BUFFALOPHARMACY NEWSLETTER

TACKLING THE Opioid Epidemic

University at Buffalo School of Pharmacy and Pharmaceutical Sciences

pharmacy.buffalo.edu VOLUME 16, 2017



2016 was a rewarding year for our faculty and students, and this edition of Buffalo Pharmacy showcases their outstanding achievements: Marilyn Morris, SUNY Distinguished Professor; Murali Ramanathan, UB Exceptional Scholar Sustained Achievement Award; Dhaval Shah, UB Exceptional Scholar Young Investigator Award; Donald Mager, 2017 Malle Jurima-Romet Mid-Career Leadership Award from the American Society for Clinical Pharmacology and Therapeutics (ASCPT); and Nicholas Smith, '17, American Society for Microbiology Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) Program Award, one of only six scientists out of 11,000 chosen and the only student! You can read more about their truly noteworthy achievements as well as the significant accomplishments of many of their colleagues later in this issue.

I would also like to express my appreciation to Dean Emeritus Wayne K. Anderson. Wayne retired from the faculty this past July and his presence will be truly missed. While the article contained in this publication lists his many accomplishments as an administrator, academician and scientist, what is not as evident is the personal impact he had on so many here at the school and the university. His thoughtful leadership, combined with a desire to elevate the profession of pharmacy and maintain the rigor of the pharmaceutical sciences, is truly his lasting legacy and something we are all grateful for.



The landscape of academic pharmacy is ever-changing—the opening of new schools, revisions to accreditation standards, technological advances, and the expansive intellectual environment our students create make us think bigger and bolder to maintain a competitive edge and enhance our leadership. I thank all of our school members—alumni, friends, donors, faculty, staff and students—for giving us the foundation and tools we need to continue our positive and progressive impact on pharmacy practice and the pharmaceutical sciences.

With warm regards,

James M. O'Donnell, PhD Professor and Dean

BUFFALO**PHARMACY**

Buffalo Pharmacy Newsletter is an annual publication of the University at Buffalo School of Pharmacy and Pharmaceutical Sciences.

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SPPS on the front lnes of the OPDOD EPIDEMIC

Kelsey Violanti and Lukas Brightman have been distributing purple drug disposal bags since last summer—at community and hospital pharmacies, police stations, and to medical and dental groups in Amherst, Buffalo, Cheektowaga, Lancaster, Lewiston, Lockport, Niagara Falls, Orchard Park, and West Seneca, NY.

Third -and second-year pharmacy students respectively, they and fellow PharmD students are working under the keen direction of Karl Fiebelkorn, MBA, RPh, senior associate dean of student, professional and community affairs, on the front lines of a burgeoning opioid addiction epidemic in Western New York.

In August 2016, Fiebelkorn facilitated the donation of 20,000 Deterra Drug Deactivation pouches from the St. Louis, Missouribased Mallinckrodt Pharmaceuticals. The bags contain activated charcoal—often given in the emergency room to patients experiencing an overdose crisis—which safely deactivates and dissolves the drugs when warm water is added.

The goal is to prevent as many potentially harmful unused prescription drugs as possible from public access and environmental contamination.

"Before, we told people to mix their leftover prescriptions with (cat) litter or coffee grounds. But people do go garbage picking for medications," Violanti says.

Both students are members of the Student Pharmacist Association of Western New York (SPAWNY) and the Student Pharmacist Society of the State of New York (SPSSNY).

Locally, SPAWNY is involved directly with branding the drug disposal pouches with SPPS stickers before they are distributed –and both organizations fully support the prevention efforts of opioid abuse, explains Brightman. Medication Disposal System

Safe · Effective · Convenient

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Works For Pals, Linute - pat

"We **prepare** our students to counsel about all drugs. Now we're doing

SPECIFIC COUNSELING

in response to the EPIDEMIC that we're seeing."

> Clinical Assistant Professor Robert G. Wahler, PharmD

As SPAWNY president, SPSSNY vice president and policy VP for the SPPS chapter of the American Pharmacist Association - Academy of Student Pharmacists (APhA-ASP), Violanti leads efforts to educate the local community on opioid misuse and abuse and encourages student advocacy for pharmacist-led opioid overdose prevention programs.

"Pharmacists are among the most accessible healthcare providers, therefore it is important for us to be involved," she says. "I organize *Pizza and Policy* meetings where students come and discuss current pharmacy-related issues, including the opioid epidemic and what pharmacists can do to help."

Fiebelkorn, their mentor, has been a longtime champion for student-led safe drug disposal programs. These programs help remove unused, unwanted or expired medications from the household to prevent the accidental poisoning of young children, curious drug use by adolescents and pharmaceutical mishaps in the elderly.

"SPPS has been mounting student-led drug disposal days for more than 10 years. We worked with the Bureau of Narcotic Enforcement along with the New York State Department of Environment and Planning and the Erie County Department of Health," he says, recalling an early outreach in Pavilion, NY where more than 100 cars drove through to hand off unused prescription drugs.

He was also at the forefront of SPPS collaborations with county, state and federal leadership to pass the I-STOP legislation that now regulates the distribution and tracking of prescription drugs, including opioids, in New York State.

"It's still finishing up its phases. Some physicians are still not sending prescriptions electronically," Fiebelkorn says of the bill signed in 2012 by Governor Cuomo. "March 2017 is the absolute drop-dead date. Everybody should be sending in their prescriptions electronically by then, which cuts down on a whole lot of fraud and abuse. That's the whole idea."

Through I-STOP, pharmacists can investigate whether or not an opioid prescription has been previously filled at another location. In 2016, in further action to stem the broadening pursuit of illegal prescriptions, New York State worked with other states to extend this service to tristate area pharmacists.

"It's really cut down on the abuse dramatically," says Fiebelkorn.

In March 2016, President Obama released a federal announcement for private sector commitment to addressing the growing national health crisis of opioid abuse and heroin use. The epidemic is especially pronounced in Western New York, where the number of deaths by opioid overdose reached 256 in 2015 and more than 500 in 2016.

