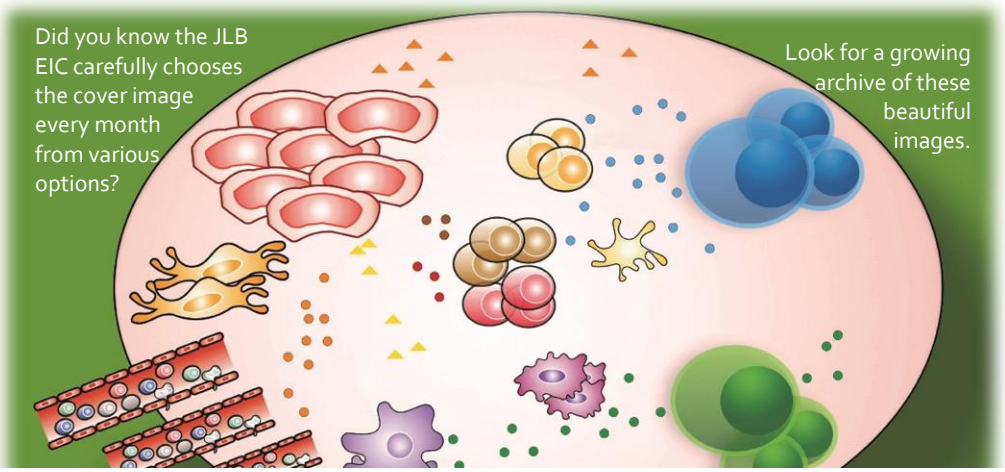

iSLB

SOCIETY FOR LEUKOCYTE BIOLOGY

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OFFICIAL NEWSLETTER OF THE SOCIETY FOR LEUKOCYTE BIOLOGY

IN THIS ISSUE

President's Message

By Lee-Ann Allen

It is with great pleasure that I begin my term as President of SLB, following in the footsteps of Bob Clark while also welcoming Nick Lukacs as President-Elect. I have been an SLB member for many years and my career has been enhanced and enriched in numerous ways by this affiliation. As a new faculty member, attending the SLB meeting gave me opportunities to meet leaders in the field of innate immunity and to present my research to a diverse and engaged audience. I cherish the many professional relationships and friendships that began at a poster or over coffee and have been reinforced and expanded with each passing year.

It is an honor to assume leadership of SLB at such an exciting time for both the Society and the Journal. SLB is in an excellent financial position and we are now more than 1,000 members strong. As of January 2018, *JLB* is being published via our partnership with Wiley, and both the SLB logo and the web site have a fresh new look. The web site is easy to navigate and contains a wealth of information regarding SLB governance, committees, awards, conferences, and *JLB*. I would also encourage everyone to join or create a 'Community Circle' (found under the Resources tab) as another means to connect with SLB members working on specific cell types or aspects of leukocyte biology, such neutrophils or inflammation.

Two exciting new initiatives are being implemented this year as a strategy to further expand SLB membership and meeting attendance while also providing content for the *Journal*. First, SLB Councilors and Committee members are acting as SLB Ambassadors, with the goal of identifying excellent trainees who present talks or posters in other venues, inviting them to become SLB members, and encouraging them to attend the annual meeting. A second initiative is designed to increase SLB visibility globally via guest symposia at international conferences that will be linked to specific JLB content. Bill Nauseef and Domenico Mavilio have leadership roles in this outreach effort which includes conferences in Mexico, Canada, Portugal, Brazil and Thailand as well as Boston and Texas in 2018 alone. Additional opportunities for member engagement and participation will also be announced soon.

After a successful meeting in beautiful Vancouver, we now look forward to Arizona, and our latest joint meeting with the International Endotoxin and Innate Immunity Society (IEIIS) that will be held October 14-16th. Darren Lee (of SLB), Egil Lien (of IEIIS) and David Underhill (of SLB and IEIIS) have organized a fantastic program around the theme of *"Myeloid Cells: Development, Environment and Inflammation"*. The draft program, registration information and award guidelines are available on the SLB website, along with pictures of the venue at Wild Horse Pass, which showcases the beautiful desert southwest landscape. In closing, I strongly encourage each of you to attend what promises to be a fantastic meeting.

