

OFFICIAL NEWSLETTER OF THE SOCIETY FOR LEUKOCYTE BIOLOGY

Message from the President

David Underhill, SLB President



As we all adjust to new "norms", SLB continues to serve the membership along with the broader community of leukocyte researchers. Many

exciting programs continue to evolve with new projects on the horizon.

The <u>Reviewer Training Program</u> has welcomed more than 50 registrants to learn about the review process and hone their skills. Phase 2, with practical exercises, is coming soon as we encourage interested members to start on the asynchronous portion. Share this opportunity with your colleagues!

The month of May offered a 3 part webinar series on Grant Writing offered by our partners at Fiorini Associates. If you missed it, these sessions are available on-demand and offer insight into tips and tricks for submitting and understanding various funding mechanisms. Also available, our partners at FASEB have provided an initial sampling of videos from their DataWorks series to help our community understand the coming requirements. Both of these series along with a vast library of professional development and scientific content is always available for members to watch. With newly curated content, be sure to take advantage of this valuable member benefit.

Coming up in August is the <u>First Annual</u> <u>Undergraduate Immunology Research</u> <u>Conference</u>. Available as a virtual conference, this program offers Undergraduates and those in Post-bacc positions (and everything in between!) an opportunity to present their research and gain valuable feedback from mentors. In addition, the program offers the opportunity to learn about various Graduate Programs in related fields. Be sure to spread the word to ensure we get enough submissions so that next year, we can have a *Second* Annual Conference for our up and coming members.

We all look forward to the Fall and our return to in-person meetings. We're kicking it off right by traveling to Hawai'i. <u>Learn more</u> <u>about the meeting</u> and submit your abstract for the many presentation and award opportunities by June 27th! Recently posted details include workshop and SCHOOL program details.

Change continues to be inevitable for all of us personally and professionally and the same is true for our community as a whole. Our publication, Journal of Leukocyte Biology, continues to evolve in so many ways. We welcome our Incoming Editor-in-Chief, Michael Schnoor, as well as changes to our publishing partner and more. Along with these changes, we look forward to innovative content as we ensure JLB stays relevant; continuing to be the well-respected, peer reviewed, science communication as it has been since 1960. That's right! While JLB volumes started in 1984 with volume 35, its predecessor, RES, was publishing cutting edge science since 1960! You can see the RES archives in the on-demand library or check out "This Month in RES History" prepared by our Communication Committee monthly.

SLB has much more to share and it continues to be our honor to serve our members. Please enjoy this issue of iSLB and <u>contact us</u> anytime with questions or ideas!

iSLB

SOCIETY FOR LEUKOCYTE BIOLOGY

> 2022 Vol 2

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> Joost Oppenheim August 11, 1934 - May 14, 2022



It is with a heavy heart that we share Joost Oppenheim has passed away. Aside from his seminal contributions in cytokine biology and legacy as a mentor to many, he was a strong advocate for the role of JLB in not only advancing science but also as a tool to bring us together as a community. Please take a moment to remember Joe and carry his legacy forward in our work and our community.

ISLB

Perspective on being a Physician-Scientist: Dr. Jessica Snowden



Jessica Snowden, MD, MS, MHPTT, in addition to other roles, is an Associate Professor of Pediatrics in the Division of Pediatric Infectious Disease at the University of Arkansas for Medical Sciences in Little Rock, Arkansas. Her lab studies the role of age on the immune responses and neurologic outcomes following infections in the brain. She has a long history of active involvement in mentorship.

Q: What kind of work do you do currently?

A: I started as a basic scientist doing work in an animal model of brain infections, similar to the infections that children with hydrocephalus and ventricular shunts experience. I spent about 12 years doing this work and the idea developed from moving back and forth between clinical work and the basic science lab I worked in. I now do primarily clinical research for children in rural and underserved areas and the lessons from basic science have really benefited me in my clinical research roles.

Q: How did you get into research and what made you continue down the physician-scientist path?

A: My training was focused entirely on clinical work until I started my fellowship in 2006. Prior to that, I'd done clinical training by doing medical school at Texas A&M and then pediatric residency at East Carolina University. I got my research training during my pediatric infectious disease fellowship, where I spent about 1 year of my 3-year fellowship learning how to do laboratory research alongside PhD students. I decided to continuing learning basic science because I liked getting new tools to answer clinical questions. In my early faculty years, I felt a little behind similar aged basic science faculty because they had so many more years of training than I did, but over time I realized that my path just meant I learned different things about [how] to integrate clinical and basic science work.

Q: What is your favorite part of being a clinician-scientist and what is the most difficult?

A: My favorite thing about my research work is always making graphs. There is just something soothing about making figures and see the story come to life. The hardest part is dealing with failure over and over again. Perseverance is essential.

Q: What is the number one piece of advice you would give to individuals who are considering going into both research and clinical work?