"The scope of the epidemic is huge. I work in a hospital setting, and every day you see multiple people come in with an opioid overdose," Brightman says.

In direct support of the federal initiative, the American Association of Colleges of Pharmacy (AACP) resolved that "colleges and schools of pharmacy commit to actions aimed at reducing the public health threat from opioid abuse and heroin by utilizing teaching, research and patient-centered teambased care."

In April 2016, the AACP called for educating every pharmacy student to be ready to provide life-saving overdose interventions, including the administration of naloxone, the first line of pharmaceutical defense against an opioid drug overdose. "We were ahead of the curve on that one. In 2015, Professor Fiebelkorn invited the Erie County Department of Health to train SPPS students in the dispensing and use of naloxone for treatment of an opioid overdose," explains Clinical Assistant Professor Robert G. Wahler, PharmD.

Wahler, who was named UB's 2016 AACP Teacher of the Year, is leading the curricular initiative to bring SPPS into compliance with AACP recommendations and New York State mandates and federal guidelines on opioid abuse and heroin use.

"We prepare our students to counsel about all drugs. Now we're doing specific counseling in response to the epidemic that we're seeing," he says.

Last September, Wahler added a class to his Pharmaceutical Care IV course that now teaches P3 students how to counsel patients who are prescribed opioid medications when they are discharged from the hospital or pick up the prescription from the pharmacy.

For the Spring 2017 semester, he is including a new practicum on opioid overdose with additional practice in naloxone use in the Self Care Therapeutics course for P1 students.

"We're trying to give them some hands-on experience that includes mock patient-counseling sessions. We want to make sure that everyone from the eighth grade on up will understand what we're talking about when we talk about opioid addiction, and will be able to communicate 'this is an opioid.' You may become physically dependent on this medication and it could be fatal if you take too much. And if you stop taking it abruptly, you may experience withdrawal symptoms," Wahler says.

SPPS also offers free online naloxone education and training to all New York State-licensed pharmacists through its Office of Postgraduate Education in partnership with the New York State Department of Health AIDS Institute Harm Reduction Coalition. To date, this program has

resulted in over 500 NYS pharmacists completing this training. In addition, faculty and students worked last year with the Erie County Department of Health Opioid Epidemic Drug Task Force—of which Fiebelkorn is a committee member—to effect an Erie County order that allows the general public to obtain naloxone from any pharmacy without a prescription. New York State has since introduced a standing order that includes all counties.

Ultimately, broad patient education and a plethora of public access to prescription drug disposal options are critical to stemming the opioid abuse epidemic.

"Public education is huge and that's part of what pharmacists are there for. In the future, pharmacists will be giving out information with every opioid prescription," Fiebelkorn says.

But with a new wave of counterfeit opioids recently identified and easy access to drugs over the internet—he warns that the worst may still be ahead.

In response, Fiebelkorn and his battalion of SPPS students—in collaboration with Jessica Pirro, chief executive officer of Erie County Crisis Services—are distributing pamphlets advertising both the Erie County 24-hour mental health crisis hotline and 24-hour addiction helpline. The brochures are being disseminated through Western New York pharmacies directly to patients picking up their prescription medications.





"We are in an epidemic in New York, a big crisis. My **students** want to make the

WORLD A BETTER PLACE

for everyone to work and **LIVE**"

> Karl Fiebelkorn, MBA, RPh Senior Associate Dean for Student, Professional and Community Affairs

He credits Violanti, Brightman and their student counterparts for their commitment and willingness to volunteer their valuable time to turning the current tide of opioid abuse.

"Keep in mind, at UB, we do not graduate pharmacists. We graduate pharmacy leaders. These are exceptionally knowledgeable individuals," Fiebelkorn says. "We are in an epidemic in New York, a big crisis. My students want to make the world a better place for everyone to work and live."

Student Leaders Research

2016 was a great year for recognition of SPPS students Nick Smith, Charvi Nanavati and Rutwij Dave, and their contributions to the advancement of knowledge and clinical science.

In June 2016, Nick Smith captured the American Society for Microbiology Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) Program Award for his bench and bedside battle against bacterial superbugs. One of six finalists from among 11,000 attendees at the Boston summit, he was the only pharmacist, only pharmaceutical PK/PD scientist, only student—and the youngest.

"I was incredibly grateful. I am still in disbelief. It was fantastic," says the 23-yearold, who will receive a dual PharmD/Master of Pharmaceutical Sciences degree in 2018.

"Pursuing both degrees puts me right in the middle. It affords me the opportunity to see the best of both worlds," he adds. "I am a translational scientist in the truest sense."

The ICAAC award was presented for the best abstract emphasizing therapy and prevention. Smith was selected for his novel investigation into the pharmacodynamics of antibiotic combination therapy to treat highly resistant superbugs, a project entitled "Probability of Target Attainment of Meropenem and Polymixon B Combinations in Carbapenum-Resistant Acineobacter buamannii."

"We're reaching a precipice where the resistance of these bacteria is so profound, so amazingly powerful, that antibiotic pipelines are not seeing as fruitful results as they have in years past," states Smith.

In response to this international health crisis, Smith is working to define new tools and knowledge for combination dosing regimens that optimize and sustain the efficacy of the few antibiotics to which superbugs remain susceptible. At the Center for Excellence, he and his team explore ways to use polymixons and other classes of antibiotics more effectively, more efficiently and more safely. "I work with fantastic people," says Smith, crediting Associate Professor Brian T. Tsuji, PharmD, for supportive mentorship. "He is always receptive and lets creativity in the lab become an entity of its own."

Smith's novel research initially focused on in vitro investigation of hollow fiber infection models in the lab. "We have theories and hypotheses on how these superbugs respond to these antibiotics and that's where we get to see it happen," he explains.

Phase two uses pharmacometric modeling to analyze the bench results and determine how dosing regimens might be applicable to different patient populations.

⁴⁴ The research is really about optimizing and individualizing care for the best possible outcomes," Smith explains. "If we recognize and appreciate the differences it means that we can better treat each of us. ??

