

THE

SHOWGLOBE

WEST VIRGINIA UNIVERSITY SCHOOL OF PHARMACY | SPRING 2016



STORYTELLERS

For Stephen and Stanley Toompas, writing books came easily — especially because the books were based on their life experiences. Read more about alumni, and a student, who are authors.

FULL STORY PAGE 12

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MESSAGE FROM THE INTERIM DEAN



This issue of The Showglobe is dedicated to excellence. I may sound like a broken record (or a skipping CD, or a bad connection with streaming audio), but I am so impressed with all that our students, faculty and staff have accomplished.

As alumni, you may recall hefting overloaded backpacks up the hill to the Health Sciences Center, the late nights of studying over endless pots of coffee, or loading up your apartment in your vehicle to go to your next experiential rotation. Why did you do all this? Because you were striving for excellence.

Doesn't it still give you a great feeling when you are able to help a patient? When you are able to help them obtain the medication that will work best for them and is also affordable? When you are able to help them keep their blood pressure or diabetes under control? It's because you are striving for excellence in helping improve the health and quality of life for your patients. And really, isn't that what it is all about?

I was overjoyed when both our Pharm.D. and Ph.D. programs were designated Programs of Excellence by the WVU Board of Governors. This is a great honor and public recognition of our strong programs and hard work of our faculty. Strong and innovative curricula, a track record of success of our graduates, faculty accomplishments and national recognition of our programs were key to us receiving this recognition. You can read more about this designation on page 3.

Our students are balancing their coursework, outreach activities and professional pharmacy practice experiences on their path to excellence. Read about their service projects focused on helping residents of our state on pages 16 and 17. They are also receiving great rotation opportunities from our alumni and faculty, as you can see on pages 8 and 9. Last, but by no means least, read about the significant changes in our curricula on page 2.

I hope you enjoy reading about the successes of our students, faculty and School in this issue. Also, if you are not receiving my e-mail updates about the School, be sure to update your contact information using our Alumni Update Form located on our website under the Alumni tab.

Mary K Stamatakis

Mary K. Stamatakis
Interim Dean

The WVU Board of Governors is the governing body of WVU. The Higher Education Policy Commission in West Virginia is responsible for developing, establishing and overseeing the implementation of a public policy agenda for the state's four-year colleges and universities.

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BETSY ELSWICK

▲ Barthelmess and Chloe

PUPPY LOVE WITH HEARTS OF GOLD

Trying to find one student in a crowded classroom of approximately 80 might normally be difficult, but it's not hard to locate Erin Barthelmess. The little yellow labradoodle curled up at her feet is the giveaway.

Barthelmess, a member of the Class of 2018 from Hurricane, West Virginia, works with the Hearts of Gold organization in Morgantown to help train service dogs. Lucas the little labradoodle is her newest puppy to foster.

Barthelmess decided to enroll in the Service Dog Training class during her undergraduate studies at WVU as a way to get involved with the University and community.

"I have been training service dogs for over four years now," she said. "I have helped train dozens of dogs in the program throughout the years and have fostered three dogs."

The Hearts of Gold organization primarily trains dogs for mobility assistance, but they also train therapy dogs and have a

special program focused on training post-traumatic stress disorder service dogs for veterans. Dogs from the Hearts of Gold program have been matched and placed with clients across the country.

If you are thinking about becoming a trainer for service dogs, though, keep in mind that it is not all play and no work. A typical training period lasts one to two years. During this time, dogs are taught basic commands such as sit and stay, as well as more advanced commands, such as flipping a light switch on and off, opening and closing a refrigerator door, and pushing buttons to open handicapped-accessible doors. The dogs also spend a great deal of time on socialization out in public. Oh, and don't forget the time spent housebreaking ... and shopbreaking ... and carbreaking. However, from this hard work comes great rewards. Barthelmess recalls her time with her previous service dog, Chloe.

"One of the best feelings is seeing your dog master a new command," she said. "When Chloe flipped a light switch on for the first time, I couldn't have been more proud! She was also cast as the dog 'Sandy' in a local production of 'Annie' at the Metropolitan Theatre. If she weren't a service dog, she could definitely be an actress. Seeing her on stage was so fun!"

While seeing service dogs may bring the "Awww, puppy!" reflex out in us, remember that these dogs are on the job. Barthelmess stresses to always ask before you pet a service dog. More than likely, the handler will say yes, but some dogs — especially guide dogs — have their handlers' lives in their paws. Any type of distraction could be dangerous to the dog or the handler.

The end of the two-year training cycle can be bittersweet. Even knowing that she only has a set time with her dogs, Barthelmess says she will never get used to her last days with them.

"Giving Chloe up has been heartbreaking," she said. "I feel lost without her by my side, but I know she will make a difference in someone's life, and that's what makes it all worth it. She will help someone live a full and independent life, and that's something not many people — or dogs — could ever have the opportunity to do. I am excited to do it all over again with Lucas."

Barthelmess will be working with Lucas for the next two years. Fittingly, he will graduate from his program at the same time Barthelmess graduates from the School of Pharmacy. Maybe we'll get to see him at our graduation program, too. 🍌



Editor's Note: Want to find out more about Erin's work with Lucas? Follow Lucas on his journey on Facebook at [facebook.com/servicedoodlelucas](https://www.facebook.com/servicedoodlelucas).

NEW PHARM.D. CURRICULUM BEGINS ITS ROLL-OUT THIS YEAR

Q Why did the WVU School of Pharmacy decide to revise the curriculum?

A The faculty began the conversation about curricular reform in 2012. Initially, external factors were important, including healthcare reform, the expanded role of pharmacists in providing medication therapy management and other clinical services, the need for team-based healthcare delivery, and new accreditation standards that require graduates to be practice-ready. In addition, faculty sought to change teaching and learning methods to enhance the problem-solving and critical-thinking abilities of our graduates.

What are some of the new features?

A key feature is integrating the pharmaceutical and clinical sciences so students understand the underlying “why” behind drug therapy. The new curriculum uses a body systems approach to courses (e.g., cardiology, nephrology) that integrates medicinal chemistry, pharmacology, pathophysiology, therapeutics and pharmacokinetics into individual courses. Weekly practicum sessions provide opportunities for students to develop their knowledge, skills, attitudes and behaviors in case studies and simulation-based experiences.

The Pharmacy Practice and Management course series allows students to understand principles of pharmacy operations and management while learning about pharmacy practice in different settings. During weekly active learning sessions, students practice what they have learned and apply it to different situations.

What is an example of how active learning is emphasized?

In the first year, the course Foundational Pharmacy Skills



introduces students to the Pharmacists' Patient Care Process using a simulated “First Family” that includes children, parents, grandparents, aunts, uncles and a dog. Components of the course include conducting medication histories, solving medication-related problems and practicing skills such as measuring blood pressure and blood glucose for the “First Family.”

Are all the courses new?

No. We sought to build on the strengths of our current curriculum, such as:

- A diverse introductory pharmacy practice experience program, where students gain hands-on experiences in a variety of healthcare settings throughout the curriculum;
- Interprofessional experiences that are woven throughout the curriculum with students from medicine, nursing, dentistry, physical therapy;
- A commitment to service learning and meeting the goals of Healthy People 2020; and
- The opportunity for students to concentrate elective coursework in areas of interest and through pathway programs such as the dual Pharm.D./MBA program, areas of interest in research or clinical pharmacy practice, or a graduate certificate in gerontology or university teaching.



How are faculty members meeting the challenges of the new curriculum?

Several School retreats have been held to jump-start the process and to begin creating teaching partnerships among faculty members from different departments and disciplines. Although the time and effort required to create new courses is great, we are starting to see the benefits of our hard work. 

Programs of Excellence

The Doctor of Pharmacy (Pharm.D.) professional program and Doctor of Philosophy (Ph.D.) graduate degree program in Pharmaceutical and Pharmacological Sciences at the WVU School of Pharmacy were designated Programs of Excellence by the WVU Board of Governors in fall 2015.

The School has implemented several new educational offerings over the past few years to provide students with opportunities that will broaden their understanding of patient care and give them a competitive edge upon graduation.

4 YEARS
2 DEGREES

In the Pharm.D. program, students can complete a Pharm.D./MBA dual degree program, a program with the WVU College of Business and Economics, and receive both degrees in four years.

Students have the opportunity to concentrate their elective courses in specific areas of study such as clinical pharmacy, research and gerontology.



They can also participate in global health experiences through clinical rotations in South Africa, Oman and Brazil.

Learn more about our Pharm.D. and Ph.D. programs at pharmacy.hsc.wvu.edu/academics

PROGRAMS OF EXCELLENCE CRITERIA:

- ✓ The program should have received state or national recognition or some other clearly defined indicator appropriate to the mission of the program.
- ✓ The program should show faculty achievement and faculty scholarly activity.
- ✓ The program should have clearly defined curricular goals.
- ✓ The program must also show evidence of success of graduates in career placement and/or in continuing higher education.
- ✓ The program should hold national or specialized accreditation.

“To hear that both of our educational programs have been recognized for their excellence is truly an honor. Our faculty, staff and students work hard and are dedicated to the School and its success, so this recognition is a reflection of their commitment and efforts.”

