

# *The* Pharmacologist

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## Mentoring *Works*



Transforming Discoveries into Therapies

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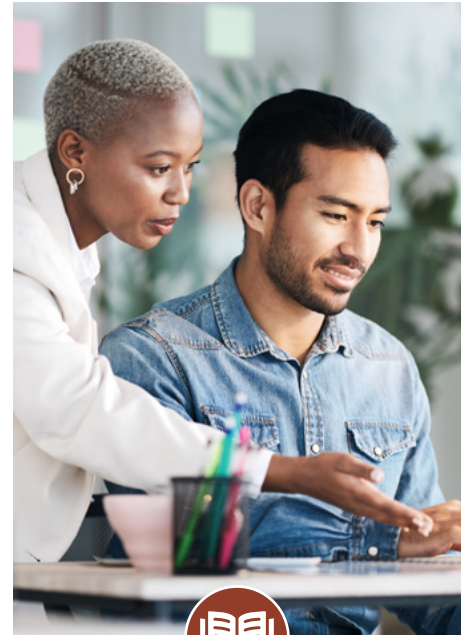
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*On the Cover: How Mentoring Can Enhance Your Career*

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# Message from the President



Listen to [ASPET](#) President, Dr. Carol Beck, as she gives updates on ASPET 2025, our new program MentorMatch, nominations for the 2024 ASPET Fellows program and more!

Watch the video

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# A Note from Dave's Desk



# ASPET's Strategic Plan: Professional Home for Pharmacology

Over the last three months, I've pointed out key parts of the [2023–2027 ASPET Strategic Plan](#) and how it guides the focus of the Society. After highlighting how the Society serves as the “leading voice promoting the field,” aims to be the “authoritative scientific resource” for pharmacology, and “cultivates an inclusive and diverse culture,” I'll now turn to the fourth and final Strategic Area of Focus—ASPET serving as the “professional home for pharmacology.”

As we build ASPET as the professional home for pharmacology, we develop ways for our members to make strong and meaningful connections with others in their field through discovery, mentoring, education, communication and advocacy. For nearly a decade, ASPET has proudly offered the [Mentoring Network](#) to help graduate students and postdoctoral scientists develop success skills for various careers, including, but not limited to academia, industry, government and policy.

ASPET's commitment to investing in our mentoring program has expanded to provide options for members throughout the year. That's why the Society is excited to launch the new [MentorMatch](#) program. This program facilitates one-on-one mentoring relationships for ASPET members at all career levels. MentorMatch, powered by Qooper, provides step-by-step instructions, tools for goal setting, career resources and a unique matching algorithm to find the right match for your professional needs. Whether you're looking to be a mentor or a mentee, I encourage all ASPET members to join today to take the next step toward furthering your career and your journey with ASPET.

Along with growing our focus on mentorship, ASPET is also putting a stronger emphasis on the connections members make with each other to advance their career and share their knowledge. At ASPET, the primary way most members make initial connections with other members is through our [Divisions](#). The divisions are integral to the ASPET experience so we've recently established a new task force that will take a deep dive into the division experience so that we can identify ways to make that experience even stronger for our members.

Another area we're focusing on to make ASPET the professional home for our members is creating a feeling of acceptance, support and belonging for everyone in pharmacology. I discussed previously how [ASPET is working to cultivate an inclusive and diverse culture](#). In addition to those examples of changes, the Society also wants to ensure that pharmacologists from all workplaces feel welcome. That's why we established the [Biotech Task Force](#) this year to understand the member benefits and programs those in industry want from ASPET.

In my nearly three years at ASPET, I've been inspired by such a welcoming community we have here. I believe we're heading in the right direction to further strengthen ASPET's position as the professional home for all who work in pharmacology.



**Dave Jackson, MBA, CAE**  
Executive Officer, ASPET

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Cover Story

# Mentoring *Works*



**By Lynne Harris, MA, APR**

A mentorship program can be a life-long personal and professional benefit. Whether formal or informal, mentoring can offer people an opportunity to learn from one another through a transfer of skill and knowledge.

Mentoring programs create an environment for mentors and mentees to facilitate productive, meaningful connections, discussions and meetings. Programs provide support through career development tools and resources to ensure a positive outcome.

For example, someone who is established in their career can offer experience, knowledge, insights and guidance that can steer an individual in a successful direction.

Specifically, in academia, students can delve deeper into education and career opportunities with an experienced individual in education or their career field of choice. Mentorship programs can have far-reaching benefits.

### **The Benefits of a Mentorship Program**

A formal mentoring program is a systematic and strategic approach involving a mentor and mentee with distinct roles and responsibilities. Mentoring focuses on personal and professional learning, growth and development.

