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Dear Students,

Welcome to the fall semester!

Phi Lambda Sigma is the embodiment of excellence at the Temple University School of Pharmacy. You will shape what leading in pharmacy looks like going forward. You will push past traditions and create new paths for those who follow you. In this ever-evolving world of healthcare, there are endless opportunities for you. There are more and more ways to prevent and manage disease, systems for facilitating healthcare, and people with challenging circumstances for you to impact. If you ever need more motivation, I encourage you to read about some of our exceptional alumni using the QR code provided on this page.

The School of Pharmacy and PLS will always be yours to come back to. They will provide a platform for you - to mentor, inspire, recruit, connect, and lead. We will help you however we can, even if it's just reminding you of where you came from and why you do what you do.

I hope that the challenges for which you have had to dig deep to overcome, like progressing through pharmacy school during a pandemic, turn out to be your greatest motivators. Your perseverance and grit make you who you really are.

As you progress through your program, please continue to reflect on all of your achievements, even the ones that you may think are insignificant. They will serve as reminders of your tremendous abilities to succeed, lead, and make a difference.

Thank you now and in advance for being a shining reflection of the strong education you receive here with us.

On behalf of the school and its leadership, I wish you a fruitful yet well-balanced semester.

Sincerely,

Jayanth Panyam, PhD, Dean & Professor
Temple University School of Pharmacy
The purpose of Phi Lambda Sigma, also known as the National Leadership Society, is to promote the development of leadership qualities, especially among pharmacy students. Students are nominated by their peers after completion of their first professional year. Our inductees represent dedication to leadership through their various roles in school organizations.

The PLS E-Board works together diligently to promote leadership and unity within the school. One of the events we have worked on this year include the Mentee-Mentorship program, which pairs a first-year student with a second or third-year student. We have also teamed up with the Pre-Pharmacy Association at Main Campus to lead a student panel for undergraduate students to hear from pharmacy students. Another event included a pharmacist panel with two Hospital of the University of Pennsylvania pharmacists at the Student Clinical College of Pharmacy (SCCP) general body meeting. During pharmacy week, we created slots for organizations to sign up for poster presentations at the SFC and medical school lobby for IPPE hours. Some upcoming events include Faculty Appreciation Day and a school-wide dodgeball tournament. The proceeds from the dodgeball tournament will go toward reusable water bottles for students in the Philadelphia School District.

Although the PLS E-Board works to organize these events, they would not be possible without the help and dedication of our amazing members. Each one of our inductees work diligently to promote what leadership stands for. We cannot thank you enough!

Thank you for reading,
PLS E-Board
2021 - 2022
With COVID-19 being such a vital concern towards society, we decided to have a discussion with our Infectious Disease expert and Clinical Professor, Dr. Jason Gallagher.

Dr. Gallagher has been actively involved in the process of overcoming the COVID-19 pandemic including the participation in the trials for the J&J vaccine and volunteering in the vaccination clinics at Temple Main-Campus. With the COVID-19 Delta variant being such a concern over the last couple of months we wanted to ask some questions.

**How many strains of COVID-19 are out there, and do you see this ever ending?**

There are an infinite number of viral strains. The general populace only notices certain strains and talk about them when they become dominant. For example, we know about the Delta variant because the CDC labels it as a variant of concern or a variant of importance. Usually, this happens when the variant has an advantage and spreads quickly.

Anytime a new mutation occurs, and that strain continues to exist, then it becomes a new strain. A strain will only persist if there is an advantage to it, however, most mutations do not develop an advantage, and so they go away. The Delta Variant for example was a strain that developed an advantage, that advantage being the quickness with which it spreads, that allowed it to become dominant.

**What are your views on the FDA updated recommendations for the booster shot?**

It does make sense to boost, given the fact that a usual vaccination would be done in a much longer time frame than the COVID-19 vaccine was forced to undergo. If COVID-19 was not so severe, the vaccine would most likely start off with the 1st and 2nd dose being spread 2 months as opposed to 3 weeks. There would also most likely be a 3rd dose that would be given 3 or 4 months later. Because of the proximity in doses, it makes sense to get the booster. People over 60 years old and immunocompromised patients, should definitely get the booster. Ultimately however, the booster does not serve a societal purpose, more an individual purpose. It only increases an individual's immunity for COVID-19. The booster will not offer sterilizing immunity. The vaccine overall can only protect against severe infection, and the booster shot adds to that protection.
What is your approach to vaccination hesitancy towards COVID-19 vaccine, all the misinformation and myths?
It is important to hear people out! If they have a conspiracy theory as severe as the government putting chips within the vaccine, then it is most likely a person's opinion and will not change based on what you say. Oftentimes, hearing information from one's own demographic and population makes it more acceptable. One myth and misinformation that I have had success in disproving is the vaccine being rushed. The technology and science needed for the vaccine has been in the works for 20+ years. Furthermore, the trials were only fast because there were so many people infected at the time of the vaccine being created.