— MARY K. STAMATAKIS, interim dean, WVU School of Pharmacy

In the Pharmaceutical and Pharmacological Sciences graduate Ph.D. program, graduate students have the option of choosing one of two pathways — Pharmaceutical and Pharmacological Sciences (PPS) or Health Outcomes Research (HOR) — to concentrate their studies. Graduate students in both pathways have performed admirably at national meetings, having received research excellence awards for both podium and poster presentations, and a large number of our graduate Ph.D. students have distinguished themselves by being awarded pre-doctoral fellowships.

“We are proud that the WVU School of Pharmacy has received Program of Excellence designation from the WVU Board of Governors. We strive to provide our future healthcare professionals, researchers and scientists with learning opportunities and a learning environment that will enhance their skills and make them the best and brightest in their respective fields. The designation of the WVU School of Pharmacy programs recognizes our commitment to our students and their educational experiences.”

— CLAY MARSH, vice president and executive dean of health sciences

Pharm.D. Student News

The WVU chapter of the **Academy of Managed Care Pharmacy** hosted Medicare Part D information sessions in November for residents of Morgantown and Fairmont.

In November 2015, the WVU chapter of the **American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP)** coordinated students and faculty to wear blue in observance of World Diabetes Day.



The **APhA-ASP Operation Heart Committee** coordinated students, faculty and staff to wear red to Go Red for Women during American Heart Month in February.



Lucas the Labradoodle joined us!

Student Organization Presidents hosted a **Student Organization Fair** in August to introduce P-1s to the organizations they can join.



The **American Society of Health-System Pharmacists-Student Society of Health System Pharmacists (ASHP-SSHP)** coordinated the School-level ASHP Clinical Skills Competition in October. Congratulations to winners **Allen Chen** and **Sheng Da Ma**, who represented the School in the national competition at the ASHP Midyear Clinical Meeting in New Orleans.



(l-r) Allen Chen and Sheng Da Ma

In November, ASHP-SSHP hosted guest speaker Chris Paxos, Pharm.D., of Northeast Ohio Medical University. Dr. Paxos discussed how pharmacists can help end the negative stigma around mental health issues.

ASHP-SSHP also hosted a Residency Panel in November that showcased the types of residency programs — managed care, community, drug information/industry and hospital pharmacy — available after graduation. Current residents were in attendance to speak with students.

The **Kappa Psi Beta Eta** chapter was the recipient of the Excellence in Academia Award at the Fall Province Assembly in October. For the 2014-2015 academic year, 71.15 percent of the chapter's P-3 and P-4 members had GPAs of over 3.0.



Kappa Psi and APhA-ASP raised funds for Caritas House — a support agency for people in North Central West Virginia who are affected by HIV/AIDS — by hosting a benefit dance in February. The organizations raised \$642.



(front l-r) Sandra Headley, Bobbie Jo Julian and Catalina Saenz (back l-r) Justin Siko, David Pradana and Adam Foster

The WVU School of Pharmacy/**Phi Lambda Sigma** and WVU Medicine Hospital Pharmacy Residents Polar Plunge Team raised \$2,283 for Special Olympics WV. For the full Polar Plunge album, visit our Facebook page.



The Phi Lambda Sigma Alpha Eta chapter hosted the inaugural Louis A. Luzzi Lectureship in March. The Lecture is intended to give students insight into being a leader in pharmacy by featuring alumni who have fashioned unique careers and have made significant contributions to the profession of pharmacy. The inaugural speaker was **Dr. Bill Riffie, Class of 1967**.



(l-r) P-3 Wes Kafka, Dr. Riffie, and Dr. Stamatakis

The **Lambda Kappa Sigma Alpha Omicron** chapter held a donation drive for care package items for active duty military. Over 40 care packages were created.



The Alpha Omicron chapter was recognized as the Collegiate Chapter of the Region (Northern Lakes Region) at the Lambda Kappa Sigma 2015 Annual Convention in St. Louis. Chapters are selected for the award based on goal setting, outreach programs, promotion of scholarship and leadership, and professional programs.

Katie Yingling, Class of 2016, was recognized as a **National Community Pharmacists Association (NCPA) Outstanding Student Chapter Member of the Year**. Students are nominated for this award by their peers and faculty at their respective schools.

Rho Chi and **Phi Lambda Sigma** hosted a CV overview and writing workshop for students in February. Approximately 30 students were in attendance. Special thanks to **Dr. Justin Hare, '03**, for being the guest speaker and assisting our students!

Alumni: Be sure to check our social media pages for upcoming student organization activities and events. They would love to have you participate!

KEEP UP WITH THE LATEST NEWS FROM THE SCHOOL OF PHARMACY.

Follow us on social media:

 [WVU School of Pharmacy](#)

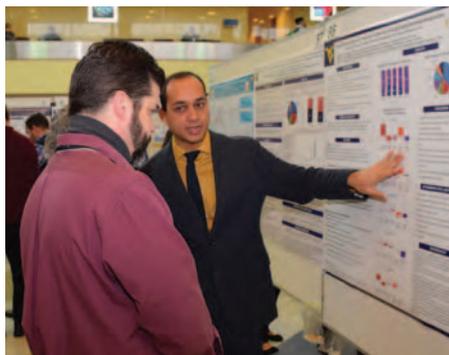
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Ph.D. Student News

Several of our Ph.D. students presented their research at the 2016 E.J. Van Liere Research Day:

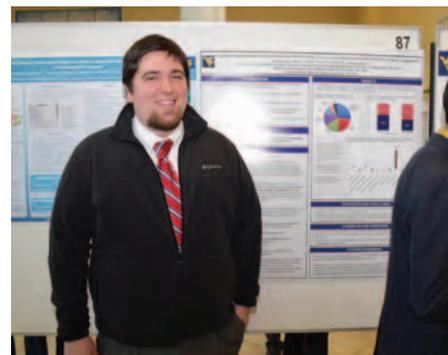
Congratulations to **Rahul Garg** on his first-place award for his work on patients' propensity to seek care among elderly Medicare beneficiaries. Garg is completing his research under the mentorship of **Dr. Kimberly Kelly, associate professor in the Department of Pharmaceutical Systems and Policy**.



Monira Alwhaibi was awarded second place for her work on depression among cancer survivors. Alwhaibi is completing her research under the mentorship of **Dr. Usha Sambamoorthi, professor in the Department of Pharmaceutical Systems and Policy**.



Doug Thornton received second place for his work on antibiotics prescribing patterns in West Virginia. Thornton is completing his research under the mentorship of **Dr. Nilanjana Dwibedi, assistant professor in the Department of Pharmaceutical Systems and Policy**.





PHOTOS BY COLLEN LEWIS



PRESERVING THE HISTORY OF PHARMACY

After several years awaiting the completion of construction, the renovated **Cook-Hayman Pharmacy Museum** made its debut. Alumni, friends and former and current faculty were invited to the dedication ceremony on May 2, 2015.

In the early 1950s, Dr. Roy Bird Cook, secretary of the West Virginia Board of Pharmacy, and J. Lester Hayman, dean of the WVU School of Pharmacy, were aware of the changes taking place in the field of pharmacy and healthcare. In order to preserve the history of pharmacy practice and its implements and elements that had been in existence since West Virginia became a state in 1863, the Cook-Hayman Pharmacy Museum at the West Virginia University School of Pharmacy was created.

“The best part about the collection in the museum is that nearly all the items were donated by alumni or family members of alumni,” **W. Clarke Ridgway, professor emeritus and curator of the Museum**, said. “It’s a primarily Appalachian collection, and that is truly unique. It’s wonderful that our alumni feel strongly about their profession and their alma mater, and want to give back and keep the history of our practice alive.”

If you would like to schedule a personal or group tour (limited to 25 guests to provide a better experience), please visit pharmacy.hsc.wvu.edu and click on the Cook-Hayman Pharmacy Museum button. 

Future Pharmacists



Keagan Crowley is the Future Pharmacist of **John, '10, and Lindsay (Shay) Crowley, '11.**



Kate (Dobson) Forman, '09, and her husband, Isaac Forman, are proud to present their Future Pharmacist, Nora Forman.



Bettina (Mason) Hartgrove, '11, and her husband, Rafael, welcomed their Future Pharmacist, Micah, in October 2015.



Rachel (Forest) Heilmann, '07, and her husband are proud to present their Future Pharmacist, Charlie Forest Heilmann.



Abby Joy Mostafavifar is the Future Pharmacist of **Lisa (Glance) Mostafavifar, '08,** and Mehran Mostafavifar, WVU School of Medicine Class of 2008.



Danny and Amanda True, both '10, are proud to present their Future Pharmacist, Xavier John True.

Calling all new moms, dads and grandparents! Have you recently had a little bundle of joy arrive at your home? The School of Pharmacy wants to know! Please send an email with news about your baby or grandchild to Dr. Mary Stamatakis at mstamatakis@hsc.wvu.edu to receive a "Future Pharmacist" baby shirt (shirt is only available in size 6 months). In exchange, Dr. Stamatakis asks that you send a photo of your new "Future Pharmacist" to include in the next issue of The Showglobe.

THE BUSINESS OF LEARNING: ALUMNI TRANSFER BUSINESS KNOWLEDGE TO STUDENTS ON ROTATION

By Jordan Jasper

While on rotation, students get to experience firsthand different areas of pharmacy. Thanks to two WVU School of Pharmacy alumni, our student pharmacists are able to experience a side of pharmacy practice that might not have received much attention in the world of healthcare.