Mentors are encouraged to be good listeners. They should explore the mentees' concerns, ideas and suggestions about their future. Mentors should also offer mentees advice, help them set goals and identify resources, and help prepare them for promotion and interview opportunities. During celebratory times, a mentor should share in those moments and provide inspiration and encouragement

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to the mentee to pursue goals and dreams. Equally important, mentors should facilitate networking opportunities by introducing mentees to people who can help influence their careers through participation in professional events, stretch assignments and exposure to information and connections.

“When looking for an appropriate mentor, it is important to select someone with whom you can speak with freely and openly. Make sure your mentor is someone who will make time for you. Look for someone with a history of sustained success and with good scientific networks. These people can be instrumental in connecting you with others who can help you launch a long and successful career;” suggested Lynette Daws, PhD, who serves as Editor in Chief of *Pharmacological Reviews*, an American Society for Pharmacology and Experimental Therapeutics (ASPET) journal.

The mentor and mentee relationship should be a mutual one that requires give-and-take. Mentees should be open to constructive guidance while providing feedback and new perspectives to their mentors. Mentees should remember the importance of responding promptly and enthusiastically to meetings and the time the mentor provides. Mentees should play an active role in leading conversations and their hopes for the relationship. It is also important that the mentee follow through on recommendations, introductions and commitment to succeeding, which will help solidify the relationship between the mentor and mentee.

Collectively, the mentor and mentee have much to gain from a mentorship program. Both should be encouraged to connect with each other on a level that builds a positive relationship and motivates them toward reaching goals. While it often appears that mentees have the most to gain, mentors have equal opportunity to benefit from this type of relationship.

“Effective mentoring experiences are typically driven by the mentee. These interactions are also highly regarded by mentors as valuable learning experiences. Mentees should leverage the experiences of their mentors to actively explore growth opportunities in their current roles and formulate potential scenarios for new professional development experiences,” stated 2022–2023 ASPET Past President Mike Jarvis, PhD, FBPhS, FASPET.

Mentors develop and refine skills as well and at the same give back to their profession and those who will follow. On the other hand, mentees gain professional knowledge, become more productive and can improve their professional earnings. Career advancement, job fulfillment, mental health and job efficacy have been cited as general benefits.

## Types of Mentoring

Some mentoring types include informal, formal, situational, supervisory, online (e-mentoring or virtual mentoring), collaborative mentoring (team/group mentoring), speed mentoring, flash mentoring, peer mentoring and reverse mentoring. Each of them provides a unique opportunity to connect with people for a specific purpose. They can be used individually or combined. Individuals are encouraged to define approaches clearly and agree on how they will interact with each other.

Many societies and associations establish mentoring programs to support their members. ASPET has three mentoring programs to meet the needs of its members—The *ASPET Mentoring Network: Coaching for Career Development*, *Partnering for Success* and the newest program, *MentorMatch*.

The *ASPET Mentoring Network: Coaching for Career Development* program was launched in 2015. ASPET’s Mentoring and Career Development Committee was charged with





supplementing the training that graduate students and postdoctoral scientists receive through their university programs. The program focuses on professional development for diverse career paths, including strategies for teamwork and time management, job searches, transitions into non-academic roles and other transferable skills. The *ASPET Mentoring Network* strongly encourages participation from members of underrepresented groups,

and incorporates principles of IDEA (inclusion, diversity, equity and accessibility) into the program design and group discussions.

“Diversity of experiences and perspectives is an essential element of the mentoring experience. I encourage mentees to seek out mentors who are outside their immediate area of scientific expertise or who work in different areas of the biomedical research enterprise,” Jarvis asserted.

The year-long program kicks off at the ASPET Annual Meeting with interactive training sessions, guided discussions and a networking reception. Trainees meet the coaches and other participants to become part of a six-person coaching group. In addition to interacting at the annual meeting, participants meet individually with their coach and in monthly virtual group meetings throughout the following year.

Another opportunity for shorter-term mentoring at the annual meeting is through *Partnering for Success*, a program that ASPET's Young Scientists Committee started in 2017. Using peer mentoring, this program matches more senior trainees (e.g., advanced graduate students or postdocs) with younger ones, in particular

undergraduates and first-time meeting attendees. This program helps to provide a welcoming and supportive experience at the annual meeting where newer members can learn tips and tricks for navigating everything the meeting has to offer. While there is no expectation to continue these pairings after the annual meeting ends, many participants stay in touch and use this experience to expand their connections within ASPET.

Both the *ASPET Mentoring Network* and *Partnering for Success* have been highly valuable for trainee members, but we have consistently heard the need for additional mentoring opportunities that are available more broadly to all career levels and don't require in-person



## ASPET Launches New MentorMatch Program

[ASPET MentorMatch](#) facilitates one-on-one mentoring relationships for ASPET members at all career levels. The program, powered by Qooper, provides step-by-step instructions, tools for goal setting, career resources and a unique algorithm to find the right. ASPET members in good standing at all career stages are eligible to join the MentorMatch program. ASPET members must use their credentials to sign in.

