



iSLB

 SOCIETY FOR
LEUKOCYTE
BIOLOGY

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A Message from the President



Ad-vo-cate, *noun*
 /'advəkət/: a person who publicly supports or recommends a particular cause or policy. In life, we advocate for many things that are important to us. As a member of the Society for Leukocyte

Biology (SLB) and the scientific community at large, advocating for increased funding to support rigorous and reproducible scientific research, sound scientific policies, and opportunities for individuals from all backgrounds to participate and succeed in the scientific endeavor are hopefully important to each of us. However, in navigating our day-to-day reality, most of us are either too absorbed in our training, performing research, writing grants or papers, or dealing with seemingly endless administrative duties to give much thought to both the important responsibility we all have to advocate for science and the reliance on factual information to effectively solve societal challenges. If and when we do take the time to consider such things, virtually none of us has in-depth experience, and as a result, it can be difficult to know where to begin.

The good news is that it is relatively easy to be an effective advocate for science. As a member of SLB, you are already supporting ongoing advocacy efforts via SLB's membership in the Federation of American Societies for Experimental Biology (FASEB). This is a great start, but it is not sufficient since each of us needs to become an informed advocate, particularly now. Science currently faces significant challenges, in part due to the politicization of the response to the COVID-19 pandemic, including distrust of scientific institutions and scientists, a significant increase in vaccine hesitancy, and the spread of misinformation and dangerous treatments on social media platforms. The politicization of science has the real potential to seriously hinder our ability to effectively respond to the

next pandemic, which may be right around the corner.

So, how can you support the science advocacy effort? First and foremost, stay informed by reading the iSLB newsletter and other science advocacy resources provided by the Society, which are developed in conjunction with FASEB. Visit the [FASEB Science Policy website](#), which has a tremendous amount of information, or other organizations' online resources that provide a significant amount of science policy and advocacy information, including the American Association for the [Advancement of Science](#) (AAAS), the [American Association of Medical Colleges](#) (AAMC), and [Research America](#), to name just a few.

In your day-to-day, simply read or listen to the news, whether that be *Science* magazine or one of the major newspapers. For example, in just the past few months, numerous articles have been written about a proposal to reorganize the National Institutes of Health, decreasing the organization from 27 institutes and centers to 15; for better or worse, this would be a major change to the preeminent federal agency that funds and oversees biomedical research in the US! It is impossible to effectively advocate for sound policies if you are not aware of proposals that are making their way through Congress and the federal agencies that regulate the scientific endeavor.

Additionally, do not hesitate to call or write your senators and the representative for your congressional district to let them know your opinions regarding critical issues like increasing funding for science, among others. This is easier than you may think, particularly if you respond to requests for action from FASEB or other professional scientific organizations that you may belong to. These requests for action provide easy to follow instructions and often include templates to help you advocate for critical issues. Better yet, arrange a visit to Capitol Hill to speak with staff in the offices of your congressional representatives. I personally have had the opportunity to go to Capitol Hill for the past 15 years to advocate for science, and I have seen firsthand how sustained efforts to communicate the importance of science to legislators makes a tremendous difference. Importantly, biomedical research is one of the

few issues that everyone on Capitol Hill supports, and we must work doubly hard to ensure that this remains the case going forward.

Finally, talk with family, friends and individuals in your community about the science that you do, and explain how it can positively impact their lives. Without question, this is THE most important thing you can do as a member of the scientific community. When speaking with the non-scientific community, keep your story simple, make it relatable, and show others your passion for the scientific endeavor. Most importantly, do your best to reassure others that the scientific process is one that, over time, continually self-corrects and that truth and facts are the only things that stand the test of time. So, while you are actively contributing to the acquisition of new knowledge, remember that we ALL must be advocates for science and work to effectively communicate the importance of science to our federal and state legislators, to the individuals who live in our communities, and to our families. Each of us must embrace this mission to ensure the continued success of the scientific endeavor and the wellbeing of our society.

JLB Moves to Continuous Publication in 2025!

We are thrilled to announce that the *Journal of Leukocyte Biology* is transitioning to a continuous publication model beginning with the January 2025 issue! This innovative publishing approach ensures that accepted articles reach final issue publication faster.

How it Works: Starting at the beginning of each month, an issue will "open". The issue will be populated throughout the month with articles on a rolling basis, after copyediting and proofing are complete. At the end of the month, the issue will "close" and be archived as that month's issue.

What does this mean for you:

Faster Access: Your work will reach the global scientific community more quickly, accelerating its impact and visibility.

Up-to-Date Content: Readers will have immediate access to the latest research as it becomes available, ensuring that the journal remains at the forefront of scientific discovery.

Streamlined Publication: Authors benefit from reduced time-to-publication, enhancing the overall publishing experience.

If you have any questions, please reach out to jlbstaff@leukocytebiology.org. Thank you for your continued support as we embark on this exciting new chapter.

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Top 10

Check out the latest list of the top 10 downloaded articles from JLB. Use your [SLB membership subscription](#) to access these articles, and more great content, from JLB.