J.J. Bernabei, '89, and **Jason Turner, '03**, own independent pharmacies in the northern panhandle of West Virginia. Turner is the manager of the Moundsville Pharmacy in Moundsville, and Bernabei is the majority owner and founder of the Tri-State Medical Group, located in Weirton, which includes three retail pharmacies, one closed-door, long-term care pharmacy and an accredited medical supply company. Bernabei's wife, **Sue, also a member of the Class of 1989**, is a pharmacist in the company. Through these rotation experiences, student pharmacists get a glimpse of what it takes to own and operate a pharmacy.

Both Bernabei and Turner say that the education they received at WVU laid the foundation for all the knowledge they would need to run their own pharmacies. Bernabei credits the School for helping him meet many influential people who have helped him during his career.

"Besides getting an irreplaceable education, I was also able to gain important contacts," Bernabei said. "Many of the contacts I have from around the area stem from the School of Pharmacy."

Turner learned a great deal about how to run a pharmacy from his mentor and fellow School of Pharmacy alumnus, **Roger Cole, '76**.

"Roger influenced every aspect of how I continue to practice pharmacy today," he said. "He demonstrated how to build relationships with patients and how to meet the needs of both the patient and the pharmacy in creating solutions. He was a mentor in understanding pharmacy

management and continues to influence how I manage the business and the staff."

Although both rotations offer a chance to learn more about pharmacy management, there are a few differences in the rotation experiences. At Turner's Moundsville Pharmacy, students have a 15-week longitudinal rotation. This experience allows students to complete their Community, Ambulatory Care and Compounding rotations with the help of six different pharmacists. This rotation also has a special emphasis on independent pharmacy ownership, allowing students to participate in some business and marketing opportunities while also taking part in many patient-related services.

Turner prefers having the longitudinal rotation because it means students only have to get adjusted to the pharmacy one time, allowing them more time for learning. "At times we like to think of it as a mini-residency because of the level of learning students are able to get over the 15 weeks," he said.

Bernabei's Tri-State Pharmacy offers two five-week rotations on compounding and community management. The pharmacy offers a state-of-the-art compounding lab, and students are able to work alongside a pharmacist and pharmacy technicians who have over 15 years of experience. Unlike many rotations, students must complete an application to be selected and accepted to Bernabei's community administration rotation experience.

Thanks to the focus on management within these rotations, student pharmacists are able to take part in a variety of different business-related projects. Through the Tri-State Pharmacy rotation, students have the opportunity to help with many projects, including public service announcements, loyalty programs and social media promotions.

One project that arose through Bernabei's rotation was the chance for a student pharmacist to create a business plan to give to Tri-State Pharmacy's wholesaler. A professional consultant estimated it would cost several thousand dollars to create the plan, but Bernabei asked the student pharmacist on rotation at the time to create it. This business plan has now been used by the pharmacy several times, and other pharmacists in the area have contacted Bernabei for help in creating their own plans.

Regardless of what aspect of the profession of pharmacy one chooses to work in after graduation, having business skills is very important.

"Pharmacists have to become experts in inventory management, managing staff, contracting and budgeting programs and marketing," Turner said. "No matter where a pharmacist works, they will be called on to use business skills in conjunction with clinical skills in making decisions." ✍

Editor's Note: Great job to Class of 2016 student pharmacist Alexandra Greco for creating J.J. Bernabei's business plan!

Thank you to our preceptors for all that you do to provide our students with the opportunities and experiences that will enable them to provide exceptional patient care and be successful in their careers.

Interested in becoming a preceptor? Contact sopOEL@hsc.wvu.edu for more information.



Sarah Knipe helped provide information and immunizations at a flu shot clinic at the Raleigh County Commission on Aging in October.

MAKING COMMUNITIES HEALTHIER THROUGH ROTATION EXPERIENCES

By Sarah Knipe, Class of 2016

*Sarah completed a 15-week block with **Patty Johnston, '77**, at Colony Drug and Wellness Center in Beckley, West Virginia. The rotation focused on community, ambulatory care and compounding rotations, and had an additional focus on independent pharmacy ownership. Knipe's story below highlights her involvement in providing immunizations as part of her time on rotation, as well as her participation in community health education projects.*

I worked with Colony Drug and Wellness Center to promote and administer immunizations in the Beckley area through flu clinics and at the pharmacy. We traveled to different businesses and senior living and community centers to give the influenza

vaccinations. Through these projects, I have not only learned and gained experience on how to administer vaccinations, but I have also learned how to collect patient information, including insurance information, so that billing for the vaccine can be completed

— a part of the administrative process of independent pharmacy ownership.

I created health education materials such as brochures highlighting the different vaccinations a patient can receive from their pharmacist and why the patient should consider getting these vaccinations. We also kept track of the patients' immunization records and contacted their physicians so the physicians knew when their patient received vaccinations to ensure the information was added to the patient's health records.

However, the most important skills I improved throughout the flu clinics were being able to communicate to the patient the importance of getting vaccinated and easing their fears and worries about vaccinations. Out of all healthcare providers, pharmacists tend to have the most contact with and are easily accessible to the patient, and they can have a major impact on the lives of their patients through health education. Through the flu clinics and through interaction at the pharmacy, we were able to reach a large number of patients that needed to be vaccinated and provided the education and services the patient needed to stay healthy and keep their loved ones healthy. 

DRUG DEVELOPMENT AND CLINICAL TRIALS

Pharmacists are medication experts. You know the best medication and dosing regimens to treat your patients to improve their health. But what does it take to determine a medication's dose, safety and efficacy so that it can be used to treat patients? Edward Allera, Vince Anido and Allie Karshenas shed some light on the clinical trials process.

Allie Karshenas, Ph.D., associate professor in the Department of Pharmaceutical Systems and Policy, is the associate vice president of clinical research operations and institutional advancement at the WVU Health Sciences Center and director of the West Virginia Clinical and Pharmacologic Research Center (WVU CPRC). The WVU CPRC provides regulatory, quality and safety perspective services to sponsor pharmaceutical companies. The WVU CPRC also provides industry learning and experience to pharmacy and medicine students, as well as students from other institutions within the Health Sciences Center, through various internship, rotational experiences and residency programs.

“Clinical trials are vital components of any new therapeutics, or even generic therapeutics, that are approved by the FDA in our country or any other regulatory agencies,” Dr. Karshenas said. “The advancement of science is amazing with respect to the gene-drug interaction, or seeing things at a gene level, where before we only saw things at a system or organ level, such as someone developing a rash or experiencing liver enlargement.”

So what exactly is the clinical trial process?

PRE-CLINICAL AND PHASE 1: FOCUSING ON SAFETY

Edward Allera, '69, is co-chair of Buchanan, Ingersoll and Rooney law firm's FDA section.

“By law, a new drug is developed through well-controlled investigations for the best measurement of safety and effectiveness,” he said. “In Phase 1, which is a volunteer study, the safety of the medication is determined.”

Before a potential treatment can be tested in humans, exhaustive pre-clinical development takes place. In the pre-clinical trial work of drug development, researchers start with thousands of molecules and work to identify a select few that have tested well in lab and animal studies.

Researchers will utilize pre-clinical testing to determine a potential treatment's activity on a biological target and to estimate a starting dose and schedule for first in human trials.

Once all data has been collected and discussed with regulatory agencies, the FDA will grant the study sponsor permission to go to human trials for the potential treatment. A Phase 1 trial typically involves a small group of healthy subjects, perhaps 10-20 individuals, with the goal of evaluating the safety, determining a safe dose range, and identifying the side effects of the medication. Based on these results, the company may conduct additional early Phase I studies. After the medication has been tested and data is collected and analyzed, and if adverse effects are minimal, the trial can move on to Phase 2.

PHASE 2: SAFETY AND EFFICACY

Phase 2 of a clinical trial has a slightly larger pool of subjects, approximately 100-200, and focuses on patients with a specific health condition. In this phase, researchers are looking to determine whether the drug is effective in a specific condition and to better characterize its side effects. Again, multiple studies may be required in this phase. At the completion of this phase, the company collects, analyzes and reviews data with the regulatory agency in order to advance to the next phase.

PHASE 3: EFFICACY

The largest testing group is in Phase 3. Thousands of diverse patients with a specific health condition take part in the clinical trial in which the new medication is compared to commonly used treatments. The testing is held at multiple sites, which could be in different areas of a state, across the U.S. or across the world. The reason for the diverse patient and multiple site testing is to obtain a broad spectrum of patients in order to see how effective the medication is, or if there are any side effects, in different ethnic groups and, again, to ensure the drug works.

As you can see from the different rounds and phases of the trials, including pre-clinical research and testing, new drug application filing with regulatory agencies, and volunteer and patient enrollment, it can take quite some time for a drug to go from development to patient treatment. It really all depends on the medication in question. According

to Karshenas, drug development can take sometimes between 12-15 years and with new biological entities, it can also come with a cost of \$2.2 billion dollars.

Vince Anido, Jr., '75 and '78, is chairman of the board for Aerie Pharmaceuticals, a clinical-stage pharmaceutical company that focuses on the discovery, development and commercialization of therapies for the treatment of patients with glaucoma and other diseases of the eye. With medications for the eye being topical and the fact that the eye is a self-contained entity, the timeframe for drug development can be a bit shorter, but still takes around 7-10 years from research to clinical trials to approval for patient treatment.

Timeframes of drug development can also be longer if there are any setbacks or complications along the way, or if the drug is not working the way it is expected and has to go back to research.

