Improve Diabetes Care in New York State

**Mylan Incorporated**  
A qualitative study to understand patient and social factors related to nebulizer use at the transition of care in COPD

**Community Pharmacy Foundation**  
Impact and feasibility of establishing a Community Health Worker Program within Community Pharmacy Settings

**ASHP Research and Education Foundation**  
Impact of an Integrated Pharmacist and Primary Care Collaborative Transitions of Care Program on Clinical and economic Outcomes among High Risk Patients

### MA, QING

**National Institute on Aging**  
Aging, Polypharmacy and Neurotoxicity in Adults Living with HIV

**Merck Sharp and Dohme Corporation**  
Doravirine Cerebrospinal Fluid (CSF) Pharmacokinetics in HIV-Infected Individuals

### MEANEY, CALVIN

**American College of Clinical Pharmacy**  
T Regulatory Cell Response to Erythropoiesis Stimulating Agents Post-Renal Transplantation

### MORSE, GENE

**University of California at Los Angeles**  
ACTG Precautionary and Prohibited Medications Database

**University of Rochester**  
Center for Health + Technology (CHeT)

**National Institute of Allergy & Infectious Disease**  
Clinical Pharmacology Quality Assurance

**Fogarty International Center**  
Global Infectious Diseases Research Training Program

**Fogarty International Center**  
HIV Research Training Program

**University of California at Los Angeles**  
Laboratory Center (LC), AIDS Clinical Trials Group (ACTG) [UM1AI106701]

**University of Rochester**  
University of Rochester HIV/AIDS Clinical Trials Unit

### TORNATORE, KATHLEEN

**National Institute on Aging**  
Age and Race Influences on Immunosuppression after Renal Transplant

### TSUJI, BRIAN

**National Institute of Allergy & Infectious Disease**  
Novel Strategies for Antibiotic Combinations to Combat Gram-negative Superbugs

**National Institute of Allergy & Infectious Disease**  
Novel PK/PD Strategies for Polymyxin Combinations against Gram-negative Superbugs

### WAHLER, ROBERT

**State University of New York Innovative Instruction Technology Grants**  
Implementation and Evaluation of Micro-Credentials on the Pharmacists' Patient Care Process in Pharmacy and Pharmacy Technician Programs: Promoting Patient-Centered Care

## PHARMACEUTICAL SCIENCES

### BALTHASAR, JOSEPH

**National Cancer Institute**  
Catch and Release Immunotoxins: CAR-Bombs for Cancer

**National Cancer Institute**  
Pharmacokinetic strategies to increase monoclonal antibody uptake, distribution, and efficacy for treatment of solid tumors

**Center for Protein Therapeutics**  
Evaluation of CAR-Bomb strategies for targeted delivery of anti-cancer siRNA

**Center for Protein Therapeutics**  
Evaluation of the effects of cell penetrating peptides and endosomal escape peptides on the pharmacokinetics of anti-cancer monoclonal antibodies

**Center for Protein Therapeutics**  
Evaluation of the therapeutic selectivity of anti-CEA SN38 antibody-drug conjugates (ADC) and antibody drug fragment complexes (FDC)

### BALU-IYER, SATHY

**National Heart Lung and Blood Institute**  
HL-Development and Pharmacology of novel lipidic rAHF and biotherapeutics

**Center for Protein Therapeutics**  
Study viable approaches for oral delivery of colon-targeting macromolecules (e.g. targeting TNF for IBD), and understand

the gut absorption mechanism following oral delivery

### BIES, ROBERT

**Magee-Womens Research Institute and Foundation**  
Film Antiretroviral Microbicide Evaluation

**Childrens Research Institute**  
Pharmacokinetics of sedatives – Understanding a modifiable risk factor for pediatric delirium

**U.S. Food and Drug Administration**  
Physiologically-based model of the female reproductive tract: vaginal and intrauterine delivery components- Support New Approaches to Improve Product Manufacturing and Quality

**U.S. Army Medical Research Acquisition Activity**  
Understanding the Relative Contributions of and Critical Enzymes for the Three Pathways for Intracrine Metabolism of Testicular Androgens in Advanced Prostate Cancer