Addressing Key Questions: How Research in Academia, Government, and Industry Advances Biomedical Science

By: Cherié Butts

Few researchers have the opportunity to work across academia, government, and industry. For those who do, sharing insights with the broader scientific community is crucial to highlight how each sector contributes to scientific progress.

Academic research is often driven by pursuit of novel discoveries, which can elucidate fundamental biological processes or translate into clinical applications. Government research focuses on public health priorities, guided by mission of the specific agencies. For example, the National Institutes of Health (NIH) primarily supports biomedical research to improve public health, while the U.S. Food and Drug Administration (FDA) ensures the safety of food and efficacy of new therapies. Meanwhile, research in biotech and pharmaceutical industries (collectively referred to as “industry”) aims to develop therapies addressing unmet medical needs.

Another key difference to consider between research conducted in academia and that in government or industry is the use and categorization of biomarkers. In government and industry research, biomarkers are classified into one or more of the following categories to guide decision-making based on experimental results: target engagement, pharmacodynamic, safety, disease, and patient selection biomarkers. This structured approach ensures biomarkers directly inform experimental outcomes and align with regulatory and clinical objectives, which is often distinct from the exploratory use of biomarkers in academia.

During the inaugural *State of the Science* address¹, National Academy of Sciences President Marcia McNutt outlined actions to strengthen the scientific enterprise to meet ongoing and emerging challenges. Notably, Dr. McNutt highlighted that industry investment in fundamental (basic science) research is now comparable to federal funding (36% vs 40%, respectively)². Although federal funding increased from 2011 to 2021, its share of total research funding decreased due to rising costs. While NIH budgets remained flat or grew only modestly³, escalating expenses limit the flexibility of exploratory experiments that historically fostered innovation.

To thrive, today’s researchers must consider diversifying their funding portfolio. Beyond traditional NIH grants, more than 12 federal agencies as well as industry and philanthropic organizations support biomedical research⁴. Expanding funding portfolios can sustain academic laboratories for decades. Understanding the core research questions unique to each sector and designing experiments to address them is a vital first step.

Examples of Key Research Questions and Sector-Specific Approaches:

1. How does Receptor X function in the context of Disease Y?

- **Academia:** Investigate fundamental biological processes using cell lines overexpressing Receptor X, animal models with Receptor X modifications (e.g. deletions), and disease-specific animal models. Evaluate the impact of Receptor X inhibitors or stimulators on disease progression (e.g., amelioration or exacerbation).
- **Government:** Examine Receptor X expression in humans under normal and diseased conditions, stratified by disease severity (mild, moderate, severe), gender, and age. Compare responses across diverse animal models of Disease Y.
- **Industry:** Assess the epidemiology of Disease Y to identify affected demographics. Use predictive or regulatory-accepted animal models to evaluate tool compounds targeting Receptor X, monitoring for off-target effects (safety) and therapeutic outcomes (efficacy).

2. Can Drug W (approved for Disease Z) address unmet medical needs in other conditions?

- **Academia:** Explore the effects of Drug W using preclinical models for Diseases AA and BB, administering Drug W at various stages of disease progression. Conduct clinical studies of patients with Diseases AA and BB treated with Drug W.
- **Government:** Determine dosing parameters for Drug W to treat Diseases AA and BB, as they may differ from the dose for Disease Z. Conduct pharmacology studies at different doses in preclinical animal models for Diseases AA and BB and patient trials using optimized doses of Drug W informed by prior research.
- **Industry:** Identify unmet medical needs and standard-of-care treatments for Diseases AA and BB. Assess whether Drug W could serve as an add-on or replacement therapy. Evaluate alternative treatment modalities to improve convenience or compliance. Conduct “basket studies” of patients with Diseases AA and BB to test drug efficacy across conditions.

By aligning experimental approaches with sector-specific priorities and leveraging biomarkers to inform decision-making, researchers can maximize the impact of their work and ensure its relevance across diverse contexts.

1. https://www.nationalacademies.org/event/41687_06-2024_the-state-of-the-science
2. <https://nces.nsf.gov/pubs/nsb20243>
3. <https://report.nih.gov/nihdatabook/category/1>
4. <https://www.grants.gov/learn-grants/grant-making-agencies/>

2025 Legacy Lecturer Announced

Please join us in congratulating Elizabeth J. Kovacs as the recently named 2025 SLB Legacy Awardee! [Learn more about Liz](#) and join us at [SLB 2025](#) where she will present the keynote lecture titled "**Inflamm-aging, Intoxication, and Injury: My Journey through Leukocyte Biology**". Liz is a clear example of not only a great scientific contributor, but also a keen supporter of the SLB community.