A: As you're applying and planning for your career as a physicianscientist, keep your long-term goals in mind. It can be a really long path, learning both medicine and basic science, and there are lots of times where you'll feel out of step with both your clinical and scientific peers because your path is different, but in the long run it positions you answer really innovative questions and change lives. **Q**: For individuals who are currently undergoing or plan to undergo training to become a physician-scientist, how do you recommend they get the most out of their experience?

A: As you're moving back and forth between the research and clinical parts of your training, find a way to always stay engaged in the other side whether that is going to meetings or journal clubs about whichever side you aren't experiencing at the moment or even just finding a mentor to stay in touch with.

Q: Who had the biggest impact on your time during your education?

A: My mentors along the way definitely had a big impact on me because they showed me what was possible and supported me while I figured out where [I belong] in the world as a clinician-scientist.

Q: After finishing your degree, how do you split your time between clinical and laboratory work? How do you balance so many priorities as a physician scientist?

A: Shifting between roles is the biggest challenge in my faculty role as a physician-scientist. It can be hard to deal with the distractions that come from the other parts of your work. I spend most of my time in research, but there always clinical questions and problems that come up. I've gotten in the habit of writing down "what was I going to do next" any time I get interrupted, whether it is in clinical work or lab work, just to make it easier to re-engage. It also helps to have a good team around you who will protect your deep work time.

Q: What sort of obligations do you have aside from clinical and laboratory work that individuals on a similar path should be aware of?

A: As a physician-scientist, there are lots of administrative and service things you'll be asked to do, like review papers and grants or serve on committees. This is where having a good mentor is key, to figure out which things you'll learn the most from and which things to say no to. Early on, it is critical that you protect your time and focus since you're already distracted by having to shift back and forth between research and clinical work. Only add things to your plate that are truly worth it.

Q: Do you think the COVID-19 pandemic has changed the job of a physician-scientist going forward, what do you think has changed?

A: The pandemic changed everything about our lives, including our balance between clinical and laboratory work. The number of clinical and [general] distractions went up for many of us and research productivity got more challenging in many cases because of limited reagents, closed labs, or other barriers like suddenly becoming a homeschool elementary teacher when schools closed. For me, because I'm an infectious disease doctor, my clinical distractions went through the roof because there were a ton of pathways to figure out and clinical care had to take priority. However, the pandemic also demonstrated how important it is for clinicians and researchers to work together to find rapid answers. It is critical that we support our scientists in getting re-engaged in their research productivity now that we're all learning how to live with the pandemic.

By Sydney Escobar



FASEB Corner

Now available for SLB Members....FASEB DataWorks on-demand videos

SLB joined FASEB – the nation's largest coalition of biomedical researcher, representing 30 scientific socities – in 2019. FASEB Corner is a regular feature providing updates on recent initiatives that demonstrate the Federation's dedication to its member societies.

Advocating for Increased Medical Research Funding – SLB President-Elect Louis B. Justement, Councilor Cherie Butts, and SLB members Beth Garvy and Melanie Scott joined nearly 70 other scientists from 33 states during FASEB's <u>Virtual</u> <u>Capitol Hill Day</u> in March. Participating in online meetings with aides from 113 House and Senate offices, the SLB members urged their elected officials to support FASEB's fiscal year 2023 funding requests for NIH and other science agencies and provided real-life examples of how federal dollars advance research, provide jobs locally, and ensure the vibrancy of the U.S. scientific enterprise. FASEB also partnered with the American Association of Veterinary Medical Colleges to host a <u>briefing for congressional staff</u> that communicated the powerful role of animal research in safeguarding scientific and economic progress while enabling life-saving treatments for humans and animals. A new <u>FASEB fact sheet</u> explaining the limitations of nonanimal models is also available.

<u>Supporting the Postdoc Community</u> – FASEB staff joined representatives from AAAS/SEA Change and the American Geophysical Union to <u>host sessions</u> at the National Postdoctoral Association's (NPA) annual meeting. The sessions highlighted a new series of <u>FASEB factsheets</u> featuring data on postdoc benefits and discussed support for diverse postdoc communities. As part of FASEB's long-standing partnership with NPA, all full FASEB member societies are entitled to a free organizational membership in the NPA which includes 5 affiliate memberships that may be distributed to individual society members at the discretion of the society.

