



MARSHALL UNIVERSITY
SCHOOL OF PHARMACY

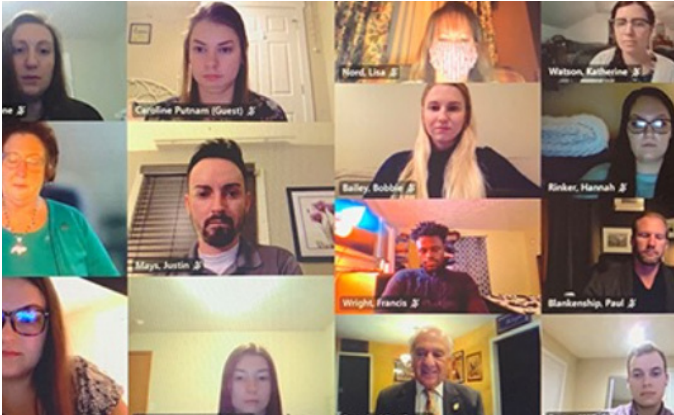
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2020 ANNUAL REPORT



SAFE LEARNING, SAFE SERVING

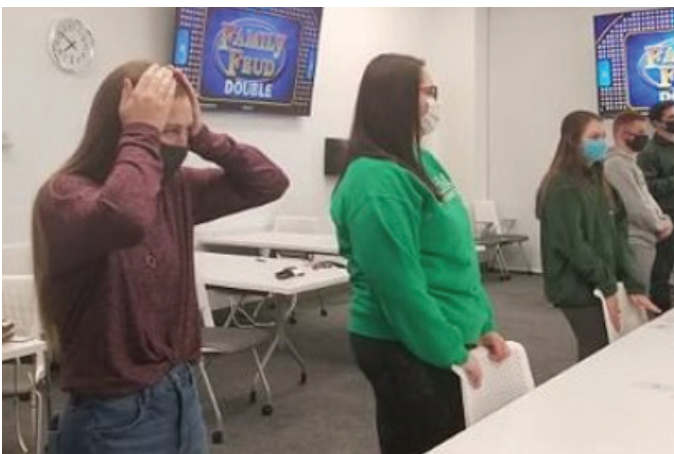
Marshall's School of Pharmacy adapted to continue its commitments



Ten students and one faculty member joined the Rho Chi Society in 2020 during a private, virtual induction ceremony.



First-year student Andrew Riffe with Dean Gayle Brazeau at the 2020 Walk-Thru White Coat Ceremony.



Students had the opportunity for some in-person, but safe fun during trivia nights.

This past year was one of great challenges, but even greater accomplishments. We had to pivot on a dime and exercise our critical thinking skills to handle a variety of obstacles. We continued to educate our students while caring for their physical and emotional needs, implementing new working arrangements for our employees, and engaging with our community as leaders and future healthcare providers.

In 2020, the biggest challenge we faced as a school was how to continue to provide high-quality education without the face-to-face interaction that our curriculum demands. Our faculty found ways to integrate active learning with virtual technologies by offering **virtual study sessions**, learning multiple **online teaching platforms**, and revising active learning experiences and course plans to fit within those platforms.

Our Wellness Committee devised creative ways to stay engaged with our students including virtual team trivia nights. A monthly wellness newsletter provided guidance on navigating stress. We also celebrated milestones such as honor society inductions virtually.

Despite a year of closures and social distancing, we continued our commitment to

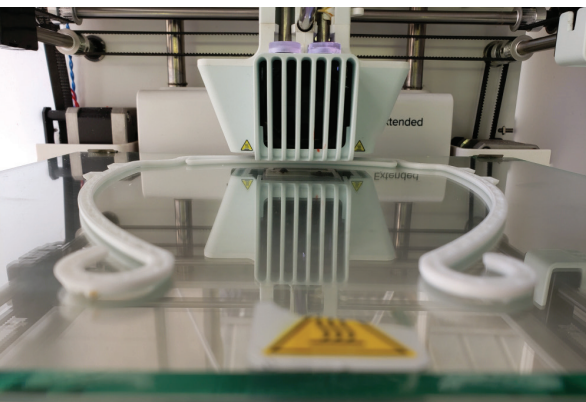
COMMUNITY OUTREACH.