Elizabeth J. Kovacs



Global Science: Navigating Research and Academia Down Under

An interview with Research Fellow Sarah Garnish, PhD, Monash University

By Julia Bohannon

In this interview, I had the privilege of speaking with Dr. Sarah Garnish, a National Health and Medical Research Council (NHMRC) Emerging Leader Fellow at the Monash Biomedical Discovery Institute near Melbourne, Australia. Dr. Garnish shares insights into her career journey, her current research in cell death signaling during bacterial infections, and her experiences navigating the academic landscape in Australia. She also offers a glimpse into the strengths and challenges of the Australian research environment, discussing funding mechanisms, biotech industry growth, and the collaborative culture among Australian research institutions. Finally, Dr. Garnish reflects on her personal achievements and offers valuable advice for aspiring researchers considering a career in Australia.

Q: Could you start by telling us a bit about your background and where you are from?

I was born in the UK but immigrated to Australia early on. I grew up in the South-Eastern suburbs of Melbourne and haven't strayed far. I completed my Bachelor & PhD degrees through the University of Melbourne and am now a post-doctoral researcher at Monash University in Clayton, Melbourne.

A: What initially drew you to a career in academia and research?

In high school I was drawn to science. I loved Biology and Chemistry and knew I wanted to continue. It wasn't until a 1-year research project for my Bachelor of Science Honors at the Walter and Eliza Hall Institute (WEHI) that I wanted to pursue a career in academia. Funnily enough, when I was considering career paths in high school, I spoke to a teacher's spouse who used to be in academia. They gave me a realistic view of the challenges and the competitive nature of the career. Despite this, the passion for discovery in science outweighs the potential challenges of the career path.

During my honors year at WEHI I was immersed in the exciting world of Academia, going to multiple seminars a week and hearing about research from a range of disciplines. I loved the excitement of making discoveries, and the idea of changing lives with research. I also had a fantastic post-doc supervisor, Dr Joanne Hildebrand, who played a big part in me deciding to undertake a PhD. Her enthusiasm for science was infectious, and she was an amazing mentor who shaped me into the scientist I am today.

Q: Can you describe your career path, from your undergraduate studies to your current position?

A: I received my Bachelor of Science from the University of Melbourne with a Double Major in Biochemistry and Molecular Biology & Genetics in 2017. In 2018, I did my Honors through the Walter and Eliza Hall Institute (Department of Medical Biology) in the lab of Professor John Silke, co-supervised by Dr Joanne Hildebrand. My project focused on a high frequency polymorphism in the cell death executioner protein, MLKL. (This work was continued into my PhD and published at the end of last year: [A common human MLKL polymorphism confers resistance to negative regulation by phosphorylation](#))

In 2019, I had a 6-month position as a Research Assistant with Anaxis Pharma; an Australian Biotech company developing novel inhibitors of cell death.

In 2022 I received my Ph.D. from the University of Melbourne working in the lab of Professor James Murphy, co-supervised by Dr Joanne Hildebrand. I continued my focus on cell death signaling and undertook a project examining the underlying molecular events that govern necroptotic cell death. I

continued my post-doc work in this same lab during 2023 and am now a Post-doctoral Researcher, Biomedicine Discovery Institute, at Monash University in the lab of Professor Hayley Newton (Microbiology Department).

Q: What is the focus of your current research?

A: For the past 5 years, my PhD and post-doctoral research has focused on the molecular signaling events that govern lytic programmed cell death pathways. In my role at Monash, I am leveraging my expertise in cell death signaling to understand the role of programmed cell death during bacterial infection. Specifically, I am studying how the intracellular bacterial pathogen, *Coxiella burnetii*, manipulates the host-cell death signaling of macrophages during infection.

Q: How does your work contribute to the broader field?

A: Whilst my research primarily focuses on changes to signaling pathways during infection, by examining bacterial effectors that subvert host-cell processes, we have the capacity to unveil novel insights into general macrophage biology.

Q: What are the strengths and challenges facing researchers in Australia?

A: The major challenge facing researchers today in Australia is the funding landscape. If you consider the two major government funding sources, the National Health and Medical Research Council (NHMRC) and the Australian Research Council (ARC), success rates for fellowships and project grants range between 10-20%. Whilst alternative funding sources exist, such as philanthropic support through organizations such as the Cancer Council, the low success rates for multi-year government support makes it incredibly hard for researchers to sustain academic careers.

A major strength in Australia is the continual development of Industry. This growth enables more commercialization of important research findings. Another major strength is the collaborative networks that exist amongst the Australian research universities/institutes. Because of our geographical "isolation", researchers in Australia have strong collaborations and multidisciplinary teams working together to tackle big questions. An example I feel illustrates this is the Australian Inflammation Centres (AIC), which holds a yearly symposium to help connect researchers and enhance collaboration.

Q: How does the Australian academic and research system differ from other countries, particularly in terms of student progression through graduate studies, postdoc positions, and faculty roles?

