The PharmaBurgh

The Pitt-Pharmacy AAPS Student Chapter's Newspaper

A Reflection on The Past Year and The Welcoming Message



From Dr. Kerry Empey, PharmD, PhD

Associate Dean, Graduate and Postdoctoral Programs

University of Pittsburgh, School of Pharmacy

Welcome to our incoming MS and PhD students, we are excited to get to know all of you and see all the great things you will accomplish here at PittPharmacy! To our current students, congratulations on another successful year! I am so proud of all your continued successes and scientific discoveries!

Communicating scientific discoveries promotes beneficial feedback, engages others in scientific dialogue, fosters collaboration, and brings awareness. This year, our graduate students published 157 scientific manuscripts and gave 46 presentations! This is a tremendous achievement, and you should all feel very proud! With over 28 awards this past year among our students, many of you were also recognized for your impressive scientific achievements. Just to name a few, Yin Zhu received a CTSI predoctoral fellowship and an NIH F31 award, An Le received the 2025 ASCPT Presidential Trainee Award and the Jason Morrow Award, and Sheida Dabiri's abstract was accepted for a podium presentation at the 2025 Controlled Release Society conference! As always, be sure to let us know about your achievements, so we can recognize you and share your achievements with the school!

This past year, many of you also sought out and received valuable internship experiences at pharmaceutical companies like Gilead, Merck, and Sanofi, as well as the FDA! We are continuing to build an internship repository for students interested in finding the internship that works best for them. Students can expect to find the Internship Repository on the PittPharmacy Website this fall!

An important goal of our program is to continuously make changes that benefit our students. Some of the important changes made this year include implementation of our newly created Independent Development Plan (IDP) that was designed to promote dialogue among students and advisors around career development. Another critical change is the introduction of a newly created Biochemical Pharmacology course. Thanks to student feedback, this course will replace our Biochemistry and Pharmacology and Therapeutics course. Thank you to Simone Brixius-Anderko for leading the task force that created this critical new course. This year, we also launched our new combined PharmD/MS and PharmD/PhD programs and have accepted our first student, Melissa Diamint; welcome Melissa!

This is the year of professional development. Our program, unlike others, provides MS students the opportunity to present their research in our seminar series and write a scientific paper as part of our scientific writing course. Similarly, our PhD students get 3 opportunities to give a scientific talk and write a grant as part of our tremendous grant writing course. Leadership and service are also critical facets of professional development. I want to congratulate our newest AAPS (Xiaojiang Guo, Helena Zhang, Jiayi Yuan, Sihan Li, Bin Yang, Avantika Gupta, Shambhavi Parab, Ainsley Lederer, Yurisha Duwal, Madhulika Banerjee, and Madeline Krieder) and GSO (Sarah Ostrowski, Elliot Reed, Ainsley Lederer, and Anthony Aceto) leadership teams. I also want to congratulate our newest GPC (Olivia Romano and Madhulika Banerjee) and GPCC (Ainsley Lederer and Andalushia Reilly) student representatives -- if you have program or curricular suggestions, please talk to representatives on these committees. And finally, congratulations to Christina Kazarov for her service position on the University Council of Graduate Studies! We still have Graduate Program Cabinet positions open, so please consider serving as your track's representative on this important committee. I look forward to working with all of you this year!

This year we also saw some amazing defenses and said goodbye to friends as they graduated and forged ahead on each of their unique career paths. Though always somewhat bittersweet to see students go, we are so happy for them and eager to see what they do next! Join me in congratulating our 2025 Grads

Class of 2025 Graduates

Master of Science

AizatAbdirassil

Thesis: The Role of Disaccharides Trehalose and Lactotrehalose in Macrophage Polarization

Advisor: Dr. Wen Xie, MD, PhD

Anthony Aceto

Thesis: In silico Screening of MYC Inhibitors With Small Molecule Transcriptomic Data and an Inducible MYC Mutant Model

Advisor: Dr. Da Yang, MD, PhD

Mohammad Al Numan

Thesis: Cost-Effectiveness of Osimertinib with Chemotherapy Compared to Osimertinib Monotherapy and First-Generation EGFR-TKis in Advanced NSCLC

Advisor: Dr. Kangho Suh, PharmD, MS, PhD

Ozha Aziz

Thesis: Unravelling the Biological Function of Mycobacterium abscessus Cytochrome P450 Enzymes

Advisor: Dr. Simone Brixius Anderko, PhD

Madhulika Banerjee

Thesis: Design and Characterization of Sustained-Release Subcutaneous Implants for HIV Prophylaxis Developed Using Hot-Melt Extrusion

Advisor: Dr. Lisa C. Rohan, BS, PhD

Ryan Boro

Thesis: Use of Functional Genomics to Investigate Clinically Significant DILI GWAS SNPs in the Non-Coding Genome

Advisor: Dr. Da Yang, MD, PhD

Siang-Hao Cheng

Thesis: Patterns, Barriers, and Outcomes of Hydroxyurea Therapy in Adults with Sickle Cell Disease: Assessment of Guideline-Based Care

Advisor: Dr. Kangho Suh, PharmD, MS, PhD

Wen Jing Jiang

Thesis: Synthesis, Identification, and Biological Evaluation of Orthosteric and Allosteric Ligands Targeting Cannabinoid CB2 Receptors

Advisor: Dr. Jaden Jun, PhD

Lingyi Liu

Thesis: The Role of Tyrosylprotein Sulfotransferase in Adipogenesis

Advisor: Dr. Wen Xie, MD, PhD

Ji-Youn Park

Thesis: Computational Prediction of Drug-Induced Hepatotoxicity Using Transcriptomic Signatures

Advisor: Dr. Da Yang, MD, PhD

Smith J. Patel

Thesis: Novel AMTB Chimeric Analogs as Antagonists of the Cold Menthol Receptor TRPM8

