

The Pharmacologist

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ASPET Fosters
Relationship with
Northwest
High School's
Biotech
Program

 ASPET
Transforming Discoveries into Therapies

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Pharmacology and Experimental Therapeutics

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Message from the President



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Listen to [ASPET](#) President Namandjé N. Bumpus, PhD as she discusses ASPET's recent work with early-career scientists, important updates on ASPET 2024 registration and abstracts opportunities.

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A Note from Dave's Desk



Opportunities for Early-Career Scientists

As the professional home for pharmacology, ASPET welcomes everyone involved in the field, including early-career professionals. We recognize the unique needs of students, postdocs and other early career professionals and provide them with opportunities to develop both their skills and their career options.

The [ASPET Mentoring Network](#) is just one of many ways the Society provides the training that graduate students and postdoctoral trainees need. The program focuses on developing skills needed to succeed scientifically, professionally and psychologically, including discussions about experiences and pressures faced by underrepresented groups in the sciences. Each class kicks off its training at the ASPET Annual Meeting, providing an in-person and interactive way to start this highly impactful coaching experience. Discussions typically include work/life balance, interview skills, job searches, networking, grant writing and other topics that are important for professional growth.

For those early-career scientists who are interested in learning more about advocacy and science policy, the [ASPET Washington Fellows Program](#) provides an excellent foundation. Washington Fellows participate in policy training webinars to introduce them to government and science policy that will impact their work, such as NIH funding levels and animal research. The experience is capped with an in-person Hill Day, where the Fellows travel to Washington, D.C. to meet with their congressional representatives to advocate for the importance of biomedical research.

While the Mentoring Network and Washington Fellows programs are well-established, ASPET recognizes that the needs of early-career scientists change, and that the Society needs to respond accordingly. That's why, in 2023, ASPET launched the inaugural class of the [JPET Editorial Fellowship Program](#). Aimed at senior post-doctoral fellows and junior faculty members, the program provides an in-depth opportunity to work interactively with an associate editor of the *Journal for Pharmacology and Experimental Therapeutics* to build important skills as a peer reviewer and as an editor.

Whether one is interested in developing skills as a journals peer reviewer, becoming an advocate for biomedical research or obtaining training on a variety of professional development areas, ASPET is proud to offer programs to meet the needs of its early-career members.



Dave Jackson, MBA, CAE
Executive Officer, ASPET

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Cover Story

NORTHWEST HIGH SCHOOL

ASPET Fosters Relationship with
**Northwest
High School's
Biotech Program**

Interest Meetings!

Academy
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Info

Are you a Freshman
who enjoys science?
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Academy of
Biotechnology (AOB)



By Lynne Harris, MA, APR

Research shows that only 35% of high schools in the United States offer biotechnology courses as part of their curricula. As an integrated science, biotech programs expose students to a variety of career opportunities in science and medicine. Students learn biology, chemistry, math and physics through biotech, preparing them for success in courses such as AP Biology and AP Chemistry. Some programs even embed biotech professionals in classrooms so that students can experience real-world applications of what they are learning in the classroom.

A biotech curriculum provides the skills and experiences they need to be successful in long-term, well-paid careers. While many high school science classes focus on lab-based activities, many do not cover the full-product development life cycle in biotech, which can prevent students from understanding and experiencing what a career in the biotech industry could mean for their future.

The Birth of the Academy of Biotechnology

Between 1992 and 2002, the Montgomery County (Md.) Public School system conducted a study to follow several thousand students into their careers and higher education to determine how many of the students followed through on their career goals. They found that a majority of students who pursued their goals were students who had had previous exposure to or experience in the field they chose. As a result, they created Career and Technical Education (CTE) and Academy programs throughout the

*Northwest students in front of their high school
Photos provided by ASPET and Siya Sharma*

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county to provide those opportunities to students based on the career ecosystem in the communities around each school. Because of its location, [Northwest High School](#) (NWHHS) in Germantown, Md., became the host of the [Academy of Biotechnology](#).

The program was launched in 2004 with a proposal prepared by Northwest High School, the Howard Hughes Medical Institute and other partners. Current Program Director Avi Silber works with the students and leads the program at NWHHS, which has 132 students. The idea to offer a career fair for the students came in the spring of 2019 and the first fair took place in the fall of that year. Now in its fourth year, the career fair has been successful in educating the students further not only the careers available in biotech, but also learning about internships on site at the fair.

After the first career fair, Silber recalls a student walking away saying, “I don’t know which internship to choose.” During the pandemic, NWHHS held a virtual career fair and returned to in-person in 2022. “While it is a lot of work to set up, it is so valuable for the students and continues to grow each year,” Silber said. “It helps the [student] officers—whose job it is to reach out to many of the organizations—develop the communication skills to navigate websites, operators, etc. and talk with stakeholders to participate in the event,” he added.

The Academy of Biotechnology is a prestigious program offered at NWHHS for students who are interested in biology and STEM fields. The program also gives students an opportunity for leadership positions. *The Pharmacologist* caught up with two students in the program, including the president of the program, Siya Sharma.



Siya Sharma

Meet Siya Sharma, Class of 2024

When did you know you wanted to pursue science and/or pharmacology? How did you get involved in this area?