PHASE 4: FOLLOW-UP AND MONITORING

Phase 4 clinical trials take place after a drug is approved for use by a regulatory agency. In this phase, pharmaceutical companies collect information from physicians to ensure that the medications are still working appropriately and checking to see if patients are experiencing any side effects. If any side effects are being experienced, for example, bleeding gums, the physician will report this to the drug manufacturer and the FDA.

If you think there may not be many roles for pharmacists in the clinical trial development and process, think again.

“Pharmacy graduates and professionals have roles across the board of clinical trials,” Dr. Anido said. “From scientists in development, to the design of chemical structures, the design of in vitro biological testing, formulations, and the design of the trials themselves. In Phase 4, pharmacists on the team can take the data collected to see if there is a different approach for an existing medication, can the medication be used for other things? There are unlimited new opportunities for pharmacists to play a role in drug development — both for basic scientists and clinical pharmacists. It's a great field for those who want to explore the study side of the pharmaceutical industry.”



Mingyao Yang and **Tina M. Bland, Ph.D. '04**, associate director of clinical operations for the WVU CPRC.

LEARNING ABOUT THE CLINICAL TRIAL PROCESS

Mingyao Yang, a member of the Class of 2016, developed an interest for clinical research early in his pharmacy education. When he heard about a rotation with WVU's Clinical and Pharmacologic Research Center (CPRC) as a third-year student, he knew he wanted to apply.

This is the second year the elective rotation with the WVU CPRC has been offered to our students. It is a competitive process, and only two students who apply are accepted — one per semester. However, efforts are under way to increase the number of accepted students into the program from one to two students per semester in the coming months.

"The rotation with the WVU CPRC is unlike any other rotations we have," **Lena Maynor, Pharm.D., director of Advanced Pharmacy Practice Experiences (APPE) and member of the Class of 2005**, said. "The rotation allows students to see the Phase 1 clinical trial processes and gives them exposure to the drug development process that most Pharm.D.s don't receive."

The goal of this industry rotation is to provide a structured approach for the student to experience the path of an experimental drug formulation being brought into a clinical Phase 1 trial where the drug is tested for safety in healthy subjects. During the rotation, the students learn about each step of the path of drug accountability, including Institutional Review Board submission and approval, clinical eligibility, dosing, the collection, review and assessment of data, and the submission of the study report to the sponsor.

Yang was also able to observe a clinical trial in progress. While he had been learning about the logistics of the process, being able to see a trial taking place was an eye-opening experience. For starters, he thought the Informed Consent form portion of the process was a task that only took a few moments to complete. He soon learned that the Informed Consent is a very complex and engaging one-on-one discussion with the clinical trial volunteer in educating the participant on the risks and benefits of their participation in clinical trials.

From there, he was amazed to see how all the teams and functions at the CPRC were able to work together so seamlessly in such a fast, yet methodical and organized fashion. From the process of dosing, the multiple blood draws, the constant monitoring and the record-keeping, the attention to timing and detail was astounding.

For Yang, his rotation at the WVU Clinical and Pharmacologic Research Center was an experience he will never forget, and has provided him with a solid foundation on his path to a career in the pharmaceutical industry and clinical trials research.

"This rotation provided me with a big-picture overview of industry-initiated trials, and has helped me become a well-rounded pharmacy student," he said. "As a future pharmacist, I now have the knowledge and understanding of the rigid pathways on which industry pharmaceutical trials are designed, conducted and approved through rigid regulatory pathways, which collectively allows me to appreciate the formulations used in the treatment of patients." 

If you are interested in learning more about the clinical trials rotation and/or participation in clinical trials, please contact the WVU CPRC at 304.581.1404.

EX · LIBRIS



Storytellers

We like to share stories about our alumni showcasing their hobbies or other interesting activities they do outside the scope of their pharmacy or research practices. In this issue, we feature those who have a lot to say about their lives, or the history of their profession, by publishing their books.



(l-r) Stephen and Stanley Toompas

STEPHEN AND STANLEY TOOMPAS

The adventures twin brothers **Stephen Toompas, '81**, and Stanley Toompas, O.D., have had have literally filled two books. Their first, "I'm the One the Other Isn't," came about from a series of stories they would tell their children.

"My wife, Kim, encouraged me to tell bedtime stories," Stanley said. "It got to the point that my son, Chris, my first child, would start asking me to tell him more 'Stevie-Stanley stories.'"

One day when the brothers' families were together, Stephen's daughter turned to Stanley's son and asked, "What Stevie-Stanley stories do you know?" This amazed the brothers as neither knew that the other was telling their childhood stories, and both children independently called the stories by the same name. When Stephen and Stanley started writing down and comparing which memories they shared with their children, they noticed they were almost exactly the same ones. In seeing this, their first book was created.

From stories such as The Neighbor's Fire, to The White Goddess, about their first car, to (Twin + Algebra) x 2 = Stress, one experiences the lives of the twins through their often hilarious and happy, and sometimes nerve-racking and heart-wrenching, accounts. Their second book, "I'm the One the Other Isn't, Book Two," is a compilation of stories from their high school years.

The first book was submitted for jury review by Tamarack, a process where works of art are reviewed by master craftspeople and artists to ensure the work meets the stringent criteria to be part of the Tamarack System. "I'm the One the Other Isn't" received official approval from Tamarack.

Stephen and Stanley feel that writing the books was a very rewarding experience. They were able to spend more time together, they were able to meet many wonderful people at their book signings and they were able to share their stories with their families and community.



DOUGLAS GLOVER

It was a labor of love for **Douglas Glover, '51**. His book, "From the Everyday to the Extraordinary: West Virginia Pharmacists' Stories," focuses on the profession of pharmacy and pharmacists in West Virginia, and how the profession has changed over the

course of the past 100 years.

After receiving his pharmacy degree, he pursued his medical degrees at WVU and Emory University in Atlanta to become an obstetrician and gynecologist. After almost 40 years of delivering babies, he retired. However, retirement did not suit him, and he returned to West Virginia where he received an adjunct faculty appointment at the WVU School of Pharmacy. When he spoke with Dr. George Spratto, then-dean of the WVU School of Pharmacy, about what he could do and how he could give back to the School, the topic of writing a book about West Virginia pharmacists was discussed, and Dr. Glover happily agreed to take on the project.

"Doug did an enormous amount of research on the book, pulling together information from the School, the University and other sources," **Dr. Art Jacknowitz, professor emeritus**, said. "He was so focused on this book that he spent days and days at a time just researching."

Drs. Jacknowitz and **Marie Abate** helped Glover with the editing of the book.

"I think the stories Doug told and the insights of the people were really interesting," Dr. Abate said. "I personally like chapter two, which was going back to some of the earlier pharmacists and how the profession was getting started. He also did a really nice job talking about the pharmacists who were or are community leaders."

From the countless hours researching information, interviewing pharmacists and family members, and collecting and selecting photographs for use, Glover put his heart and soul into creating a work that showcases pharmacy practice and gives credit to all West Virginia pharmacists who made the profession what it is today. He and his family currently reside in South Carolina.



WALTER OBEN

Much like Stephen and Stanley Toompas, **Walter Oben, a member of the Class of 2018**, started his book from a story he told his brother.

Oben's book, "The Traveler's Story," is based on his own account of traveling to another country for the first time. Oben, a native of Cameroon, traveled

to Nigeria with his mother to attend a wedding.

Once he arrived in Nigeria, Oben sent an e-mail to his brother telling him about everything he had experienced thus far on his journey. Within moments, his brother called him.

"I was really shocked that my brother called because he was living in Switzerland at the time, and it was 3 a.m. there," Oben said. "He

told me that he could not read my e-mail, and when I asked why, he said it was because it was 10 pages long."

Oben's brother then told him to document everything he was experiencing because if he could write 10 pages in one day, what could he write in 31 days?

While all travels come with ups and downs, Oben stated he had a wonderful experience. "I had fun traveling, and it was interesting because I learned a lot of new things," he said. "Learning about a new culture and meeting new people is fun, and you get to understand the world in a more holistic and humanistic way."

Editor's Note: With summer approaching, you may want to add these titles to your reading lists. You will enjoy reading these books as much as the authors enjoyed writing them.



WANDA ROGERS

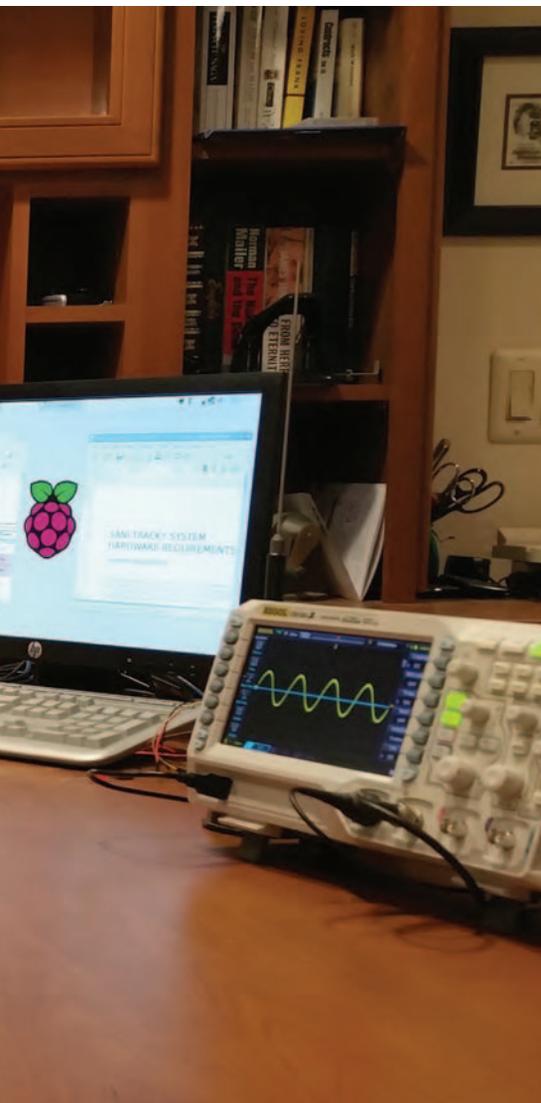
In just the first few moments of conversation with **Wanda (Kellison) Rogers, '63**, you quickly learn three things about her: she is a proud WVU School of Pharmacy graduate, she holds pharmacy licenses in eight states and she is interested in helping students be successful in their careers.