**Merck Sharp and Dohme Corporation**  
Visiting Scholar: Nikhil Pillai

### BLANCO, JAVIER

**National Institute of General Medical Sciences**  
Contribution of CBRs and AKRs to the Pharmacodynamics of Anthracycline Drugs

**National Institute of General Medical Sciences**  
Defining the Contribution of Cellular Hypoxia to the Cardiotoxicity of Anticancer Anthracyclines and Trastuzumab

**Eunice Kennedy Shriver National Institute of Child Health & Human Development**  
Epigenetic Regulation of FcRn Expression in Human Lung and its Role in the Disposition of Monoclonal Antibody Drugs

**National Cancer Institute**  
Evaluation of myocardial targets to prevent anthracycline cardiotoxicity in children with Down Syndrome and Leukemia

**Board of Trustees of the University of Alabama Birmingham**  
The Who and Why of Anthracycline-related Cardiotoxicity in Childhood Cancer Survivors

**Board of Trustees of the University of Alabama Birmingham**

Understanding the Molecular Underpinnings of Anthracycline-related Cardiomyopathy in Childhood Cancer Survivors

#### **JUSKO, WILLIAM**

##### **National Institute of General Medical Sciences**

Corticosteroid Pharmacokinetics and Pharmacodynamics

##### **National Institute of General Medical Sciences**

Mechanistic Pharmacokinetics and Pharmacodynamics

##### **Bristol Myers Squibb Company**

UB-BMS Training Program

#### **KRZYZANSKI, WOJCIECH**

##### **Bristol Myers Squibb Company**

"Importance of FREM in Accurate Description of Time-dependent Covariates in Pediatric Populations"

##### **Childrens Mercy Hospital**

Population PK Model of Indomethacin in Preterm Infants

#### **MAGER, DONALD**

##### **Boston Children's Hospital**

Immunologic and Neurodevelopmental Consequences of Neonatal Anemia and Thrombocytopenia and their Treatments

##### **Institut de Recherches Internationales Servier**

Mechanistic PKPD modelling of biologic treatments in lymphoid leukemia for better understanding of efficacy and safety

##### **Bristol Myers Squibb Company**

"BMS Fellowship: Development of Cellular Response Models for the Adaptive and Innate Immune Response"

##### **Beckman Research Institute of the City of Hope**

Optimizing GVHD Prevention with Systems Pharmacology Models

##### **MedImmune**

Tumor Kinetic and Survival/ Dropout Modeling of Durvalumab for Multiple Cancer Types

##### **Center for Protein Therapeutics**

Liposomal IL-12 protects melanoma patient-derived tumor-specific T cells from an up regulation of PD-1, exhaustion and loss of function following their adoptive transfer and entry into the tumor microenvironment of melanoma tumor xenografts

#### **MORRIS, MARILYN**

##### **American Foundation Pharmaceutical Education**

Fellowship for Rodriguez Cruz: Gamma-Hydroxybutyrate Toxicokinetics and Toxicodynamics: Drug-Drug Interactions

##### **Codex BioSolutions Incorporated**

SBIR: Development of Novel PDE4B Inhibitors to Treat Alcohol Use Disorder

##### **Center for Protein Therapeutics**

Hepatic FcRn and the Impact of its Loss on FcRn-Mediated Recycling

##### **Center for Protein Therapeutics**

BCSFB transport and disposition of IgG1

#### **QU, JUN**

##### **AbbVie Incorporated**

Comprehensive characterization of upregulated proteases in diseased vs normal tissues

##### **Wake Forest University Health Sciences**

GMPS-GMPR axis melanoma progression and therapy

##### **Pacific Northwest National Laboratory**

Highly sensitive multiplexed targeted mass spectrometric assays of proteins/peptides of significance in obesity research

##### **University of Rochester**

Modeling Mechanisms of Adjuvanted Influenza Vaccine Induced IgG Repertoire Diversity and Heterosubtypic Immunity URF (AWD00001405)

##### **West Virginia University Research Corporation on behalf of West Virginia University**

Neuroinflammation-related phosphoprotein signaling pathways as potential therapeutic targets for GWI using an established animal model