Growing up, I always enjoyed and cherished the privilege to learn, however even at a young age, no subject interested me the way science had. Immune responses, emotional regulation systems, physiology, parts of a cell and stoichiometry have captivated me in the pursuit of learning, defining my passions and identity along the way. Throughout high school, I took several rigorous science courses, and became heavily involved with my school’s Academy of Biotechnology. Through this program, I took science courses that included graduate level labs, internship opportunities, leadership opportunities, rigor and an opportunity to take the Biotechnician Assistant Credentialing exam. Needless to say, I have gained plenty of exposure to the field of science and have come to thoroughly enjoy it. From being a ‘pleasure to have in class’ to taking rigorous coursework to having a full to-do list, I have fallen in love with learning science. Dedicating hours of my day to studying in a library, my life’s purpose is to absorb knowledge and use it to enact positive change.

International Day of Women and Girls in Science

The United Nations General Assembly adopted a 2015 resolution to make February 11 an annual recognition of International Day of Women and Girls in Science in the United States. Now in its ninth year, it has become a special time to celebrate and recognize the significant achievements women and girls in science are doing to advance Biotechnology and Science, Technology, Engineering and Mathematics (STEM) careers. It is also an opportunity to put the focus on the importance of equal access to and participation in science for women and girls. The biotech and STEM fields are among the fastest-growing segments of jobs for women in the United States, and the global community is inspiring women and girls in science to succeed. ASPET recognizes NWHSA Academy of Biotechnology President Siya Sharma as an outstanding student who is making great strides to achieve her goals to secure a career in biotech/STEM.

What has inspired you the most to pursue a career in science and/or pharmacology?

My initial interest in science stems from learning disabilities. I was very close to many people with learning disabilities and neurological disorders in my youth, that I was never able to comprehend. As someone who needs to understand why things work the way they work, I found myself constantly pondering neurological disabilities and disorders. However, as I grew older, maturity brought an awareness of what neurological disabilities entail, sparking my interest in neuroscience. The moment I realized how hard the brain and organ systems work to regulate bodily functions; I began to work equally hard to heal the human body in my future. Along the way, I have found other parts of science and medicine that have sparked my interest further as well.

What are your goals for college and beyond?

After high school, I look forward to attending a four-year university to major in neuroscience and minor in public health. After my undergraduate years, I am hoping to earn

a medical degree, and potentially a master's degree in public health. Along the way, I imagine that I will conduct at least one major research project and become part of medical and scientific communities.

Where do you see yourself in five years, 10 years?

Five years from now, I envision myself attending a medical school or taking the necessary steps to prepare for my medical school degree. I look forward to completing my residency and being a step away from being a practicing physician 10 years from now.

What do you want your greatest accomplishment(s) to be?

I look forward to making an impact with the education and passion I have for medicine, health equity and neuroscience. Whether that be to cure the incurable, push and campaign for easier access to healthcare or publish my research, I want to leave an impact on the fields of science, medicine and neurology/neuroscience.

Continued on page 20

Celebrating Black History Month

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Dolores C. Shockley: A Trailblazer in Pharmacology

By Jayne S. Reuben, PhD, FAAPE, FASPET

[Dolores C. Shockley, PhD](#), was a distinguished figure in the field of pharmacology, breaking down racial barriers as the first in many categories. Dr. Shockley was the first African American woman to receive a PhD in any discipline from Purdue University and the first African American woman in the United States to receive a PhD in Pharmacology. She was also the first African American woman to chair a pharmacology department at an accredited U.S. medical school. Her life, educational journey and professional achievements outline the impact she has had on the scientific community.

Early Life and Education

Dr. Shockley, a luminary in the field of pharmacology, dedicated her life to advancing scientific knowledge and fostering excellence in research. Her journey into the realm of pharmacology began with a solid foundation in education as early academic pursuits shaped the trajectory of her career. She was educated in the segregated secondary schools of Clarksdale, Miss., because of government-sanctioned institutionalized racism. In this separate but not equal environment, she studied science at home because of the lack of supplies at her school.