Editors' Message

The next SLB meeting is on the horizon and we want to remind you that abstract submission is open and we encourage everyone, especially our junior members, to apply for the various awards and travel grants. The program is on the website and promises a jam-packed 3 days of innovative research about innate immunity, leukocytes, and endotoxin. We look forward to seeing you there.

In this issue is an interview with the 2017 **Thorbecke Awardee, Julia Bohannon** and it is a great read. Look in this issue also for an MTTG interview focusing on the experience of young researchers who moved countries to further their careers. In this issue you will hear from both Dr. Laurent Gorvel, a French researcher who moved to the

Editors' Message Con't

USA after he finished his PhD, and Dr. Caitlin Gillis, an Australian who completed her PhD at the Institut Pasteur in Paris before moving to Ghent for a post-doc. They tell us about the highlights and hurdles of their move and give practical advice on how to navigate the challenges. Look for a future article featuring Kristen Tarbell and her transition from government to industry!

SLB Ambassadors Add to the Society. Please read **Daniel Irimia's** article about his experience awarding a trainee travel award and certificate. Also, this year the Women and Diversity (W&D) Committee is hosting the session entitled, **"Effectively Communicating Science: Getting the Word Out"**. Please read Beth Garvy's article about this session. There are also informative articles on the 2018 workshops and from the 2018 **Special Interest Group Satellites (SIGs)** organizers. The topic of the Members-in Training Group (MTTG) session at this year's Annual SLB meeting is **"Imaging Modalities"** and is discussed in the article by Shuvasree Sengupta.

JLB "sensing" a new direction…

An Issue Created by Members for Members

The SLB Publication Committee, in conjunction with the JLB Editor in Chief, is working on a special issue of JLB. The topic is based on member suggestions and is titled "*Intracellular danger sensors fueling inflammation and autoimmunity*". This issue will highlight the important role that host intracellular defense mechanisms play in driving pathogenic inflammation. This will include investigations into host sensors that detect pathogen-derived as well as self-molecules.

Look for a special call for manuscript submissions coming soon to the membership and contact us if you are interested in participating!

Look for the first focused topical issue in the June 2018 JLB
Negative regulators of inflammatory signaling cascades

We want to thank Stephania Libreros for her time as a Junior Editor. with her term now complete, Stephania will focus on other areas of SLB. Stephania was one of the first junior editors at the newsletter and has done an amazing job. We are thankful for her contributions. As always, we are very thankful for Jennifer Holland, without whose help it would be hard to put iSLB together! Vijaya Iragavarapu, Amanda Brown (Senior Editors) . Irina Miralda, Katherine Martin (Junior Editors)

There is nothing "Hokie" about the Virginia Tech Pizza n' Pubs Summer Immunology Journal Club!

Over the summer and fall of 2017, Virginia Tech's SLB-sponsored "Pizza n' Pubs" journal club was highly successful at keeping our graduate and undergraduate students engaged. We held two meetings and discussed several papers including a range of immunology topics that spanned the interest of the various laboratories that attended. All of the papers discussed this year fell under the theme of "Mucosal Immunology". We covered excellent high-impact studies published in 2017 that ranged from defining the role of gut microbiome derived metabolites in regulating immune system function to factors associated with the immune system that lead to gut microbiota diversity. Participants included four PIs and an average of 18 students affiliated with four different departments on campus. The success of this journal club would not have been possible without the support of SLB and their wonderful Pizza n' Pubs program. We look forward to participating again next year!

Thank you to our 2018 Sustaining Members:

Richard Kew, Stony Brook University

Charles Rinaldo, University of Pittsburgh

Preview the 2018 Workshops…..

Team Science: A Road Map to Success

By: Kevin Wooten

For the past few years, Team Science has been a buzzword to most, and a roadmap for others to scientific success. This year at our 2018 SLB/IEIIS conference, our Professional Development Workshop will feature Team Science. We will be joined by Dr. Kevin C. Wooten, Ph.D., Professor and Chair of Management at the University of Houston at Clear Lake. Dr. Wooten has had a long history in physician education and team science experience, as he is the co-founder for the UHCL MBA for Physicians, as well as the lead expert on Team Science at the University of Texas Medical Branch. He is on the Board and the Executive Committee for the International Association for the Science of Team Science (INSciTS).