### ASPET MentorMatch Goals

- Facilitate connections between ASPET members for their professional development
- Provide resources and practical support for mentoring relationships
- Support ASPET's strategic goals to serve as the professional home for pharmacology and to foster an inclusive and diverse culture

### Benefits for Mentors

- Develop leadership skills
- Give back to your professional society and the pharmacology community
- Support the career development of a fellow ASPET member
- Grow your network
- Contribute your knowledge and perspective to the ASPET community

### Benefits for Mentees

- Learn from another ASPET member's perspective and expertise
- Receive support for your specific career goals
- Grow your network
- Develop your professional skills
- Boost your confidence

attendance at the ASPET Annual Meeting. In recognition of this need, ASPET has added a new one-on-one virtual mentoring opportunity to its existing mentoring programs.

“ASPET’s MentorMatch initiative nicely enhances the *ASPET Mentoring Network* and expands the accessibility of mentoring experiences for the entire ASPET membership regardless of career stage or geographical location,” Jarvis explained.

## Maintaining the Relationship

Keeping the conversation going can further strengthen a mentoring relationship. Personal and professional development is a continuous process at all career stages, and mentoring experiences can be impactful careerlong.

“Effective mentoring relationships are an invaluable component of the professional growth planning process. Early career scientists, as mentees, can explore many career trajectories and enhance their problem-solving skills by actively engaging their mentors in an open and nonjudgmental setting,” Jarvis pointed out.

As time goes on and careers develop, it can often become more challenging for mentors and mentees to stay connected. However, they can still effectively build upon and utilize their mentoring relationships.

“Although it might seem intuitively obvious, in my experience, keeping in touch is the best way to effectively build upon and utilize mentor-mentee relationships. Keeping in touch

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### Tasks and Time Commitment

To receive a Certificate of Completion from ASPET MentorMatch, participants must collect three badges—Achiever, Mentoring and Learner—by completing the necessary requirements. Participants should expect to spend 10–12 hours total within a six-month period on various activities.

### Roles & Expectations

#### Nature of the Relationship

Mentoring is a voluntary and mutually beneficial relationship where accountability for moving forward lies with the mentee. Responsibility for providing insights, constructive challenges and support lies with the mentor.

### Mentoring Meetings

Mentoring meetings are conducted virtually one-on-one and may be supplemented by e-mail or chat exchanges. Please be respectful of one another’s time. If a meeting needs to be rescheduled, strive to provide at least 24 hours’ notice whenever possible.

### Mentor’s Commitment

The mentor’s role is to help the mentee develop and produce results through an interactive process focused on individual goals. Mentees are resourceful. Whenever possible, the mentor will elicit solutions and strategies from the mentee. The mentor will offer fresh perspectives, serve as a sounding board and work with the mentee to solve problems effectively.

### Mentee’s Commitment

The mentee is expected to fully participate in and prepare for the meetings, be open to constructive feedback and communicate their needs to mentors.

### Confidentiality

No personal information will be exchanged unless it is voluntarily offered. All information provided during the course of mentoring remains private and confidential.

### Code of Conduct

All participants are expected to abide by ASPET’s [Code of Conduct](#).

*Join today to take the next step toward furthering your career and your journey with ASPET!*

*Mentoring programs create an environment for mentors and mentees to facilitate productive, meaningful connections, discussions and meetings.*



Register for the Focus on Pharmacology webinar on September 10



FOCUS ON PHARMACOLOGY  
*ASPET Virtual Series*



is sometimes not as easy as one would think. Keeping an open dialogue, be it by email, video chat and/or in person will leave you with a lifelong connection and friendship that can lead to successful research collaborations down the line, co-authorships on book chapters and review articles, organization of scientific meetings and so on. These kinds of activities help to build reputation and prominence in the field, which in turn, facilitates funding,” assured Daws.

The roles and responsibilities of mentees and mentors can greatly impact outcomes. Scientists often find it difficult to secure funding to pursue their research. Other obstacles may also build barriers but looking toward the future helps maintain perspective.

“Mentoring early-stage career scientists is vital to the health and well-being of our society. Without new, creative, and talented scientists entering the fold, the advancement of knowledge that will help us to develop new and improved therapeutics for diseases and disorders (known and yet to be realized) will suffer immeasurably. Our early-career scientists are the lifeblood of our future,” Daws added.