Advisor: Dr. Velvet Joumigan, PhD

Zeyu Sun

Thesis: AntiBMPNN: Structure-Guided Graph Neural Networks for Precision Antibody Engineering

Advisor: Dr. Zhiwei Feng, MS, PhD

Anzhuo Wang

Thesis: Understanding Critical Pharmaceutical Parameters to Establish Feasibility for Vaginal Administration of Levothyroxine

Advisor: Dr. Sravan Patel, MS, PhD

Haolin Wang

Thesis: Investigating the Effect of MYC Inhibitors on MYC RNA Interaction

Advisor: Dr. Da Yang, MD, PhD

Tianqi Wang

Thesis: Comparison of the Metabolic Capacity Between Human and Porcine Liver Microsomes

Advisor: Dr. Raman Venkataraman, BS, MS, PhD

Yu-Hsin Wang

Thesis: Risk of Cardiovascular Outcomes Among Patients with Migraine Using Contemporary Agents

Advisor: Dr. Kangho Suh, PharmD, MS, PhD

Yuyin Wang

Thesis: Investigating the Role of NFAT Transcription Factors in Acute Lymphoblastic Leukemia

Advisor: Dr. Christian Fernandez, PhD

Stephany N. Webb
Advisor: Dr. Prema Iyer
Co-Advisor: Dr. Maceij Walczak

Yiyang Zhang
Advisor: Dr. Terence McGuire, PhD

Hongyi Zou

Thesis: Identifying Risk Factors for New-Onset Anxiety in Post-Bariatric Metabolic Surgery Patients by Deep Learning Models

Advisor: Dr. LiRong Wang, PhD

Doctor of Philosophy

Morgan A. Butrovich

Dissertation: Optimizing Anticancer Pharmacotherapy in Kidney Disease: Estimation of Kidney Function and Evaluation of Heterogeneous Kinase-Inhibitor Pharmacokinetics

Advisor: Dr. Thomas Nolin, PharmD, PhD, FCCP, FCP, FASN

Jacob Cuyler

Dissertation: The Cannabinoid System as a Therapeutic Target for Pancreatic Cancer

Advisor: Dr. Sean (Xiangqun) Xie, PhD, EMBA

Prithivirajan Durairajan

Dissertation: Evaluating the Versatility of Polymeric Films as an Extended Drug Delivery Platform

Advisor: Dr. Lisa C. Rohan, BS, PhD

Co-Advisor: Dr. Sravan Patel, MS, PhD

Andrew Haddad

Dissertation: Population-Scale Pharmacogenomics to Improve Testing in Diverse Populations

Advisor: Dr. Philip Empey, PharmD, PhD, FCCP

Keito Hoshitsuki

Dissertation: Investigation of Immunologic and Hepatic Adverse Effects of Asparaginase

Advisor: Dr. Philip Empey, PharmD, PhD, FCCP

Co-Advisor: Dr. Christian Fernandez, PhD

Madeline Lipp

Dissertation: Approaches to Targeting Tissue Resident Memory T Cells in Diseases of the Lung

Advisor: Dr. Kerry Empey, PharmD, PhD

Co-Advisor: Mark Snyder

Zhangyi Luo

Dissertation: Tumor-Targeting Nanoparticles for Improved Cancer Therapy

Advisor: Dr. Song Li, MD, PhD

Jingyuan Wang

Dissertation: Cell Type-Specific Effects of Liver X Receptor (LXR) and Estrogen Sulfotransferase (EST) on T-cell Mediated Autoimmune Hepatitis (AIH)

Advisor: Dr. Wen Xie, MD, PhD

Lin Wang

Dissertation: Rational Design and Development of a Nasal Spray for Griffithsin, A Broad-Spectrum Antiviral Agent

Advisor: Dr. Lisa C. Rohan, BS, PhD

Zhongfang Zhang

Dissertation: Development of an Innovative Vaginal Film Dosage Form for the Combined Delivery of Probiotics and an Antibiotic

Advisor: Dr. Lisa C. Rohan, BS, PhD

Co-Advisor: Dr. Sravan Patel, MS, PhD

Ziqian Zhang

Dissertation: Prodrug Nanomedicine for Improved Bioavailability and Efficacy

Advisor: Dr. Song Li, MD, PhD

This was a challenging year and we not only persevered but have grown stronger. I am incredibly proud of each of you for your relentless dedication and commitment to advancing important scientific discoveries that will improve the health of all people. This year we will continue to strive to advance our science, but I challenge each of you to also strive for new ways to share your science more broadly. We share our science at conferences and in scientific journals, but we must also find ways to share our important findings with non-scientists. One example is our 3 Minute Thesis competition, of which our own Helena Zhang won the University wide competition! I hope to see all eligible students participating in the 3MT competition this year!

I look forward to an amazing year with all of you here at PittPharmacy!

From Dr. Raman Venkataramanan, Ph.D. FAAPS; FACCP.

Distinguished Service Professor of Pharmaceutical Sciences and Pathology

Advisor of the AAPS University of Pittsburgh Student Chapter



A warm welcome to you all to the City of Pittsburgh and to the University of Pittsburgh School of Pharmacy. Wish you all the very best as you spend the next few years of your life journey with us in this beautiful city of Pittsburgh. The city is very scenic, and is well known for its higher educational institutions, technology, health care, cultural and sports activities. The University of Pittsburgh excels in several disciplines and provides immense opportunity for you to learn and grow. You have taken the first step in becoming a pharmaceutical scientist – that is to join our graduate program in the school! Now the door is open for you to explore and learn. Take advantage of all the opportunities that are available. Make sure that you get well exposed to all aspect of academic life – not just research but also check out teaching opportunities and service opportunities in professional associations.