Pre-pandemic, we hosted a **Black History Month** event at Kopp Hall that brought together nearly 70 people representing the Fairfield Community and Marshall University. The event featured brunch and a panel discussion about African Americans and the Vote.

When personal protective equipment and other resources quickly became scarce, we made more than 12 gallons of **hand sanitizer** to distribute to non-profits in our community including Harmony House, Huntington City Mission, the Hershel “Woody” Williams VA Medical Center, River Park Hospital and the Huntington police and fire departments.

The hand sanitizer photo above was taken very early in 2020 and prior to mask mandates going into effect.



Our information technology staff worked with their med school colleagues to produce **3-D printed face shields** that were provided to St. Mary’s Medical Center.

Throughout the year, we hosted multiple **drive-through food collections**, which brought in more than 1,300 pounds of food and \$660 cash for the Facing Hunger Food Bank. In September, our Class of 2024 coordinated a **Hurricane Laura Relief** drive-through event that collected items such as batteries and first aid supplies.



In partnership with several external organizations and agencies, we held multiple **flu clinics** throughout the fall.

We also participated in a **prescription drug take back event** in the fall with Cabell County's Prevention Empowerment Partnership.



In October, we created 150 Trick or Treat Scavenger Hunt Kits for children at the AD Lewis Community Center. In December, our Phi Lambda Sigma chapter sponsored four children from the Salvation Army Angel Tree project.

As we look ahead, we are eager to get back to normal with students in Kopp Hall for face-to-face classes, some of which will be novel as we implement our **new curriculum** with incoming first-year students. Curriculum is always changing to stay in line with current professional trends and developments, and there have been quite a few in recent years.

We are thrilled to now offer a **Pharm.D. Research-Track Certificate Program** as well as an **Honors Research Program** for students who want to focus on research and industry. Additionally, our new **Office of Continuing Education** is collaborating with healthcare organizations in the region to offer high-quality continuing education events for our local medical professionals. In 2020, the Accreditation Council for Pharmacy Education renewed the School's CE provider status until 2025.

But most of all, we look forward to working hard to ensure that the Marshall University School of Pharmacy meets *our mission to advance direct pharmacy patient care by developing innovative practitioners, researchers, and educators*. Thank you for your continued support.

Gayle A. Branson



SCHOOL OF PHARMACY



STUDENT PERSPECTIVES: LESSONS LEARNED IN 2020



Justin Mays

Class of 2022

Hometown: Ironton, Ohio

At first I felt it wasn't of much concern and wouldn't amount to anything. Once COVID-19 reached the U.S. and cases increased rapidly, however, that feeling changed to fear. Would I still be able to go to school? Would I be ok financially? I had worked hard in my first two years of the PharmD program and felt helpless as schools across the country were shutting down and students didn't necessarily have answers.

I'm glad Marshall took initiative and adapted as quickly as they did to accommodate online learning.

I didn't really have to change my study or learning skills, because the School of Pharmacy already utilized online tools such as Blackboard. Even though it was pushed back one month, I was still able to complete my summer rotation. I work for Southern Ohio Medical Center in Portsmouth, Ohio, and they quickly initiated protocols, policies and procedures to protect both employees and patients.

My primary takeaway from 2020 is a fuller appreciation of patience and empathy. Online learning takes more discipline, but you can adapt and apply what you learn as you contribute to your community. Assisting with vaccinations in long-term healthcare facilities, local schools and through Marshall Medical Outreach was an amazing learning opportunity.

Sheshadri “Deea” Hoque

Class of 2021 Hometown: Columbus, OH

It was very humbling to talk with patients who are scared when we were still learning ourselves. We chose to work in healthcare because we want to take care of our community. So even when you feel you have no idea what to do, you must learn and adapt quickly to continue patient care.

I am grateful to have been a student during this pandemic, despite the challenges, because **I learned firsthand how to deal with the unexpected and unknown.** My professors did a great job adjusting to the necessary changes that were hard on everyone.

As a third year student, I was very concerned about my experiential learning when rotation sites stopped accepting students to reduce COVID-19 exposure. My preceptor, however, set up remote access so I could still work with patients and stay in touch with her. We followed the lead of our preceptors as they learned and adapted to evolving knowledge about the virus and treatment options.