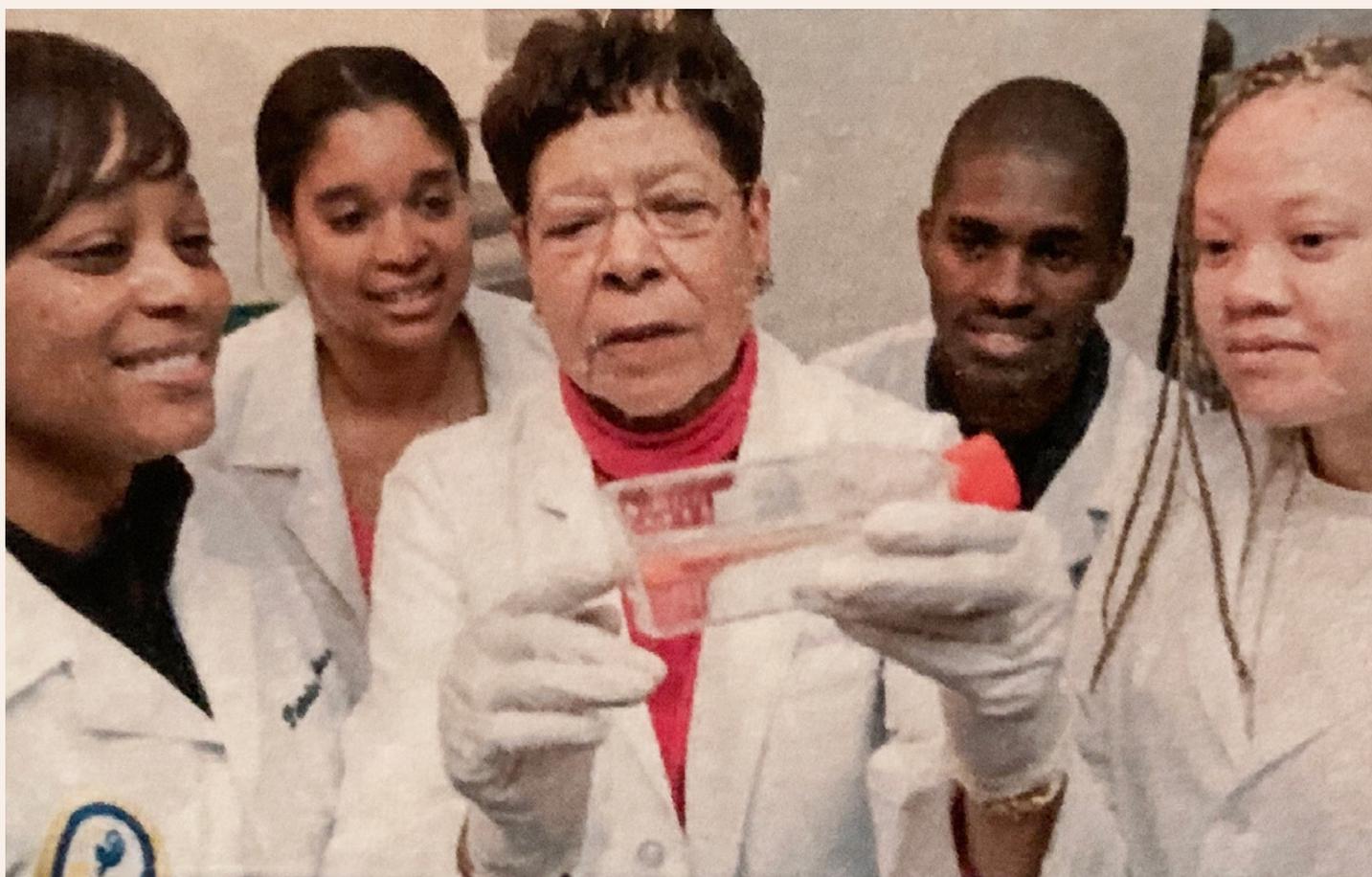
In an interview, Dr. Shockley stated that her interest in pharmacology arose from the lack of access to a drug store in her community. She attended Mary Holmes College, a private high school for black girls before matriculating into pharmacy school at Xavier University,

an Historically Black College/University (HBCU) in New Orleans, La. Dr. Shockley earned her B.S. in 1951 and was number one in her class. She continued her education at Purdue University in West Lafayette, Ind., where she received her M.S. in 1953 and her PhD in Pharmacology in 1955. In doing so, she became the first African American woman to receive a PhD in any discipline from Purdue University and the first African American woman in the United States to receive a PhD in Pharmacology.

Professional Achievements

Dr. Shockley's professional career is marked by a dedication to pharmacology research. Her name is associated with excellence in the field. Recognition of her work speaks volumes about her impact on the scientific community. While obtaining her PhD, Dr. Shockley accepted a faculty position as an Assistant Professor of Pharmacology at Meharry Medical College in Nashville, Tenn.

After completing her PhD, Dolores Shockley assumed a series of influential roles within the academic and research community. She was selected as a Fulbright Fellow to work at the Pharmacology Institute in Copenhagen, Denmark and worked at the Albert Einstein College of Medicine from 1959–1962 before returning to Meharry Medical College as an Associate Professor in the Department of Pharmacology and later chairing the pharmacology department there in 1988.



Dr. Shockley worked to understand the mechanisms of substance use disorder and neurotoxicity in order to develop treatments for overdose and drug dependency. While at Meharry, she created collaborations with nearby Vanderbilt University School of Medicine and in 2009, the Vanderbilt University School of Medicine Department of Pharmacology named a biannual lectureship and partnership award honoring her that is presented biennially. In 1997, she was named a Distinguished Alumna of Purdue, Old Master at Purdue. Established in 1950, The Old Masters program honors distinguished Purdue alumna and provides opportunities for them to mentor Purdue students as they finish their college careers.

After an accomplished career, Dr. Shockley retired from Meharry Medical College as Professor Emerita in 2005. She loved working with students and was committed to increasing

the representation of diverse groups in the biomedical sciences. Her national service included work with multiple government organizations as well as being an active member of [ASPET](#). In 2010, the ASPET Dolores C. Shockley Poster Award was established to recognize her service and impact.

The ASPET Dolores C. Shockley Poster Awards

The [Dolores C. Shockley Poster Awards](#) traditionally acknowledge outstanding poster presentations in the field of pharmacology and play a crucial role in supporting and encouraging early-career researchers to attend the ASPET Annual Meeting. Although originally only one award, the Shockley poster award competition held at the [ASPET annual meeting](#) has been expanded to distinguish excellence in research for undergraduate, graduate



For many, receiving the Dolores C. Shockley Poster Award represents a significant milestone in their scientific journey, providing validation and opening doors to further opportunities within the field. In addition to offering an opportunity for minoritized scientists to achieve recognition for their scientific accomplishments, the poster competition provides a gateway for service in ASPET on the Mentoring and Career Development (MCD) Committee.

One example of the positive impact of the Dolores Shockley Poster Competition is Dr. Ashley Guillory, Associate Professor of Instruction in the Department of Physician Assistant Studies at the University of Texas Medical Branch. Dr. Guillory posits that it was through this mechanism “that she joined the MCD committee, supervised the Shockley competition for several years and in 2022, became the current chair. Dr. Shockley’s legacy inspires and motivates young scientists through ASPET’s Shockley Poster Competition. Since being on the committee, I have seen numerous Shockley winners become leaders in ASPET and make significant contributions in their areas of research.”