### **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.



# Leadership Profile

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## A Conversation with ASPET's Program Committee Chair Carol Paronis, PhD



Carol Paronis, PhD, is [ASPET's Program Committee Chair](#). She leads the committee to plan the scientific program for ASPET's annual meeting, determine the acceptance of and program the contributed abstracts

for the annual meeting and evaluate requests for [ASPET Council](#) to fund other ASPET meetings/colloquia. Dr. Paronis is director of the Laboratory of Preclinical Pharmacology at McLean Hospital and associate professor of psychiatry at Harvard Medical School. She received her PhD in pharmacology from Emory University and completed postdoctoral fellowships in pharmacology at the University of Michigan and in biopsychology at Harvard University. An ASPET member since 1992, Dr. Paronis shares her insight and guidance for young scientists with *The Pharmacologist*.

### How did you get started in pharmacology?

As an undergraduate in the Biopsychology program at Tufts University, I was given a choice between two advisors—one that studied the effects of diet on behavior and another that looked at the effects of drugs on behavior. I chose wisely, and pretty soon became more interested in the drugs than the behavior. After getting my B.S., I worked as a technician for two years in a pharmacology department, and that experience cemented my decision to only apply to pharmacology graduate programs.

### How did you first get involved with ASPET?

I went to my first [FASEB](#) meeting when I was a graduate student at Emory University. I enjoyed the meeting both for the science, which was excellent, and also because my advisor (Stephen Holtzman) introduced me to colleagues from his student days or more recent connections. By my second meeting, I was also reconnecting with recent Emory alumni, and the science continued to be more in line with my own research than at other meetings I attended. Pretty soon, FASEB and ASPET became my go-to meeting. In terms of service to ASPET, I was elected Sec/Treas of the BEH division in 2002, and that served as a springboard to serving on other committees of ASPET, which I have done more or less continuously since then.

### 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 think that the [Strategic Plan](#) rolled out a couple of years ago is pushing ASPET in the right direction in terms of expanding our mission and our membership. My own goal as Program Committee chair is to do all that I can to have sessions that feature state-of-the-art science and encourage people to bring their best data to our annual meeting.

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

My proudest accomplishments relate to small discoveries that are too specific to detail for a broad audience. They probably are considered

boring by even my closest friends. My happiest moments are when a novel bit of new data crosses my desk, and I realize that I am the first person to see it.

In terms of ASPET, my proudest accomplishment is the growth that stems from our poster competition. The first time I served as a judge, there were seven entrants in our divisional competition; within 5–8 years, it had grown to four times that size. What is most gratifying about this is that now when I go to the ASPET meetings, I am judging the posters of students of our past poster award winners, and I see those former poster competitors serving alongside me on various committees of ASPET, showing that they also felt, and feel, a strong connection to the Society.

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

Don't expect all of your ideas to be home runs. If we could predict the outcomes of all our experiments, science would be a lot easier, and a lot less fun. When I was a student, my advisor said around half his ideas worked out. I wondered whether I should stick with someone who was wrong 50% of the time until he pointed out that the best hitters in baseball only connect 30% of the time.



## Upcoming Events

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### **2024 ACCP Annual Meeting**

*October 12–15, 2024 · Phoenix, AZ*

Join your peers at the 2024 ACCP Annual Meeting!

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### **British Pharmacological Society Pharmacology 2024**

*December 10–12, 2024 · Harrogate, North Yorkshire*

Network and hear the latest developments and research in pharmacology from industry experts and emerging investigators.

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### **ASPET 2025 Annual Meeting**

*April 3–6, 2025 · Portland, OR*

Advancing the Science of Drugs and Therapeutics. Join us in Portland!

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### **ASPET 2026 Annual Meeting**

*May 17–20, 2026 · Minneapolis, MN*

Join us in Minneapolis!

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### **20<sup>th</sup> World Congress of Basic and Clinical Pharmacology 2026**

*July 12–17, 2026 · Melbourne/Narrm, Australia*

We will welcome the world's pharmacology and therapeutics community to the Melbourne Convention Centre in Melbourne/Narrm, Australia.



# Member Highlights

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## Dr. M. N. V. Ravi Kumar Receives Global Leader Award from AAPS

M. N. V. Ravi Kumar, PhD, has been selected to receive the [2024 Global Leader Award](#) from the American Association for Pharmaceutical Sciences (AAPS), as part of their awards program that recognizes scientific impact, leadership and service.

Dr. Kumar is being “recognized for his tenacious drive to develop nanoparticulate drug delivery solutions that meet the urgent need to repurpose off-patent, affordable small molecule drugs and antioxidant nutraceuticals for diseases that disproportionately impact less affluent societies.” According to AAPS, “His preclinical data for the nanoparticulate encapsulation of antioxidants to overcome their notoriously poor bioavailability now promises efficacious, safe, and economic treatments for immune-inflammatory diseases such as lupus; diabetes and its complications; acute kidney injury; and hypertension,” contributed to Dr. Kumar’s award selection.

He is currently an Associate Editor with ASPET’s [The Journal of Pharmacology and Experimental Therapeutics](#) and has served on its editorial board since 2019. He has been an ASPET member for nine years and is a member of the Division for Drug Metabolism and Disposition. Dr. Kumar is a Distinguished University Research Professor in the College of Engineering at the University of Alabama.