Is the regeneration antibody cocktail REGEN-COV (casirivimab and imdevimab) active against the new variants? Would you recommend it?
The regeneration antibody cocktail REGEN-COV is active against the delta variant, and I would recommend the use, especially in the elderly, obese and immunocompromised population.

What is your opinion on current masks and travel guidelines?
It is important to wear masks when you are using any type of public transportation. People should not think that the vaccine alone is the be all and end all. Vaccinated people can still transmit the virus, although at significantly lower rates than unvaccinated people. Until we increase vaccinations, it is best to continue to wear a mask.

What are your anticipations for the future?
I do not know! One thing I will say is that we have to change our mentality. We cannot keep asking “will this be gone”, but rather we have to adjust to it. It might become something similar to the seasonal flu, which is something we all deal with on a yearly basis. In a few years, it may be the case that COVID-19 rates are high in December for example, and we would have to mask up in December. Until more and more people become vaccinated, variants will pop up, which only keeps COVID-19 more relevant into the future.
On Wednesday, September 22, 2021 the Beta Mu Chapter of Phi Lambda Sigma, Pharmacy Leadership Society increased by 22 new members at the 2021-2022 Induction Ceremony. Based on the applications and peer nominations received earlier this year, these students have been recognized for their demonstrated leadership abilities and passion for advocating pharmacy. The induction ceremony was led by past PLS President, Jaswitha Basu, and past Treasurer, Mahbuba Choudhury, in front of Temple Pharmacy faculty and administrative staff. Dean Panyam welcomed students and faculty by congratulating the new inductees, encouraging them to surpass themselves, and to keep contributing to the advancement of pharmacy as a profession and practice. Dr. Carly Harsha, Class of 2019, also congratulated the new class of inductees by sharing three pieces of advice: welcome change, importance of association, and being self-aware of boundaries and values. We are very proud of the new class of student leaders and excited to see what they accomplish!
PLS INDUCTION CEREMONY
by PLS 2020 Executive Board

CONGRATULATIONS TO OUR NEW INDUCTEES

CLASS OF 2022
ASHLEY GOSNER
CHRISTIAN CEVALLOS
CORINNE WHITEMAN
ERIKA MACKIE
GREG RUNOWSKI
JACK DIGGORY
JONATHAN HU
KRINA NAIK
LIESEL GRONINGER
NINA THOGULUVA
RAYMOND LO
VARSHITA SINGH PARMAR

CLASS OF 2023
ARELIS THALIA NUNEZ
CYNTHIA RIVERA
JACQUELINE QUENZER
JAICHA VALERIO
KATHERINE KIM
KYLE BLALOCK
MADILOU DIALLO
STEFFAN VARGHESE

CLASS OF 2024
GABRIEL VIVAS
SAWYER PATRICK
How did you realize you wanted to pursue a residency after graduation?
Throughout pharmacy school, I was always excited to pursue residency because I knew that further clinical training would allow me to better serve the underserved patient population in the Philadelphia area. I was also always drawn to the opportunity to gain experiences in numerous clinical areas including emergency medicine, academia, and critical care.

What did the application process look like, and if you could go back would you have done anything differently?
Since my application process occurred during the pandemic, some things obviously looked very different from previous years. In addition to the PhORCAS application, all applicants were required to submit a curriculum vitae, letter of intent, and recommendation letters. Based on your application, programs will then offer you interview invitations, which were all conducted virtually. If I could go back, I would listen to current residents about “being yourself” on interviews and not getting as nervous. The programs are simply looking for residents that they believe would be a good fit for their program and if you do not match there it is likely not the best program for you.

How should one prepare themselves if they are interested in residency?
The best way to prepare for residency training is to be open-minded to every opportunity. It is also important to remember that every person you meet is going to teach you something that will make you a better clinical pharmacist. You never know what you are going to learn that could potentially save someone’s life.

What does your typical day as a resident look like?
A typical day as a resident really changes based on the clinical rotation. For example, on family medicine the day will begin with reviewing charts in the morning and rounding with the medical team making pharmaceutical interventions. The afternoon will consist of providing patient education and performing medication reconciliations. In contrast, I am currently on my emergency medicine rotation where my day is from 2:00 pm – 10:30 pm. In the emergency department, pharmacy residents are responsible for verifying the medication orders for the department and responding to traumas along with code blue situations.