Though her specific accomplishments may not be extensively documented, Dolores C. Shockley stands as a symbol of excellence in pharmacology. The establishment of the Dolores C. Shockley Poster Awards ensures that her influence continues to shape the field, encouraging researchers to strive for clarity, significance and excellence in their scientific pursuits. In this way, Dolores C. Shockley’s name will undoubtedly remain synonymous with a commitment to advancing knowledge and fostering the growth of future leaders in pharmacology.

Dr. Dolores C. Shockley, a distinguished figure in the field of pharmacology, passed away in October 2020 at the age of 90. Her presence has left an indelible mark on the scientific community through her significant

and post-baccalaureate students as well as postdoctoral scientists. Applicants for the Dolores C. Shockley Poster Awards must be members of groups defined by the National Institutes of Health to be underrepresented in the biomedical sciences, which include several groups: Black or African American, Alaskan Native, Hispanic or Latino, Native American and natives of the U.S. Pacific Islands; individuals with disabilities; and individuals from disadvantaged backgrounds.

contributions and a trailblazing story that has inspired generations of researchers. She has been recognized and celebrated by various institutions because of her commitment to advancing knowledge in pharmacology despite the many challenges she faced. In recognition of Black History Month, ASPET celebrates her and all her achievements in pharmacology.



Jayne S. Reuben, PhD

Jayne S. Reuben, PhD is an Instructional Associate Professor in the Department of Biomedical Sciences and Director of Instructional Effectiveness at the Texas A&M University (TAMU) School of Dentistry. She is also an Instructional Associate Professor in the department of Medical Education at the TAMU School of Medicine. Dr. Reuben earned her PhD in Pharmaceutical Sciences with a specialization in Pharmacology and Toxicology from Florida Agricultural and Mechanical University College of Pharmacy and Pharmaceutical Sciences. She has served as ASPET's Past Chair and Program Representative for the Division of Pharmacology Education. She is currently a member of ASPET's Mentoring and Career Development, IDEA, Organizing, and Partnerships Committees. Dr. Reuben is a 2021 Fellow of the ASPET Academy of Pharmacology Educators and an ASPET Fellow, Class of 2022.



References

1. Please follow the link for more information about the Shockley award. <https://www.aspet.org/aspet/meetings-awards/aspet-awards/aspet-poster-awards/dolores-c-shockley-poster-award>
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Leadership Profile

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A Conversation with ASPET's Chair, Young Scientists Committee



[Dianicha Santana, PhD](#), is an Ex Officio member of the ASPET Council. She currently serves as the Chair of the [Young Scientists Committee](#).

Dr. Santana earned her PhD from the University of Illinois Chicago. She has been a member

of ASPET since 2018. Dr. Santana shares her insight and guidance for young scientists with *The Pharmacologist*.

How did you get started in pharmacology?

I learned about Pharmacology when I was applying to graduate school. While in the interview process, I got very interested in research being done in the Cellular and Molecular Pharmacology Department at the University of Illinois at Chicago. The department training focused on cellular signaling transduction, lung vascular biology and cardiovascular pharmacology. During my training, I took courses on receptor pharmacology and cardiovascular pharmacology and my research focused on using biologics to target Ras oncogene as well as studying calcium signaling downstream of mechanosensitive ion channel.

How did you first get involved with ASPET?

I got involved with ASPET in 2019 when I applied to the Washington Fellows Program and got selected to participate in the program that year. As part of the program, I received training on how to advocate for research funding and the importance of animal research in the

pharmacology field. Dr. Ryan Staudt, who was my guide during our Hill Day, encouraged me and I joined the ASPET Young Scientists Committee in August 2019. I have been an active member of the committee since then, serving as the liaison for the Program Committee and later as the Young Scientists Committee Chair.

What do you want the ASPET membership to know about you and your ideas on how to move the organization forward during your term?

I am very enthusiastic about the biomedical workforce and issues that affect early-career scientists including graduate students and post-docs. During my term, I would like to give an insightful perspective on how young scientists can bring immense value to ASPET. I believe engagement of young scientists in leadership positions brings great value through diversity of thought, innovative ideas and fresh perspectives on issues affecting their training.

What has been your proudest accomplishment in your career so far?

My proudest accomplishment in my career has been to finish my thesis project after facing many challenges such as changing laboratories and research fields during the middle of my PhD training. During the fourth year of PhD training, I had to start a research project in a different field, and I am very proud of what I learned about myself as a scientist and being able to take a project from the very early stages to a complete story that I got to publish following my thesis defense.

What advice would you give young scientists who are just starting out in their careers?

The advice I will give to young scientists is to be flexible and willing to adapt to changes and challenges throughout their careers. Do not be afraid to ask for help when needed as well as to seek out mentors that care about you as a scientist but also as a person.

What is one thing ASPET members should know about the work of the Young Scientists Committee?

The Young Scientists Committee is committed to supporting young scientists and members of ASPET in developing leadership and success in their careers. We seek to do this by developing workshops and seminars, creating formal and informal mentoring opportunities, and providing opportunities for leadership roles throughout ASPET. The committee is always interested in hearing from young scientist members about the most important issues they care about, as well as at-large members who are interested in serving on the committee.



ASPET Council Member Dianicha Santana (above) outside the U.S. Capitol after a Hill Day Congressional visit and (below) with her Young Scientists Committee members.