Preparing for NIH's Data Management and Sharing Policy – Several FASEB DataWorks! salons provided a forum for SLB members to share best practices and solutions for data sharing and reuse, the benefits of data sharing, the support funders can provide for data sharing and reuse, and how DataWorks! can help members of FASEB societies comply with the NIH Data Management and Sharing Policy that will take effect in January 2023. FASEB and the NIH Office of Data Science Strategy also announced the <u>launch of DataWorks! Prize</u> to highlight the role of data sharing and reuse in biological and biomedical research. DataWorks! Prize will reward research teams whose innovative and interdisciplinary approaches to data sharing and reuse have catalyzed new scientific discoveries in biology and biomedicine. Twelve winning teams will be recognized with a cash prize and will present their stories at a DataWorks! Prize symposium. The Dataworks! Prize <u>competition</u> is open to anyone 18 or older. Individual participants must be U.S. citizens or permanent residents. International researchers can participate on a team with a U.S. lead.

<u>Supporting Diversity in the Scientific Workforce</u> – The recently launched <u>Faces of FASEB campaign</u> is placing a spotlight on individual members of societies, illustrating the diversity and inclusivity within FASEB. The campaign's initial stories have featured a range of real-life scientists and their personal activities—from mentoring female scientists, volunteering in their local community, and working with underrepresented populations to encouraging girls' study of anatomy at a summer camp, establishing a startup that cloned cows, and expanding their brand on social media.

SLB 2022 Honorary Lifetime Awardee

Congratulations to the 2022 inductee of the Honorary Lifetime Award, Gail Bishop. <u>Read more about Gail</u> and join us in celebrating her accomplishments.



SLB Member Profile

Tamás Röszer

Research Laboratory of Pediatric Obesity

Obesity is one of the most serious public health challenges of the 21st century, since it triggers metabolic- and immune diseases, such as insulin resistance and diabetes. These diseases are projected to affect ~60% of the global adult population by 2030. It is alarming that the prevalence of overweight doubled among children and tripled in teenagers between 1980 and 2000. In 2010, approximately 6.7% of preschool-aged children were overweight or obese worldwide, and in 2016, the number of overweight children under the age of five was estimated to be over 41 million globally, and this number is predicted to rise further.



Our research is focused on the early life prevention of obesity and metabolic diseases. Infancy is one of the critical periods which determine obesity in adulthood. Infants with excessive adipose tissue expansion and increased rate of body weight have increased risk of obesity at 20-30 years of age. Increased adiposity in early childhood is hence a predictor of obesity and obesity-associated diseases in adulthood.



Relevant publications

Amendt T., Allies G., Nicolò A., El Ayoubi O., Young M., Röszer T., Setz C.S., Warnatz K., Jumaa H. (2022) Autoreactive antibodies control metabolism by regulating insulin homeostasis. *Proceedings of the National Academy of Sciences of the USA* 119 (6) e211569511

Röszer T. (2020) <u>The M2 Macrophage</u>. Springer Nature Switzerland AG, 224 p., ISBN 978-3-030-50479-3

Yu H., Dilbaz S., Coßmann J., Hoang A.C., Diedrich V., Herwig A., Harauma A., Hoshi Y., Moriguchi T., Landgraf K., Körner A., Lucas C., Brodesser S., Balogh L., Thuróczy J., Karemore G., Kuefner M.S., Park E.A., Rapp C., Travers J.B., Röszer T. (2019) Breast milk alkylglycerols sustain beige adipocytes through adipose tissue macrophages. *The Journal of Clinical Investigation* 129:2485-2499

Waqas S.F.H., Hoang A.C., Lin Y., Ampem G., Azegrouz H., Balogh L., Thuróczy J., Chen J., Gerling I.C., Nam S., Lim J., Martinez-Ibañez J., Real J.T., Paschke S., Quillet R., Ayachi S., Simonin F., Schneider M., Brinkman J., Lamming D.W., Seroogy C.M., Röszer T. (2017) Neuropeptide FF increases M2 activation and selfrenewal of adipose tissue macrophages. *The Journal of Clinical Investigation* 127:2842-2854

Waqas S.F.H., Noble A., Hoang A.C., Ampem G., Popp M., Strauß S., Guille M., Röszer T. (2017) Adipose tissue macrophages develop from bone marrow-independent progenitors in *Xenopus laevis* and mouse. *Journal of Leukocyte Biology* 102: 845-855

Specific Research Directions

- Early life determinants of obesity and diabetes We explore the role of adipose tissue immune signaling in the control of cellular energy expenditure.
- Breast milk-derived immune modulators in the treatment of childhood obesity Notably, breast-fed children have a lower probability to develop obesity and diabetes later in life. Our laboratory is pioneering in the understanding of breast milk-derived signals which protect from obesity.
- Endocrine control of metabolic inflammation We have identified a pancreatic hormone (neuropeptide FF) which inhibits obesity-induced inflammation in a fat-pancreas endocrine axis. We explore this endocrine axis which fosters a healthy adipose tissue development.

SLB 2022 Elections

SLB is your society. Review the candidates, learn why they want to serve, and look for your invitation to vote in August!

Candidates for the Office of Councilor (2023-2026) *2 Positions

Xiaoyu Hu, Ph.D.