What are some tips you want to give our students who are planning to pursue residency after graduation?
One of the biggest tips I would recommend to students who are interested in pursuing residency is to keep a journal of all your experiences during pharmacy school. For example, write down when you make a great intervention during patient rounds or how you dealt with a difficult patient. These things may seem small at the moment, but residency programs will ask you to describe these situations during interviews.
What does your typical day as a fellow look like?
My favorite part about working within the pharmaceutical industry is that everyday can look different from the last. I am currently supporting the safety evaluations for a product in early development and during a typical day I will review any new adverse events reported in order to make causality assessments. Another one of my day-to-day responsibilities is attending meetings, along with other physicians, that are focused on my product.

What did you do in the months leading up to your fellowship interviews that set you up for success?
Leading up to the interviews, I did everything I could to be over prepared. This included reaching out to current fellows to learn more about their roles and responsibilities, setting up multiple mock interviews and conducting CV reviews with industry professionals. I spent around a full month preparing for interviews which consisted of practicing answers out loud, knowing my CV inside and out and researching the companies and programs to which I was applying to. I believe my preparation is what set me up for success in being selected for my fellowship.

Did you complete any pharmaceutical industry internships as a student and how did it help you achieve a fellowship?
During the summer prior to PY3, I was fortunate enough to be selected as a summer intern for Pfizer within their Medical Affairs Vaccines team. The internship was 3 months in length and while at Pfizer, I was an active member of the Prevnar 13 Review Committee where I got to see how important cross-functional communication is to the success of a team. I was able to leverage these experiences at Pfizer during the interview process and felt this internship was a crucial part of my fellowship journey.

What are some tips you want to give our students who are planning to pursue fellowship after graduation?
My biggest piece of advice to students pursuing a fellowship would be to network, network, network. This is something you will hear all the time but is essential to your professional development and growth as an industry professional. Another piece of advice is to not be afraid of asking questions; it is better to ask and do things the correct way then to not ask and make multiple mistakes.
It is not the fact that one has leadership positions but rather what they have done with those positions which makes them an ideal leader. I used my leadership positions as a platform to found three major community outreach programs for our school: Opiate Crisis Awareness and Narcan Use, Mental Health During COVID-19, and COVID-19 Facts and Fiction. My first creation was the Opiate Crisis Awareness Program and Narcan Use. This program was conducted in person 3 times at three different high schools: Northeast High, Masterman High, and Central High Schools. In December of 2020, it was also conducted virtually for 5 hours at Northeast High School. The Opiate Crisis is a national epidemic and I wanted to conduct community outreach events educating high school students about the dangers of opiate use and how to properly use Narcan. The Mental Health During COVID-19 event was conducted virtually in December at Masterman High School. The purpose for this event was to emphasize that mental health conditions have been at a rise during the COVID-19 pandemic and there are tons of ways to seek out help.

I dedicated my entire spring break to form the COVID-19 Facts and Fiction Program which was a 15 hour event, 3 days back to back at Northeast High School and Bodine High School explaining the differences between the COVID-19 vaccines and answering commonly asked questions about the vaccines and the disease state in general. At the beginning of all the events, an introduction to the field of pharmacy and how to apply to pharmacy school was also provided. From coming up with the idea, to conducting all the communication via students, teachers, professors, and students, being in charge of the time slots, and creating the presentations, having our students come to rehearsal before the presentation, it is a time consuming process but it is worth it. The students and teachers of the community asked a ton of great questions and the students were able to ask questions and clear their misconceptions one on one. Overall, it was a win-win situation for everybody. I hope that with my contribution to the school and the community I have set forth a good example for others to follow.