This year's program will be both informative as well as involving. The two-hour session will provide an overview of team science (what is it really, the evidence supporting its use), a high-level review of the team science literature, an examination of team dynamics in science (leadership, collaboration, diversity, etc.), as well as cutting edge presentation of competency models, practical examples of team science leadership training (behavioral exemplars for team scientists), team skills assessment (video illustrations), and scientific team evaluation (models and literature). Throughout the session, participants will be assembled in small breakout groups and be asked to respond to various scenarios common to the team science experience. Analysis of issues and possible resolution strategies will be discussed. Finally, the session will conclude with a panel discussion involving the applicability of team science to our discipline, and to our members at various stages of their career.

Monday, October 15, 2018, 7-9am
Come to the SLB 2018 meeting and the Communicating Science workshop to hear Beth Garvy speak about communicating science to policy makers and Cynthia Leifer who will speak on communicating to the public.

Communicating Science: The importance of getting the word out

By: Beth Garvy

Communication of research findings is at the core of what a scientist does. We communicate our results through publications and public speaking. We communicate our ideas to granting agencies. Our skill at these types of communication are critical to our longevity as scientists and we are generally pretty good at teaching these communication skills to our trainees. However, explaining our science to a layperson can be daunting to many of us and our training programs generally do not teach us how to do this. One might argue that communicating science to laypersons is as fundamental to our jobs as working at the bench. Science is expensive, and it was recognized early that science required patrons to move forward. In order to secure funding, early scientists had to learn to talk to potential patrons about their science. Today most of us deal with granting agencies as opposed to patrons, but we still need to be able to communicate our science to those that hold the purse strings. Though we often think of this as a study section, in reality, the purse strings are held for most of us in Congress and few members of Congress have a background in science.

Since 2003 the NIH budget has been relatively flat. Even with significant increases in the NIH budget over the past two years, the buying power of the NIH budget is still significantly below the level it was in 2003. Moreover, we have a President whose budget proposal for the past two fiscal years has called for decreases in NIH funding. Fortunately, Congress has ignored the President's budget when it comes to NIH and has proposed a $2 billion increase for fiscal year 2018. This is a crucial time in our history. In order to grow the research enterprise in the U.S. we need predictable and sustained growth at NIH and other federal granting agencies. In order for this to happen, we as scientists need to raise our profile with the public and Congress and be seen as the holders of the future for the health of our people and environment.

Tuesday, October 16, 2018, 7-9am
Come to the SLB 2018 meeting and the Communicating Science workshop to hear Beth Garvy speak about communicating science to policy makers and Cynthia Leifer who will speak on communicating to the public.

Preview the 2018 Satellites…..

SIG 1: Emerging Concepts in NLR Sensing and Signaling

By: Coy Allen

The field of pattern recognition receptor signaling is moving forward at mind boggling speed. Indeed, we are just now beginning to grasp the highly complex signaling mechanisms that underlie how these receptor families sense pathogens, damage, and stress. This is perhaps most true for the NOD-like receptors. Over the past few years, significant progress has yielded novel insights into NLR inflammasome formation and signaling. This is especially true for a large group of understudied inflammasome forming NLRs and provided new perspectives regarding the non-canonical inflammasome. Other significant findings have recently clarified unique mechanisms utilized by a diverse range of pathogens to subvert the innate immune system, including targeting members of the NLR family and associated signaling cascades. In addition to pathogen recognition, it is important to note that intricate communication pathways between the pattern recognition receptors and commensal/probiotic components of the host microbiome have been defined. These signaling pathways have emerged as significant mechanisms underlying the maintenance of immune system homeostasis and disease. Beyond the inflammasome and host-microbe recognition, it is also important to recognize the work recently conducted associated with regulatory NLRs. These unique non-inflammasome forming NLRs have been shown to either positively or negatively regulate signaling pathways associated with the activation of other pattern recognition receptors and seem to either augment or dampen the ensuing inflammation response. These pathways seem to impact not only host-microbe interactions, but also seem to regulate a range of biological processes, including autoimmunity, response to injury, and cancer. These are exciting times as these studies have facilitated the translation of these studies from bench-to-bedside. This satellite symposium will bring together a diverse group of researchers representing many of the most esteemed laboratories currently working in the NLR field. The topics presented will cross the spectrum from basic mechanisms of NLR signaling, to host-microbe interactions, and translational studies linking NLR function to disease processes. We hope that by collecting experts from these diverse research groups, we can offer a unique opportunity to discuss novel, innovative concepts of NLR function and signaling. Ultimately, we hope that by this symposium will facilitate collaborations and assist in revealing new roles for NLRs in the pathobiology of human diseases.