##### **GlaxoSmithKline**

Novel LC-MS strategies for comprehensive investigations of Circulating Immune Complex and MHC Presenting Peptides

##### **University of Manitoba**

Pharmacokinetics of indomethacin for PDA closure in extremely preterm infants

##### **AbbVie Incorporated**

Proteomics Analysis using IonStar

##### **Buffalo Institute for Medical Research**

The Network Biology of Pathogen-Host Interactions

Driving Exacerbation in Chronic Obstructive Pulmonary Disease (COPD)

##### **CH3 BioSystems LLC**

UB CAT: Epigenetic Drug Discovery Platform for Methylation Inhibitors

##### **Center for Protein Therapeutics**

3D-printed micro scaffold for high-resolution tissue compartmentalization / micro-sampling and application in measuring the tissue distribution of protein biotherapeutics and biomarkers

#### **RAMANATHAN, MURALI**

##### **Otsuka Pharmaceutical Development and Commercialization Inc.**

Adherence Modeling of Digital Medicine Data

#### **SHAH, DHAVALKUMAR**

##### **Oncolinx LLC**

Fellowship: Ashwni Verma

##### **National Institute of General Medical Sciences**

Translational Systems Pharmacokinetic Models of Novel Anticancer Biologics

##### **Center for Protein Therapeutics**

Evaluation of Brain Pharmacokinetics of Protein Therapeutics after Local Administration

##### **Center for Protein Therapeutics**

Effect of Charge Variation on the Disposition of Monoclonal Antibodies

##### **Center for Protein Therapeutics**

Evaluation of pH Dependent Antigen Binding and Geldanamycin Co-administration as Novel Strategies for Enhanced Intracellular Delivery of Antibody-Drug Conjugates (ADCs)

#### **SPROWL, JASON**

##### **American Association of Colleges of Pharmacy**

Regulation of SGLT1 function by tyrosine kinase inhibitors

#### **STRAUBINGER, ROBERT**

##### **Ipsen Bioscience Incorporated**

Ipsen Esle 2017-19

##### **National Cancer Institute**

Large-scale proteome-wide analysis with high accuracy/precision to guide pancreatic cancer therapy development

##### **Merrimack Pharmaceuticals Incorporated**

M398/M310 Testing Services

##### **Merrimack Pharmaceuticals Incorporated**

RESCIND - Liposomal formulations for pancreatic cancer treatment

##### **National Cancer Institute**

Tumor priming sequences combined with novel nanoparticle drug carriers for enhanced therapeutic efficacy in pancreatic cancer

#### **WOO, SUKYUNG**

##### **American Cancer Society**

Overcoming resistance to anti-VEGF therapy with predictive modeling

##### **National Cancer Institute**

Targeting HPV Consequences in a Cervical Cancer Clinical Trial

##### **National Cancer Institute**

Ovarian Cancer Chemoprevention

##### **National Cancer Institute**

Reprogramming Tumor Microenvironment by Nanoparticle

##### **National Institute of General Medical Sciences**

Photo-unclick Chemistry and Its Application to Near Infrared-activatable Prodrugs

##### **Department of Defense**

Visible Light-Controlled Combination Strategy for Treating Non-muscle Invasive Bladder Cancers

#### **XU, YING**

##### **Tetra Discovery Partners**

SBIR - Phosphodiesterase-4B (PDE4B) Inhibitors for Psychiatric Disease

#### **YOU, YOUNG JAE**

##### **Board of Regents of the University of Oklahoma Health Sciences Center**

Mechanistic studies of gamma-glutamyl transpeptidase inhibition: A novel approach to modulating serum levels of cysteine

##### **National Institute of General Medical Sciences**

NIR-activatable Prodrugs for Treating Peritoneally Metastasized Ovarian Cancers

##### **Board of Regents of the University of Oklahoma Health Sciences Center**

Visible Light-Controlled Combination Strategy for Treating Nonmuscle Invasive Bladder Cancers





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Whether it's sending our students on medical missions, discovering innovative drug protocols, or propelling our students to be the next generation of health care leaders, we're not afraid to do what it takes to make an immeasurable impact on our community and

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