Teaching: If you are a TA, learn about various aspects of teaching – attend Teaching Institute courses at Pitt; the Scholars program at our school (Teach Me to Teach course); other educational seminars; talk to faculty; and observe others teaching. Demand more involvement in teaching as a TA and not just be contend with proctoring and grading in a course. Teaching is the best way to make sure that you understand the concepts!! You never know that you may have the “Teaching Gene” that can be activated now. Lessons to keep in

mind when you teach are to know your audience; and use multiple strategies to reach different type of learners.

Research: Identify your passion. Take the initiative and Knock at the doors – doors will open; do not be shy; do not assume things; constantly ask questions; and be curious. Get involved in writing grants and peer reviewing manuscripts with your PIs. Attend seminars, webinars and conferences; create networks; and develop your soft skills.

Service: Be involved in student organizations within the school; and in the University. Join national professional organization to build leadership skills and networking. Join professional societies such as AAPS, AACP, ACCP, AACP, ASCPT, ACS, ISSX, CRS, etc.

You will learn several life lessons during your journey. Feel free to share them with others. Here are some of my Life lessons that I would like to share:

Being thankful is a wonderful habit. I am thankful to my family and friends for being there for me; I am thankful to all my students for the opportunity to share my passion for PK. I am thankful to all the patients who willingly participate in of our research projects; and I am thankful for all the opportunities to serve others. Thank you all for being a part of our life journey. The journey continues……..

We are fortunate to be where we are and what we do; not everyone is as fortunate. No matter what you decide to do in the future, resolve to make a difference in the lives of others.

Find your passion and pursue your passion. The path to the goal will not be a straight line; there will be ups and downs; but be persistent; you will reach your goal.

It is OK to make mistakes, but we must learn from the mistakes that we make.

It is not what happens to you, but it is how you react to what happens to you that will define you.

Keep an open mind. You never know who will inspire you; where the inspiration will come from – it can from the most unexpected places.

Real motivation comes from within. Opportunities to achieve greatness is within you.

Celebrate the diversity in nature and in us. Nature is a great teacher.

Nurture your body and mind. Have a balanced life – take care of your physical, mental and emotional health - find something other than schoolwork to relax and refresh you.

My door is open all the time; you can reach me at rv@pitt.edu. Happy to chat anytime.

Best wishes

Venkat

From Bailey Tobias, MEd Director of Graduate Programs



Dear MS and PhD Students,

Welcome (and welcome back) to the School of Pharmacy at the University of Pittsburgh! Whether you are just beginning your journey or continuing your studies, I am excited to have you as part of our academic community.

For our new students, congratulations on taking this important step toward advancing your education and career. You are joining a diverse group of scholars, researchers, and practitioners committed to excellence in the field of pharmacy. I am eager to support you as you embark on your graduate studies, and I hope that your time here will be rewarding and everything that you've imagined.

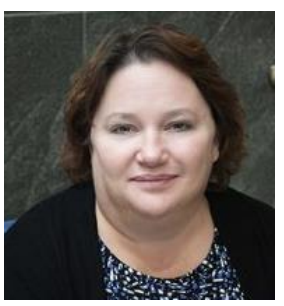
To our returning students, welcome back! I am delighted to continue this journey with you. Your dedication and hard work have already made a significant impact, and I look forward to seeing how you will build on your achievements this year.

As you begin your coursework, research, and extracurricular experiences, remember that you are not alone. The faculty, staff, and fellow students are here to support you every step of the way. Take advantage of the many resources available and don't hesitate to reach out if you need assistance or guidance.

Thank you for choosing to pursue your graduate education with us. I look forward to the contributions you will make to our community and to the field of pharmacy.

Wishing you a successful and fulfilling academic year!

From Lori M. Altenbaugh, Graduate Program Coordinator



Welcome all new students and welcome back to our returning students! I am happy you are here with us at the School of Pharmacy. I am looking forward to a great school year and working with each of you. My office is located on the 5th floor in Salk Hall, Student Services. I work remotely on Monday and Thursday and am in Salk Hall on Tuesday, Wednesday, and Friday. Stop by anytime

Featured Faculty



Dr. Christian Fernandez is an Associate Professor at Department of Pharmaceutical Sciences and a member of the Center for Pharmacogenetics at the University of Pittsburgh School of Pharmacy. He received his Ph.D. from the University of Iowa College of Pharmacy, and he completed his postdoctoral fellowship with Dr. Mary Relling at St. Jude Children's Research Hospital. The Fernandez lab is dedicated to advancing cancer research through the use of mechanistic pharmacology and pharmacogenomic approaches. His current focus areas include investigating drug-induced immunogenicity and liver injury, developing targeted agents for acute lymphoblastic leukemia, preventing capecitabine-induced hand foot syndrome, and elucidating the role of the NFAT transcription factor on immune cells. Our goal is to improve cancer treatment and patient outcomes by deepening our understanding of these complex biological processes.

General things

What led you to the academia career path? Was there a particular event or mentor that guide you?

My initial experience in pharmaceutical sciences began in industry after completing my BS in chemistry. It was a formative experience that identified my interest in the field, particularly the translational impact of collaborative work across multidisciplinary teams. However, it was during my postdoctoral training at St. Jude Children's Research Hospital that I became increasingly drawn to the diverse opportunities available in academia, ranging from translational and mechanistic research to mentoring the next generation of scientists. Therefore, while both industry and academia offer fulfilling careers in pharmaceutical sciences, the opportunity to mentor students at different stages of their development

ultimately convinced me that my strengths and passions align best with a career in academia.

As a successful researcher and educator, what advice would you give to graduate students/young scientists?

My advice is to find an area of research you are truly passionate about, that is, one that also aligns with your personal strengths and values. Passion will fuel your success by helping you recognize important scientific and training gaps, seek out the right resources, and develop new skills to meet future challenges. That internal drive, rooted in a genuine connection to your work, will sustain your motivation and resilience throughout your scientific journey.