See Xiaoyu's full bio and statement of interest

It has been 10 years since my initial attendance of the Society of Leukocyte Biology (SLB) organized meeting. Throughout the past 10 years, my scientific journey has spanned two continents and is full of intense and often challenging moments. Yet, the interactions and engagements with colleagues and friends at SLB always left me with happy memories and warmhearted smiles. Therefore, not surprisingly, during the recent years, I have deepened my involvements with SLB in multiple ways. In 2019, I wrote an essay entitled "To be or not to be: personal reflections on conducting immunological research in China" for the

SLB newsletter. Later that year, I was honored to be one of the international representatives at the Annual Meeting held in Boston. In 2020, I served as a panelist for the Diversity workshop at the Annual Meeting. This year, I am exceedingly thrilled to be on the scientific steering committee for the upcoming meeting in the Big Island. Looking into the future, if I would become a member of the SLB council, I wish to promote the following aspects of the society activities:

- 1) Strengthening the connection of SLB with the Asian immunology community;
- 2) Fostering potential liaisons with other scientific societies in the Asia-Pacific region
- 3) Continuing to be actively engaged in promoting member diversity

Liwu Li, Ph.D.

See Liwu's full bio and statement of interest

Being an active member of SLB in the last two decades, I can attest to the highly collegial community with supportive colleagues conducive for scientific exchange and career development of members at all stages. I would like to give back what the society has enriched me by serving on the council, and further promote the wellbeing of SLB community. With my extensive experience in leading an academic research team; directing an inter-disciplinary graduate program; promoting integrated education of undergraduates, graduates, and professional students; and presiding an industry-academic partnership society, I would be glad to bring to the SLB council team the following areas of interest.



- 1) To further promote supportive dialogues and interactions among scientists and trainees at all career stages starting at the undergraduate level, through additional venues of flexible and inclusive communications.
- 2) To expand scientific exchanges incorporating interdisciplinary themes that integrate computational and experimental expertise.
- 3) To elevate discussions of translational medicine related to leukocyte biology.
- 4) To open doors for career development in diverse settings that include academic, industry R&D, and government agencies.







SLB 2022 Elections Continued - Candidates for Councilor...

Andrew Taylor, Ph.D.

See Andrew's full bio and statement of interest

SLB has been among the best homes for scientific discussion and collaboration for my research. The environment of the annual meetings and acceptance of publications in JLB show a viable space for an organ-specific research program where leukocytes are regulated by the local activity of the tissue cells and are needed for normal organ function. In addition, there is an increasing call to understand the role of leukocytes in aging diseases, maintaining healthy microbiomes, and understanding disease through bioinformatics, which means growing to include researchers in these areas, amongst others, as they relate to

leukocyte biology. A part of this growth needs to provide opportunities to junior members. We need to keep our strong travel award program and encourage opportunities for grad students and fellows to present their work, complimented with career and research development programs. Having participated in the publication subcommittee to develop a training program to be a good reviewer of submitted journal manuscripts, we heard the membership's need to provide opportunities to allow junior members to develop the skills needed to interact with other researchers in scientific discourse that is honest and respectful. We all need to hone these skills to have a more diverse and inclusive society. As a member of the SLB Council, I will represent the need to support access and opportunities for junior members to participate, opportunities for emerging fields of leukocyte research to be part of the annual meeting, and work to build a thriving and diverse membership.

Vidula Vachharajani, Ph.D.

See Vidula's full bio and statement of interest

I have been a member of the society for nearly a decade. In addition to attending and presenting at annual meetings, I have served on several key committees during this time. I was a member of the "Membership Committee" for two terms. During this time, with excellent guidance from my fellow committee members, collaboration with other committees and Jennifer Holland, we implemented several key initiatives to encourage membership of students and junior faculty the society. These key initiatives have further led to several key initiatives with the help of other committees. It is heartwarming to see the junior members take greater initiative and leadership every year in the annual meetings and all

year round. I went on to Co-Chair the annual Meeting in 2021 with Dr. Laura Nagy. I chose a theme close to my research area, but more importantly, that was unique to our society at the time, namely "Immuno-metabolism". Unfortunately, the in-person meeting had to become a virtual one, due to COVID-19. We quickly changed the program to include several more international quests and speakers to the portfolio; more than we could have at an in-person meeting. The meeting was a huge success, with excitement around the "Immuno-Metabolism" theme. I am very grateful to SLB leadership for giving us the necessary independence and support and to Jennifer Holland in making our dream a reality. Currently, I serve on the "publications" committee. With my involvement in the 2021 Annual meeting-related special issue, I feel right at home in this particular committee and am excited to work with other members in the future.

What do I bring to the table?