During my geriatrics rotation, we had to be extra vigilant around a high-risk population. During my ICU rotation, I was monitoring the progression of declining patients, offering the most current guideline recommended therapy, and providing supportive care hoping the next day they would show improvement. During my community rotation, it was symptomatic patients looking for OTC relief and using it as a chance to convince them to go get tested or answering



questions about vaccine rumors. In the emergency department, it was running to patients brought in by an ambulance while wearing an N95 mask, because you have a patient to take care of but you weren't sure what their current status was. It didn't matter what patient population you were working with; this whole year was adapting to COVID-19.



FACULTY FOCUS ON COMMUNITY HEALTH

Associate professor **Charles “C.K.” Babcock, Pharm.D.**, doesn’t just educate his pharmacy students. He also plays an active role in community health education. Babcock has worked with local agencies across the state, including the Cabell Huntington Health Department and Marshall University, to train thousands of people to administer naloxone, a life-saving medication designed to reverse opioid overdoses. He has also assisted with the local harm reduction clinic, disaster preparedness and COVID-19 contact tracing and testing. “Whenever the health department needs us, we pitch in,” said Babcock.

“Dr. Babcock’s work has been foundational for the statewide distribution of the opioid overdose reversal agent naloxone, and he has likely trained more people in the use of, and distributed more doses of this lifesaving medication than any other individual in West Virginia. His precepting work at the Cabell-Huntington Health Department has taught many pharmacy students immunization and medication handling skills, including medication strategies specific to public health like direct-observed-therapy,” said Michael Kilkenny, chief executive and health officer for the CCHD.

In partnership with the West Virginia Rural Health Association, Babcock participated in a social media campaign to encourage COVID-19 vaccination. Using his smart phone, he documented by video his first and second doses of the vaccine and subsequent symptoms. “I chose to get vaccinated to protect my patients, students, family and friends,” Babcock said. “I shared my experience to help others feel more comfortable making this important health decision.”

RESEARCH RECOGNITION

Assistant professor **Velvet Journigan, Ph.D.**, is a recipient of a **Young Investigators Award** from the American Chemical Society (ACS) Division of Medicinal Chemistry (MEDI). This award recognizes young investigators within 10 years of the start of their independent careers who have made significant contributions to the field of medicinal chemistry.

Journigan presented “Structure-based design of novel biphenyl amide antagonists of human transient receptor potential cation channel subfamily M member 8 channels (TRPM8)” at a virtual MEDI Young Investigator Award Symposium in August 2020.

“Dr. Journigan’s invitation to present in this symposium provides recognition from the scientific community of the innovative work that she is doing,” said Boyd Rorabaugh, Ph.D., chair of the pharmaceutical science and research department at Marshall’s School of Pharmacy. “We hope that her efforts will one day lead to the development of novel therapeutics for the treatment of chronic pain. The medical community is in great need of new therapies for pain management that do not have the addiction potential of opioids.”

Journigan’s lab is funded by the West Virginia Clinical and Translational Science Institute (5U54GM104942-05).



Additional information about research at Marshall University School of Pharmacy is available at marshall.edu/pharmacy/research.

ALUMNI SPOTLIGHT: FROM THE LAB TO THE KITCHEN

Dr. Razan Khan, Class of 2019,

is a Toronto-based pharmacist, consultant and author with a passion for health education. "I enjoy making science make sense," he said. Dr. Khan is also committed to preventative health and loves to cook. Recently, he competed on Food Network Canada's Wall of Chefs.



RECIPE

Steak Medallion with Tandoori Spiced Vegetables accompanied with a Raita Aioli and Mango Chutney Serves 5 people:

5 medallion steaks (3/4"-1" thick)	Dash of cayenne pepper spice
1 stick of unsalted butter	Splash of lemon juice
Himalayan pink sea salt in a grinder	1/2 cup mayonnaise
1 packet of Tandoori spice	Salt
Olive oil	Pepper
10 full size carrots	2 tbsp chopped coriander
2 sliced zucchinis	1/4 tsp ground cumin spice
2 macerated mangoes	1/4 tsp chopped cilantro
1/2 chopped red onion	2 tsp chopped green onions
1/2 tsp chopped coriander	1/2 cup chopped cucumber