What is your favorite science joke or quote?

I'm quite fond of a quote from Santiago Bernabéu, the legendary figure behind Real Madrid:

"La camiseta del Real Madrid es blanca. Se puede manchar de barro, de sudor y hasta de sangre, pero jamás de vergüenza."

("The Real Madrid shirt is white. It can get stained with mud, sweat, and even blood, but never with shame.")

I relate to this quote in the context of research because it speaks to the pride one should take in their hard work, training, and work ethic in the pursuit of excellence.

Courses and teaching

What courses are you currently teaching?

There are two aspects I find most fulfilling as an educator and mentor. The first is witnessing my trainees grow in independence and develop confidence in their scientific thinking. The second is the moment of discovery in the lab, when our collective efforts lead to new insights and directions. To me, these moments are connected; both represent the outcome of hard work, dedication, and resilience.

Research

How did you decide on your current area of research? Was this always a passion of yours?

I have always gravitated toward translational research that aims to improve patient care. My interest grew through meaningful experiences that humanized the patient journey and the limitations of current pharmacotherapies. During my training, I encountered children with leukemia coping with debilitating medication toxicities yet displaying remarkable resilience. My experiences in breast cancer include learning from women undergoing treatment and struggling to tolerate side effects in hopes of extending their time with family and loved ones. These experiences shaped both my empathy and scientific curiosity, motivating me to focus my research, and that of my trainees, on understanding and overcoming the toxicities that limit effective cancer treatment. Ultimately, our work aims not only to improve therapeutic outcomes but also to enhance patients' quality of life during and after treatment.

What difficulties have you faced throughout your career, and what helped you overcome them?

Every stage of a scientific career comes with its own set of challenges, whether it's feeling inadequate compared to peers, navigating work-life balance to prioritize time with family, or facing uncontrollable setbacks like funding cuts. I've experienced all of these at various points. What has helped me overcome them is a commitment to continuous self-improvement, surrounding myself with trusted mentors who offer guidance during difficult times, and maintaining a focus on becoming the best version of myself, both personally and professionally. enhance the success rate of drug design in others' drug discovery projects.

Esteemed Alumni



Yifei Wang, Ph.D.

Postdoc Fellow at City of Hope

Hi, this is Yifei. I have recently graduated from Dr. Da Yang's lab in School of Pharmacy, University of Pittsburgh. I received my bachelor's degree in Pharmacology from Stony Brook University, and then continued at Pitt Pharmacy where I earned my master's degree and transitioned into the PhD program in Pharmaceutical Sciences. My research focuses on RNA biology, gene regulation, and immunology, with particular emphasis on uncovering how RNA–protein interactions and epigenetic remodeling shape cancer biology and immune response. I apply functional genomics approaches such as CRISPR-based screening, combined with in vitro models, to identify therapeutic RNA regulators and mechanisms of drug response. Ultimately, my work aims to bridge RNA-based therapeutics with cancer immunotherapy to advance next-generation treatment strategies.

Can you share your career journey since graduating? What were some pivotal moments that shaped your professional path?

Choosing a research direction that aligned with my interests and long-term goals was one of the most important decisions in my PhD journey. My first independent project served as a critical foundation, not only for developing technical skills but also for building confidence in troubleshooting and decision-making. Attending scientific conferences early on exposed me to cutting-edge research and gave me a clearer picture of where the field was heading and how I might contribute. These experiences collectively helped me refine my research focus and better understand what I wanted to pursue professionally. Most importantly, I think having a clear vision of my future goals helped me stay motivated throughout the program.

What advice would you give to graduate students about making the most of their time in graduate school, both academically and professionally

Personally, I believe carefully about your long-term goals before committing to any specific path or project. Even if it takes time to figure it out, that time is well spent—once you know what you want, your preparation becomes much more targeted and efficient. It's also important to focus on skill accumulation—not just technical expertise, but also soft skills like communication, time management, presentation skills, and leadership. These will serve you no matter which career path you take. Other skills, such as writing, teaching, or leadership roles, can help to build a more well-rounded profile.

How did you build your professional network and what role did mentorship play in your career development?

Mentorship played a vital role in my development. My advisor not only offered thoughtful guidance on my research and career choices but also gave me opportunities to grow—such as presenting my work at conferences and mentoring junior students. These experiences strengthened both my confidence and communication skills. I also connect with researchers during conferences, seminars, and collaborations. These interactions expanded my professional network and helped me gain new perspectives on science and career planning. Lastly, developing a mindset of independence—both in thinking and in managing responsibilities—helped me transition confidently to the next stage of my career.



Oshin Miranda, Ph.D.

Postdoc Fellow at Brown University

I am Oshin Miranda, currently a Postdoctoral Research Associate at Brown University, specializing in AI-driven healthcare research. My work focuses on integrating multimodal health data to improve precision medicine, with particular interest in mental health, aging populations, and chronic disease. Outside of research, I enjoy gardening, traveling, and reading, which help me maintain balance and creativity in my work.

Can you share your career journey since graduating? What were some pivotal moments that shaped your professional path?

Since graduating from Pitt, my professional journey has been driven by a passion for combining computational methods with real-world healthcare applications. A pivotal moment was observing my mentors guide and inspire others, which reinforced my long-term goal of becoming a professor where I can lead independent research and mentor the next generation of scientists.

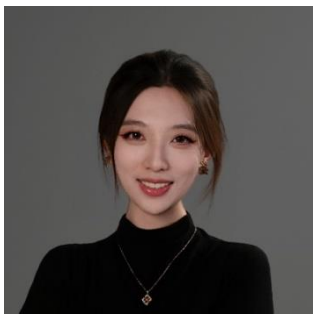
What advice would you give to graduate students about making the most of their time in graduate school, both academically and professionally

I encourage current students to actively seek interdisciplinary experiences, remain curious, embrace challenges as learning opportunities, build both technical expertise and communication skills, take advantage of mentorship, research collaborations, and professional networks.