A unique translational science perspective: I am a Critical Care Physician-Scientist, who studies molecular mechanisms in immune cells during sepsis. I am a dedicated scientist who also attends to critically ill patients. Sepsis and septic shock, for example, are studied extensively in the laboratory models, however, decades-long pre-clinical research has not resulted in translational studies to improve outcomes. True translational perspective is necessary to bridge this gap. Thus, I bring a unique translational perspective to the innate immune cell research and to the society's portfolio. My studies have followed bedside to bench, back to bedside ideas starting in 2004. I feel, my perspective will be beneficial for the translational research if I were to serve the society in an impactful position, such as a council member.

A contribution to an exciting area of research: As was evident from the 2021 annual meeting, there is a lot of momentum around the "Immuno-Metabolism" area of research, worldwide. I was grateful and humbled by this excitement when the annual program became a reality with several key researchers in the field participated in guest lectures, seminars and plenary sessions. However, much work is needed in the area of acute inflammation and immuno-metabolism. With my sepsis-research, I feel I am well equipped to carry this area forward. I feel, it is necessary to continue that research momentum and as a council member, I will be able to continue the excitement.







Candidates for the Office of Associate Councilor (2023-2024) *1 Position

Elsa Bou Ghanem, Ph.D.

See Elsa's full bio and statement of interest

As an immigrant who left my country to pursue a career in science, I am a firm believer that diversity is key for scientific progress. My goal is to promote environments that support the experimental, intellectual and career development needs of scientists from all backgrounds. I have worked towards that goal in my position as a junior faculty member at the University at Buffalo: first by creating an inclusive and support ive environment within my lab, second by serving as a mentor in programs that support underrepresented undergraduate and graduate students, and third through my involvement in university wide initiatives that promote diversity.

In 2020, I joined the Society of Leukocyte Biology (SLB) Professional Development Committee. This has been a great opportunity to engage in activities that support the different professional needs of junior scientists. As an Associate Councilor with SLB, I would work with the council towards: 1) creating professional development opportunities tailored towards both academic and non-academic tracks; 2) developing structured mentoring programs for trainees connecting established and junior society members with the purpose of building networks; 3) expanding the participation of international scientists in the society. In summary, my objective is to support SLB's goals as a global community that promotes the leukocyte biology field, and continue its tradition of promoting the career goals and meeting the changing professional needs of junior scientists from all backgrounds.

George Karagiannis, Ph.D.

See George's full bio and statement of interest

Having been recently appointed assistant professor at the tenure-track level (as of October 2021), after a rather long-lasting and consuming effort in faculty position searching, I appreciate the complexities and struggles rising from transitioning from postdoctoral training to academia. At the same time and despite that I have never held a position in industry in my career trajectory so far, I was fortunate enough to receive sufficient exposure for the past 2,5 years, and share opinions on that side's struggles too, through my involvement and interactions inside the Members in Transition and Training Group (MTTG), a focus group with the "trainee" in mind within the Society of Leukocyte Biology (SLB) years.

These seemingly polarized insights have not but allowed me to dismiss the boundaries, and optimistically envision the emerging opportunities for partnering these sectors to gain true scientific impact. To demonstrate this vision, I was engaged (as part of an exemplary group effort with my MTTG colleagues) in organizing a virtual edition of the <u>Symposium</u> for <u>Career Development and Hands-On Opportunity to Learn (SCHOOL) in conjunction with the SLB annual meeting, with the theme of "Immunometabolism" last year. We did not only bring in some practical tools and career development tricks for early career researchers, but we did so against a backdrop of experts and specialists from both academia and industry.</u>

As an Associate Councilor, I would serve as the liaison to MTTG, and as such would continue to attend the quarterly calls, and communicate between Council and the committee. I would particularly focus on building functional and productive communication between the parties involved; creating an inclusive environment that would promote decision-making; and eventually constructing a template for highlighting scientific career opportunities and funding mechanisms for scientists. Despite the "global" nature of the community, the SLB has miraculously managed to create a cozy atmosphere among its members by brining like-minded scientists in the field of leukocyte biology and relevant disciplines. I believe this is a flawless environment to put forward creativity, innovation, and integration, to promote better science, and better funding for motivated/aspiring scientists.







SLB School: A Hands-on Opportunity for Trainees

As the society gears up for an in-person rendition of our <u>annual meeting in Hawaii 2022</u>, your '*Members in Transition and Training Committee'* (MTTC) has been working hard to organise the <u>SLB School</u>, to be run alongside the annual meeting. What is the <u>SLB School</u>? This special trainee-focused program aims to provide educational sessions, foster skill building and promote professional and personal development. See below for the program and <u>sign up during registration</u>!

Leukocyte Recruitment | An Academic & Technical Perspective

We know it's important for inflammation and resolution, but what's really going on with leukocyte trafficking? How can we best look at leukocyte movement in and out of the tissues?