In November 2016, Charvi Nanavati and Rutwij Dave each received the American Association of Pharmaceutical Sciences (AAPS) Graduate Student Research Award in Pharmacokinetics, Pharmacodynamics, Drug Metabolism and Clinical Pharmacology and Translational Research. Both received their PhD in pharmaceutical sciences in September.

"I think one of the reasons I was chosen



was because of the way we used the information generated in the lab to make meaningful insights into combination therapy," Nanavati says

of her dissertation, "Pharmacodynamic Systems Analysis of Bortezomib and Vorino Interactions in Multiple Myeloma." "The work was also unique because it combined traditional pharmacodynamic approaches with cutting-edge systems pharmacology modeling techniques."

Dave's investigation into "Quantitative



Structure-Pharmacokinetic Relationships (QSPKR) and Mechanic Models for Transporter-Mediated Renal Drug Disposition" focused on advancing drug transporter

knowledge that will help predict the clearance and retention of small molecule cancer therapeutics in the liver and kidneys.

"It's really important to know what fraction of a drug is being eliminated through the kidneys. My research basically tells you what the renal clearance will be just by looking at the structure of the drug," he says.

Dave, who is now an associate scientist at Genentech in San Francisco developing large molecule protein therapeutics for cancer, thanks thesis advisor SUNY Distinguished Professor Marilyn Morris, and committee members Professor Murali Ramanathan, and Professor Donald Mager, for their support and guidance.

Nanavati was also mentored by Mager. She is now a member of the clinical pharmacology and translational development team at Halozyme Therapeutics, a biotech company in San Diego, where she is focused on the development of novel cancer therapeutics.

"It's been really fulfilling to see that I can actually impact some of the drug development programs. I couldn't have done that without the training and mentorship I received at UB," she says.

Special thanks to'our 2016 tournament sponsors:

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The Lockport Town and Country Club once again provided an idyllic setting for the 13th annual UB School of Pharmacy and Pharmaceutical Sciences Student Scholarship Golf Tournament.

Through the generosity of alumni, friends and sponsors, a record \$26,000 was raised to support student scholarships. By recognizing superior students, we encourage all students to strive for academic excellence and leadership within the profession.

This year's scholarship recipients were chosen based on their academic performance and on their leadership within the profession and amongst their student colleagues:

- Class of 2017: Ali Scrimenti, Angeline Walker, Corey Wells, lamie Gaesser
- Class of 2018: Olivia Dioguardi, Howie (Hao-Min) Chang, Kelsey Violanti









Tournament **Contest Winners:**

1st Place Winning Foursome (with a score of 59)

Qualified for a 4 day/3 night trip for four to the Acura Alumni College Team Championship at the Pinehurst Golf Resort in North Carolina: Mark Jaccarino Nick Norgard Bill Prescott. '02 Patrick Smith

2nd Place Winning Foursome (with a score of 60) Dean Arthur Don Arthur Steve Giroux, '81 Zach Giroux

3rd Place Winning Foursome (with a score of 67) Ken Andrus, '94 Pete Brody, '02 **Rick Scherer** Dean Trzewieczynski, '98

Longest Drive, Hole 16: Men: Mark Jaccarino Women: Kim Sunderland, '17

Closest to the Pin, Hole 6: Men: Bill Prescott, '02 Women: Kim Sunderland, '17

Closest to the Pin, Hole 18: Men: Patrick Smith Women: Maria Mintkovsky, '18

Closest to the Line, Hole 4: Men: Jeff Kelly Women: Carol Doud

Ring of Gold: Karl Fiebelkorn, '78 Richie Dunn

STUDENT NEWS

CLASS OF 2016 Farewell Celebration

On May 12, 2016, the School of Pharmacy and Pharmaceutical Sciences Office of Alumni Relations hosted the 2016 graduating PharmD class as they celebrated their graduation at The Foundry in Buffalo. James O'Donnell, dean, and Karl Fiebelkorn, senior associate dean, provided comments and distributed Class of 2016 pins to the soon-tobe alumni.

Class officers Tyler Mullen, president, Michael Mauri, vice president, Anthony Torres treasurer, and Brenda Basile, curriculum



coordinator, offered comments to their classmates and honored Alfred Reiman, clinical assistant professor, pharmacy practice, with the Class of 2016 Faculty Recognition award.

P2 CLASS MAKES Wishes Come True...

The 2016 Halfway Charity Gala was held Saturday, Feb. 6, 2016 at the Adam's Mark Hotel in downtown Buffalo. This annual event, coordinated by P2 students, raised nearly \$1,500 for the Make-A-Wish Foundation. Wishgranting volunteer Courtney Kramer gave the keynote speech.



Over 200 people attended the event, with over 20 raffle baskets donated by faculty and local businesses.

The Make-A-Wish Foundation is dedicated to granting wishes that transform the lives of children with life-threatening conditions.

HIGH SCHOOL STUDENTS EXPLORE EDUCATIONAL OPPORTUNITIES AT First Annual Pre-Pharmacy Summer Camp

High school students from across the nation got a glimpse of the pharmacy profession through the first University at Buffalo School of Pharmacy and Pharmaceutical Sciences Pre-Pharmacy Summer Camp.

The unique three-day camp offered a broad scope of learning experiences, including hands-on activities in the compounding lab, simulated medication dispensing in the model pharmacy, and lectures by UB faculty and Buffalo-area SPPS alumni on topics ranging from vaccinations to the future of the profession. Students also visited the New York State Center of Excellence in Bioinformatics and Life Sciences, Buffalo General Medical Center and Mobile Pharmacy Solutions.





"This camp helped me to get to know what pharmacists do and how important pharmacists are in our society. I will definitely apply to UB pharmacy." –J.T. (camp attendee)



THE CLASS OF 2020 **Joins the SPPS**

Faculty and staff welcomed students into our PharmD and Pharmaceutical Sciences degree programs for the 2016-17 academic year.