Rogers is the national director of pharmacy for Coram CVS/Specialty Infusion Services, where she is responsible for the residency program, cleanroom design and protocols for providing infusion therapy to patients in their home. Looking back on her career, she remembers the moment that a chance encounter made it possible for her to achieve the successful career in pharmacy she has today.

Rogers grew up in Lumberport, West Virginia. Neither of her parents had a college education, so they were determined

that both she and her sister received one. It just so happened that Rogers played piano in high school, and the Lions Club paid her to play at their events. At one of these events, she was asked to stay for lunch, and was seated at a table with **Rex Tennant, '26**, owner of Rexall Drug Store. Rogers and Tennant struck up a conversation, and he asked about her studies and what she wanted to do as a career, and the topic of college came up. Tennant offered to let Rogers work in his store to help with college financial assistance, and the rest, as you can say, is history.

“When I was in school, it was a four-year pharmacy program, and it was second-to-none,” Rogers said. “Our professors really emphasized patient safety, and they made us inquisitive. We all wanted to learn and know more. The faculty really supported you in what you were learning.”



Rogers' career path was quite a journey, and one that led her to obtain pharmacy licenses in eight states. It all started shortly after graduation as she was moving to Virginia with her husband, who was a pilot in the Navy. Within 90 days



“I tend to get a little weepy when I recall my time as a student because it really meant the world to me.”

of graduation, Rogers had her first two pharmacy licenses: one for West Virginia and another for Virginia. Licenses in Florida, California, Rhode Island, Maine, Hawaii and Washington, D.C., came about over the years as her husband, serving in the Navy, changed duty stations every two years.

As she moved, she changed practice settings from retail to hospital pharmacy practice. While living in Rhode Island, she was offered a job at \$1 an hour less than a male counterpart. She refused and pursued graduate school instead, where she acquired her master's degree in Hospital Pharmacy.

Rogers was never one to shy away from hard work or a challenge, and it was when she returned to California that she was introduced to home infusion.

As Rogers matriculated through the hospital practice experience over the course of her career, she became more focused on IV compounding. Around 1983, she was approached by two friends who were opening a home infusion company, and they asked her to help them get their business started. It was a combination of all the experience she had before in other positions, so she decided to join them, and she has focused her expertise on home infusion ever since.

recognizing Rogers' home infusion expertise, promoted her to northeastern regional pharmacist, a travel position. Her region then expanded, and she managed all pharmacists east of the Mississippi, training home IV infusion specialists. In her current position as National Director of Pharmacy Coram CVS / Specialty Infusion Services, Rogers oversees 75 pharmacies in 44 states. Additionally, she is a member of the NHIA Standards Committee, the Joint Commission Medication Compounding Technical Advisory Panel, and is regional past president of the Virginia Society of Health-System Pharmacists.

“I never thought I would be where I am today, a young lady coming from Lumberport, West Virginia,” Rogers said. “Rex Tennant had confidence in me. He would encourage me and always ask, ‘Wanda, can you do this?’ To this day when I am working on something, I think, ‘How would Rex handle that?’ Rex was personally responsible for several other Harrison County residents entering the pharmacy profession.”

Interacting with young pharmacists and students is another aspect Rogers enjoys about her career. She feels it is greatly rewarding to be able to work with them to solve problems and provide learning experiences.

“I tend to get a little weepy when I recall my time as a student because it really meant the world to me,” she said. “Whenever I get a chance to speak with students, I just want to tell them to grab on to every opportunity that comes their way. Go to events and mingle with alumni, get out there and talk and make new friends and get out of your comfort zone. You can learn so much from others in your profession, and you have many more pharmacy opportunities than we had.”

So what's next in store for Rogers? Who knows? But she has made the world her oyster. //

Rogers has been with Coram CVS/ Specialty Infusion Services for 26 years, and feels that all her prior work experience has been able to help her and contributed to the progress in her career. After working in home infusion for a short period, Coram,



Wanda Marie Kellison—21—single—Lumberport. Graduate of Lumberport High School. Member of Alpha Phi, Student Branch A.Ph.A., Lambda Kappa Sigma (Treas., Historian, Vice Pres.). Dean's List. Seven and one-half month's experience. Interested in retail pharmacy. Prefers Norfolk, Virginia, area.

▲ 1963 graduate information announcement published in *The West Virginia Pharmacist*.



WVU student pharmacist Catalina Saenz (l) watches as classmate Sara Rizzuti (r) speaks with students from West Preston Middle School.

STUDENT PHARMACISTS EDUCATE YOUTH ABOUT SUBSTANCE AND PRESCRIPTION DRUG ABUSE

Second-year student pharmacists are educating middle- and high school students about the dangers of substance and prescription drug abuse one school at a time.

The project is part of the WVU School of Pharmacy's Introductory Pharmacy Practice Experience (IPPE) course. In this service learning class, students create and implement health-related activities to meet the health concerns of West Virginians, as well as objectives of the U.S. Department of Health and Human Service's Healthy People 2020 campaign — a program to improve the health of Americans.

The student pharmacists in the IPPE course have been working with middle and high schools in West Virginia and Pennsylvania to present information about substance and prescription drug abuse to their students. The goal is to not only share information in order to prevent drug abuse and promote making healthy life choices, but to show that addiction is a real disease and can affect every aspect of life — physical, social, psychological and emotional — in dramatic ways.

The Neuroscience Behind Drugs of Abuse project takes a different path than most drug abuse presentations. Instead of using a just-say-no approach, the presentation discusses what actually happens to a person's brain and body from the first use of a drug to repeated use.

"As future pharmacists and healthcare professionals, it is our job to keep our community members healthy and improve their quality of life," **Catalina Saenz, of Morgantown, a member of the Class of 2018**, said. "We want to educate students in their adolescent years about how the brain and body function normally and how the presence of illicit and prescription drugs alters your brain and body."

The Neuroscience Behind Drugs of Abuse project was originally developed by the Duquesne University Mylan School of Pharmacy for high school students. WVU students began taking the presentation to schools in West Virginia in 2014. The WVU students expanded the scope of outreach for the project and developed a presentation for middle school students,

"Your Healthy Brain and Body, and How to Keep Substance Abuse out of Your Life."

Saenz and her group visited West Preston Middle School during the fall semester and spent the day speaking with students during their science and their life skills classes.

WVU students developed the presentation to create an interactive environment in order to engage middle school students by using conversation and games.

"We feel this presentation is unique in that it is given by students to students, which hopefully helps the students relate to us a little more easily," Saenz said. "Sometimes it's hard to talk to a teacher about topics such as these, and we hope the students feel we might be more approachable for these discussions. Living in a state that has a high drug abuse rate, it is important that we educate the people of our state and contribute to decreasing drug abuse and its negative effects. As future pharmacy professionals, we are able to offer this education and information to improve the health, and future health, of our community members."

The Neuroscience Behind Drugs of Abuse presentations are continuing in the spring 2016 semester and will remain part of the IPPE course curriculum in the future. //



HELPING IMPROVE THE HEALTH OF WEST VIRGINIANS

By Tara Curtis and Amy Newton

Students at the WVU Health Sciences Center are dedicated to giving back and improving the health of their community. In August 2015, students from the Schools of Pharmacy and Nursing traveled to McDowell County, West Virginia, to participate in the Southside K-8 School's back-to-school community social for residents of the area.

The students provided information about smoking cessation, prescription medication education, drug abuse education, fall prevention, blood pressure and glucose screenings, nutrition tips, stress reduction and other health-related topics geared toward helping residents of the McDowell County area achieve a healthier lifestyle.

"This is the second year the WVU School of Pharmacy has coordinated the health fair for McDowell County residents," **Ashlee McMillan, Pharm.D., clinical assistant professor in the WVU School of Pharmacy and Class of 2009**, said. "We really enjoy spending time with the community members there, speaking with them and providing them with the health information and screenings that can help

improve the quality of their lives. Health fairs such as these not only offer our students a way to provide healthcare services to members of the community, but the fairs also provide a place where people can receive health services they may not have access to easily. We also had the opportunity to provide information about other health choices, such as help with quitting tobacco use and education about prescription drug abuse, which may not be readily available."