Dr Michael Schnoor - Professor, Department for Molecular Biomedicine, Cinvestav-IPN, Mexico-City



After a PhD in his native Germany, Dr Schnoor trained at Emory University (Georgia, USA) and Max Planck (Berlin, Germany) and is now a Professor in Mexico. His research focuses on the roles of actin-binding proteins in vascular and mucosal pathobiology with an emphasis on neutrophil recruitment in inflammatory diseases. Michael has an eminent publication and mentoring record and is a long-standing SLB member. His accolades include a Newton Advanced Fellowship (Royal Society, 2018) and the Dolph O. Adams award (SLB, 2019). Most recently he has been appointed incoming-Editor-in-Chief of JLB. He has extensive experience in investigating mechanisms of leukocyte trafficking, as well as state-of-the-art systems to study leukocyte recruitment in vitro and in vivo.

Vaccine Development & The Public Health Response

How can we best translate scientific discoveries into affordable, globally accessible public health solutions?

Dr Faith Osier - Executive Director, IAVI Human Immunology Laboratory Imperial College London, UK



Dr Osier trained as a paediatrician in Kenya, specialized in immunology in Liverpool, and obtained a PhD from the Open University in the UK. Dr Osier's work has focused on vaccine candidate discovery, the identification of correlates of protection and the mechanisms that underpin protective immunity. Current project portfolio includes HIV/AIDS, Lassa, Ebola, Tuberculosis and Malaria. Dr Osier has led two cross-continental research teams in Kenya and Germany with a vision to "Make Malaria History", and her work has gained prestigious international recognition (Royal Society Pfizer Prize, Sofja Kovalevskaja Award, an UKRI African Research Leader Award). Faith is a TED Fellow, an EDCTP Senior

Fellow and President of the International Union of Immunological Societies.

Publication Committee Corner

Thanks to everyone who proposed themes or suggested Guest Editors for JLB topical issues on the annual membership survey! So far, two special issues are in the works, and detailed calls for submissions will be issued within the next few months. Meanwhile, as you pursue your summer research, please consider possible contributions for special issues in *Neuroimmune Communication in Autoimmunity & Inflammation* (Girdhari Lal, lead Guest Editor) and *Mast Cell Activation* (Nick Pullen, lead Guest Editor). <u>CONTACT US!</u>

JLB

Your committee members are Abdul Basit, David Harris, Peter Keyel, Girdhari Lal, Darren Lee, Tamás Röszer, Jean Scholz, Andrew Taylor, and Vidula Vachharajani. Sergio Catz is Council Liaison, and Associate Editor Véronique Witko-Sarsat oversees SLB member-driven topical issues.

SCHOOL Program Continued...

Understanding the Value of Single-cell RNAseq & Getting the Most out of Publicly Available Databases | A Technical Perspective and Hands-on Workshop with CellXgene

So, you've done your single-cell RNA seq. What's next? There's so much data out there already! How can you examine and interpret available scSeq datasets?

Dr Akiko Minoda - Leader of Epigenome Technology Exploration Unit, RIKEN, Center for Integrative Medical Sciences, Kanagawa, Japan



Dr Minoda trained at the University College, London and Cancer Research UK, before her postdoc research at the Lawrence Berkeley National Laboratory (California, USA). She now is a unit lead in Japan: her group's mission is to understand the very complex regulations of cellular functions and regulations at the epigenetic level, with focus on histone modifications. She will introduce us to the resource that is CellXGene, and how we can use this platform to interrogate available scRNA data.

Life Beyond Academia: What you need to know and what nobody told you | A Career Development Session

An exciting line-up of talented scientists that have pursued careers outside of academia:

Dr. Cherié Butts - Medical Director in Research & Development, Biogen

Dr Butts has been at Biogen since 2012 and held roles as a clinical lead and health equity investigator. Previously, she conducted research and evaluated new drugs/biologics applications at the US FDA. Cherie is passionate about connecting research across academia, government, and industry to advance the biomedical ecosystem. She serves on the Board of FASEB, Board of Directors of Keystone Symposia, and Council of the SLB, and is Adjunct Professor at University of Maryland.



Dr Daniela Cipolletta - Director of Immunology, Seismic Therapeutic



Seismic Therapeutic is a new startup developing the next generation of immunology therapies enabled by machine learning. Dr Cipolletta has over 15 years of immunology research experience, including a PhD from the European School of Molecular Medicine and postdoc training at Harvard Medical School. She has held positions at Amgen, Tempero and Novartis, where she led research programs from early target identification to drug candidate selection and biomarker research. Daniela has also been actively involved in coaching and mentoring younger scientists to building high effective teams while increasing self-awareness and confidence.

PLUS NETWORKING, NETWORKING, NETWORKING!

The SLB SCHOOL will include a full hour lunch attended by Council and leadership members; giving you the opportunity to meet your colleagues, discuss science and make connections. The program will be rounded off with networking drinks (on your own) nearby!