Orientation for the new PharmD students took place Aug. 25-26, where 136 students joined our ranks. The orientation program included course overviews, review of student academic policies, and preparation for experiential rotations, as well as focused programming regarding faculty advisement and key strategies to enhance mentoring experiences. The annual Alumni Panel Q&A session was a highlight of the orientation. Thanks to the following alumni for their insightful comments and direction to our new P1 students:

- Kari Mergenhagen, '07
- Brian Olney, '01
- Thomas Platek, '68
- Michelle Rainka, '05

Our new PharmD students took their first step toward becoming pharmacists during the Annual White Coat Ceremony held at the University at Buffalo Lippes Concert Hall on Aug. 25. The ceremony symbolizes the passage into the initial stages of the profession of pharmacy and signifies a contract for excellence in providing compassionate patient care. Michelle Rainka, PharmD, '05, clinical pharmacist with the DENT Neurological Institute's Division of Neuropharmacology, gave the keynote address.

Orientation and the White Coat Ceremony would not be possible without the support of these generous partners. Thank you!

- Rite Aid Corporation
- Tops Friendly Markets
- Pharmacy Society of Rochester
- Pharmacists' Association of Western New York
- Walgreens
- Collegiate Village Student Apartments



STUDENT NOTES

PHARMACISTS SOCIETY OF THE STATE OF NEW YORK Conference Recognitions

MID-WINTER CONFERENCE:

Laura Bielecki, '18, and Stacy Fredrick, '18 (pictured), placed second in the First Annual Business Plan Competition. The UB Student Pharmacists Association of Western New York (SPAWNY) team came in second place at the Annual PSSNY Student Poster Competition.

ANNUAL CONFERENCE:

Lukas Brightman, '19, Kevin Lavery, '18,

Kelsey Violanti, '18, and alumnus Keith Rowe, '10, won the American Pharmacists Association (APhA) Self-Care Jeopardy Challenge.

Kelsey Violanti, '18, won first place in the PSSNY counseling competition. Brittany Len, '19, won second place in the PSSNY counseling competition.

CELEBRATION OF **Excellence**



At the 2016 University at Buffalo Celebration of Academic Excellence, Student Pharmacists for Global Outreach (SPGO) received the Student Organization Award for Excellence in Academics and Service. Pharmaceutical sciences students **Nhan Nguyen** and **Nancy Song** were honored with UB Undergraduate Awards for Excellence in Research, Scholarship and Creativity.





Eight PharmD students traveled to the Dominican Republic to help establish a new pharmacy inventory management system and operations procedures for in-country pharmacies. Students helped local villages set up clinics and provided medication counseling and education. SPGO spent their spring break in Chicago, IL, doing inner-city outreach to help underserved populations.



Maya Holsen, '17, was selected as one of 85 student/faculty national recipients for the 2016 American Association of Colleges of Pharmacy Walmart Scholars Program. She was also elected student representative on the board of directors for the New York State Council of Healthsystem Pharmacists, and chair of the Student Society Development Advisory Group for the American Society of Health-System Pharmacists.



Ali Scrimenti, '17, was awarded the Elio Liscio Scholarship by the Italian-American Pharmacist Society.



Pharmaceutical sciences student **Robert Jones** was awarded a fellowship by the Pharmaceutical Research and Manufacturers of America Foundation for his research associated with characterizing monocarboxylate transporter 6 (MCT6) substrate specificity, functionality, and drug interactions.



Brian Voorhees, **'18**, was one of 10 pharmacy students chosen from across the country to participate in the 2016 CVS Summer Leadership Development Program in Washington, DC.



Megan O'Connor, '19, was elected as American Pharmacists Association Academy of Student Pharmacists (APhA-ASP) Region 1 Delegate at the APhA-ASP Midyear Regional Meeting in Springfield, MA.

D'ARGENIO DELIVERS 2016 Levy Lecture

Dr. David D'Argenio, professor of biomedical engineering at the University of Southern California and chair, Biomedical Technology, delivered the Gerhard Levy Distinguished Lecture Wednesday, Oct. 5, in Kapoor Hall. His presentation on "A Systems Engineering Perspective on the Past, Present and Future of Pharmaceutical Sciences" was



attended by faculty and students from the department of pharmaceutical sciences, as well as PharmD students and pharmacy practice faculty.

Dr. D'Argenio is a fellow of the American Institute for Engineering in Medicine and Biology, American Association of Pharmaceutical Sciences, International Society of Pharmacometrics, a past member of the FDA Advisory Committee for Pharmaceutical Science and Clinical Pharmacology, and a founding member of the International Society of Pharmacometrics. Since 1985, he has served as co-director of the Biomedical and Simulations Resource (BMSR) at USC, which develops, applies and disseminates advanced modeling methods for studying biological systems. At BMSR, he also led the development of the ADAPT software for PK/PD modeling and analysis.

An evening reception was held in his honor at the Protocol Restaurant, Amherst, NY.

The UB Department of Pharmaceutical Sciences established the Gerhard Levy Distinguished Lectureship in 2000 in honor of Dr. Levy, considered the father of pharmacodynamics, for his role as a pioneer and principal contributor in the fields of biopharmaceutics, pharmacokinetics, clinical pharmacokinetics and pharmacodynamics.

The school was proud to recognize alumni, faculty, staff, and students with honors and awards at our Annual Awards Ceremony, April 14 at UB's Center for Tomorrow. Over 120 attended to recognize our award winners for their contributions to the school, the profession of pharmacy and the pursuit of scholarly achievements.