My inspiration to organize these events is the will to assist my community. As a pharmacist, we are all teachers and all leaders. It is our responsibility to go above and beyond the call of duty by getting involved within our community and educating citizens about important topics related to the health field. The opioid crisis is one of the leading causes of deaths in today's society. In addition, information on the COVID-19 pandemic keeps changing so it is vital to educate the community so maximum people can get vaccinated. It has been one of my lifelong goals to spread education to impressionable high school students as I continue my journey through professional school and I will continue to do so for the rest of my career. Despite the fact that in person IPPE events were not possible, I showed that quarantine does not hold anyone back from reaching out to the community should we take advantage of current technology because where there is a will there is always a way. I plan to donate my work to the organizations I created these events under and train PY2s to carry on my work through the school for the community. Today's children are tomorrow's future, and if even if one child ends up pursuing pharmacy as a career or decides not to use illicit drugs, saves a life by using Narcan, seeks proper help for a mental health illness, or encourages other to get the COVID-19 vaccine, my purpose has been fulfilled. Hopefully, the children will take the knowledge and spread it to their peers and family; we will spread love by spreading correct knowledge. Conducting public health events and interacting with our community is something I love and do with all of my heart.
Being a student at Temple University School of Pharmacy means you are consistently surrounded with fantastic opportunity. Everywhere you look, opportunities to advance yourself and succeed are being presented to you in one way or another—if you look for them. One such opportunity is student research, which I participated in starting the end of my PY1 year. During the spring 2020 semester, I was enrolled in Social and Economic Aspects of Healthcare: a course taught by Dr. Frank Breve. Dr. Breve introduced the class to student research in conjunction with NEMA Research, Inc. during class. Dr. Breve’s invitation to partake in this research seemed amazing, so I sent my email of interest.

NEMA Research is an organization consisting of highly trained researchers who are leaders in their fields (cardiology, pain management, anesthesiology, etc.). According to Dr. Breve, he partnered with NEMA about ten years ago. “I learned about NEMA through Dr. Robert Raffa, who was a department chair at Temple at the time,” said Dr. Breve. “I started the student research four years ago, and in the last year or two it really took off. It’s been working out great. One student, U.J. Eke-Okoro, put together a publication called Curcumin in turmeric: Basic and clinical evidence for a potential role in analgesia. This was published in the Journal of Clinical Pharmacy and Therapeutics in 2018, which is peer-reviewed.”

My topic was a narrative review on vaping and COVID-19. I went with vaping because it had been brought up to me before as an interesting area of study, but there are thousands of articles on vaping. So, I decided to narrow the topic by associating vaping with a novel phenomenon at the time: COVID-19. Once my topic was approved, I was given the green light to start my own research and write my own manuscript from scratch. In June 2021, my manuscript was successfully published in Signa Vitae: The Journal of Anesthesia, Intensive Care, Emergency and Pain Medicine. This journal is also peer-reviewed. Bryan Zhang and Justina Refela just published a paper in Signa Vitae as well with the help of Dr. Breve and NEMA.

When doing research, I realized quickly there was almost no literature associating vaping with COVID outcomes, so I had to improvise. I noticed there was an abundance of literature associating cigarette smoking with COVID outcomes. So, I decided to evaluate how similar vaping was to smoking. If I could suggest the two practices were near-identical in how they affected the body, then I could make assumptions and say vapers could have similar COVID outcomes as smokers. My conclusion was that vaping is similar enough to smoking that it poses a significant risk in COVID, but we still need more research. Also, most people who vape are younger, but most people who get seriously ill with COVID are older. Vaping is relatively new compared to smoking, so it is difficult to assess how long-term vaping affects COVID because so few people declare themselves as "long-term vapers."
My advice to PY1s and future students is to realize that every experience can give you something valuable, even if it may not be apparent initially. These next four years will be, in my opinion, some of the best years of your life, because you are given the chance to explore numerous avenues, build connections, and learn new skills. To succeed in student research and produce your own manuscript, you have to want to do it. It’s a massive time commitment, but the end result is worth it. Just because you want to be a retail or hospital pharmacist, for example, does not mean research will not benefit you. Conducting research will give you literature-evaluation skills, writing skills, and team-collaboration skills.

Dr. Breve agrees with this sentiment. “This is an excellent opportunity, and it will look fantastic on your CV. The experience is invaluable, and it will help you stand out from other students. If you are able to author an article, you will have good job prospects when you graduate. However, you have to see the value in it. It’s a lot of work, but it’s a great experience. We’re looking to make this research worth credit, because the work is like a three-credit course. We hope to get more students involved, but we want to make sure they realize how much is involved.” If you wish to participate in research, either contact a professor and inquire about research opportunities, or contact Dr. Breve about research with NEMA. Professors love to see ambition.