Our student pharmacists first reached out to the McDowell County community in 2014 after reading an article about drug abuse and poverty in the area. Partnering with Southside K-8 School, the 2014 health fair was a success, and the students were invited to return for the school's annual social to perform health screenings and education for approximately 500 members of the community. Dr. McMillan extended an invitation to the WVU School of Nursing to participate in order to offer community members more health information and services. Residents of the county also experience higher than average health-related issues, such as diabetes, obesity, mental health

and cancer-related issues, among others. The health-related services the WVU Nursing and Pharmacy students provided will help residents manage and monitor their health.

"Outreach initiatives like this provide a unique learning experience for our students where they can work collaboratively to identify the needs of the community, develop appropriate educational information and execute events geared toward improving lives," said Susan Pinto, assistant clinical professor, WVU School of Nursing. "We have a responsibility to provide resources that improve health outcomes to West Virginians, and this is a wonderful example of how we are taking West Virginia University to those communities who need us."

Each year, students from the Health Sciences Center partner together to provide community outreach to West Virginia residents. The WVU Nursing and Pharmacy students worked to coordinate the health portion of the 2015 fair as part of community outreach efforts or as a part of their coursework. 

ALUMNI ENDOW NEW SCHOLARSHIP AT WVU SCHOOL OF PHARMACY

Morgantown native **Debra Kline McMann**, a 1986 graduate of the **West Virginia University School of Pharmacy**, and her husband **William F. McMann**, a 1985 graduate of the WVU Statler College of Engineering and Mineral Resources, created a \$25,000 endowed scholarship to support student pharmacists at WVU.

“My husband and I were both students at WVU, and it’s close to our hearts,” Debra McMann said. “It’s not easy getting started and we’ve been there, so we wanted to give back.”

The gift established the **Kline McMann Family Pharmacy Scholarship**, which will be awarded to students who demonstrate financial need. Preference will be given to residents of Morgantown, and students are eligible for the scholarship for multiple years if they continue to meet selection criteria.

The first recipient was **Ryan Watson, Class of 2017, of Morgantown, West Virginia**.

“Receiving a scholarship from a past alumna really allowed me to know how important the field of pharmacy is to all those who go into it,” Watson said. “It made me reflect and realize how big of a family this profession is.”

“College is a memorable time,” Debra McMann said. “That’s where you get your start, and it’s what you remember. I can see that the (pharmacy) program is different now from when I was a student. There are new classes and avenues to explore. It’s broadened and is a completely different atmosphere. We want to help and support students.”

The McManns, who now live in Flower Mound, Texas, have also supported the Statler College, creating the **William and Debra McMann Engineering Scholarship** for undergraduate students in 2013.

The gifts were made in conjunction with **A State of Minds: The Campaign for West Virginia’s University**. The \$1 billion comprehensive campaign being conducted by the WVU Foundation on behalf of the University runs through December 2017.

Interested in starting a scholarship? Please contact Susan Trantham, School of Pharmacy director of development, at 304.293.7731 or Susan.Trantham@hsc.wvu.edu.



(l-r) Ryan Watson and Debra Kline McMann

WALGREENS DONATION

The School would like to extend thanks to Walgreens for their continued donation to fund the Walgreens Diversity Scholarship and the Walgreens Diversity and Inclusion Excellence Scholarship.

“Walgreens is proud to have made this donation to the

WVU School of Pharmacy to support both student pharmacists and the pharmacy school in the development of programs to increase diversity. This award underscores our commitment to improving both cultural competency and diversity within the profession of pharmacy.”



(l-r) Dr. Mary Euler, associate dean for Student Services; Cory Krebs, R.Ph., area healthcare supervisor for Walgreens; and Dr. Mary Stamatakis, interim dean

INVESTING IN OUR FUTURE PHARMACY PROFESSIONALS

As the cost of tuition throughout the nation continues to rise, scholarships are a critical component, now more than ever, to attracting and retaining talented students to the profession of pharmacy. By increasing the availability of scholarship awards, the School can also establish recruitment-focused scholarships that position us to attract and retain a diverse, high-achieving student population.

In addition, your gifts to support scholarships can help alleviate some of the financial burden and reduce our students’ debt, while ensuring high-quality educational experiences.

Another area that provides opportunities for our students to gain hands-on experience in improving the health and well-being of West Virginians and society at large throughout all four years of their pharmacy curriculum is experiential learning.

Experiential learning reinforces the education our students receive and helps prepare them to provide optimal pharmaceutical care to patients and community members. During their fourth year of study, our students complete experiential rotations. The majority of these rotations are throughout West Virginia and the United States, but students are also able to apply for global health rotations in Brazil, Oman and South Africa. Beginning with the 2016-2017 academic year, students will also have the opportunity to apply for a global health rotation in Thailand. These are amazing and life-changing opportunities, but require an additional financial burden on the students if private funding is not available.

Investing in scholarships is one way to give back to make a positive impact in the lives of our students. If you are interested in learning more about supporting student educational experiences at the School of Pharmacy, contact Susan Trantham, director of development, at 304.293.7731 or Susan.Trantham@hsc.wvu.edu.

GIVE A WHITE COAT

On August 15, 2015, the West Virginia University School of Pharmacy welcomed 79 new students into the study of the profession of pharmacy.

The White Coat Ceremony is an annual event at which the School recognizes first-year students as they begin their journey toward serving communities around the world. The ceremony not only marks the beginning of each student's educational journey to become a pharmacist, but also marks a professional commitment to helping others — which is the reason many students chose this field of study.

"I chose the profession of pharmacy because of service," **Olivia Rockwell, of Washington, D.C.**, said. "I believe it's important to serve people, and I believe it's important to serve a profession — pharmacy — that allows us to contribute to medicine, as well as the betterment of people's lives."

Matt Whiteman, a native of Bridgeport, West Virginia, was excited about starting his studies as a member of the Class of 2019 and receiving his white coat.

"Getting my white coat really shows that everything I have worked for so far has paid off, and having my family at the ceremony to support me also meant a lot," he said.

Our student pharmacists would not be able to reach their dreams if not for the help of others along the way. Once their white coats are placed on their shoulders, the students become members of the School of Pharmacy family, and just like their actual families, this one is also full of caring people who are there to provide help and support so that our students are able to succeed.

We would like to thank all of our alumni, donors and friends who supported the Class of 2019 White Coat Ceremony.

If you would like donate a white coat or support the White Coat Ceremony for the Class of 2020, please contact Susan Trantham, School of Pharmacy director of development, at 304.293.7731 or Susan.Trantham@hsc.wvu.edu.

PHOTOS BY BOB BEVERLY



▲ (l-r) Olivia Rockwell and Dr. Grazyna Szklarz ▲ (l-r) Matt Whiteman and Dr. Greg Castelli

WELCOME TO OUR NEW DIRECTOR OF DEVELOPMENT

Susan Trantham joined the WVU School of Pharmacy in January 2016 as the director of development. She is responsible for implementing and managing all development opportunities for the School.

Before joining the WVU School of Pharmacy, Trantham worked as the director of development for the WVU Eye Institute. In this role, she was responsible for all fund-raising, marketing and alumni activities, and helped to raise over \$10 million for ophthalmology prior to the 2017 campaign deadline. Trantham has over 20 years of fund-raising experience in health sciences.





AMY NEWTON

DOUGLAS SLAIN

By Colleen Lewis

Douglas Slain, Pharm.D., is an associate professor of clinical pharmacy and medicine at the West Virginia University School of Pharmacy and School of Medicine. His areas of interest are infectious diseases, antibiotic resistance and clinical pharmacy education.

As a clinical specialist for the WVU Infectious Diseases Consult Service and the Outpatient Infectious Diseases Clinic, Dr. Slain focuses his practice area and research on how to overcome bacterial resistance to medications, which usually means finding viable alternative medications. This information is critical to treatment for patients and is monitored throughout WVU Medicine facilities and even on a global scale.

His expertise with clinical education, infectious disease and antibiotic resistance is a reason he was selected to become the

School of Pharmacy's Global Affairs Liaison for the WVU Robert C. Byrd Health Sciences Center. Dr. Slain works with international partner hospitals and schools of pharmacy to develop or enhance antimicrobial stewardship activities, which promote the prudent use of antimicrobial agents to prevent resistance.

In the classroom, Slain uses this experience to give his students a unique perspective on the abilities of pharmacists. He doesn't push students who have different skill sets into international work, but helps develop their skills, whether they have an interest in global healthcare or careers in global healthcare or not.

He also applies novel teaching approaches to his classroom. "I'm not afraid to try new teaching approaches; I also like to use cases that are dynamic for specific subjects," he said.

As global affairs liaison, Slain routinely travels to nurture existing relationships with international educational partners or cultivate opportunities for collaborations for faculty and students. He has also helped these international programs

in their development of clinical pharmacy education and pharmacy residency training. 

"I'm not afraid to try new teaching approaches."

— DOUGLAS SLAIN, associate professor of clinical pharmacy and medicine

PARTNERSHIP WITH MAHIDOL UNIVERSITY FACULTY OF PHARMACY TO PROVIDE EDUCATIONAL EXPERIENCES

Beginning in January 2016, faculty and students of the West Virginia University School of Pharmacy gained a new global opportunity for education and collaboration.

The WVU School of Pharmacy is part of the U.S.-Thai Consortium for the Development of Pharmacy Education in Thailand — an organization founded with the mission of enhancing pharmacy education, research and clinical programs in schools of pharmacy in Thailand. Only 18 U.S. schools of pharmacy are members of the Consortium.