ASPET 2024

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ASPET 2024 Annual Meeting

Register Today!

The ASPET Annual Meeting is *the* place to discover and to present the highest quality, innovative science in pharmacology and experimental therapeutics. The ASPET 2024 Annual Meeting builds on the success of the 2023 meeting that warmly welcomed more than 1,000 participants to the home for pharmacology.

The Online Virtual Award Lecture Series is available to anyone interested at no additional cost. Learn more [here](#).

You don't want to miss this!

The ASPET registration fee includes in-person access to all:

- general sessions
- keynotes
- educational and scientific sessions
- poster sessions
- career development activities
- exhibits

In addition, attendees receive one ticket to attend:

- the opening event at the International Spy Museum
- the business meeting breakfast
- the awards lunch
- three poster receptions



Member Highlights

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Dr. M. N. V. Ravi Kumar Elected to the National Academy of Inventors

M. N. V. Ravi Kumar, PhD has been elected as a 2023 Fellow of the National Academy of Inventors (NAI) for his significant contributions to the field of rationale design of polyesters and their application to nanomedicines. Dr. Kumar was the first to propose and demonstrate non-competitive active targeting nanosystems and apply them to human health and diseases.

Dr. Kumar is currently a Distinguished University Research Professor and the founding director of the Center for Convergent Bioscience and Medicine at the University of Alabama. He joined ASPET in 2015 and is a member of the Division for Drug Metabolism and Disposition. Dr. Kumar also has been actively involved in The Journal of Pharmacology and Experimental Therapeutics (*JPET*), serving on its editorial board in 2019 and currently he has been one of *JPET*'s associate editors since 2022.

The National Academy of Inventors Fellows program highlights academic inventors who demonstrate a prolific spirit of innovation in creating and facilitating outstanding inventions that have made a tangible impact on the welfare of society. Their 2023 fellows will be inducted in June 2024 at the NAI Annual Meeting.

Interested in Being a Contributing Writer?

ASPET's *Pharmaco Corner* blog and flagship magazine *The Pharmacologist* seek contributing writers on a rolling basis.



Discussing Science. Discovering Cures.

The
Pharmacologist

Pharmaco Corner is a dedicated space where pharmacology experts can discuss issues that affect them professionally and personally. The blog connects science and society through various pharmacology disciplines. Send your pitches to pharmacocorner@aspet.org.

The Pharmacologist wants writers interested in contributing human interest and science stories focused on pharmacology. Contact us at thepharmacologist@aspet.org. Please include links to writing samples.



Advocacy Impact

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ASPET Stresses the Importance of Advocating for Science

By Tricia McCarter

[ASPET's public policy](#) efforts play a pivotal role in shaping the science advocacy conversation. From advocating on Capitol Hill—including the [ASPET Council](#) and early-career members—to advocacy letter campaigns, the Society remains committed to keeping pharmacologists involved in the public conversation.

At this intersection is an opportunity to meld science advocacy with storytelling, to bridge the gaps in understanding pertaining to one of the biggest challenges researchers face: securing funding for their work. Many pharmacologists must deal with annual Federal budget cuts that often affect the agencies that financially support their biomedical research.

In meetings with members of Congress, ASPET members connect with their legislative representatives to discuss science policy issues by localizing their concerns during this engagement process. This exchange of ideas underscores the power of storytelling as a formidable tool for ASPET. Connecting personal experiences with congressional allies who may have it in their power to further advocate for maintaining funding for science research.

Through ASPET's signature [Washington Fellows Program](#), ASPET is taking an active role in establishing its voice as a leader in advocating for the concerns of pharmacologists. By preparing early-career scientists to succinctly craft their messaging into discussion points, ASPET is molding active players who can help shape science policy discussions. By engaging with elected officials who share the Society's commitment to advancing public health, these conversations are indispensable in securing long-term allies.

The nature of science advocacy and policy has become entwined with politics. Therefore, ASPET has acknowledged the necessity of learning to navigate the complicated realm of government politics, to secure scientific progress for public health.

To learn more about ASPET's work, listen to [this podcast](#) featuring Carter Alleman, Director of Government Affairs and Science Policy at ASPET. Alleman was a guest speaker on The Association 100 Podcast during the 2023 ASAE Annual Meeting.



FOCUS ON PHARMACOLOGY

ASPET Virtual Series

Focus on Pharmacology Webinars

- Learn about research advances in pharmacology.
- Get career development guidance from experts.
- Contribute to conversations on issues that affect you personally and professionally.
- Participate in ASPET's live and interactive *Focus on Pharmacology* webinar series with post-meeting Q&A with presenters.

Register for an upcoming session or watch a previous session.

Note: Some webinars are exclusively for ASPET members. Not a member yet? Join today!

CALL FOR PAPERS

Breaking Barriers in Women's Cancer Treatment: Innovative Approaches and Experimental Therapeutics



A special section for the January 2025 issue of *The Journal for Pharmacology and Experimental Therapeutics* is accepting original research on women's cancers including breast, endometrial, uterine and ovarian, such as:

- Characterization of novel targets and therapeutic biomarkers
- Pharmacological and experimental therapeutic studies of single or combination targets or agents
- Evaluation of novel or repurposed pharmacological agents
- Mechanism of action for a target or pharmacological agent

Submission deadline: March 13, 2024

Authors are encouraged to submit a presubmission inquiry to Dr. Elizabeth Yeh. All submissions must refer to *JPET's* Instructions for Authors.

On Their Way...