How did you build your professional network during and what role did mentorship play in your career development?

I built my professional network through conferences, collaborative research, and reaching out to peers and mentors for advice and guidance. Mentorship has been instrumental in shaping my career, and it has especially helped me navigate research directions, grant writing, and professional development.

Featured Students



He (Helena) Zhang

Ph.D. Candidate, Chair of AAPS Student Chapter 2025-2026, 2025 First Place Winner of Pitt 3MT Competition

Hi, this is Helena, a fourth-year PhD candidate in Dr. Lisa Rohan's laboratory at the University of Pittsburgh School of Pharmacy. I received my bachelor's degree in pharmacy from Shenyang Pharmaceutical University and completed my graduation thesis at the University of Minnesota. I then continued my studies at Pitt Pharmacy, where I earned my master's degree and transitioned into the PhD program. My current research focuses on formulation development for HIV prevention, particularly the design of sustained-release products aimed at improving drug delivery and patient adherence. I am originally from Dalian, a beautiful coastal city in northeastern China known for its beaches, seafood, and its vibrant blend of modern and traditional culture.

What motivated you to pursue graduate school, and how did you find your interest in the field?

Since my grandparents are both doctors, I grew up in an environment where healthcare was always part of daily life. From a young age, I often watched them follow medical news and discussions, which sparked my curiosity about medicine. Over time, that curiosity grew into a strong interest in how medicines are designed and delivered to make them more effective for patients. This is what inspired me to explore the field further, and I felt that pursuing graduate school would be the best way to deepen my knowledge and make meaningful contributions.

What challenges have you faced during your graduate training, and how have you overcome them?

The major challenge for me was finding the passion and bigger picture behind my daily experiments, especially in the early stages of my PhD. Like many new graduate students, when I was new here I sometimes felt uncertain about what I was doing and why it mattered. But as I read more deeply, gained hands-on experience, and started running experiments independently, I became more comfortable and motivated. That shift helped me realize how much I had grown, and it was the moment I started to feel like a senior researcher.

How does it feel to be the first-place winner of the University 3MT competition, and what have you gained from the experience?

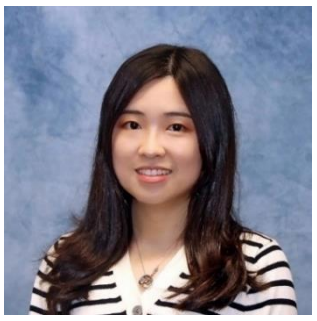
I was thrilled to receive the 3MT winner of Pitt Pharmacy and then even proceed to the campus-wide first place. The most valuable experience I gained was to get to know the way to deliver your science to the audience who are not familiar with your field, and to stop feeling awkward about speaking out in front of a bunch of people. The funny things is that I used all my Jellycats as my 'audience' sitting at home and practiced making eye contact with them while speaking, 20 times. Over time, this made me much more confident, and now I really enjoy presenting my work not only in lab meetings and seminars, but also at departmental events, school-wide talks, and even international conferences.

How do you think graduate students can prepare to be successful in their graduate training and future careers?

I think success in graduate training comes from a balance of persistence, curiosity, and support. First, it's important to stay open-minded and not be discouraged by failures when research often doesn't go as planned. Second, reading broadly and staying curious about the frontier of the field you study are important to make you able to catch up the latest findings. Finally, building a strong support network like mentors, peers, collaborators make a big difference for your future career. Don't only play with your friends in the lab! Try to know more people in the academic/ industry and you can learn from their experiences, share your own challenges and get feedback.

When you're not doing research, what do you enjoy?

When I'm not doing research, I really enjoy traveling and photography. I always go to the area that has access to the sea as that reminds me of my hometown Dalian. Photography is my way of capturing those experiences, almost like keeping a visual diary. I also enjoy spending time with friends and exploring good food and places to have fun.



Chen Jiang

Ph.D. Candidate, Chair of GSO 2023-2025, 2024 Teaching Assistant Excellence Award

Hi, I'm Chen, a third-year PhD candidate from the School of Pharmacy! I'm originally from Wuhan, China, a city known for its vibrant breakfast culture, with dozens of options to choose from each morning, including the famous hot dry noodles. I completed my master's degree here before starting my PhD journey in the School of Pharmacy. My current research focuses on using real-world data to study the impact of medications on individuals living with Alzheimer's disease and comorbidities. I enjoy working on interdisciplinary projects that bridge pharmacoepidemiology, biostatistics, and clinical insights. Outside of research, I'm a true foodie: eating good food and figuring out how to make it myself are both essential ways for me to relax and recharge!

What motivated you to pursue graduate school and how did you find your interest in the field?

During my undergraduate studies, I realized that my understanding of pharmaceutical sciences was still quite limited, which mainly because I didn't have many chances to engage in hands-on research or lead an independent project. At the same time, as a clinical pharmacy student, I had always been curious about how drugs work in the real world beyond the carefully controlled setting of clinical trials. This curiosity drove me to pursue graduate school, where I could deepen both my scientific knowledge and research experience. During my PhD program, I was introduced to real-world evidence and became fascinated by its potential to inform healthcare decisions. That experience ultimately shaped my current research direction and strengthened my passion for the field.

What challenges have you faced during your graduate training, and how have you overcome them?

As an international student, one of my initial challenges was adapting to a new academic culture and communication style. Expressing complex ideas in a second language during discussions or presentations felt daunting at first. Thankfully, our professors and peers were incredibly supportive (never underestimate how patient and understanding native speakers can be!). By actively listening, asking questions, and engaging more, I gradually became more confident in professional settings. Another challenge was balancing coursework, research, and teaching responsibilities. I learned to manage my time better and set realistic goals: don't expect to finish a project in one day, but also don't delay replying to that quick two-minute email, or you might forget it entirely when your inbox piles up! Everyone has their own rhythm, the key is to find the pace that works best for you.