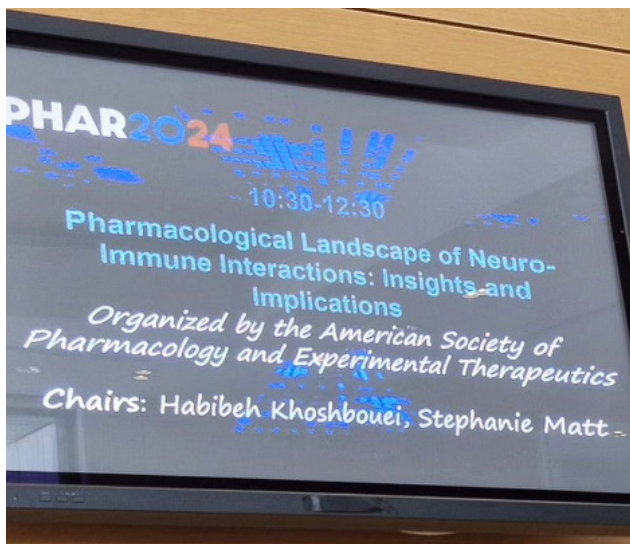
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## ASPET Members Co-chair Symposium at the European Congress of Pharmacology

The [Federation of European Pharmacological Societies](#) recently sponsored the [9th European Congress of Pharmacology](#) in Athens, Greece. The ASPET Partnership Committee recommended ASPET members [Stephanie Matt, PhD](#), and [Habibeh Khoshbouei, PharmD, PhD](#), co-chair a symposium titled “Pharmacological Landscape of Neuro-Immune Interactions: Insights and Implications.”







**Stephanie Matt**  
Drexel University  
College of Medicine



**Habibeh Khoshbouei**  
University of Florida  
College of Medicine

Their symposium focused on catecholamine-mediated immunity, as growing research indicates the critical role of bidirectional communication between the immune and nervous systems in health and disease development. Neurons and glial cells in the central nervous system express cytokine and chemokine receptors, which regulate catecholamine release and metabolism.

Similarly, myeloid and lymphoid immune cells express receptors and transporters for catecholamines, influencing inflammation regulation and responses. These neuroimmune interactions may explain the pleiotropic effects of certain pharmacological agents, such as immunomodulatory drugs impacting neurological functions and psychiatric medications affecting peripheral immunity.

The goals of this session were to broaden the scope of neuroimmune pharmacology, its implication in disease development, and development of targeted therapeutic approaches. Featuring a diverse group of varying career female scientists, including Dr. Silvia Capellino from the Leibniz Research Centre for Working Environment and Human Factors and Dr. Franca Marino from the University of Insubria, their presentation discussed:

- Novel findings of how antidepressants with a catecholaminergic profile and depression can mediate inflammation and HIV viral dynamics in human myeloid cells like macrophages and microglia.
- A set of experiments highlighting dopamine transporter regulation of peripheral immunity, and implications for Parkinson's disease.
- A line of research exploring how dopamine modulates immune responses and bone remodeling in rheumatoid arthritis.
- The history of dopaminergic modulation of immune responses in a number of leukocyte populations and how this is impacted in Parkinson's disease.

Their presentation fostered a lively audience discussion on new ways to understand mechanisms of immune regulation, as well as continued talks between the symposium members for future collaborations. This emphasizes the need for continued exploration of the connection between the immune and nervous systems and stronger efforts in catecholaminergic drug repurposing to treat inflammatory diseases.



Each year, participants of the ASPET Washington Fellows program culminate their experience with a policy brief detailing a topic of personal importance and presenting compelling arguments for policy improvements on that issue. Over the next few months, *The Pharmacologist* will highlight the policy briefs written by the 2024 Washington Fellows class. This month, we're featuring policy briefs on equitable access to medical technologies in Alabama and federal legalization of fentanyl test strips in the U.S.

## Ensuring Equitable Access to Emerging Medical Technologies in Alabama

By Santina Johnson, University of South Alabama



### Executive Summary

The state of Alabama is poised to transform its healthcare landscape through the adoption and integration of emerging medical technologies such as telehealth, digital health applications, and

advanced therapeutics. Despite the promise these technologies hold, significant disparities in access persist, disproportionately affecting underserved populations. This brief details the current barriers to equitable access, reviews state initiatives such as the Alabama Broadband Accessibility Fund and recent legislative actions, and proposes comprehensive strategies to ensure that all Alabamians can benefit from technological advancements in healthcare.

### Introduction

In an era marked by rapid technological advancements, the potential to revolutionize healthcare delivery in Alabama through digital innovations is significant. However,

the realization of this potential is hindered by existing disparities that limit access to these technologies for many residents, especially in rural and underserved communities. Addressing these disparities is crucial not only for improving health outcomes but also for ensuring the sustainability and resilience of the healthcare system statewide.