Through membership in the Consortium, the WVU School of Pharmacy signed a five-year agreement with the Mahidol University Faculty of Pharmacy in Thailand. The agreement establishes an affiliation between the two institutions to encourage educational and scientific collaboration and cooperation.

“Our partnership with the Mahidol University Faculty of Pharmacy is a great way to provide global experiences and education for our faculty and students,” **Douglas Slain, Pharm.D., associate professor and global affairs liaison for the WVU School of Pharmacy**, said.

On January 11, two faculty members from the Mahidol University Faculty of Pharmacy began a two-month observation course focusing on infectious diseases treatment and antibiotic stewardship — the appropriate use of antimicrobials and antibiotics in order to reduce resistance to these medications and improve patient health. They observed WVU School of Pharmacy faculty during class activities, research projects, lectures, discussions and other academic pursuits. The purpose of these observational activities was to provide the visiting faculty members with ideas and information they can take back to their school to enhance their curriculum, class teaching methods or seek connections and collaborations on current or future research opportunities.



(l-r) Dr. Douglas Slain and Dr. Yon Rojanasakul; Suwida Tangtrakultham and Jantana Houngsaitong of the Mahidol University Faculty of Pharmacy; and Dr. Terry Schwinghammer and Dr. Mary Stamatakis

“Faculty members from both institutions will gain valuable knowledge through information-sharing and potential project and scientific collaborations,” Slain said. “By opening these lines of communication and educational pathways, we are opening doors to the advancement of the profession of pharmacy, pharmacy practice and pharmacy research on a global level.”

In the 2015-2016 academic year, only faculty are visiting each partner institution. Beginning in the 2016-2017 academic year, WVU pharmacy students will be able to complete an academic rotation in Thailand. The WVU School of Pharmacy currently offers three global health rotations in Brazil, Oman and South Africa. //

CERTIFICATE PROGRAM HELPS FUTURE PHARMACISTS MEET NEEDS OF COMMUNITY

By Jordan Jasper

According to the Center for Disease Control and Prevention, by 2030, older adults will account for roughly 20 percent of the United States population. With the needs of such a large portion of our population changing, many students in the WVU School of Pharmacy are taking steps to better serve the elderly community in the state.

Through the Gerontology Graduate Certificate program offered through the WVU School of Social Work, many students have been given a chance to learn more about the aging process and how it changes the needs of the elderly.

“Older Americans make up less than one-third of our population, however they consume more than their fair share of the medications taken,” **David Elliott, Pharm.D., professor of clinical pharmacy, Department of Clinical Pharmacy-Charleston Division**, said. “There is a great need for health professionals in general, but especially for those who understand the complexities of healthcare for older adults.”

Olivia Kinney, a native of Bridgeport, West Virginia, and member of the Class of 2016, chose to enter the certificate program to be able to provide better care for her elderly patients and better serve their healthcare needs after she graduates.

“As medicine and healthcare techniques are improving, we are caring for people more effectively, which allows them to live longer, fuller lives,” she said.

Kinney’s interest in helping the elderly grew substantially during her second year of coursework, when she completed a service learning project with Sundale Rehabilitation and Long Term Care. While working with

“There is a great need for health professionals in general, but especially for those who understand the complexities of healthcare for older adults.”

— DAVID ELLIOTT, professor of clinical pharmacy



Olivia Kinney performs a blood pressure screening in the Health Education Center.

Sundale, she was able to help in a variety of ways including serving meals and helping with special events, such as the annual Geri Olympics and a prom held for the residents.

“Sometimes, nursing homes and assisted living centers have stereotypes about them that the residents are not very active, but they’re actually quite lively,” Kinney said. “The residents are eager to learn and need someone to advocate for them.”

The coursework to obtain the certificate offers a glimpse at a variety of different issues the elderly face that younger people do not typically think about. Walking to the bus stop to go the doctor or even opening one’s prescription bottles can be challenging for many elderly adults. One of the most profound things these classes

offered, according to Kinney, was a change in mindset.

“I think at times, we — the general population — can become self-centered,” she said. “However, when you change your mindset and think about the person who’s picking up medication and needs a little extra help, you start to realize how important it is that someone looks out for them.”

She is excited to continue learning more about gerontology and geriatrics, and every residency program to which Kinney has applied for after she graduates has electives in geriatrics. She knows that no matter where she goes in life, her knowledge of gerontology will help her.

“I think it’s important for students to know that this area of emphasis doesn’t limit where you are able to work,” Kinney added. “It means that you’re preparing yourself to advocate for the elderly population in any pharmacy career path.”

Learn more about our Areas of Emphasis at pharmacy.hsc.wvu.edu/areasofemphasis.

MESSAGE FROM THE ALUMNI ASSOCIATION



We loved seeing the familiar faces and new friends at our 2015 Homecoming parade watch! It was wonderful to see many of our alumni and their families line the familiar sidewalks of High Street to cheer on the bands and Homecoming floats. In addition to our Homecoming football tailgate co-sponsored with the School, and also made possible by the generous support of J.J. and Sue Bernabei, both '89, a new "pop-up" tailgate was held prior to the WVU

versus Texas game. We look forward to celebrating Homecoming 2016 and many more events with you next fall!

Last year, the Association also established the groundwork for an endowed Alumni Association Leadership Scholarship award. Alumni and friends who wish to make special contributions to this scholarship fund should contact Betsy Elswick at belswick@hsc.wvu.edu for more details.

We look forward to seeing many more alumni and friends at the Association's upcoming Spring Alumni Weekend on Friday, May 20, and Saturday, May 21, 2016, where we will celebrate with the reunion classes of 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006 and 2011. If

you are a classmate of one of the "reunion years," please save the date and spread the word among classmates through social media and other channels. To continue our efforts to increase alumni opportunities, we hope to engage new graduates in future alumni planning initiatives. However, we can only do so with your membership. Please consider joining or renewing your membership today!

Let's Go Mountaineers!

Brian Lawson, Class of 2008
President, WVU School of Pharmacy
Alumni Association

Alumni News

Our alumni continue to make our world a better place by giving back to others. The Soup for the Soul program was started in October by **Susan Meredith '67**, her daughter, **Betsy Meredith Elswick, '02**, and their family members in memory of **Ronald Meredith, '67**. The program provides daily lunches to WVU Medicine patients with cancer being treated in Mary Babb Randolph Cancer Center's infusion center. For more information on how you can get involved, contact belswick@hsc.wvu.edu.

Health Outcomes Research Ph.D. alum **Dr. Amit Raval's** paper on increases in non-cancer hospitalizations after a prostate cancer diagnosis was published in the *Journal of the National Comprehensive Cancer Network* (2016;14:186-194).

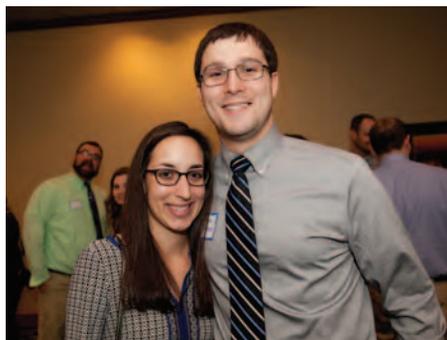
Class of 1983 alumni Doug Gill Jr. and Bill Petros in Times Square prior to the WVU-UVA basketball game at Madison Square Garden.



Kappa Psi Beta Eta alumni: Interested in forming an alumni/graduate chapter? Contact Maddy Edwards, Class of 2015, madisonedwards@comcast.net

Scenes from ASHP 2015

Thank you to our alumni who attended the School's reception at the ASHP 2015 Midyear Meeting. It was great to see you!



IN MEMORIAM

Helen Jodyne "Jodie" Christian, '78, passed away October 23, 2015.

Frederick E. Combs, '57, passed away February 9, 2016.

Barbara Gastineau, '52, passed away December 7, 2015.

William Franklin "Bill" Hockenberry, '63, passed away Friday, October 16, 2015.

Mary A. Johnson, '50, passed away September 19, 2015.

Linda C. Kelly, '82, passed away February 9, 2016.

Patrick Joseph Mascaro, '71, passed away January 20, 2016.

Robert Pierce, '42, passed away October 28, 2015.

William J. Seiber, '00, passed away March 5, 2016.

SCHARMAN RECIPIENT OF 2015 WOMEN IN SCIENCE AND HEALTH AWARD



(l-r) Dr. Terry Schwinghammer, Dr. Elizabeth Scharman and Dr. Art Jacknowitz.

Our faculty members make many valuable contributions not only to our students, but also to our state, the nation and on a global level.

Dr. Elizabeth Scharman, professor in the Department of Clinical Pharmacy and director of the West Virginia Poison Center (WVPC), was recognized by the WVU Health Sciences Center Women in Science and Health as their 2015 Advanced Career Excellence Award recipient.

The award recognizes career achievements of female HSC faculty and staff who demonstrate excellence in education, leadership, diversity, scholarship, service to West Virginia and research.

Dr. Scharman is an internationally recognized leader in toxicology and poisonings. The WVPC is an invaluable life-saving resource, and Dr. Scharman's leadership is the driving force behind its long-term success. The West Virginia Poison Center is not a high-profile entity. Scharman and her staff work behind the scenes, 24/7, quietly saving lives and

preventing complications from ingestion of toxic drug doses and poisons.