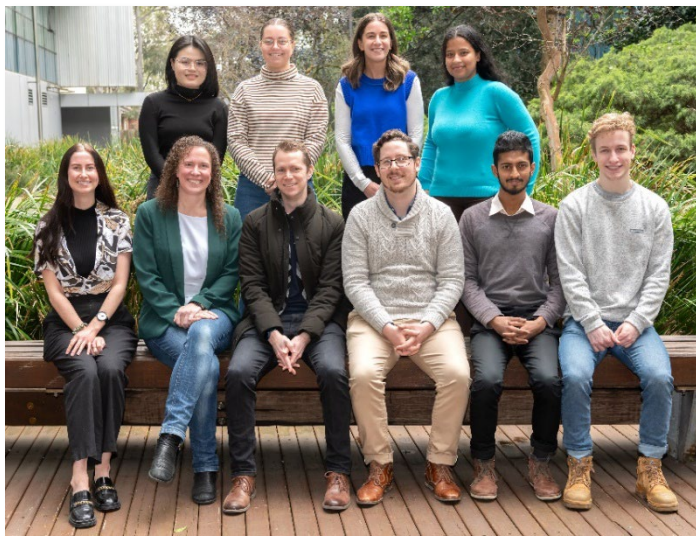
A: Major differences include the length of time. Australian PhDs are generally <4 years and are completed in a single lab (no rotations). Additionally, post-doc positions are generally longer here. It is not unusual for post-docs to be in their position for >5 years, and it is very common for us to complete multiple post-doctoral positions before becoming lab heads. From my perspective, the transition from a post-doctoral researcher to laboratory head in Australia is harder and less frequent. This is likely linked to our funding situation and reduces the availability of lab head roles at both Universities and individual research institutions. The final difference is there is no academic tenure.

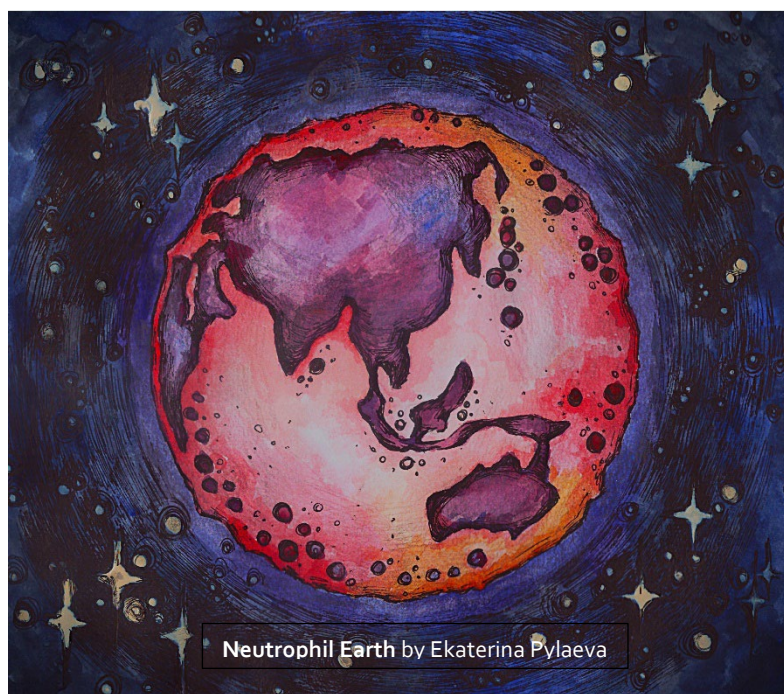
Q: Can you elaborate on the nomenclature and structure of educational levels and career stages in Australia?

A: Undergraduate bachelor's degrees are completed after students graduate high school (year 12). Depending on the course these can be 3-5 years in length. In broad degrees, such as Bachelor of Science or Arts, students can complete a 4th year research project which is termed an 'Honours' year. This means at the end of the 4-year degree they graduate with a Bachelor of xx (Hons). To complete a PhD in Australia you must have completed a minimum bachelor with Honours, but many students also complete a range of master's degrees. After obtaining a PhD, you are employed as a junior post-doctoral researcher (academic level A). You can then be promoted to a senior post-doctoral researcher (academic level B), but the timeframe on this depends on your career progression, place of employment etc. Laboratory heads are employed at academic level C, and then go through promotions to Associate Professor and Professor. There is no specific time frame on when a post-doc can become a lab head, or when promotions to A/Prof. or Prof. occur. This all depends on career progression and achievements.

Q: What is the process for acquiring research funding in Australia, and how does it compare to other regions you are familiar with?

A: Research funding in Australia occurs in two categories: Project research grants that fund multi-year research projects, or fellowship grants, which provide salary for applicants and usually a small portion of project funding. The major funding source through the government has a low success rate and applications are extremely competitive. Outside of this, there are fantastic philanthropic organizations, such as Cancer Council, the Contributing to Australian Scholarship and Science (CASS) Foundation, Viertel Foundation, that provide much needed support to the academic sector. However, funding through these organizations is also highly competitive and limited. It is very common, and in many settings expected, that post-doctoral researchers obtain their own fellowships or project grants to support their careers. As such, early career researchers applying for funding can start as soon as they graduate their PhD. This means in many cases that having a successful and productive PhD (multiple publications, awards etc) is directly correlated to getting funded. One of the major positives of the Australian funding landscape is the length of fellowships and project grants that are awarded. For example, fellowship funding through the NHMRC awards successful applicants 5 years of salary support. This really provides the opportunity to explore and begin to establish an independent line of enquiry.