### Context and Need for Action

Governor Kay Ivey's administration has underscored the importance of broadband as foundational to the modernization of healthcare services, allocating nearly \$150 million towards broadband expansion aimed at underserved areas. This commitment is part of a broader strategy to improve healthcare access and efficacy across the state, recognizing that high-speed internet is a prerequisite for effective telehealth services and the broader digital transformation of healthcare.

### Understanding the Disparity in Access

The disparity in access to medical technologies in Alabama is driven by several interrelated factors:

- *Economic Constraints:* Many residents, particularly in rural areas, cannot afford the out-of-pocket costs associated with advanced medical technologies.
- *Infrastructure Limitations:* A significant portion of the state lacks the necessary broadband infrastructure, which is critical for accessing telehealth and digital health services.
- *Digital Literacy Gaps:* There is a widespread lack of digital skills necessary to utilize health technologies effectively, that is compounded by educational disparities.
- *Cultural and Linguistic Barriers:* Non-English speakers and minority communities often face challenges in accessing digital health services that are not tailored to their cultural or linguistic needs.
- *Policy and Regulatory Barriers:* There are gaps in legislation and policy that fail to support the widespread adoption and implementation of health technologies.

## Legislative and Funding Initiatives

To combat these disparities, Alabama has implemented several key initiatives:

- *Alabama Broadband Accessibility Fund:* Established to improve internet access across the state, essential for enabling telehealth and other medical technologies.
- *Recent Legislative Actions:* In response to the COVID-19 pandemic and recognizing the ongoing need for improved healthcare delivery, the state government has moved to significantly expand funding for broadband, aiming to eliminate gaps in high-speed internet access.

## Strategic Recommendations

1. *Enhance Broadband Infrastructure:* Continue to build on the momentum generated by recent funding enhancements to ensure

comprehensive broadband coverage, particularly targeting rural and underserved areas. Implementing this strategy involves not only laying down physical infrastructure but also adopting regulatory reforms that encourage investment in broadband networks.

2. *Subsidize Technology Adoption:* Develop subsidy programs for low-income individuals and families to afford broadband and digital health services, reducing the economic barriers to access. These programs should be carefully designed to ensure they are accessible to those most in need and are sustainable over the long term.
3. *Educational Programs:* Implement statewide digital literacy initiatives that specifically aim to increase the ability of all residents to utilize emerging health technologies effectively. These programs should include training tailored to different age groups and learning styles, ensuring widespread adoption and usability.
4. *Cultural and Linguistic Inclusivity:* Mandate that all digital health programs and telehealth services accommodate a range of cultural and linguistic needs, ensuring equitable access and usability. This strategy requires active engagement with community leaders and cultural liaisons to design and implement programs that are culturally sensitive and appropriate.
5. *Policy Reform:* Advocate for and develop policies that support the seamless integration of new technologies into existing healthcare frameworks, ensuring they enhance rather than hinder service delivery. This involves not only creating incentives for providers to adopt new technologies but also ensuring that regulatory frameworks are flexible enough to accommodate rapid technological changes without compromising patient safety or privacy.

## Limitations and Challenges

While the strategies outlined offer a pathway toward more equitable healthcare, they also face several limitations:

- *Funding Constraints:* Despite significant investments, the scale of infrastructure and educational programs needed may exceed current funding allocations. Future budgetary constraints could impact the sustainability of these initiatives.
- *Technological Adaptation:* The rapid pace of technological change means that infrastructure and training programs must continually evolve, which can be challenging to keep up with.
- *Regulatory Hurdles:* Overcoming bureaucratic inertia and regulatory complexities can slow down the implementation of necessary reforms.

## Conclusion

For Alabama to fully realize the benefits of emerging medical technologies, a concerted effort involving robust legislative support, strategic funding allocations, and inclusive community engagement is essential. By addressing foundational issues such as broadband access and digital literacy, and ensuring that new technologies are accessible and equitable, Alabama can significantly enhance its healthcare outcomes and set a standard for integrating technology in ways that genuinely improve public health.

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# Bridging the Gap: STEM Professional Involvement in Evidence-based Policymaking

By Anh Phan, PhD, Icahn School of Medicine at Mount Sinai



## Executive Summary

New York has a long-standing tradition of fostering quality of life, affordability, and healthcare access through evidence-based policymaking. However, there's a noticeable gap

in the involvement of STEM professionals in these processes. To bridge this gap, New York State must update its fellowship programs to include more STEM professionals or establish a new dedicated Science & Technology Policy

Fellowship. By leveraging empirical evidence and STEM expertise, the New York State can enhance its decision-making processes, leading to more effective and innovative policies.