How does it feel to win the 2024 Teaching Assistant Excellence Award, and what do you gain from the experience?

Winning the 2024 Teaching Assistant Excellence Award is a great honor and a deeply meaningful form of encouragement for me. It makes me feel truly seen and appreciated for the effort I've put into teaching. One of the most rewarding parts of my journey has been serving as a teaching assistant for the Dosage Form Design & Delivery lab course over three semesters. From the second semester on, I took on the role of TA team lead, which allowed me to gain insight into the full workflow of running a course. Beyond the teaching itself, I learned to manage lab material logistics, communicate with faculty, and prepare proactively for students' questions. The experience helped me grow not only as an educator, but also as a collaborator, problem-solver, and communicator.

How do you think graduate students can prepare to be successful in their graduate training and future career?

I believe it's important for graduate students to regularly reflect on their long-term goals and actively seek out conversations with mentors and senior colleagues. Through my experience as a TA and RA, I gradually developed a sense of whether I preferred academic, industry, or clinical paths. Once that direction became clearer, it was easier to identify which skills I needed to build: coding, clinical experience, or communication training? I like to think of this process like assembling materials in a strategy game: you gather what you need step by step. That mindset has helped me stay motivated and focused along the way.

When you're not doing research, what do you enjoy?

As a foodie, I love discovering new food experiences, such as cooking something ambitious at home or trying out local restaurants. Sometimes when I crave something specific and can't find it, I'll make a large batch myself and share it with friends. People who know me have often received handmade dishes the next day after one of my spontaneous cooking experiments (I'm grateful for their enthusiastic support of 'Chef Jiang'!) I also enjoy the creative process of documenting the restaurants I visit and the dishes I try. It's a relaxing and fulfilling hobby that helps me recharge outside of academic life.



Madeline Kreider

Pham. D., Ph.D., Chair of AAPS Student Chapter 2023-2024

Hi, I'm Maddie! I'm a PharmD graduate (2019) and officially a PhD graduate (2025) from PittPharmacy! I grew up in a small rural town in Pennsylvania on the corner of my grandfather's farm, and I've always had a curiosity about how things work, especially in the natural world. While my love for science took root early on, it was through my time at Pitt that I found a passion for combining clinical care and research to improve the lives of patients. My journey so far has blended hands-on pharmacy training with genomic research, and that dual background has shaped how I approach complex problems in healthcare.

What motivated you to pursue graduate school, and how did you find your interest in the field?

Graduate school wasn't always my plan, but once I experienced the intersection of pharmacy, research, and genetics in pharmacogenomics, I knew I found my passion. I was drawn to pharmacy because it was a profession where I could make a meaningful impact while continually learning. During my PharmD program, I was introduced to PGx, and it completely reframed how I thought about medication and patient care. The idea that we could offer more precise treatments based on a person's DNA felt innovative, powerful, and important. I chose graduate school because I wanted to go beyond applying the existing knowledge learned in pharmacy school, I wanted to be a part of the team discovering it. I was motivated by the opportunity to help improve how we practice medicine and filling the skill gaps that would allow me to contribute meaningfully to that effort.

What challenges have you faced during your graduate training, and how have you overcome them?

One of the biggest challenges has been coming to terms with not knowing everything, and being okay with that. Early in graduate school, I saw knowledge gaps as weaknesses, but I've learned that identifying what you don't know is actually one of the most powerful tools in research. It means you're pushing the boundaries of your field. I've overcome this by embracing a mindset of lifelong learning, staying curious, and leaning on a strong support network of mentors and peers who remind me that asking questions is what research all about is.

How does it feel to be a teaching assistant/ research assistant, and what do you gain from the experience?

During my first year, I was a teaching assistant and it was rewarding and transformative. Since I completed my PharmD at PittPharmacy, being on the other side of the classroom gave me perspective for the years of schooling I just went through and helped shift my mindset from being a pharmacy student that had difficulty understanding what to do in the gray areas of medicine to a graduate student who lives among the unanswered questions. My remaining years I was a research assistant and gained a large breadth of skills. Beyond the wet and dry lab techniques that come with research, Dr. Empey encouraged me to be involved in the budgeting process, design grant aims, manage supplies, design experiments, and write mid-year and end-of-the-year reports that highlight what is important to stakeholders.

How do you think graduate students can prepare to be successful in their graduate training and future careers?

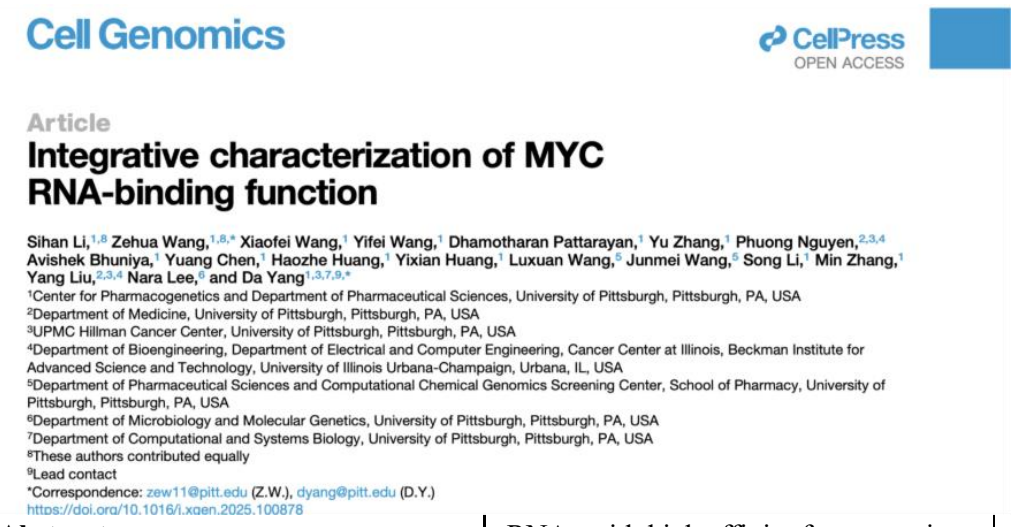
Grad school is a marathon, not a sprint. I think the key to success is being open to learning, staying organized, and surrounding yourself with people who support and challenge you. The best advice I received was to not be afraid to ask questions or admit when you don't understand something, especially when you are surrounded by those who want to see you succeed and grow. Lastly, take care of yourself. Burnout is real,

life always throws curveballs, and you do your best work when you're well.