Awards Ceremony

Willis G. Gregory Memorial Alumni Award **Rose Mary Madejski, '59**

Orville C. Baxter Memorial Professional Practice Alumni Award **Kari Mergenhagen, '07**

Daniel H. Murray Memorial Professional Development Award **Faisal Minhaj, '17**

Outstanding Teacher Awards **Fred Doloresco Nicholas Fusco, '10 Robert Wahler, '00**

Staff Members of the Year Sara Robinson Kelly Sustakoski

United States Public Health Service Corps Excellence in Pharmacy Practice Award Jovin Panthapattu, '16 APhA-ASP Patient Counseling Competition Award **Ciera Patzke**, **'16**

APhA-ASP Senior Recognition Award Natalie Winters, '16

McKesson Leadership Award Adam Heiermann, '16

MEDISCA Student Pharmacist Compounding Competition **Brenda Basile, '16** Alexa Keller-Haberman, '16, Nicole Kostrzebski, '16 DeAnna Nigro, '16

NCPA Pruitt-Schutte Student Business Plan Competition Award **Brian Bowman, '16** Jonathan Gall, '16 Penny McDermott, '18 Sarah Reed, '17 PSSNY Business Plan Competition Award Laura Bielecki, '17 Stacy Frederick, '18

Francis Taylor Award Adam Heiermann, '16

Outstanding MS/BSMS Student Award **Robert Dingman, '16**

Allan Barnett Fellowship Robert Jones Shunxin Lin

Outstanding Teacher Assistant Award **Robert Jones**

Graduate Scholar Award Rutwij Dave, '16

The school's student leaders, Willis G. Gregory Society members, preceptors and Dean's Ambassadors were also recognized. The school congratulates all of our award recipients and special recognition attendees!



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SPPS Alumni Award Winners



Rose Mary Madejski, '59 (R): Willis G. Gregory Memorial Award Kari Mergenhagen, '07 (L): Orville C. Baxter Memorial Professional Practice Award

The School of Pharmacy and Pharmaceutical Sciences Office of Alumni Relations was pleased to recognize these outstanding alumni for their contributions to the school and the profession of pharmacy:

Rose Mary Madejski, BS '59, began her career as a staff pharmacist at the Veterans Administration Hospital in Buffalo. She continued her profession as president of M&R Pharmacy Consulting, and vice president of Stalls Pharmacy and Health Services. She has held leadership roles in local and regional professional organizations, serving as vice chair for the Erie County Health Systems Agency, board of directors for the Pharmacists' Association of Western New York, and president and chairman of the Pharmacists Society of the State of New York.

Dr. Madejski was a clinical assistant professor in the department of pharmacy practice at UB from 1990 to 2001.

Kari Mergenhagen, PharmD '07,

currently serves as a clinical pharmacy specialist in infectious disease at the Western New York Veteran Affairs Medical Center. Her innovative work in infectious disease has led to professional appointments with the Society for Infectious Diseases Pharmacists and the Board of Pharmaceutical Specialties Task Force for Infectious Diseases. She has been published in Annals of Pharmacotherapy, the American Journal of Health System Pharmacy, the American Journal of Geriatric Pharmacotherapy, and U.S. Pharmacist. Dr. Mergenhagen is involved in continuing pharmacy education and has been an active mentor of pharmacy students. She is presently an adjunct faculty member at the School of Pharmacy and Pharmaceutical Sciences.



SPPS Faculty are LEADERS NTHEIR FIELDS

MORRIS RECOGNIZED AS STATE UNIVERSITY OF NEW YORK DISTINGUISHED PROFESSOR

Innovative research and teaching, and extraordinary community service have propelled Marilyn E. Morris, professor and interim chair of the Department of Pharmaceutical Sciences, into the ranks of SUNY Distinguished Professor, the highest faculty achievement in the SUNY system.

A UB faculty member since 1985, Morris is one of the world's preeminent scholars in the areas of drug membrane transport, pharmacokinetics and pharmacodynamics. She is widely recognized for her groundbreaking discoveries regarding the role of dietary flavonoids in drug interaction and drug resistance—research with enormous implications for patient care and drug therapy, particularly in the treatment of cancer.

Morris is the recipient of numerous prestigious awards, including the Francis Dudley Meyer Award for Breast Cancer Research from the Cancer Research and Prevention Foundation, the SUNY Chancellor's Award for Excellence in Research and Creative Activity, the American Association of Pharmaceutical Scientists' Innovation in Biotechnology Award and the 2013 Alumni of Distinction Award from the University of Manitoba.

Morris is a fellow of both the American Association for the Advancement of Science and the American Association of Pharmaceutical Scientists, of which she is also past president. She is a member of the Food and Drug Administration's Pharmaceutical Science and Clinical Pharmacology Advisory Committee, and was elected a member of the executive committee of the Board of Pharmaceutical Sciences for the International Pharmaceutical Federation.





RAMANATHAN AND SHAH: UNIVERSITY AT BUFFALO EXCEPTIONAL SCHOLARS

Murali Ramanathan, professor, pharmaceutical sciences, and director, graduate studies, is the 2016 recipient of the Exceptional Scholar Award for Sustained Achievement. Ramanathan has been a member of the SPPS faculty since 1994, achieving the rank of full professor in 2010. He is also a UB professor of neurology.

His research program focuses on identifying and characterizing the interactions among patient-specific, environmental and genetic factors that contribute to interindividual differences in disease progression in multiple sclerosis. His scholarship and research also includes the pharmacokinetic/pharmacodynamic modeling of pharmacogenomics data and integration of data for target identification.

Ramanathan has been the recipient of numerous awards, including the Whitaker Prize for Multiple Sclerosis Research of the Consortium of Multiple Sclerosis Centers in 2005 and the Stephen H. Kelley Award from the National Multiple Sclerosis Society Western New York Chapter in 2013. He is the author of 135 journal publications, nine refereed reviews, seven book chapters, one e-book and two patents.

Dhaval K. Shah, assistant professor, pharmaceutical sciences, received the 2016 Exceptional Scholar Award for Young Investigators. A former PhD student in the UB pharmaceutical sciences department, Shah joined the SPPS faculty in 2013 after returning from Pfizer Inc.

His research relates to the discovery and development of novel protein therapeutics, including monoclonal antibodies, bispecific antibodies, and antibody-drug conjugates (ADCs), for treatment of cancer and metabolic diseases. Shah's work on ADCs provided the foundation for model-based drug development of these therapies across the pharmaceutical industry, and was recognized by the American Association of Pharmaceutical Sciences (AAPS) as an "Outstanding Manuscript in Modeling and Simulation."