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Each month, the editors of three of the American Society for Pharmacology and Experimental Therapeutics (ASPET) journals choose who they call their Highlighted Trainee Authors. These early-career scientists are recognized for their innovative research published in [*The Journal of Pharmacology and Experimental Therapeutics*](#), [*Drug Metabolism and Disposition*](#), and [*Molecular Pharmacology*](#). This feature showcases these young scientists, demonstrates what drives them and reveals why pharmacology is important to them.



Huiting Jia

Huiting Jia is a second-year PhD student majoring in biomedical pharmacology at the University of Pittsburgh. Jia's aspirations to pursue pharmacology began at the age of 18,

after witnessing her grandfather battle cancer. She is now devoted to finding more efficient cancer therapeutics and seeking an academic career in cancer research.

With lung cancer the leading type of cancer deaths worldwide, Jia hopes her research will help identify new targeted therapeutics for improving the drug efficacy of lung cancer treatment.

"Our long-term goal is to develop a promising candidate for targeted therapeutics in lung cancer. We believe that developing a CYP4F11 inhibitor could be beneficial for lung cancer therapeutics, which will impact researchers in the field of pharmacology to develop target therapeutics for cancer in the future," said Jia.

Jia believes that publication in an ASPET journal provides an opportunity for her work to be visible and discoverable among other researchers in the field of P450 and cancer,

including others who might be interested in drug-metabolizing enzymes or their cellular mechanism in cancer.

Publishing [*her research in Drug Metabolism and Disposition*](#) "preserves my work in a permanent form of recording, [and] involves me in a systematic, professional network of drug-metabolizing enzyme studies, which allows me to contribute my work to the field of drug metabolism and disposition," Jia explained.



Neha Mishra

Neha Mishra is a postdoctoral research associate at the University of Colorado, Anschutz Medical Campus. Mishra's research focuses on ocular and dermal vesicant-induced

toxicities. She wants to unravel the mechanistic aspects of vesicant-induced injuries, and effective as well as targeted therapeutic development to prevent, hinder and/or reverse these processes.

"I want to understand common and unique pathways of toxicity upon exposure to different vesicants and develop countermeasures for the same. I want to have a career in academics where I can decipher these riddles and, in the process, contribute to society," said Mishra.

Mishra's recent study shows the efficacy of dexamethasone in treatment of vesicant-induced injuries and paves the way for further studies on repurposing drugs a wider-range of indications.

"It gives me great joy to be able to [publish two original research articles](#) in one calendar year in this premier, peer-reviewed, internationally recognized, scientific journal that is well reputed worldwide and has been in circulation for over a century," Mishra stated.



Miriam Richardson

Miriam Richardson is a research assistant in the field of neuroscience and will be pursuing her PhD soon. During her undergraduate degree, she was drawn towards neuroscience. With so

little known about the complex networking of the brain, this was a clear impetus for her to discover more and use this to develop innovative therapeutics.

Richardson also hopes to expand the current knowledge regarding the pathophysiology of Parkinson's disease and other neurodegenerative diseases.

"I intend to further the understanding of senolytic drugs and their role in treatment of Parkinson's disease. My ultimate goal is to develop a novel and improved senolytic that may treat this neurodegenerative condition efficiently," said Richardson.

Richardson believes that by understanding the biological pathways responsible for these belligerent disorders, she can contribute to the design of novel drugs that halt disease progression.

"It is an honor to have [my effort in the field of pharmacology and neuroscience recognized by *Molecular Pharmacology*](#) and ASPET. I have a keen interest in senescence and senolytic drugs, and in my review, I have comprehensively researched and analyzed the current knowledge and trends in the hope that other scientists will benefit. My publication will hopefully contribute to the development of new treatments," said Richardson.

CALL FOR PAPERS

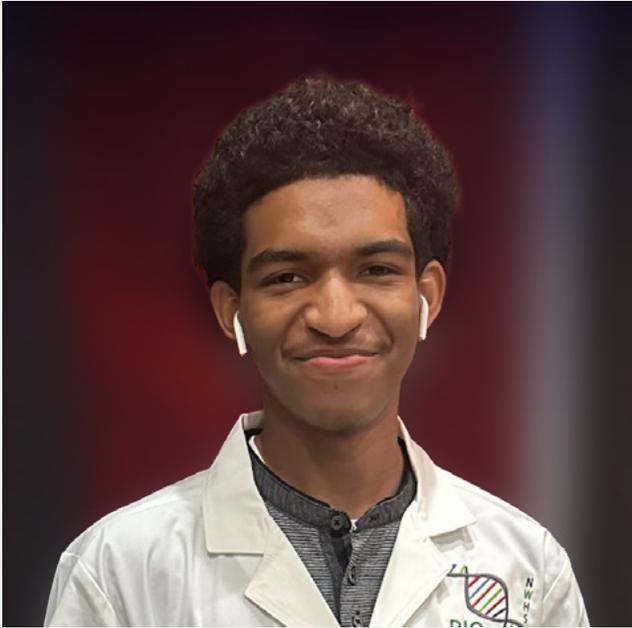
Call for Papers on Targeting the Immune System for *JPET* Submission deadline: March 15, 2024

A special section for the October 2024 issue of [The Journal of Pharmacology and Experimental Therapeutics](#) is seeking original research on targeting the immune system in auto-immune and inflammatory diseases to prevent organ rejection and fight cancer and infectious diseases. Prospective articles can include:



- Development of small molecule immune-modulating agents
- Engineering of antigen-specific immune cells
- Protein engineering of cytokines and chemokines
- Cytokine and chemokine blocking antibodies
- Cytokine and chemokine receptor agonists and antagonists
- Antibodies targeting novel cancer immune checkpoints
- Antibodies targeting specific immune cell populations
- Emerging protein, RNA and DNA delivery systems of immune-modulating agents

Article proposals, including title, author information, abstract and significance statement should be submitted as a [presubmission inquiry](#) to *JPET*. Special section guest editors [Dr. Carla V. Rothlin](#) and [Dr. J. Silvio Gutkind](#) will respond to the authors with comments and assess whether final approval will be granted for a full submission. All submissions must refer to *JPET*'s [Instructions for Authors](#).