Opportunities are not just limited to just Temple University, however. At the beginning of 2021, I wrote a letter to my local Congressperson asking him to sponsor a bill which would give pharmacists national provider status in the Social Security Act. To my surprise, Congressman van Drew called me himself a few weeks later saying he was looking into it. After that, I was put in contact with the vice president of APhA, several long-term pharmacy advocates, a senior lobbyist, and Congressman van Drew’s legislative assistant. I was in contact with his office multiple times educating his staff on how provider status could improve patient outcomes, especially in underserved areas. Although my Congressman did not want to pursue this, a bill for provider status is currently in Congress. If you want to learn about it and/or get involved, search up “S.1362 2021-2022” or “H.R.2759 2021-2022” in Google. This experience made me realize how little I know about how our government works but also how much influence one person can have if they put in the effort. I encourage everyone to contact their local representative if there is an issue they want addressed; there is a good chance they will listen if you make a compelling case.
This past summer I had the opportunity of completing a clinical internship at Johns Hopkins Hospital as the Antimicrobial Stewardship Intern under Dr. Kate Dzintars. The application process was extremely long and was over a span of four months. There were hundreds of applicants for the program for 25 spots. To stand out, I made sure my application materials were excellent. I had multiple people look at my application materials. I believe it is important to be detailed, yet concise, in your cover letter. That is your opportunity to show them some of your personality and passion in hopes of landing an interview. I also made sure to get letters of recommendation from professors and preceptors who know my personality and work ethic the best. Once you get the interview, just be yourself!

My main role was updating all the antibiograms for Johns Hopkins Hospital and Bayview Medical Center. Given that I have never even seen an antibiogram, I had to do a lot of research to fully understand what I was doing. I also made a comprehensive document for the Outpatient Parental Antimicrobial Therapy (OPAT) team that consisted of information such as diluent compatibility, stability, methods and rates of administration, etc. At the end of the program, I presented my projects to the entire pharmacy department.

Although my internship was mainly virtual, I decided to still make the move to Baltimore for the summer to have a better experience. It was a full-time position and my days consisted of working on my projects throughout the summer. The internship program also had many mandatory workshops such as journal clubs, CV discussions, pharmacist panels and residency panels. I also got the opportunity to shadow pediatric, transplant, and pediatric infectious disease pharmacists. Making the move to Baltimore allowed me to get the most of my experience by being able to shadow, go on rounds with my preceptor, and get to know my co-interns.

It is tough to choose my favorite thing I got out of my internship. Professionally, it was making so many connections and being able to narrow down my interests through shadowing and panels. Socially, it was meeting so many like-minded individuals from all over the country. I still talk to some of my co-interns daily and it is amazing to relate to people with your interests who have such amazing personalities.

Some advice I would give to students pursuing internships is just APPLY! Regardless of how overwhelmed you are or think you won't get it. I applied to three internship programs, all of which I was hesitant about due to the stress of applications, yet I ended up receiving offers from all three which was such an honor. If I didn’t apply to any, I would not have gotten the opportunity for such a great experience. While you are there, make the most of it! Be clear with your expectations to and from your preceptor and most importantly, have fun!
I had the pleasure of interning at Pfizer this past summer as a Worldwide Medical Safety intern. The application process was straightforward and the entire process took about 2 months. The Summer student worker program is highly competitive and it’s critical that you highlight why you’re an excellent candidate for this position.

In order to stand out, I made sure to highlight the goals I had achieved during my career so far, and that I was confident my academic and professional knowledge would be a great asset to the team. Within a week of applying, the Chief Officer of the Safety Department reached out to me for an interview. During the interview, I was asked a variety of questions about my resume, for example, the VIP competition I had participated in. She offered me the position during the interview and I was then asked to give a list of areas that are of interest to me. I chose pharmacovigilance, as I was curious about this division and I was set up for an interview with the manager for that department.

I was fortunate enough to work remotely with Danielle Kahutka in the pharmacovigilance division. During my time with Pfizer, I got to work on a variety of projects. On a day to day basis, I would evaluate case reports regarding adverse events associated with opioids for a temporal relationship. I also got a chance to work on an Enbrel application developed to go along with the injection.

The biggest project I worked on was regarding aspiration pneumonia associated with opioids. I led this project and went through all the literature and case reports to find a causal relationship between the drugs and aspiration pneumonia. Lastly, I also participated in a challenge summer group at Pfizer, where we had to come up with a solution to deal with disparities associated with multiple myeloma and what Pfizer can do to reduce these disparities. This was a summer long project, and at the end we got a chance to present our solutions to the directors of multiple departments.

This entire experience was very fulfilling for me, as I got so much out of my time with Pfizer. I made some very valuable relationships, and learned that I really enjoy pharmacovigilance as an area of practice. This internship also helped me improve my communication and time management skills, as the internship was completely remote and it was hard to stay focused for so many hours in front of a computer. Lastly, I am proud of my findings from the literature analysis that led to the addition of an adverse event to the drug safety label. This excites me, as this will be beneficial for the patients and will lead to better patient outcomes.