He has recently received a \$1.5 million NIH R01 award titled "Translational Systems Pharmacokinetic Models of Novel Anticancer Biologics." He has also received several schoolbased research equipment and seed funding awards, as well and grants from industry.

Shah has published more than 20 full-length peer-reviewed tier-one journal articles, two book chapters, and presented more than 50 posters. He is the only two-time recipient of the AAPS Outstanding Manuscript Award in Modeling and Simulation (2010 and 2014).

Faculty and Staff Notes

Blanco collaborates on nationwide pediatric cancer study

SPPS is part of a collaborative study published in the Journal of Clinical Oncology titled "CELF4 Variant and Anthracycline-Related Cardiomyopathy: A Children's Oncology Group Genome-Wide Association Study." **Javier Blanco**, associate professor, pharmaceutical sciences, contributed laboratory studies to further investigate the genetic association. **Adolfo Quiñones-Lombraña**, postdoctoral associate, pharmaceutical sciences, is co-first author of the study.

CTSA pilot studies awarded to three pharmaceutical sciences faculty members

Two research teams featuring faculty from the Department of Pharmaceutical Sciences were awarded pilot studies by UB and the Clinical and Translational Science Award Program.

Pharmacological Network Analysis and Modeling of Complex Chemotherapeutic Regimens in Pancreatic Cancer: Pharmacodynamic Design of Novel Combination Therapies

Donald Mager, professor, pharmaceutical sciences; Wen Wee Ma; and **Robert Straubinger**, professor, pharmaceutical sciences

Novel Circulating Biomarkers for Sudden Cardiac Death

Jun Qu, associate professor, pharmaceutical sciences; John Canty, Albert and Elizabeth Retake Professor of Medicine; and Jianmin Wang, research assistant professor, biostatistics

Wayne Anderson, PhD dean emeritus, **retires** from the faculty

Wayne Anderson, professor of pharmaceutical sciences and dean emeritus of the University at Buffalo School of Pharmacy and Pharmaceutical Sciences, officially retired from the faculty on July 8, 2016. A faculty member since 1968, Wayne served as the school's 10th dean from 1994–2013.

Anderson significantly advanced the scholarship, research and teaching missions of the school in his almost 50 years of service, positioning it as an innovative academic leader. He established a combined BS/MS program in the department of pharmaceutical sciences and created the Doctor of Pharmacy program at UB, the first professional degree program of its kind in the state.

In addition, he increased the diversity of PharmD candidates via improved recruitment practices and increased support for student scholarships.

A skilled administrator, Anderson was a longtime campus leader in development, leveraging considerable support from alumni and the private sector. Through his leadership,

John and Editha Kapoor Hall evolved from a blueprint to our impressive new home.

His ability to build partnerships benefited our students as well as the communities we serve. He collaborated with the New York State Department of Health and other SUNY health professional programs to help meet the need for medication therapy management for New York's Medicaid program. His leadership allowed for the continued success of our post-PharmD residency program and was instrumental in the creation of pharmaceutical fellowship programs.



His impact on research was equally impressive. Over the course of his tenure as dean, research support grew substantially, enabling the school to be recognized as one of the most researchintensive in the nation. Anderson established the Pharmacotherapy Research Center, the Center of Excellence in Pharmacokinetics and Pharmacodynamics, and the Center for Protein Therapeutics.

As a faculty member and researcher in medicinal chemistry,

Anderson's accomplishments are numerous: he trained nearly 40 MS/PhD students, 30 postdoctoral scholars, and over 50 undergraduate and honor students. His prolific research program in drug discovery, supported continuously by the National Institutes of Health for 25 years, yielded over 100 manuscripts and eight patents. He

served in numerous professional organizations, both regional and statewide, and was the founding chairman of the board of directors of the Erie/Niagara Area Health Education Center.

Wayne Anderson's efforts advanced UB's mission both in the school and in the broader communities we serve. His service will have long-term positive impact on the school and the profession of pharmacy for years to come.

Anderson significantly advanced the scholarship, research and teaching missions of the school in his almost 50 years of service.

Morse leads Center for Integrated Global Biomedical Sciences

The University at Buffalo has established the new Center for Integrated Global Biomedical Sciences, an international hub for addressing global health challenges through pharmacological research and drug and vaccine development. CIGBS is directed by **Gene Morse**, SUNY Distinguished Professor, and **Tyler Mullen**, '**16**, is the center's first fellow.

Shah collaborates with \$1 million prize-winning startup

Oncolinx Pharmaceuticals, developer of antibody-drug conjugates for targeted cancer therapies, was the winner of the \$1 million top prize in the 2016 43North annual startup competition. The company's founders worked with **Dhaval Shah**, assistant professor, pharmaceutical sciences, and the National Cancer Institute to target cancer cells without harming healthy cells and without the side effects of chemotherapy.

Technology developed by Balu-Iyer supports spinoff selected to present at University Startups Demo Day in D.C.

UB spinoff ZOETIC Pharmaceuticals was among the first 18 companies nationwide selected to present at the prestigious University Startups Demo Day in Washington, DC. **Sathy Balu-Iyer**, professor, pharmaceutical sciences, pioneered ZOETIC's licensed antigen-specific immune tolerance induction technology.

---Individual Faculty and Staff Recognition------

Edward Bednarczyk, chair and clinical associate professor, pharmacy practice, was selected as a 2016 American Pharmacists Association–Academy of Pharmaceutical Research and Science Fellow. He is also APhA–APRS president-elect for the 2017–18 term.



Scott Monte, clinical associate professor, pharmacy practice, received a \$30,000 gift from Univera Healthcare to provide a three-year pilot in personalized medication adherence services for up to 200 patients with Univera health insurance.

Marilyn Morris, SUNY Distinguished Professor, was selected as a member of the Xenobiotic and Nutrient Disposition and Action Study Section at the National Institutes of Health Center for Scientific Review.



Gene Morse, SUNY Distinguished Professor, has again partnered with the University of Zimbabwe to form the HIV Research Training Program, supported by a \$1.3 million grant from the National Institutes of Health John E. Fogarty International Center. UB faculty will serve as mentors and collaborators with UZ students and faculty.