In the 2024 State of the State Address, Governor Hochul announced a set of policies aimed at improving quality of life, affordability, and healthcare access in New York State.<sup>1</sup> To address these issues, policymakers need to embrace evidence-based approaches when making decisions. STEM professionals play an important role by providing advice and recommending evidence-based policies. While other states have successful fellowship

programs that engage STEM experts in government advisory roles, New York State can enhance its policymaking by implementing the following strategies:

1. *Update current New York State fellowship programs to include more STEM professionals:* Modify current New York State fellowship programs to include STEM professionals. By creating specialized tracks within these programs, New York State can attract more STEM talents.
2. *Establish a new State Science & Technology Policy Fellowship:* Introduce a dedicated fellowship program designed for STEM graduates. This initiative will encourage STEM professionals to contribute their expertise to policymaking in New York.

By leveraging empirical evidence and tapping into the expertise of STEM professionals, New York can shape policies that prioritize the well-being of its constituents.

## The Power of Data-driven Policies Informed Decision Making

Policymakers should base their decisions on empirical evidence. Data-driven policies are rooted in real world observations. Data analytics allow policymakers to anticipate trends and plan proactively. New York's response to the COVID-19 pandemic exemplified the effectiveness of data-driven strategies, including vaccination campaigns and mask mandates. Furthermore, the Mayor's Office of Data Analytics aggregates and analyzes data from various agencies, turning it into actionable solutions across the city.<sup>2</sup> Additionally, the Criminal Justice Reform Act diverts low-level misdemeanors from criminal justice to civil court, with future evaluation in mind.<sup>3</sup> Furthermore, initiatives like the Center for Innovation through Data Intelligence strengthen data-driven policies in NYC's health and human services sector.<sup>4</sup>

## Enhancing STEM Fellowships

Currently, New York State's fellowship programs are open to all majors but tend to attract people with backgrounds in public policy or law. Although these programs offer competitive salaries and valuable experience, they don't advertise much to STEM graduates. Because of this, many STEM professionals look to other states where they can apply for STEM-focused policy fellowships. To keep STEM talent in New York, New York should either adapt its current fellowship programs to include more STEM professionals or create a new New York State Science & Technology Policy Fellowship.

### Option 1: Update current New York State fellowship programs to include more STEM professionals.

NYS has three government fellowship programs that can be modified to increase STEM graduate participation:

- *Empire State Fellows Program:* Create specialized STEM tracks within this fellowship. By doing so, State can provide a clear pathway for STEM professionals to contribute their expertise to government policymaking.<sup>5</sup>
- *Excelsior Service Fellowship:* Form a STEM advisory board to nominate PhD candidates from New York schools for this fellowship. This approach ensures that STEM talent is considered.<sup>6</sup>
- *New York State Public Health Corps Fellowship Program:* Establish a STEM internship track within this program. STEM graduates can apply their data analysis, technology, and engineering skills to address public health challenges.<sup>7</sup>

Existing fellowship frameworks help minimize overhead costs, as administration, training, and alumni networks are already established. However, adjustments may be necessary

to accommodate more STEM professionals without compromising program balance and acceptance rates.

**Option 2: Establish a new New York State Science & Technology Policy Fellowship.**

This option involves creating a separate STEM fellowship program for New York State modeled after similar programs in other states, like New Jersey.<sup>8</sup> This approach demonstrates a clear commitment to incorporating STEM expertise into policymaking. The program could take around two years to set up and will require both state and external funding. Although more expensive due to new infrastructure needs, it allows for a customized approach to integrating STEM talent into NYS governance.

Other states have successfully integrated STEM professionals into their policymaking processes through dedicated fellowship programs:

- *California Council on Science and Technology (CCST) Science Fellows:* This program places scientists directly in legislative offices, providing valuable scientific insights and helping to shape evidence-based policies.<sup>9</sup>
- *Massachusetts Science & Technology Policy Fellowship:* This program connects scientists and engineers with policymakers to contribute their expertise to legislative and executive branches.<sup>10</sup>

By adopting similar models, NYS can enhance its fellowship programs and ensure that STEM professionals play a crucial role in shaping state policies. *References can be found on page 24.*

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## Interested in Being a Contributing Writer?

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

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

# On Their Way...

Share this!

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 selected young scientists, demonstrates what drives them and reveals why pharmacology is important to them.



**Sneha Rathi** was initially interested in pursuing a career in pharmacy and healthcare education but was later drawn to research and development of drug delivery systems. Rathi, a Senior Clinical

Pharmacologist at AbbVie, said her career path was motivated by a desire to make a tangible difference in treatment options for hard-to-treat diseases and improve the lives of patients.

"I was eventually presented with an opportunity to pursue a PhD in Pharmacokinetics and Pharmacodynamics," she explained. "The comprehensive exposure to various aspects of drug development during my studies solidified my commitment to a career in the pharmaceutical industry, where I aim to contribute to translating scientific discoveries into effective therapies."