Who can forget the water crisis that affected parts of West Virginia in January 2014? Dr. Scharman and her team worked around the clock over the course of the weeks after the spill until the "all-clear" was given. They answered questions from citizens and media, kept government officials up-to-date on what was happening in relation to the spill, compiled data sheets for medical personnel, and more. They fielded over 2,700 calls related to potential human or animal exposures. During this time, they still performed their daily operations and continued to answer other potential poison-related inquiries.

To give you an idea of how many calls the WVPC receives in one year, in 2014, the Center received more than 34,000 calls, an average of 93 calls per day, seven days per week. Of the more than 8,000 poisonings, there were four deaths — less than 1/20 of 1 percent. The provision of effective and safe antidotes and supportive treatments

recommended by the Center is largely responsible for these exceptional outcomes.

Scharman is also an accomplished scientist and has authored more than 60 articles and presented research at scientific meetings. Many papers were consensus guidelines for management of poisonings from antidepressants, anticoagulants, acetaminophen, rodenticides and others. These papers are used by toxicologists and poison centers around the globe as state-of-the-art strategies for managing these potentially lethal situations.

In addition to teaching our student pharmacists, she has given more than 250 presentations to pharmacists, physicians, nurses and the public. She has also been interviewed by reporters from television, radio and newspapers related to toxicology, poisonings and drug abuse, including national media such as the Associated Press and ABC World News Tonight.

Scharman's accomplishments in both science and health are simply unsurpassed, and we are fortunate to have had her as a faculty member for the past 23 years. Thank you, Dr. Scharman, for all you do. 🚀

In 2014, The West Virginia Poison Center received more than

**34,000
PHONE CALLS**
— an average of
**93 CALLS
PER DAY.**

For more information about the West Virginia Poison Center, visit wvpoisoncenter.org and Like them on Facebook.

Welcome **New Faculty**



ASHLEIGH BARRICKMAN

Ashleigh Barrickman, Pharm.D., is a clinical assistant professor in the Department of Clinical Pharmacy. She is a 2013 graduate of the West Virginia University School of Pharmacy and completed a Community Pharmacy Practice Residency with West Virginia University School of Pharmacy and Waterfront Family Pharmacy in 2014. Dr.

Barrickman's areas of interest include diabetes management, medication therapy management, immunization services and anticoagulation management. She will be working with students on skills development and will also be helping to coordinate the diabetes and immunization certification programs. She is a member of the American Pharmacists Association and serves as the New Practitioner Mentor for the School's chapter of APhA-Academy of Student Pharmacists. Her research interests include diabetes, immunizations and medication therapy management.



WERNER GELDENHUYS

Werner Geldenhuys, Ph.D., is an associate professor in the Department of Pharmaceutical Sciences. He graduated from Potchefstroom University, South Africa (now North-West University), in 1999 with a bachelor's degree in Pharmacy. He then received his Doctor of Philosophy in Medicinal Chemistry/Neuroscience in 2004 after

completing a master's degree in Medicinal Chemistry in 2002, both from North-West University. After graduation, Dr. Geldenhuys completed postdoctoral research at Texas Tech School of Pharmacy. In 2007, he joined as the first faculty member in the Department of Pharmaceutical Sciences of the newly established College of Pharmacy at Northeast Ohio Medical University, in Rootstown, Ohio. Dr. Geldenhuys' research is focused on the development of novel neuroprotective compounds to slow the progression of neurodegenerative diseases including Parkinson's and Alzheimer's diseases and stroke.



TRACI LEMASTERS

Traci J. LeMasters, Ph.D., is a research assistant professor in the Department of Pharmaceutical Systems and Policy. She graduated with her Ph.D. in Health Services and Outcomes Research in May 2015 from the WVU School of Pharmacy, Department of Pharmaceutical Systems and Policy. Dr. LeMasters is currently developing new

research projects to study how different mammography screening intervals are associated with the incidence of a false-positive mammography result, how having a false-positive result may impact future screening behavior, and how the incidence and characteristics of a subsequent breast cancer diagnosis differ between women who do and do not have a history of a false-positive mammography screening result. Her research interests lie within the fields of pharmacoepidemiology, cancer risk and prevention, and health services and outcomes research. She is published in the Journal of Women's Health, Psycho-Oncology, Journal of Cancer Survivorship, Journal of Cancer Education, and the Journal of Research in Social and Administrative Pharmacy. She holds memberships in the International Society for Pharmacoeconomics and Outcomes Research, West Virginia Clinical and Translational Sciences Institute and the Rho Chi National Pharmacy Honor Society. Prior to completion of her doctorate degree, Dr. LeMasters completed her a master's degree in Health Services and Outcomes Research, a master's degree in Secondary Education specializing in science, and her bachelor's degree in Psychology from WVU.

Faculty and Staff **News**

APPOINTMENTS

Marie Abate, Pharm.D., Department of Clinical Pharmacy, was reappointed to a three-year term on the NAPLEX Review Committee.

Krista Capehart, Pharm.D., Department of Clinical Pharmacy-Charleston Division, was appointed to represent APhA on the Pharmacy Quality Alliance Adult Immunization Task Force 2. The group will develop quality outcome measures related to immunizations and MTM services.

Greg Castelli, Pharm.D., Department of Clinical Pharmacy, was elected secretary of the American College of Clinical Pharmacy Ambulatory Care Practice and Research Network.

David Elliott, Pharm.D., Department of Clinical Pharmacy-Charleston Division, was appointed to the Clinical Practice and Models of Care committee of the American Geriatrics Society for a three-year term beginning May 2016.

Ashlee McMillan, Pharm.D., Department of Clinical Pharmacy, was selected to be the American Association of Colleges of Pharmacy Alternate Delegate for the WVU School of Pharmacy.

Charles Ponte, Pharm.D., Department of Clinical Pharmacy, was reappointed to a two-year term on the Pharmacotherapy Editorial Board.

AWARDS

Amy Newton, M.S., director of Public Relations and Alumni Affairs, was the recipient of the 2016 National Phi Lambda Sigma Outstanding Chapter Advisor Award.

Yon Rojanasakul, Ph.D., Department of Pharmaceutical Sciences, and **Charles Ponte, Pharm.D., Pharm.D., Department of Clinical Pharmacy**, received recognition for their years of service to WVU. Dr. Rojanasakul for 25 years and Dr. Ponte for 35 years of service.

Terry L. Schwinghammer, Pharm.D., was selected as the recipient of the American Association of Colleges of Pharmacy Robert K. Chalmers Distinguished Pharmacy Educator Award in recognition of his outstanding achievements as an educator and mentor, his innovations in the classroom, and his overall impact on pharmacy education and the profession. Dr. Schwinghammer will be honored at AACP's 2016 annual meeting in July.

CERTIFICATIONS

Greg Castelli, Pharm.D., Department of Clinical Pharmacy, Board Certified Advanced Diabetes Manager

Jennifer Confer, Pharm.D., Department of Clinical Pharmacy-Charleston Division, Board Certified Critical Care Pharmacist

Lina Farchoukh, Pharm.D., Rational Drug Therapy Program, Certified Geriatric Pharmacist

Franklin Huggins, Pharm.D., Department of Clinical Pharmacy-Charleston Division, Board Certified Pediatric Pharmacy Specialist

Jonathan Kline, Pharm.D., Department of Clinical Pharmacy-Eastern Division, Certified Diabetes Educator

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Morgantown, WV 26506-9500

Address Service Requested

ALUMNI ASSOCIATION DUES

Renew (or start) your membership! Visit pharmacy.hsc.wvu.edu/alumni to pay online.

EMPLOYMENT OPPORTUNITIES

Looking for a position or the perfect candidate? Try using the School's LinkedIn page for your job search or position posting. Questions? adnewton@hsc.wvu.edu

CONTINUING EDUCATION

Be sure to visit our Office of Continuing Education website for a list of upcoming Live Programs at pharmacy.hsc.wvu.edu/CE.

Not getting your copy of The Showglobe? Update your information at pharmacy.hsc.wvu.edu/alumniupdate.

WANT MORE INFORMATION?

Stay up-to-date on all School of Pharmacy activities through:
pharmacy.hsc.wvu.edu
Facebook.com/WVUPharmacy
Twitter.com/WVUPharmacy
pharmacy.hsc.wvu.edu/linkedinwvupharmacy



UPCOMING EVENTS

Check the Upcoming Events section at pharmacy.hsc.wvu.edu/alumni for registration and more information about all events.

May 20-21, 2016

WVU School of Pharmacy Alumni Association's Spring Alumni Weekend
Morgantown, West Virginia
Visit us on the web for a full list of activities and to register.

September 30, 2016

Homecoming Parade Watch
Lotsa Mozza, 419 High Street, Morgantown, West Virginia
Time TBA
Sponsored by the WVU School of Pharmacy Alumni Association

October 1, 2016

Homecoming
Homecoming Tent (Event begins two hours prior to football kickoff); WVU vs Kansas State
Location TBA
Sponsored by the WVU School of Pharmacy and the WVU School of Pharmacy Alumni Association

October 7-9, 2016

WVPA 109th Annual Convention
Charleston Marriott Hotel, Charleston, West Virginia

October 16, 2016

24th Annual Southern Appalachian Fall Seminar
Pipestem Resort State Park, Pipestem, West Virginia

December 2016

51st ASHP Midyear Clinical Meeting and Exposition
Las Vegas, Nevada

Not attending any of the state or national meetings, but live in the area? Join us at the events! We would love to see you!