When you're not doing research, what do you enjoy?

When I'm not in the lab or working from home, you can usually find me exploring new experiences around Pittsburgh. I've been taking herbal medicine classes at Phipps Conservatory, love catching a good movie or diving into video games. One of the things I enjoy most is finding unique, offbeat experiences around the city. Some recent highlights include penguin painting at the National Aviary, attending Picklesburgh, and checking out the "Shore Thing" pop-up at the Northshore. I also love exploring Pittsburgh's constantly evolving restaurant scene. There's always something new to try, and I enjoy discovering the places that make this city so special.

Scientific breakthrough


Cell Genomics

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Article

Integrative characterization of MYC RNA-binding function

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https://doi.org/10.1016/j.xgen.2025.100878



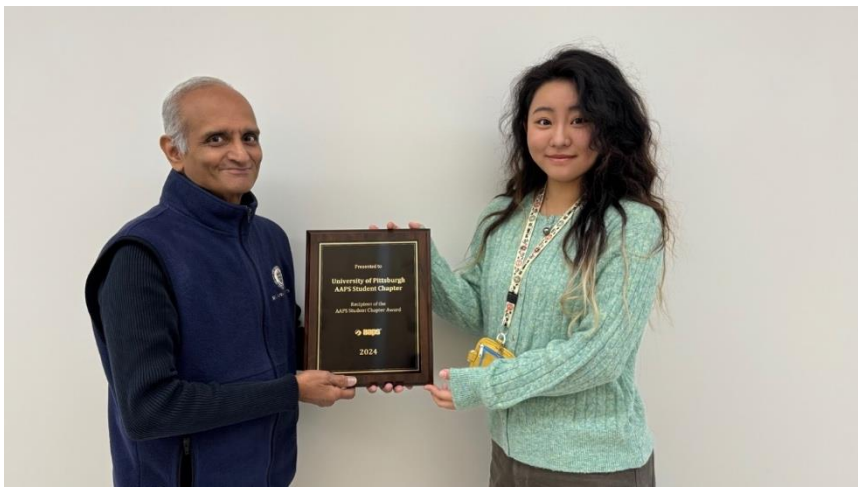
Sihan Li, Ph.D.

Sihan earned his B.S. degree in Pharmaceutical Science from Fudan University School of Pharmacy in Shanghai, China and M.S. degree in Pharmaceutical Sciences from University of Pittsburgh School of Pharmacy. Sihan's research focuses on high-throughput sequencing data analysis in cancer genomics.

Abstract

Emerging evidence suggests that MYC interacts with RNAs. Here, we performed an integrative characterization of MYC as an RNA-binding protein in six cell lines. We found that MYC binds to a myriad of RNAs with high affinity for guanosine-rich RNAs. Global and specific depletion of RNAs reduces MYC chromatin occupancy. Mechanistically, two highly conserved sequences, amino acids 355-357 KRR and 364-367 RQRR, within the basic region of MYC are necessary for its RNA binding. Notably, alanine substitution of KRR abolishes MYC's RNA-binding ability both in vitro and in vivo, without affecting its ability to bind E-box DNA as part of the MYC:MAX dimer in vitro. The loss of RNA-binding function decreases MYC chromatin binding in vivo and attenuates its ability to promote gene expression, cell-cycle progression, and proliferation. Our study lays a foundation for future investigation into the role of RNAs in MYC-mediated transcriptional activation and oncogenic functions

Reflections from the AAPS Chair in 2024-2025



From Xiaojiang Guo, Ph.D. Candidate, Chair of AAPS Student Chapter 2024-2025

This past year has been a truly remarkable one for the Pitt AAPS Student Chapter! I am honored to reflect on our collective achievements and the strong sense of community that made them possible. With the unwavering support of the School of Pharmacy and the invaluable guidance of our faculty advisor, Dr. Venkat, our chapter was recognized with the AAPS Student Chapter Award. We also successfully organized the annual Pharmaceutical Sciences Research Symposium (PSRS) and hosted the Pizza & Power professional development event, both of which fostered engagement, collaboration, and growth among our members. These accomplishments are a testament to the dedication, talent, and passion of our students. As the previous Chair, I extend my deepest gratitude to everyone who contributed to this successful year, and I am confident that the chapter will continue to reach even greater heights in the year ahead!

All About AAPS and GSO

All About AAPS!

Founded in 1986, the American Association of Pharmaceutical Scientists (AAPS) is a professional, scientific organization of approximately 7,000 individual members and over 10,000 actively participating stakeholders employed in academia, industry, government, and other pharmaceutical science-related research institutes worldwide. Our AAPS student chapter provides exceptional opportunities for young scientists to connect with AAPS member scientists, build their professional networks, and tap into meaningful career advice.

Time to Get Involved!