Learn more and Register

JLB Author Interview:

Lixia Li Kindlin-3 maintains marginal zone B cells but confines follicular B cell activation and differentiation

By: Alan Hsu



Lixia Li is a PostDoc in the lab of Dr Tanja Nicole Hartmann at the University of Freiburg in Germany.

Read the Open Access Article

Q: Where did your journey in science begin (what inspired you to pursue a career in science)?

A: I am from China and did my master study in Chinese Academy of Science in Wuhan, majoring in biochemistry and molecular biology. I came to Germany in 2010 to start my PhD in the group of Prof. Lydia Sorokin at the University of Muenster. During my PhD time, I studied the leukocyte diapedesis using intravital imaging. I enjoyed looking at the leukocyte interacting with the blood vessel and its migrating in the tissue under the microscopy. I was fascinated by the temporal and spatial interaction between the immune cell and its microenvironment. I started my first postdoc in the same group after my PhD.

Q: How did you choose your current research topic and interest?

A: After completing my first postdoc in 2019, I came to the group of PD. Dr. Tanja Nicole Hartmann at the Center for Translational Cell Research at the University Hospital Freiburg, to learn more about how malignant B cells interact with the microenvironment. I am interested in the integrin-dependent and independent adhesion mediated tumor cell retention in protective niches, with the focus on the role of kindlin-3 (an adapter for integrin activation) and CD44 in B cell homeostasis and malignancy.

Q: Could you use a few lay sentences to describe/summarize your findings in this paper?

A: We are interested in kindlin-3, an adapter for integrin activation in the hematopoietic system. It is known that this protein is essential for the regulation of integrin function and that loss of its gene expression is associated with leukocyte adhesion deficiency (LAD) type III, which manifests with impaired wound healing, severe bacterial and fungal infections. However, the function of kindlin-3 specifically in B-cell lines is largely unknown.

We found that kindlin-3 is essential for integrin function but also negatively regulates B cell activation and responsiveness to CXCL13. Kindlin-3-deficient follicular B cells display high signature of activation, including upregulation of CXCR5, a key receptor that helps activated B cells move to a niche, which provides these cells with critical survival and differentiation signals. This leads to spontaneous B-cell activation, ectopic germinal center (GC) -like structures formation and differentiation of activated B cells into plasmablast. **Q**: What was the most exciting or memorable moment(s) during the process of this research?

A: We have observed the absence of marginal zone B cell and expanded follicular B cells in the kindlin-3-deficient mice. We were excited to find that loss of kindlin-3 enhanced the B cell response to specifically CXCL13, resulting in elevated PI-3 kinase-mediated activation of Akt, which drives follicular B cells proliferation, activation and further differentiation.

Q: What was the biggest hurdle or challenge associated with this story?

A: Gaining successful time management skills is the biggest challenge I faced. It is an aspect of my research life that I have been working on improving. As I work on multiple projects and want to have a life and work balance, I have learned to make plans, work more efficiently and proritize things.

Q: Besides your PI is there anyone that significantly helped you in your path to become a scientist?

A: My PhD supervisor, Prof. Lydia Sorokin, who has a great passion and is dedicated to her work, is a role model for me to become a scientist.

Q: What would your advice be for junior or incoming Ph.D. Students who want to pursue a career in science and perhaps your field?

A: Read a lot of literature. Ask questions. Interact with PIs, postdoctoral researchers and other PhD students. Work together with people with different knowledge and background. Take the initiative to hold seminars and participate in committees that will help you develop a network of contacts for your future career.

Q: Tell us something interesting outside of being a scientist about yourself.

A: I like reading and jogging. I enjoy my time with my friends, my family and travelling.

ICYMI....Grant Writing Webinar Series

In May, SLB hosted a 3 part webinar series presented by Fiorini & Associates on Grant Writing. Available for SLB Members to <u>view on-demand</u>, noted this valuable resource and browse the entire on-demand library.



JLB Author Interview: Ramizah Syahirah

A curious case of cyclin-dependent kinases in neutrophils By: Alan Hsu



Ramizah Syahirah is a Ph.D. candidate in the lab of Dr Qing Deng at Purdue University in Indiana, U.S.A.

<u>Read the Review</u>

Q: What does this review bring to the field in layman terms?

A: The review provides comprehensive information on the current known roles of cyclin-dependent kinases (CDKs) in neutrophils. It is known that CKDs play a role in the cell cycle, however not many studies focus on CDKs in this non-proliferating, terminally differentiated cells. Due to the scattered findings on CDKs/co-factors in primary human neutrophils and the model cell line HL6o, the review provides a compilation of these results in one place. This informs researchers in the field that are interested in uncovering potential roles of CDKs and their co-factors, especially on their effects on neutrophil behavior.