1. Begin by preparing all vegetables by washing and drying them.
2. Slice the zucchinis into disks. Next, mix 1 packet of Tandoori spice with adequate olive oil to create a viscous marinade. Marinate the zucchinis and carrots in the Tandoori and olive oil mixture. Place on a baking sheet lined with parchment paper (not aluminum foil) and bake on 400 degrees Fahrenheit for 20 minutes or until they appear tender. Save any leftover marinade in the fridge.
3. Next, prepare the raita aioli. Chop the cucumber, coriander, cilantro, green onions, and cucumber to the specified measurements. Scoop half a cup of mayonnaise into a bowl and add the chopped ingredients. Next, add salt and pepper to taste. Cover and chill the raita aioli until ready to serve.
4. Next, prepare the mango chutney. Peel, chop, and macerate the mangoes until they reach a thick yet chutney-like consistency. Chop the red onion and coriander to the specified measurements. Mix all ingredients together in a bowl with a dash of cayenne pepper and a splash of lemon juice to taste. Cover and chill the mango chutney until ready to serve.
5. Rub unsalted butter on the surface of a pan and set the burner to medium heat. Place the steaks on the pan and begin cooking. Add Himalayan pink sea salt to the exposed side of the steak. Add small slices of butter as needed while cooking. Baste the steak through the cooking process. When ready to flip the steak, do so. Add more slices of butter if required and adjust the heat settings to medium-high if necessary. The steak should be completed to a medium rare to medium well consistency.
6. When the vegetables are ready, take them out of the oven, and place them on a cooling rack. Take out the raita aioli and mango chutney at this time.
7. To start plating, create a "swipe" with the raita aioli and place the cooked steak on the opposite side of the plate. Next, add two large carrots in an "X" formation between the steak and raita aioli. Add 3 or 4 disks of zucchini next to the top of the carrots. After this, top the steak with some mango chutney, as desired. Finally, garnish with any leftover cilantro and serve warm!

*"It was an amazing experience!
Sharing my heritage through my love
of fusion cooking was something I felt
honored to showcase on a national
television program."*

MARSHALL SCHOOL OF PHARMACY RANKS AMONG BEST



Marshall University School of Pharmacy earned top ten status in a new college ranking system grouped by major and degree level that weighs earning potential, tuition and debt. [GradReports.com](https://www.gradreports.com), which

used U.S. Department of Education data published in 2019, ranked Marshall's School of Pharmacy the sixth best pharmacy school overall and for median salary (\$122,000), 13th for median tuition (\$19,522) and eighth for median debt (\$86,145). GradReports (add website link) rankings are only among the top 25 programs for each major that met certain criteria, including available reported median salary.

U.S. News & World Report has also ranked Marshall's School of Pharmacy in its Top 100. Marshall was 79th out of 134 pharmacy schools in the country. Marshall tied with 10 other schools including: Florida A&M University, Notre Dame of Maryland University and University of Hawaii-Hilo. U.S. News health school rankings are based on the results of peer assessment surveys sent to administrators and/or faculty at fully accredited programs.

"This is an amazing achievement for a school that graduated its first class just five years ago," said Gayle Brazeau, Ph.D., Dean of the School of Pharmacy. "We are extremely proud of our pharmacy program, which offers hands-on learning in a cutting-edge facility with the lowest pharmacy school tuition in West Virginia."

DEAN BRAZEAU HONORED WITH DISTINGUISHED EDUCATOR AWARD



The American Association of Colleges of Pharmacy (AACP) recognized Gayle A. Brazeau, Ph.D., dean at the Marshall University School of Pharmacy, for her excellence as a teacher, outstanding achievements as an author and mentor, and overall impact on pharmacy education and the profession. She received a 2020 Chalmers Distinguished Pharmacy Educator Award, named for the late Robert K. Chalmers, former AACP president and distinguished educator. The award included an inscribed Steuben glass owl sculpture and a \$5,000 prize.

"I am both humbled and honored to be recognized with this award," Brazeau said. "To be acknowledged by my colleagues in this way is a high point of my career, and I am beyond grateful for the interactions that I have had with each of them throughout the years."

Brazeau's career has spanned more than 35 years in pharmacy education at the University of Houston, the University of Florida and the University at Buffalo. Prior to coming to Marshall, she served as dean of the College of Pharmacy at the University of New England. In addition to her faculty appointments, Brazeau has served as associate dean for academic affairs at the University at Buffalo and assistant dean for curricular affairs and accreditation at the University of Florida.



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