Gina Prescott, clinical associate professor, pharmacy practice, and SPPS students are educating the WNY refugee community on medication literacy, including prescription label-reading and why it is important to take medications as prescribed. The initiative, entitled "Development of a Sustainable Medication Literacy Program in the Refugee Community," is funded by the University at Buffalo President's Circle.

---Faculty Awards-----

Alice Ceacareanu, assistant professor, pharmacy practice, received the 2016 Visiting Professor Award from the University of Bucharest, Romania.



Chris Daly (pictured), clinical assistant professor, pharmacy practice, received the Pharmacists' Association of Western New York Young Pharmacist of the Year Award.

Donald Mager, professor, pharmaceutical sciences, received the 2017 Malle Jurima-Romet Mid-Career Leadership Award from the American Society for Clinical Pharmacology and Therapeutics.

---Faculty in the Media -----

With the recent release of New York State's medical marijuana program, **Edward Bednarczyk**, chair and clinical associate professor, pharmacy practice, was interviewed by many news agencies including Reuters, The Buffalo News, Capital Tonight and WBFO 88.7FM.

Karl Fiebelkorn, senior associate dean for student, professional, and community affairs, was featured in America's Pharmacist, the magazine of the National Community Pharmacists Association, regarding training pharmacy student leaders.

Robert Straubinger, professor, pharmaceutical sciences, was profiled in Academic Pharmacy Now regarding his international, \$3.8 million grant to develop personalized, nanoparticle drug-delivery systems for pancreatic cancer.

---New Hires, Promotions and Retirements---

Nicole Albanese, promoted to clinical associate professor, pharmacy practice

Sarah DeMerle, hired as staff assistant, resource management

Nicholas Fusco, clinical assistant professor, pharmacy practice, appointed coordinator of interprofessional education

Kristin Gniazdowski, promoted to associate dean, resource management

Michelle Grasso, promoted to assistant director, resource management

Donald Mager, promoted to professor, pharmaceutical sciences

Candise Morris, associate dean, resource management, retired March 2016

Marilyn Morris, appointed interim chair, pharmaceutical sciences

Denise Pikuzinski, promoted to director, resource management

Gina Prescott, promoted to clinical associate professor, pharmacy practice

Jerome Schentag, professor, pharmaceutical sciences, retired December 2015



Vawter, '50, spoke frequently of UB and encouraged her to explore pharmacy as a field of study.

Judie spent her first two years of college at St. Bonaventure University, creating her own prerequisite curriculum to get into pharmacy school, pioneering concept a reflective of today's affiliation agreements. When she applied to UB though, she discovered she couldn't fulfill one requirement: physical education. "St. Bonaventure had just gone co-ed," she says. "Females could only use the pool one night a month and there were no sports available to us!" UB ultimately agreed to accept her ROTC band credits as a suitable equivalent. She left her small town of Afton, NY, and headed to the "big city" of Buffalo.

Judie Baker and Alex Cardoni found themselves one seat away from each other in their pharmacy classes—seating was alphabetical back then and Anthony Bonacci, a good friend to this day, was between them. In October, Beta Phi Sigma, Alex's fraternity, was having a fall dance and he asked Judie to accompany him...in the microbiology laboratory. "The most unromantic place with a most unpleasant smell," he laughs. Undaunted, Judie accepted.

Alex and Judie dated throughout pharmacy school and helped each other with their studies—they were both very serious students, a trait that drew them to one another. Alex favored compounding and dispensing courses but also recalls the importance of his first pharmaceutics course, where he learned good lab technique. Judie remembers all of her courses as "interesting...like nothing I had before." At the start of their second year, Alex fell ill with pneumonia and missed the first two weeks of classes. Judie took notes for him and visited him in the hospital and at home every day. "She kept me afloat," he wistfully recalls.

But they didn't spend all of their time buried in books. They would go to movies and concerts—Peter, Paul and Mary at Kleinhans Music Hall was one of their most memorable—UB football games, Parkside Candies on Main Street, and Your Host restaurant on Bailey Avenue. On Valentine's Day of their senior year, they skipped classes to go to Niagara Falls for the day (a daring excursion they still laugh nervously about). And in October 1966, Alex and Judie were married in an intimate ceremony attended by close family and friends.

The Cardonis had remarkably successful careers in pharmacy. Alex received his masters degree in hospital pharmacy from Ohio State. He taught clinical pharmacy in Connecticut in the early 1970s and went on to develop a specialty in psychiatric pharmacy. Among his numerous awards, the Boelhoewer Award for Psychiatric Patient Care and Teaching, and the Paul G. Pierpaoli Award for long-term contributions to pharmacy practice are most significant. He retired from the University of Connecticut in 2001 after 29 years of service. Today, he still teaches psychiatry residents at a private psychiatric hospital.

Judie spent most of her career working as a community pharmacist in Ohio and Connecticut—"I loved working in those mom and pop shops because I'm a people person!" She also worked as a field coordinator, in hospital pharmacy and in long-term care. "I always say she is the 'real' pharmacist, I'm just a teacher," Alex laughs. Judie received the prestigious Bowl of Hygeia award in 2002, which hangs proudly in their downstairs bathroom. "I heard somewhere that celebrities put their awards in their bathrooms where they can see them all the time, so I figured why not put our pharmacy stuff there?" she quips.

The Cardonis are impressed with the progress made in the pharmacy profession over the last 50 years. The rise of women and minorities in the field resonates most with Judie. Alex praises the emergence of clinical pharmacy in the late 1960s to today, where pharmacists are giving immunizations and writing prescriptions.



2016 was an exciting year for the couple: Alex and Judie celebrated their 50th reunion at the School of Pharmacy and their 50th wedding anniversary. "We often reflect back onto the early beginnings of our life together," Alex muses. "It was a nice time."

In true pharmacist nature, it was a keen observation that began Alex Cardoni and Judith Baker's relationship.