AAPS: All members of the Pitt Pharmacy graduate school are considered local members of AAPS. Students can become national members of AAPS through www.aaps.org by signing up and paying an annual dues of $50. Additionally, AAPS offers various leadership opportunities through formal positions **(i.e., Chair, Chair Elect, Vice-Chair, Secretary, Treasurer, Head of Outreach, Head of Multimedia), informal positions (members of the outreach & multimedia committees), and volunteer roles.** Elections are held every September, and new students are welcome to run! All graduate students will vote for the upcoming year's leadership board for 2025-2026.

All new students are welcome to run!

All graduate students will vote for the upcoming year's leadership board for 2025-2026. For more information, please contact:

He (Helena) Zhang, Chair of AAPS Student Chapter 2025-2026

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All About PS-GSO!

My full name is Pharmaceutical Sciences Graduate Student Organization (PS-GSO) of the University of Pittsburgh. PS-GSO is to represent, advocate for, and connect graduate students across various disciplines and backgrounds. We strive to address the unique needs and challenges faced by graduate students, offering valuable resources, activities, events, networking opportunities, and a platform to voice their concerns.

PS-GSO: All full-time and part-time graduate students enrolled in the school of pharmacy and in good academic standing are automatically considered to be members. There are four main officers: President, Vice-President, Business Manager and Media Assistant. The officers shall be elected every two years by the graduate students. Here are our current GSO panel:

President: Sarah Ostrowski

Vice President: Elliot Reed

Financial Manager: Anthony Aceto

Media Manager: Ainsley Lederer

For more information, please contact:

Sarah Ostrowski, Chair of GSO 2025-27

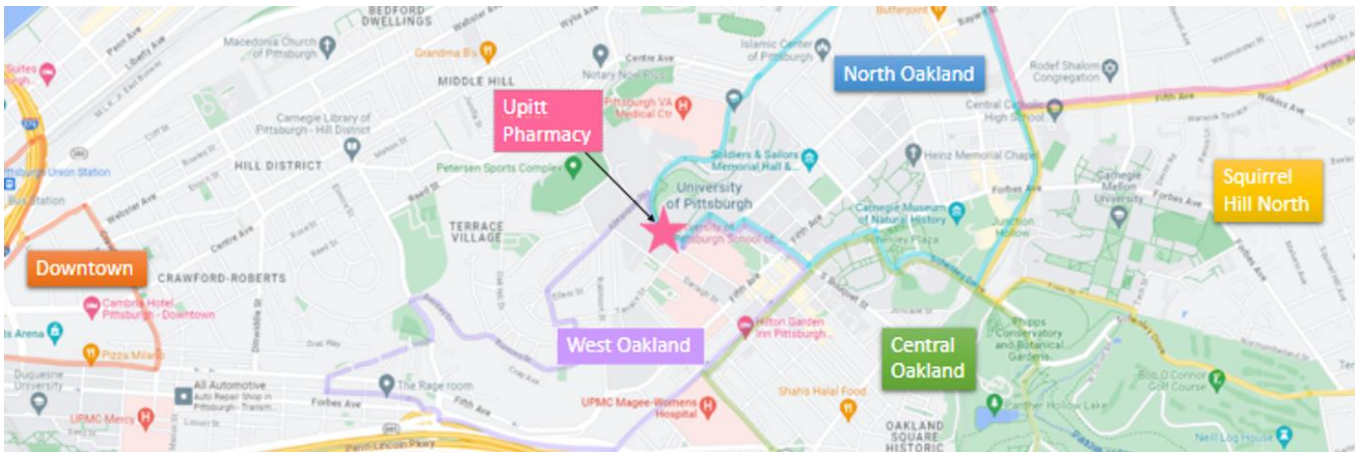
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Social accounts! Looking for more?

Please follow AAPS and GSO's social media accounts!

PITT_AAPS_STUDENT_CHAPTER

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Living in Pittsburgh

Grocery Stores:

Aldi and Giant Eagles (Nice for daily grocery shopping!)
Robert Wholey & Co. Inc. (Fresh meats & seafood)
Strip District Meats, Inc. (Different kinds of meets)
Penn Avenue Fish Co (Nice sashimi & poke bowls)
Salem Market & Grill (Halal grocery store, nice beef & lamb)
Las Palmas Pittsburgh #2 (Great taco!!)
Lotus Food Company (Asian grocery store with delivery-to-door service)

Where are the Starbucks:

UPMC Presbyterian (Sometimes cannot order ahead)
Forbes Tower L1 (Forbes Avenue)
Amos Hall (4022 Fifth Ave (can be crowded))
Across the street from the Carnegie Museum of Art (425 S Craig St)

Downtown Pittsburgh:

Point State Park (Super nice river view with a high fountain)
Duquesne Incline—Mt Washinton (Amazing city view & nice restaurants—good for dating 😊)
Skyline Pittsburgh Overlook (A must-see Pittsburgh view)
National Aviary (Bird lovers??)
Heinz Field NFL (Go Steelers!)

University:

Cathedral of Learning ('Hogwarts School', a beautiful place for studying!)
Soldiers and Sailors Memorial Hall and Museum (Enjoy the sunshine on the lawn)
Hillman Library (Good for study)
Peterson Student Center (Large gym & basketball playground (sometimes have basketball games, check email!).)
Trees Hall (Large swimming pool (pay attention to its opening time) & basketball playground.)
Bellefield (Swimming pool, a badminton court here.)

Museum:

Carnegie Museum of Art + Carnegie Museum of Natural History (Pitt free, expect summer/winter holidays)
The Andy Warhol Museum
Fort Pitt Museum
Mattress Factory

Movie:

Manor Theatre
AMC Waterfront 22

Others:

Phipps Conservatory and Botanical Gardens (Seasonal exhibitions)
Schenley Park (Skating park here)
Allegheny Observatory (American astronomical research institution)
Kennywood Park (Be sure to go on Halloween!)
Seven Springs Mountain Resort (Let's go skiing!)
Raccoon Creek State Park Wildflower Reserve
Moraine State Park
Fallingwater & Ohiopyle State Park