Neutrophil Earth by Ekaterina Pylaeva

Q: There has been significant interest in developing a “mini-Boston” biotech hub in Australia. Can you share your thoughts on this initiative and its potential impact on the research and biotech landscape in the region?

A: The biotech sector in Melbourne has already started to flourish, including the opening of CSL new global HQ in Parkville, Melbourne. Developing a biotech hub in Australia is a fantastic initiative, not only will this development enable closer collaboration between the academic and industry sectors but also provide career opportunities for those interested in transitioning from academia to biotech.

Q: What advice would you give to students or early-career researchers who are considering pursuing their careers in Australia?

A: I think the Australian academic sector has so much to offer the international research community. I would encourage anyone who is interested to come visit our universities/institutes and reach out to prospective lab heads. There are many government-, philanthropic-, and university-funded international PhD scholarships, and, speaking from experience, studying here in Melbourne, we have a very vibrant international student community. I would encourage those who are interested in academic careers in Australia to have a full understanding as to what the funding landscape looks like and be

strategic as to how pursuing research in Australia would fit into their long-term career plan.

Q: Are there any unique opportunities or collaborations in Australia that you think more researchers should be aware of?

A: One thing I would like to bring attention to is a series of conferences that are held in February of each year in the beautiful coastal town of Lorne, situated on the Great Ocean Road. Whilst organized individually, 5 back-to-back conferences occur in early February: these are Lorne Cancer, Lorne Proteins, Lorne Infection and Immunity, Lorne Genome, and Lorne Proteomics. These conferences are a staple in many labs’ annual calendars and are well-attended by Australian and New Zealander researchers. Many international speakers and attendees join these conferences, but it would be great for these conferences to achieve more recognition internationally.

Q: What has been your most rewarding experience in your research career so far?

A: This is a very hard question to answer! I don’t think I can pick just one but would like to highlight a few of my career highlights:

- A) Bringing the ‘Beginners Guide to Leadership Workshop’ to life. During my PhD, I was involved in establishing a workshop that provided introductory leadership training to University of Melbourne graduate researchers. This project was supported by the University of Melbourne and WEHI and recognized the importance of training graduate students adequately with leadership skills. I was proud to see this be such a success and it has been supported to run again for a subsequent 2 years.
- B) Receiving the Wendy Dowsett Supplementary Scholarship during my PhD. These scholarships were established by Russell French to honor his late partner, Wendy. This was an incredible honour to receive this support for my research, meet Russell, and hear about Wendy’s wonderful life of community service. This acknowledgement reminds me of what drives me as a researcher – to one day make a difference.
- C) Publication of my study in *Nature Communications* in September 2023 ([A common human MLKL polymorphism confers resistance to negative regulation by phosphorylation](#)). This project started before I joined WEHI, and I worked on it throughout my honours, PhD, and post-doc. There were many times it felt like the project would stall, and it took us a while to find a phenotype in our mice. But this project allowed me to make many collaborations within and outside WEHI. I gained valuable technical expertise, and it was one of the first projects I got to lead. It was a labor of love, and I was proud to see it published last year.

Q: How do you balance your research responsibilities with other professional or personal commitments?

A: I have always been invested in professional development activities outside the lab. This started early on when I was involved in WEHI’s student association for two years, one as president. I am currently on my third year with the Australasian Cell Death Society and earlier this year chaired the BioMolecular Horizons 2024 Career Development Forum. I am passionate about professional development of ECRs, and gravitate towards opportunities that have this focus. To help me keep my balance, I limit the commitments I say “yes” to each year. I like to give 100% to any project and, therefore, keep in mind my existing workload when accepting/declining offers. There is a fine balance, and understanding your time constraints is important to make sure you don’t burn out and that you can prioritize responsibilities.

It is my view that: 1) training during a PhD is not solely laboratory-related. Participating in external professional activities (such as committees, programs etc.) enables you to develop important ‘transferable skills’ that will aid in your professional career and personal development. This is one of the top pieces of advice I give to ECRs. 2) the academic community thrives when everyone, of all career stages, participates in ‘other’ commitments (conference organizing, professional societies, peer review etc.). This is why I strive to participate in these activities to ‘give back’ to the academic community.

The Hero's Journey Series

SLB's **The Hero's Journey Series** is an interview project led by Jacqueline M. Howells, PhD, in collaboration with the Society of Leukocyte Biology (SLB). The series features interviews with SLB members across various career stages and fields, aiming to create an interconnected network by highlighting the diverse backgrounds and motivations of individuals within the field of leukocyte biology. The idea for this project stemmed from an inquiry from SLB, asking for webinar topics that would benefit the community. Howells' response, which proposed a deeper understanding of the scientists behind leukocyte biology, unexpectedly sparked widespread interest.

This initiative led to an article for the SLB newsletter, a workshop on interviewing scientists, and interviews with nearly 20 researchers. The first edition of the series will feature four prominent figures in leukocyte biology, ranging from early-career to senior stages, including Dr. Chyna Lovell, Dr. Jorge Domínguez-Andrés, Dr. Julia Bohannon, and Dr. Jeffrey Rathmell.