Lab

In the fall of 1963, first-year pharmacy student Judith Baker was in the School of Pharmacy's main office in Cary Hall checking on her summer course credits. Alex Cardoni, also a first-year student, walked in to pick up registration materials and noticed her immediately. "I remember seeing this woman who I thought was quite attractive and I hadn't seen her before. I didn't say anything, I made a mental note," he recalls.

Alex Cardoni was following a passion inspired by an A.C. Gilbert chemistry set he received when he was 12 years old, and a local community pharmacist who filled his mother's prescriptions. "In my young mind, I thought he actually created the prescription. so I really became enamored with that type of pharmacy." He got a job at Abbott Pharmacy in South Buffalo during his junior year of high school, working with alumnus Louis Cook, '54, who quickly became a very influential mentor. Cardoni began his college career as a chemistry major at Canisius College but couldn't see himself working in a laboratory all the time. Pharmacy was the next logical choice.

Judie Baker's path to UB was a bit more challenging, a sign of the times that were soon to change. She originally wanted to be a veterinarian, a profession women were discouraged from in the early 1960s. In a prescient parallel to her future husband, she acquired a part-time job at Afton Pharmacy during her junior year of high school. The owners, Charles Goodwin, '50, and Bill

Our 2016 Reunion Celebration honored 5th year classes from 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, and 2011 with two days of educational and social events. The weekend kicked off on Friday, Sept. 23, with a well-attended continuing education program given by Edward Bednarczyk, chair, department of pharmacy practice, titled Keeping the Medical in Medical Marijuana. The program was followed by tours of Kapoor Hall and lunch.

The celebration continued at the Hotel Lafayette in downtown Buffalo where

lively conversation and reminiscing occurred over cocktails and dinner. All alumni in attendance were presented with a commemorative class pin and a gift from the School of Pharmacy and Pharmaceutical Sciences. Alex Cardoni, class of 1966 and 50th year anniversary representative, provided comments and memories about life in the pharmacy school in the 1960s and the many faculty members and students that impacted his life and career.

On Saturday, Sept. 24, an all-alumni football tailgate party was held. Our alumni proudly cheered on the UB Bulls as they took on the Army Black Knights, winning 20-23!

Thank you to all who celebrated with us. We look forward to our 2017 reunion program, occurring October 6-7, in honor of the classes of 1957, 1962, 1967, 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007 and 2012!



Alvina Morse, '30 Pierce Weinstein, '44 lack Levin, '48 Xavier D'Ambrosio, '49 Rose Marie Lee Wong, '50 Patricia Beam, '52 Robert Case, Sr., '52 Robert Doran, '53 Daniel B. Grucza, '53 George Massik, '53 Thomas Mogle, '53 Ronald Richards, '54 Jerome I. Kellett, '55 Thomas Lynch, '55 Roger Lapp, '57

Joel Goodrich, '59 Gary Keefer, '59 Edwin Bernstein, '61 Bernard Esch, '61 Mark-Richard Butt, '65 Iohn Malke, '65 Kenneth Gluc, '68 Robert Hewitt, '69 Edward J. Renas, Jr., '73 Daniel Warren, '74 Carolyn (Rayment) Wilkinson, '76 James Dugas, '80 Robert Bromund, '89









Alumni Notes **1960s**

Gordon L. Amidon, '67, received a Doctor Honoris Causa (honorary doctorate) from the Miguel Hernández (UMH) University of Elche in Alicante, Spain.



980s

Andrew DiLuca, '81, was promoted to director of pharmacy services at



Susan Ksiazek, '82, was elected treasurer of the National Association of Boards of Pharmacy.

James Daly, '84, was appointed executive chairman of the Commercial Advisory Committee at Coherus BioSciences.

David Milling, '85, was elected secretary of the board of directors for



Amy Lee, '15, was appointed to the American Society of Health-System Pharmacists (ASHP) New Practitioners Forum, Practice Advancement and Advocacy Advisory Group (PAAAG). She was also elected to the Board of Directors for the Wyoming Pharmacy Association.

Tyler Mullen, '16, was appointed the first Global Health and Implementation Research Fellow at the University at Buffalo's Center for Integrated Global **Biomedical Sciences.**

1970s

Michael Jay, '76, received the Distinguished Teaching Award from the University of North Carolina at Chapel Hill.

Mario Rocci, '76 & '81, was selected by the Board of Directors of the American Society for Clinical Pharmacology and Therapeutics to serve as president for the 2015-2016 term.



Bruce Kimelblatt, '79, co-authored a study recently published in the Journal of Clinical Oncology entitled, "A Randomized, Open-Label, Multicenter, Phase III Study of Epoetin Alfa Versus Best Standard of Care in Anemic Patients with Metastatic Breast Cancer Receiving Standard Chemotherapy."

199()s

Melissa (Wheeler) Hudson, '98, was the 2016 Preceptor of the Year at Sullivan University College of Pharmacy.

200

Sarah Scarpace, '02, was elected president of Hematology/Oncology Pharmacy Association (HOPA) for the 2016-2017 term.



Amy Nash, '05, was promoted from vice president of operations and clinical services to president at Reliance Rx.

Patrick Hildenbrandt, '06, was honored by Buffalo Business First in their annual "40 Under 40" listing. He currently serves as the vice president for pharmacy Services at Evergreen Health Services.

Brian Wetzel, '09, was honored with the 2015 Kenmore Mercy Hospital Medical Staff Associate of the Year Award.

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University at Buffalo School of Pharmacy and Pharmaceutical Sciences

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Brian Voorhees is from a small town in New Jersey, a state that offered him several college options at in-state tuition prices. But UB awarded him scholarships—supported by private donor gifts—sealing his decision to attend the university. His interest in high school chemistry grew into his pursuing a career in pharmacy, "a constantly evolving field," he said. Upon completing his doctoral degree, Brian hopes to work in community pharmacy, and in Western New York, if possible. He said he also will work to help refugees through his field, who make up "a large portion of our underserved community."

Gifts to the UB Fund have an immediate impact on students.



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