Justice Cadet

Meet Justice Cadet, Class of 2025

When did you know you wanted to pursue science and/or pharmacology? How did you get involved in this area?

I was about 10 to 12 years old when I was sure that a career in sciences was what I wanted to do. One of the major ways that I got involved in pharmacology is in my molecular biotechnology class this year. We were able to meet people from Millipore Sigma and the Walter Reed Army Institute of Research (WRAIR) and they were able to take us through the process of clinical trials.

What has inspired you the most to pursue a career in science and/or pharmacology?

What first sparked my interest in pharmacology was overhearing my mother and my grandmother talking about the medication that they take. Hearing them say how much they relied on them and how many they needed to take to sustain their health made me wonder how it worked and how I could be a part of it.

What are your goals for college and beyond?

In college, I plan to major in biology or biochemistry on a pre-med track and eventually, get a career as a cardiologist or radiologist.

Where do you see yourself in five years, 10 years?

In five years, I see myself finishing my bachelor's in biology or biochemistry, and in 10 years I will hopefully, be finishing out medical school or starting out on my residency.

What do you want your greatest accomplishment(s) to be?

I want my greatest accomplishment to be a breakthrough in the way that drugs are produced, making them cheaper and easier to move from pre-clinical trials to clinical trials.

ASPET members Khalid Garman, PhD, and Greg Grumbar, PhD, represented the Society at NWHs Academy of Biotechnology's Fourth Biotechnology and Health Career and Internship Fair and shared their insight about the various careers in pharmacology and therapeutics.



Biotech Career and Internship Fair

NWHS Academy of Biotechnology's Fourth Biotechnology and Health Career and Internship Fair took place December 6, 2023, from 6:30–9:00 p.m., at Northwest High School. A total of 22 organizations participated in the fair to share information about what they do and how they can work with high school students to help them begin their journeys in the biology and STEM fields. Students had the opportunity to visit tables and speak to representatives about internships and learn more about them. The academy is a resource created to give experiences and exposure to the future of science.

The [American Society for Pharmacology and Experimental Therapeutics](#) (ASPET) was among the organizations that participated. ASPET members [Khalid Garman, PhD](#), and Greg Grumbar, PhD, represented the Society and shared their insight about the various careers in pharmacology and therapeutics. Garman and Grumbar are currently working at the National Institutes of Health and have served ASPET in several capacities. ASPET accepted the invitation to participate to share its [mission and vision](#) and encourage students to consider a career in pharmacology.

The fair is designed to provide an interface between biotechnology and health organizations among the students and in the community. In addition, it allows organizations to showcase their opportunities for students. Ideally, students who attend the fair can learn how they can prepare themselves for a career in the field and what companies are looking for in potential employees.

The event included a panel introduction and discussion followed by a Q&A for students to interact with the panelists. The panelists included: Volunteer Services Manager Sarah Walker with Holy Cross Health, Inc.,

Biotechnology Professor Lori Kelman with MC Biotech, Employee Engagement Specialist Odalys Hernandez-Pequeno with Millipore Sigma, Laboratory Supervisor Elvira Besong with Millipore Sigma, Founder and CEO Jeffrey Hung, PhD, of DiscerNMR and Professor at the University of Maryland Center for Environmental Science Feng Chen. Each of them offered insight into their academic programs, learning experiences, apprenticeships, year-round internships, summer internships and jobs. With a doctorate degree in Molecular Pharmacology and Structural Biology, [Aubrey Watkins III, PhD](#), served as the panelist host and engaged the students through the discussion. After the panel discussion, students resumed their visits with organizations around the room. Many walked away with contact names and numbers, opportunities for internships and connections that could last a career.



Lynne Harris, MA, APR

Lynne Harris, MA, APR, is ASPET's Director of Marketing and Communications and Executive Editor of *The Pharmacologist*. She has more than 15 years of experience as a senior-level executive leading communications strategy and 10 years as a journalist. She holds a master's degree in strategic public communications, Accreditation in Public Relations (APR) through Public Relations Society of America and a certificate in Integrated Communications.

In Memoriam

Share this!



James Masao Fujimoto, PhD (1928–2024), an ASPET member since 1960, was a research scientist and a professor of pharmacology and toxicology at the Medical College of Wisconsin and later the Veterans

Administration. Dr. Fujimoto's research focused on the study of opioids and pain mechanisms, and he received continuous research funding from the National Institute on Drug Abuse, publishing hundreds of research papers.



David Robertson, MD (1948–2024) was an ASPET Emeritus member who joined the Society in 1984. He was an emeritus professor of medicine, pharmacology and neurology at Vanderbilt University.

He was also the founder and former director of the Vanderbilt Autonomic Dysfunction Center,

the Center for Space Physiology & Medicine, and the Center for Molecular Neuroscience. Dr. Robertson was internationally known for his clinical research into the autonomic nervous system and how it affected circulation and blood pressure regulation.