Howells draws inspiration from the "Hero's Journey," a storytelling framework popularized by Dr. Joseph Campbell and exemplified in films like *Star Wars*, to highlight the personal and professional journeys of the featured scientists. Through these narratives, the series aims to foster a greater sense of community and inspire others to connect with the diverse paths that lead to shared scientific goals. The series also serves to celebrate the contributions of SLB members while encouraging continued learning and growth within the society.



Dr. Chyna
Lovell



[Read about Chyna's Journey](#)

Dr. Jorge
Domínguez-Andrés



[Read about Jorge's Journey](#)

Dr. Julia
Bohannon



[Read about Julia's Journey](#)

Dr. Jeffrey
Rathmell



[Read about Jeffery's Journey](#)

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MENTOR VOLUNTEER OPPORTUNITY

MTTC is launching a mentor program for SLB Member Trainees. Talk to us to learn more and sign up on the website.

<https://slb.memberclicks.net/mttc-mentorship-program>

Cleaning out the attic! JLB hard copies available!

SLB is cleaning out the attic! Hard copies of JLB spanning from 1992 through 2020 are now available for purchase. Build your own library or get a hard copy of an issue where your article appeared as a keepsake. Each issue is \$5 USD *plus shipping* which will vary depending on the number of copies per order and the destination.

[Contact us](#) to request a specific issue, or issues, and arrange for shipping.

Requests must be submitted by September 1st, 2025. After this date, all unclaimed copies will be permanently discarded.

Welcome New Trainee Members

Conversations with Liz Fitzpatrick

Ziming Cao, UConn Health 3rd year Graduate Student



Q: Can you briefly describe your research?

A: My current project focuses on the interactions between the nervous system and neutrophils, specifically how these interactions may influence neutrophil adhesion.

Q: What inspired you to pursue a career in science?

A: My interest began in high school. I had family who did post-docs in the U.S. before returning to China for academic positions. They encouraged me to study abroad, leading me to Purdue University for my undergraduate degree. What sparked my interest in innate immunology was learning about researchers like Dr. Feng Shao, who study pyroptosis. His perseverance in following the data deeply inspired me. I'm fascinated by cleverly designed experiments and interpreting data to uncover mechanisms.

Q: What specific area of research are you most passionate about?

A: I'm fascinated by host-pathogen interactions. I am intrigued by how pathogens and hosts engage in constant battle, driving the other's evolution. I read an article by David Baltimore, in which he wrote, "We derive much of our pleasure as biologists from the continuing realization of how economical, elegant, and intelligent are the accidents of evolution that have been maintained by selection." That concept really resonated with me, and it's an area I'm eager to continue exploring.

Q: How do you see your career progressing?

A: I initially envisioned a traditional academic path: completing a postdoc and then securing an academic position. However, I've become more open to research opportunities in industry through conversations with friends and colleagues. While my preference is to stay in research, I'm also exploring other roles, such as scientific editing. I'm keeping my options open as I learn more about the diverse career paths in science.

Q: What do you view as the most important role that scientific societies can play in helping young scientists?

A: One of the most valuable resources is the opportunity to connect with peers and senior scientists. The SLB meeting was incredibly welcoming, allowing me to network with others in my field and receive valuable feedback. Hearing perspectives from individuals at different institutions provided insights that I hadn't considered. The chance to compete for awards is also crucial for graduate students, especially if their institution offers limited opportunities. Receiving recognition is a great confidence booster and plays an important role in professional development.

Q: Are there other initiatives in science that you are passionate about?

A: Communication of science is important. I wrote an article about sickle cell disease history from discovery to the latest gene-editing therapy. I love presenting the history of science, especially highlighting the ingenuity of scientists in developing cures and treatments. I also believe it's crucial to train the next generation of scientists. I enjoyed mentoring students as a teaching intern, and I want to continue.

Q: What do you like to do outside of science?

A: I love exploring cuisines, but I'm drawn to outdoor activities. Connecticut is a good place for hiking, and I recently started pickleball. I enjoy the game, especially the social interactions that come with it.

Xingsheng Ren, Northwestern University Research Associate



Q: Can you briefly describe your research?

A: My research is focused on how immune cells interact within each other in Inflammatory Bowel disease and colitis. Specifically, how macrophages regulate infiltration of neutrophils into the tissue. I enjoy the different aspects of my job, grant writing, doing experiments, mentoring students and interns and collaborating with other scientists.

Q: What inspired you to pursue a career in science?

A: I always was interested in how the human body works but my interest was solidified when I was able to observe experiments being performed. Seeing live images of immune cells rolling through blood vessels fascinated me. The idea that I could contribute to studies that could ultimately help cure longstanding diseases compelled me to study science and continues to keep me motivated.

Q: What specific area of research are you most passionate about?

A: I am passionate about understanding the relationship between immune cells and how those interactions contribute to disease. The immune system is meant to protect us but there are many situations where that goes awry and the immune response causes disease. It is like solving a complex puzzle. I get really excited about the translational aspect of research, the idea that my work can contribute to a therapy or diagnostic keeps me up at night – in a good way.