Finally, my biggest advice is to apply early and everywhere, make sure to highlight all your accomplishments, and ask other pharmacists for help. Even if they don’t work in the industry themselves, they may know someone who does. Don’t be disappointed if you don’t land your dream internship, sometimes another opportunity can pave a way to your dream job.
My internship this summer was for an industrial position with Takeda Pharmaceuticals and was onboarded as an intern in Health Economics and Outreach Research (HEOR) in Neuroscience. Back in January, Dr. Mancano sent out an email that was for the position and I jumped on the application immediately. I completed the application within the next couple of days afterwards and once March started to swing around, I got an offer for an interview. I was in the second round of interviews in which I had a phone interview with my would-be boss, a Director of HEOR, in the second group of three candidates. During the interview, she was less interested in my pharmaceutical experiences but rather where I come from and what I have done besides pharmacy. After about two weeks after the interview, I received a congratulatory acceptance email and was told that I was chosen for the spot. There were mounds of paperwork and legal documents that needed to be signed before my start date in June.

While working for Takeda I was put onto helping my boss on the planning, set up and initial studies for the newest flagship drug for the company. For the project, I was tasked with plenty of different tasks such as creating and reviewing ongoing research, editing projects to get the most focused results for the project, optimizing drug roll-out strategies and giving presentations on our findings with regular meetings. Additionally, I was also assisting with a partnership program between Takeda and Patients Like Me so that Takeda could run more studies on disease states, with a large enough database than anything in the company database.

I was sent a company laptop and would complete my internship virtually this last summer. Daily life was easy enough from home, I would be able to get out of bed and get dressed, grab breakfast, and clean myself up before any meetings I would have which was easy enough to manage after everything being online for the last year. I would be working on that laptop from 9-5 every weekday for the next twelve weeks when I ended on the 3rd of September. Ultimately, it was a phenomenal summer for me as I learned a lot and was allowed to broaden my insight and capabilities in an industrial setting. My favorite aspect would have to be the ability I had to meet people of so many backgrounds besides pharmacy that were all working in conjunction on a single project. It opened us up to so many different ideas that we would have missed out on otherwise. After this summer, the best bit of advice I could give to anyone is that pursuing an internship like this is to be open to new ideas and experiences and be ready to take the initiative if there are slow periods. Even if only quietly, people will notice, and that drive will carry you farther than grades could alone.
I was lucky to have the opportunity to intern in the Dermatology Medical Affairs department with Johnson & Johnson this past summer. The application process was a little different due to COVID-19. You had to submit your application online, do a digital interview (pre-record answers to questions), and an in-person interview, which ended up being over zoom. I did a lot of research on how to stand out in my application. One of the tips I used was to have key words in my application that matched their job description. I also submitted a CV instead of a resume because it gives them more context of the things you did in previous jobs and more opportunity to throw in those key words. Prior to applying, I had some research experience, which probably helped if you want to get into industry. I practiced a lot before my interviews, so I could elaborate on as many experiences/skills from my previous jobs/volunteer opportunities/leadership projects that would show them that I was a good match for the job.

My main role was being an intern and helping with any projects that my team needed me for. I had a total of five projects over the summer, consisting of collating data for post marketed drugs, creating surveys/analyzing the results, and doing literature searches. This internship was fully over zoom, so I would log onto my laptop every day ad would either have meetings to attend, do presentations for my team, or work on my projects. I would also schedule meeting with people from different departments to inquire about their career paths and network.

My favorite part of the internship was that I gained a better understanding of how the pharmaceutical industry works, I expanded my network, and made great friendships with the other interns! I also liked that I was able to collaborate with other MDs, PhDs, PharmDs, and PAs that were on my team. My advice for anyone hoping to pursue a similar internship is to be professional, learn as much as you can through networking and volunteering, have fun, and put your best foot forward because if they like you, they might extend you for part time like they did for me!
I did an industry internship as a regulatory affairs intern at Marinus Pharmaceuticals. The application process was surprisingly transparent as the hiring manager was not vague on timelines and my place in the running.

My main role was to support the regulatory submission to European Medicines Agency (EMA) for their tuberous sclerosis indication. This involved supporting the creation of briefing documents for regulatory meetings and formulating answers to EMA’s questions. Other areas I worked on were drafting a regulatory intelligence document and briefing my supervisor on regulatory policy changes. During the internship, day-to-day life was not significantly different as the position was mostly remote. I was able to start going into the office later in my internship but 95% of the cubicles were empty. I will say I did not get the traditional internship experience in this regard.

The most impactful thing that I got out of my internship was a solid background in regulatory affairs. My manager really made sure to build my foundation and encouraged me to ask questions. I’m grateful I did many interesting things I can talk about when I pursue a fellowship.