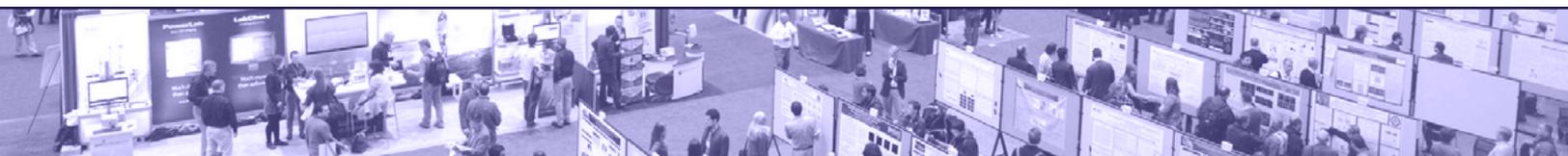


Bonnie F. Sloane, PhD (1944–2023) became a member of ASPET in 2014, and she was a member of the ASPET Divisions of Cancer Pharmacology and Molecular Pharmacology. She was a distinguished

Photo: [grossepointenews.com](https://www.grossepointenews.com)

professor and former chair

of the Department of Pharmacology at Wayne State University. Her research focused on the field of proteolysis in cancer, and she was internationally recognized for her image-based approach for a model system to study functional proteolysis in tumor microenvironment interactions in 4D (3D time).



Upcoming Events

9th German Pharm-Tox Summit

March 13–15, 2024 · Munich, Germany

90th Annual Meeting of the German Society for Experimental and Clinical Pharmacology and Toxicology (DGPT).

ASPET 2024 Annual Meeting

May 16–19, 2024 · Arlington, VA

Join us at the Hyatt Regency Crystal City, just minutes away from Washington, D.C. Register now!

ASPET-ADDC: 3rd Academic Drug Discovery Colloquium

May 19–20, 2024 · Arlington, VA

Introducing the Next Generation of Drug Hunters

European Federation of Pharmacological Societies 2024 Congress

June 23–26, 2024 · Athens, Greece

The Federation of European Pharmacological Societies, 9th European Congress of Pharmacology.

Journals Highlights

Share this!

ASPET Journals Name Three New Associate Editors

ASPET editorial board members provide countless hours of service and dedication to the Society's journals. The ASPET Publications Committee recently approved the following new Associate Editors:



Dr. Lakshmi Devi

Icahn School of Medicine
at Mount Sinai, NY
Molecular Pharmacology



Dr. Barbara Slusher

Johns Hopkins Univ.,
Baltimore, MD
Pharmacological Reviews



Dr. Des Richardson

Griffith Univ., Nathan,
Brisbane, Australia
Pharmacological Reviews

CALL FOR PAPERS

Call for Papers on Menopause and Hormone Therapy for *JPET*

Submission deadline: June 30, 2024

A special section for the April 2025 issue of *The Journal of Pharmacology and Experimental Therapeutics* is seeking original research on the most recent basic science and clinical research related to the physiology of menopause, menopause-associated disease risks, issues related to hormone therapy, disease prevention and healthy aging. Prospective articles include, but are not limited to:

- Women's health
- Pharmacology and pharmacotherapy
- Physiology and pathophysiology
- Clinical medicine
- Cardiovascular medicine
- Endocrinology and metabolism
- Nephrology
- Neurology and psychiatry
- Gynecology
- Oncology
- Preclinical studies
- Novel and therapeutic approaches to menopause and menopause-related disease risks, during and after the menopausal transition.

Article proposals, including title, author information, abstract and significance statement should be submitted as a [presubmission inquiry](#) to *JPET*. These proposals will be reviewed by guest editors, [Dr. Andrea Cignarella](#) and/or [Dr. Matthias Barton](#), who will respond to the authors with comments and assess whether final approval will be granted for a full submission. All submissions must refer to *JPET*'s [Instructions to Authors](#).

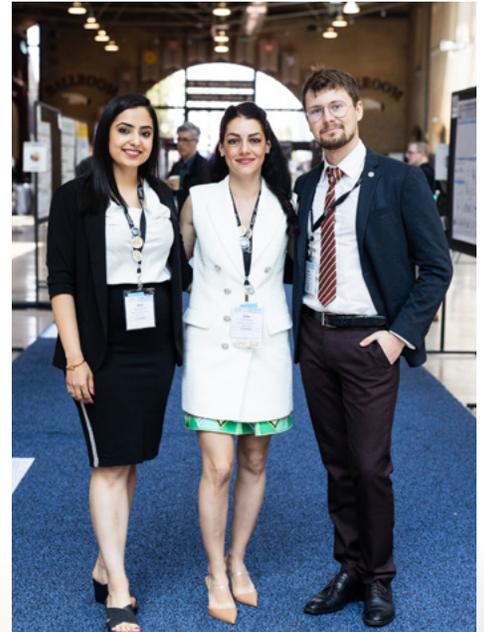
Renew Your ASPET MEMBERSHIP *for 2024*

Thank you for choosing to be a member of ASPET.

Your participation in ASPET and your contributions to the field of pharmacology play a key role in advancing our discipline and making our Society the home for pharmacology. We are looking forward to another exciting year with you!

Renewing your membership ensures you continue enjoying all the perks and services we have to offer. Renew now. If you have any questions about your membership status or need assistance logging in, contact membership@aspet.org.

Thank you for your continued support!





ASPET 2024

Advocacy. Diversity. Discovery.

May 16-19 • Arlington, VA

Join us for
ASPET 2024

We look forward to
seeing you there!