Q: How do you see your career progressing?

A: I hope to be able to lead my own lab and explore big questions in immunology and leukocyte biology – particularly in understanding the interaction between immune cells and blood vessels. I would like to work closely with clinicians to help develop new diagnostics and therapeutics. I have had great mentors and want to pay that forward and help guide the next generation of scientists.

Q: What do you view as the most important role that scientific societies can play in helping young scientists?

A: The conference is a great resource. It was very helpful to me, and I enjoyed the sense of community; science can sometimes feel isolating. It is an opportunity to get inspired by others' research and a chance to build a network of peers and mentors; this is priceless. The other important resource is educating members through workshops and seminars about things such as how to get grants and funding.

Q: Are there other initiatives in science that you are passionate about?

A: Mentoring is very crucial for young scientists, and I personally have benefited and really appreciated my mentors. They have helped me not just in my research but in other areas of life. For example, speaking and presenting in public has been helpful outside of science as well as within. It is very important for me to help mentor new scientists and pass along what I have learned.

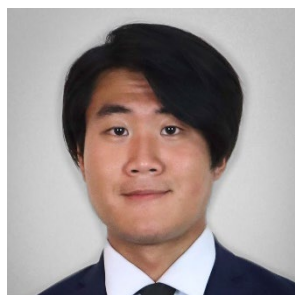
Q: What do you like to do outside of science?

A: I like hanging out with my friends and trying activities like Karaoke, new restaurants, hiking and going to the gym. It is nice to have time to relax and take my mind off experimental obstacles.

Meet the 2024 Flash Talk Winners

The Members in Transition and Training Committee (MTTC) organizes flash talks as part of the annual SLB meeting, a vibrant platform where researchers at various stages of their academic journey come together to share their work and exchange ideas. This meeting encourages students, including undergraduates, to present their research through posters. A select few presenters are invited to give flash talks, with winners chosen for each category. Meet some of the 2024, explore their research inspirations, future goals, and personal interests.

Han Gil Kim



Kim, a post-bac at the NIH and University of Florida alumnus, discovered a passion for science and research during undergrad while studying neurodegenerative diseases in a *C. elegans* model, guided by inspiring mentors like Dr. Han and Dr. Donnelly. Kim's clinical experiences in the pediatric ICU and a lifelong curiosity about underlying mechanisms, combined with mentorship from Dr. Maile, Dr. Kladde,

and Marie, inspired a shift from pre-med to researching epigenetics to understand diseases and develop therapeutic treatments. Kim's research, using the MAPit technique, investigates epigenetic reprogramming in trained immunity, revealing chromatin accessibility changes and JAK/STAT pathway involvement in burn models, highlighting MAPit's potential to detect subtle chromatin changes. Kim aims to pursue a PhD or MD/PhD program, with long-term aspirations of leveraging basic science research to uncover mechanisms that drive translational applications, inspired by groundbreaking examples like targeting Hutchinson-Gilford progeria. Kim enjoys playing music, surfing, and snowboarding to unwind and is deeply interested in exploring novel approaches to research, currently focusing on synthetic biology and in-vitro disease models to inspire innovative therapeutics with support from mentors like Dr. Cicala and Dr. Arthos.

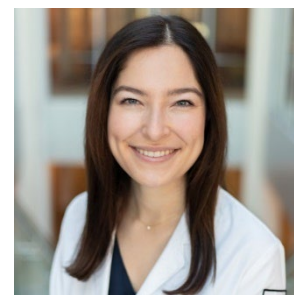
Shaunna Simmons

Shaunna, a PhD candidate in Microbiology and Immunology at the University at Buffalo (UB), earned her bachelor's degree in Biology from St. Thomas Aquinas College and a master's degree from UB. Inspired by personal experiences with family members contracting infections, she pursued research to understand and improve immune responses in older adults. Her PhD work focuses on the decline in neutrophil function with aging and its impact on the efficacy of pneumococcal vaccines, identifying age-related changes in the MAPK pathway, specifically ERK1/2 activation, that affect antibody-mediated bacterial killing. After completing her PhD, Shaunna plans to pursue a career in science writing. Outside of her research, she enjoys hiking, exploring Buffalo's restaurant scene, spending time with her partner and friends, and relaxing with her cat, Edith. If given unlimited resources, Shaunna would investigate why some individuals are more susceptible to chronic illnesses after bacterial or viral infections.



Melanie Martinsen

Melanie, an MD/PhD student at Brown University originally from Portland, OR, holds a BS in Biomedical Engineering from Boston University and gained research experience at the Broad Institute. Inspired by her mother's breast cancer journey and early research on antimicrobial therapies, she chose a physician-scientist path to integrate patient care with translational research. Her PhD work focuses on developing neutrophil progenitor-based cellular therapies to mitigate infection risks in immunocompromised patients, particularly during hematopoietic stem cell transplants. After completing her MD/PhD program, Melanie plans to specialize in hematology/oncology, establish her own lab, and drive research on host-microbe interactions and novel therapeutics. She balances her demanding academic life by dancing with the Brown University Ballet Company, engaging in outdoor activities like hiking and skiing, and spending time with her cat. Given unlimited resources, Melanie would work on designing transplants that avoid lifelong immunosuppression, improving accessibility and patient outcomes.