For those who want to pursue internships this summer: Apply early and apply everywhere! Indeed and LinkedIn are good places to find job postings but you can also go on the company website and look there. Cover letters are very important and should be included with your applications. Translational experiences such as research, the IPhO VIP case competition, and the AMCP P&T Competition can give you things to talk about. Otherwise, figure out ways you can leverage your other experiences. Ultimately, managers are looking for employees that they teach and get along with. If are personable and motivated, you’re halfway there!
This past summer, I interned at the FDA (CDER), working in the Office of Pharmaceutical Manufacturing Assessment. I worked remotely as a summer ORISE fellow, conducting a regulatory research project for the Division of Microbiology Assessment. The Summer ORISE Fellowship program is a way for STEM students at any academic level to get hands-on experience working as a researcher for federal agencies and I highly recommend it for anyone interested in government work.

The application process involved submitting my resume, a letter of recommendation, a letter of intent, and describing any past experiences that related to the fellowship. I think my previous experience working in quality control at a pharmaceutical company helped me to have a strong application. But I believe what really made me stand out was showing my passion for the field in my letter of intent and being able to tell my story of experiences that shaped this interest.

My research project was to study the communication issues that take place between pharmaceutical companies and the FDA which end up slowing down the drug approval process. Much of this had to do with addressing unclear details about the processes/tests that are involved in the drug manufacturing process. I studied these issues using data mining tools to scan through drug applications that were marked as having a high volume of problems. Then I’d extract those problems, categorize them, and quantify the data in Excel. The role focused on text analysis and identifying trends. At the end, I was given the chance to present my results to multiple audiences at the agency, which definitely improved my presentation skills. In general, I learned a lot about the drug approval process/timeline and even had the chance to sit in on a meeting with FDA reviewers where they made decisions on approving or denying a drug application.

For anyone trying to pursue an opportunity like this, I would say the most important thing is to show why you’re passionate about this type of work and tie that into your past experiences. I think genuine passion is essential at the FDA because of the major role they play in public health and drug regulation. Also, don’t be afraid to apply even if you don’t think you’re qualified, because your story tells more about you than your resume.
I completed my summer internship as a Cardiovascular Management Intern/Student Pharmacist at Springfield Pharmacy in Springfield, PA. It was a community-based internship, but my responsibilities were aligned with some clinical work like MTMs (comprehensive medication review, targeted medication review), eCare Plans, Smoking Cessation and Point of Care Testing. The application was really smooth. I was basically offered the internship because of my work ethics as an intern. My preceptor at Springfield Pharmacy thought this internship would be a great fit for me to get hands on with some clinical work.

As an intern, my main roles and some projects I worked on included leading the development and implementation of CLIA-waived tests into pharmacy workflow, creating a prescriber infographic to demonstrate value of pharmacy services for mutual patients, integrating eCare planning into pharmacy workflow and training entire pharmacy team on documentation for eCare planning with a focus on care coordination, screening and assessing patients with hypertension and cholesterol for disease control and medication elated problems, working with pharmacy team, patients, and prescribers to optimize medication therapy for patients and lastly, performing medication therapy management (comprehensive medication reviews and targeted medication reviews). My day-to-day programming involved checkups on patient to see how they are doing and assessing medication adherence, providing some counseling points (medication related or lifestyle changes) at the pharmacy or over the phone. I was also able to do a lot of immunizations and interacted with other healthcare professionals whenever I saw a gap in therapy that would be beneficial to the patient.

My favorite thing was putting myself out there and getting the hands-on experience which was really worth it. This internship was at an independent pharmacy, so I saw the business side of things as well and got to learn so many different things and made connections to make my network stronger which will be vital if I decide to start up an independent pharmacy later in the future. My advice for any student hoping to pursue a similar internship would be to stay humble and keep striving. Do not be afraid to put yourself out there. Always keep your options open and take advantage of every opportunity that comes your way because you never know what you can get out of it.
This summer I completed an internship with the Giant Company. My internship was a community based with some management experiences involved as well. I started with the Giant company my PY1 year when I completed my summer IPPE there. Afterwards the Pharmacy manager contacted me and asked if I would like to work as a technician there, so I began working for the company in September and continued up until summer. Around April/May my Pharmacy Manager nominated me for a position in the internship. The company prefers to hire within so there was no application for me to fill out, my Manager nominated me and then a week later I was contacted by the District Manager. I met with him over zoom, and he discussed what the internship entailed and granted me some time to think about it. I decided to accept and sent him the required information and then started in June.