Rathi credits her undergraduate professors in India and her graduate advisors at the University of Minnesota, for significantly influencing and guiding her career. She says cross-functional collaboration with clinicians and experts during graduate school enriched her understanding of translational research and reinforced a patient-centric approach to tackling challenges.

Rathi said, "I aim to apply my learnings to bridge the gap between preclinical findings and clinical applications, contributing to the successful translation of therapies from bench to bedside."

She says that being published in an ASPET journal "is a significant milestone as it represents not

only the validation of my research by esteemed peers but also an opportunity to contribute to the broader scientific community." [Read her research](#) in the August issue of *The Journal of Pharmacology and Experimental Therapeutics*.



**Pooja Hegde, PhD** is a postdoctoral scientist at Eli Lilly and Company. She became interested in medicinal chemistry, and understanding how it integrated with pharmacokinetics

intrigued her. Hegde's goal is that her research advances the understanding of metabolism and transporter mediated drug-drug interactions.

"My projects and the data influenced my exposure to various fields and that helped me make important career decisions," she said. "I plan to understand volume of distribution under various conditions, and I hope to integrate my med chem learnings with my PK training."

Hegde says the current understanding of the PK for transporters has some gaps that she wishes to address with her research. This way she's "better be able to anticipate drug interactions it is essential to understand the mechanistic basis for substrate disposition and elimination."

She said having [her work published](#) in the August issue of *Drug Metabolism and Disposition* "is a big achievement" for her career. "ASPET journals are widely read across the DMPK field, and this will help me and my work get recognized."



# Do You Know Someone Deserving of an ASPET Award?

We are accepting applications and nominations for our Scientific Achievement and Division Awards. This is an opportunity to celebrate, honor and recognize your peers, colleagues and mentees for their contributions to pharmacology and experimental therapeutics. Award winners will be recognized at the ASPET 2025 Annual Meeting in Portland, Ore. The Scientific Achievement Awards are given either in specific areas of pharmacology or for the discipline in general. The Division Awards are sponsored by ASPET's divisions and honor members' contributions to a specific field in pharmacology.

**Nominations for the 2025 ASPET Awards will close on September 3, 2024.**



# Journals Highlights

Share this!

## *Drug Metabolism and Disposition* Approves New 2024 Editorial Board Members

The ASPET Publication Committee recently approved the following new editorial board members for the journal *Drug Metabolism and Disposition*. The Publications Committee thanks all ASPET editorial board members for their service and dedication to the Society's journals.



**Dr. John Clarke**

Washington State University  
Spokane, WA



**Dr. Lindsay C. Czuba**

University of Kentucky  
Lexington, KY



**Dr. Grace Guo**

Rutgers University  
Piscataway, NJ



**Dr. Weize Huang**

Genentech, Inc.  
S. San Francisco, CA



**Dr. Sara Humphreys**

Amgen  
S. San Francisco, CA



**Dr. Yuji Ishii**

Kyushu University  
Fukuoka, Japan



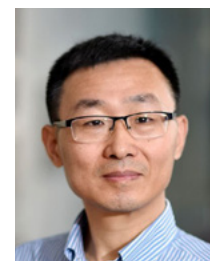
**Dr. Herana Kamal  
Seneviratne**

University of Maryland  
Baltimore County



**Dr. Jed Lampe**

University of Colorado  
Aurora, CO



**Dr. Feng Li**

Baylor College of Medicine  
Houston, TX

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## Advocacy Impact—Bridging the Gap: STEM Professional Involvement in Evidence-based Policymaking

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## Nominate a Member as a 2024 ASPET Fellow

Acknowledge your peers for their outstanding achievements in pharmacology! The ASPET Fellow designation is a prestigious honor bestowed on our members to recognize their meritorious achievements in advancing pharmacology through research, innovation, mentorship, education, policy, industry and/or contributions to the Society. Candidates must be current ASPET members in good standing at the Regular and/or Emeritus level for at least five cumulative years. Nominations for the 2024 ASPET Fellows program will close on September 3, 2024.

[Learn more](#)

# ASPET's 2024

## *Member-Get-A-Member* Campaign

Help us recruit new members and contribute to the growth and sustainability of ASPET. As an active member, you understand the valuable benefits that ASPET membership offers. Your firsthand experience makes you an ideal advocate for encouraging others to join. This campaign is the perfect opportunity for you to share your success story and inspire others to become part of our community.

A growing ASPET means greater recognition for the field, more resources and support for our members, and a louder voice with policymakers.

Learn more about how it works [here](#).

**Participate in the Member-Get-A-Member campaign to be entered into a raffle to win a prize. The more members you recruit, the higher the prize!**





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## SAVE THE DATE