Call for Proposals: Host Your Own 2025 Special Interest Group Satellite!



SLB is pleased to provide a platform for society members to organize their own 2025 session. These Special Interest Group Satellites (SIGs) will be held on Wednesday, October 29th, 2025 in association with the annual meeting. Proposals will be reviewed by the conference program chairs to ensure there is no conflict in topics and/or speakers.

[Learn more and submit a proposal](#)

FASEB CORNER



[Collaborative Advocacy for Biomedical Research](#) – FASEB President Beth A. Garvy, PhD, joined more than 300 patients, scientists, caregivers, and other advocates on Capitol Hill for the Rally for Medical Research Capitol Hill Day on September 19. Garvy met with congressional staff to discuss long-COVID research currently underway at her home institution, the University of Kentucky, and urged staff to finalize the fiscal year 2025 budget for the National Institutes of Health (NIH), noting that delays in funding prohibit the agency from issuing new grants or starting planned clinical trials. Garvy also had the honor of introducing NIH Director Monica M. Bertagnoli, MD, at a reception on Capitol Hill the evening before the congressional visits. Organized by the American Association for Cancer Research, the rally is held each fall to raise awareness about the urgent need to provide sustained increases in funding for NIH to improve health, advance medical progress, and provide hope to those impacted by disease. FASEB has participated in the rally since its inception in 2012 and was a bronze sponsor this year.

[DEAI Updates](#) – In September, 10 researchers at several FASEB full-member societies each received \$5,000 through the FASEB CARES (Career Advancement and Research Excellence Support) awards. Part of FASEB's Diversity, Equity, Accessibility, and Inclusion (DEAI) initiative, the CARES program provides critical financial assistance to researchers balancing caregiving responsibilities with their scientific careers. The monetary award can be used to cover childcare or dependent care expenses, travel to scientific meetings, or other training, allowing scientists to dedicate time to their research and professional development activities. This year's recipients reflect a diverse group of scientists across disciplines, all united by their commitment to advancing biological and biomedical research while managing caregiving duties.

[Supporting Efforts to Promote Data Sharing](#) – FASEB again partnered with NIH to sponsor the third DataWorks! Prize. This challenge aims to celebrate and reward research teams that propose and execute groundbreaking secondary analysis and data reuse projects, contributing to the advancement of human health. Up to 10 winning teams will receive \$25,000 each in Phase 1. FASEB also hosted a DataWorks! Salon on grant budgeting for data management and sharing.

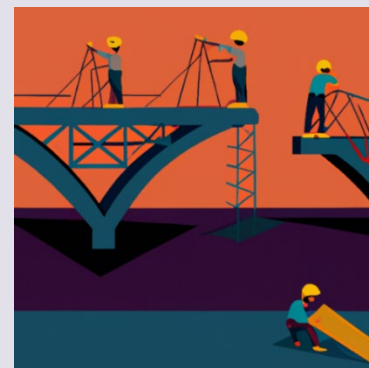
[Commenting on Draft Public Access Policy](#) – In June, NIH issued a Request for Information (RFI) on the agency's draft public access policy. The Science Policy Committee (SPC) submitted comments to NIH in early August, building on FASEB's 2023 comments to an earlier RFI. Prior to finalizing FASEB's response, the SPC sought additional feedback from the Publications Committee and society Executive Officers.

[Re-Envisioning the Postdoc Experience](#) – On October 9, FASEB responded to an NIH RFI on re-envisioning U.S. postdoctoral research training and career progression in the biomedical research field. The RFI solicited feedback from the biomedical community on implementing three recommendations from the December 2023 report by the Advisory Committee to the NIH Director. FASEB's comments supported limiting NIH support for postdoctoral scholars to a well-defined, short transitional period toward independence and highlighted potential challenges and unintended consequences of such limits on the postdoctoral workforce. FASEB expressed concerns that revising the K99/R00 mechanism could worsen existing issues and shared model programs and policies that NIH could promote to improve postdoc mentoring and professional development.

Building Bridges Webinar Series

Through volunteer efforts, SLB offers a monthly series of innovative talks spanning a width breadth of interests related to the field. Registration is free for ALL. On-demand recordings are available for members only when available. Our next speaker is Loic Rolas from *Queen Mary University of London*. This webinar will be held on Wednesday, January 22nd, 2025, from 12 pm - 1 pm eastern.

[Learn more and check back in early January 2025 to register!](#)



JLB was pleased to sponsor multiple trainee awards at the 2024 South China Immunology Summit.

JLB



**Abstract and
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SLB runs on volunteers like those in the Communications Committee that created this amazing issue of iSLB. [Contact us](#) if you would like to join this, or any other, SLB Committee!