I was split between two nearby stores to get a feel for different pharmacies. I worked usually 9-5 every weekday but one of the best parts of my internship was the flexibility. I was able to work up to 40 hours a week, but I was able to make my schedule, so I was allowed to take off for vacations or school rotations. In general, my daily responsibilities included working in the pharmacy to do data entry, handling insurance problems, calling physician’s offices, counseling patients, managing inventory, giving vaccinations and any other task needed.

While I was mostly in the pharmacy, some days I worked vaccine clinics or delivered vaccines to stores. I was also in charge of conducting mock audits at a few local stores and did a field run with the District Manager. As part of the summer internship program, there were also several mandatory activities to help network and build on different skills that I thoroughly enjoyed.

The best part of my internship was a patient care project I was given to work on throughout the entire course of my internship. I had complete freedom to pick my topic and develop strategies to achieve my goals, I decided to focus on addressing patient adherence and improving overall health. I learned so much over the course of my internship; I developed many skills, took on new responsibilities, formed connections and overall was able to demonstrate the knowledge I have acquired during pharmacy school. The Giant Company is a wonderful company to work for and it has provided me with a possible career path should I decided to pursue community pharmacy in the future. I am very grateful to have been a part of the RX internship program and would recommend it to anyone looking to gain community pharmacy experience.
Hello! I am this year’s counseling intern embedded at Temple University School of Pharmacy (TUSP). I am a second year Master's in Counseling Psychology student at Temple University CEHD. I work closely under the supervision of two amazing Licensed Professional Counselors to ensure that I am providing the best possible care to the TUSP community within my capabilities.

My work here at TUSP includes providing individual counseling services, sharing mental health and academic tips/skills, giving workshops and resources, and collaborating with students and faculties to promote mental health awareness. Being in professional school comes with many challenging issues and stressors, be it personal or professional. Individual counseling provides a safe and confidential space to talk about and work through any number of concerns such as anxiety, depression, stress, dilemmas, relational issues, anger management, academic/career concerns, etc.

I am offering both virtual and in-person counseling sessions at this time. Please feel free to reach out to me with any questions, concerns, or even to simply connect with me. I am here to support you through this year, and I am more than happy to chat and get to know you all better! You can do this by emailing me or visiting my office during office hours.
INGREDIENTS

- 15 oz of pumpkin
- 1 cup of oil
- 3 cups of sugar
- 3 eggs
- 3 1/2 cup of flour
- 2 tsp of baking soda
- 1 tsp of baking powder
- 1 tsp of Cinnamon
- 1 tsp of nutmeg (fresh ground)
- 1/2 tsp of salt
- 1/2 tsp of cloves (ground)
- 1 cup of chopped walnuts
- 1 cup of raisins

DIRECTION

1) Beat everything together (minus walnuts and raisins) at low speed with a hand mixer until well blended
2) Stir in walnuts and raisins
3) Pour into 2 9x5 dark, nonstick loaf pan coated with cooking spray
4) Bake at 350 degrees Fahrenheit for 55 minutes until a toothpick inserted in the middle comes out clean.
5) Cool loaves for about 15 minutes in pans then remove. Let it cool completely before adding glaze

Don’t Omit the Glaze!

- 1 cup of powdered sugar
- 1 tsp of grated orange peel
- 3 tbsp of orange juice
- 2 tbsp of chopped walnuts (to top)
Across
1. Inhibitory neurotransmitter
5. Color of Gram Positive Stain
7. Direct renin inhibitor used to manage hypertension
10. Most common drug prescribed for high cholesterol
14. Transdermal Patch for Motion Sickness
15. File submitted for approval after Pre-Clinical trials to start Phase 1 trials

Down
2. Drug that irreversibly binds to COX
3. Class of Inhaled Drugs contraindicated as monotherapy in Asthma
4. Cap color of Ophthalmic Miotics used to treat Glaucoma
6. First line Drug Therapy for the treatment of MI
8. Codeine is a prodrug that turns into what opioid?
9. Common drug for treatment of Clostridium difficile (C. diff)
11. Excessive blood alkalinity caused by an overabundance of bicarbonate in the blood
12. Microcytic Anemia is caused by a deficiency of
13. Heparin overdose antidote
Thank you!
by PLS 2021 Executive Board

We would like to thank all faculty, alumni and students who contributed to our newsletter. We value the time and effort you have put in this project. We would also like to show our gratitude towards our advisor Dr. Nicole Sifontis for her help, support and guidance in our endeavors. Finally, we would like to extend a heartfelt thank you, to YOU, our readers, for taking the time to read this newsletter, hoping that you found pleasure and satisfaction.

Phi Lambda Sigma
Executive Board
2021 - 2022