Q: When writing the review, did you have particular struggles or inspirations?

A: The main struggle would be developing a focus for the review which includes building the story to relate CDKs and neutrophils other than just stating findings from literature. The inspiration to write the review stems from the need to have all related information known about CDKs in neutrophils at one glance, especially when we are interested in studying neutrophil CDK2 functions. We think it will be useful for current and future researchers to have such info at hand during investigation. Another inspiration was due to COVID lockdown, as it was a great opportunity for us to focus on writing the review when active lab work was limited.

Q: Why did you choose *Journal of Leukocyte Biology* for your review?

A: This journal is well acknowledged and a prestigious platform that showcases various studies on leukocyte biology. It is a perfect place to introduce our review to leukocyte investigators.

Q: Have you had any significant mentors who have helped you beyond supervision in the lab? How was their guidance special?

A: My aunt and uncle who live in the USA are significant mentors to me. I struggled when I moved to this country, as the social and work culture are different from back home. They guided me through the ups and downs of school and have helped me become aware of the various opportunities that I can pursue in a foreign country. I have learned to enjoy the life I have built here, including attending grad school despite being far away from my immediate family.

Q: What motivated you to pursue a career in science, and what have been the most interesting moments on the path that led you to where you are now?

A: The main motivator in pursuing science is the excitement that comes from discovering something unknown. I think it is interesting that despite the complexity of biology, we can continue to explore and investigate any small piece of the big picture that we would like. Memorable moment in science for me is the feeling you get when you start to believe what you are seeing from experiments.

Q: Who are your role models in science? Why?

A: I started doing active research when I was an undergrad in Dr Qing Deng's lab. She is one of my role models as her constant guidance and encouragement led me to continue doing research and always be excited in pursuing projects. Working with a mentor like Dr Alan Hsu, has allowed me to take steps towards thinking scientifically and creatively. I appreciate the times we had (and still have) on discussions about navigating a career in science and how to become better scientists.

Q: What's next for you? (If you are planning on leaving academia, please tell us why!)

A: A post-doc is my first choice in progressing my career. I intend to stay in the leukocyte field and perhaps even in neutrophil biology. I am open to industry if an opportunity for growth comes around.

Q: Please tell us something interesting about yourself.

A: I enjoy doing crafts such as painting and building decorative items. My next mission is to design clothing! I also enjoy reading novels, especially from Margaret Atwood, as her works are speculative fiction and include many social movements that are relevant to our times.

Q: What's your advice to first-year PhD students?

A: The best part on starting off graduate school is the flexibility to explore and determine the path at which you will pursue in the program. A good thing to remember is that all our work is based on other people's work, so being aware of what is known in the field is crucial. From here, start asking, what are the questions yet to be addressed? Using the technology that is available, how will you carry out the investigation, and at the same time, innovatively? From my experience, it is important to consider not only the time you will spend on it, but your techniques and abilities. Working with others on the other hand, can be a catalyst to push each other towards critical thinking as great ideas are developed through conversations. Finally, do not take anything personal!

Picture a Leukocyte Biologist! It's YOU!



The SLB DEI Committee invites you to...

Picture a Leukocyte Biologist!

Friday October 28th, 12:30 - 2:30pm (includes lunch!)

SLB strives to provide a welcoming and inclusive environment for researchers from all backgrounds and we know that this may not always be the case in academic environments. Inspired by the movie "Picture A Scientist" which chronicles a range of harassment experienced by certain scientists, the Diversity, Equity, and Inclusion Committee invite you to join us for our "Picture a Leukocyte Biologist" workshop in Hawai'i. We are thrilled to host this in-person networking and discussion opportunity, where SLB member panelists from a range of backgrounds and levels will discuss experiences and strategies they have successfully used to identify and mitigate problems faced by minoritized populations in science. We welcome you to share your voice, and add to the diversity of experiences and ideas for how to recognize issues and be an ally where needed. From trainees to lab directors, we can all help create an inclusive space in our workplaces.





Do you use social media? Join us at the meeting as we post photos or bitmojis* in our 'Picture a Leukocyte Biologist' campaign! Let's celebrate our diverse membership, and share what being a scientist means to us! Don't forget to tag *@leukocytebiol, #SLB2022, #PictureALeukocyteBiologist.*

* Examples shown here are DEI Committee members Amanda Brown, Deborah Fraser, Chad Markert, Diane Bimczok, Susu Zughaier, Lisa Khuu, and Abolaji Olagunju.



Where are they now?

Learn more about what these SLB members and past awardees are up to these days. <u>Tell us your</u> <u>latest news</u>!





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JLB Top Downloads and eTOC

Check out the top 10 downloaded articles of JLB from <u>January – March 2022</u> and make sure you get <u>eTOC</u> and stay up-todate on the latest articles!

JLB Early View