2018 Special Interest Group Satellites

Organized by members for members, enjoy our inaugural year of Special Interest Group Symposiums. Join the meeting on **Saturday, October 13, 2018 from 1-4pm** for these 3 focused sessions. Attend one session or hop between sessions to get a taste of all the topics. A nominal $10 registration fee includes a light lunch prior to the sessions. Sign-up during meeting registration.

The Society for Leukocyte Biology (SLB) and their journal, JLB, support researchers at all career levels. Learn more about the numerous awards and programs sponsored by the society and journal in supporting members' traveling to conferences, presenting their work and publishing research here.

Travel
Present
Publish
with SLB

SIG 2: Enabling Technologies for Leukocyte Research

By: Daniel Irmia

At the SLB 2018, a satellite session on "Enabling Technologies for Leukocyte Research" will be an opportunity to engage in discussions about new tools that make consistent measurements of human leukocyte functions in the context of disease. These latest technologies from engineering-focused research labs will enable further research on leukocytes. As everyone knows, assays for leukocyte functions in human that are currently difficult to test. Several molecular biology tools that are useful in animal models or cell lines cannot be applied to humans. For this satellite session, the emphasis is on new tools that measure relevant functions in the context of disease for quantitative comparisons in sepsis, pulmonary fibrosis, diabetes, leukemia, immune-therapies, and fungal infections. Many of these measurements could not be performed with current assays or require the significant labor of trained personnel. The devices presented in this session should circumvent these limitations. Following the model of success of the microfluidics satellite session at the SLB 2016 (Verona, Italy), the audience will have ample time for questions and conversations with the speakers. The speakers will also be available for additional discussions throughout the conference.

- Rashid Bashir, U. Illinois Urbana Champaign, *Microfluidic devices for CD64+ Neutrophils Counting and Sepsis Diagnostic*
- Shuichi Takayama, Georgia Tech, *Leukocyte assays in pulmonary fibrosis*
- Han Wei Hou, Nanyang Technology University, Singapore, *NETosis on a chip for diabetes monitoring*
- Ken Kotz, DRAPER Labs, Boston, *High-throughput purification and transfection of leukocytes*
- Thomas Laurell, Lund University, Sweden, *Label-free enrichment of mononuclear cells from blood*
- Alex Hopke, Harvard Medical School, *How neutrophils seal off sites of bacterial and fungal infections*.

Look in the next issue of iSLB for details on SIG 3: **Microbiome, mucosal immunology and aging**
Chairs: Rebecca Fuldner and Alan Landay

MTTG Programs for 2018

The Members in Transition and Training Group (MTTG) is delighted to announce that we will be hosting our annual session highlighting "**State-of-the-Art High-Resolution Imaging Modalities**" at the upcoming annual meeting in Chandler, Arizona. This session will be a great platform for gaining insights on the emerging cutting-edge imaging techniques to study single cell/molecule interactions in living tissues/cells. Experts from both academia and industry will elaborate on the subject. We encourage all trainees to join the session and reap the benefits of learning scientific advancements as well as creating useful networks at the luncheon.

MTTG is fully dedicated to facilitating the transition of junior SLB members into science related careers. Having said that, we are planning to bring back "**Poster Fash Talks**", a session that always turns out extremely constructive for trainees' career every year. We aim to cover various research interests to allow many junior members present their work in a 5 min well organized PowerPoint format. Not only that, members are also benefited as they get to co-chair the flash talk sessions, a first-hand experience in chairing sessions at international meetings. We, the MTTG representatives would love to hear your feedback and inputs that will help us taking better career building initiatives throughout the year and at the annual meetings. Even better, join MTTG, we need young enthusiastic trainees like you and your active participation in the Society to make the group more resourceful for all of us. Stay connected by following us in the SLB website and on LinkedIn.

Shuvasree Sengupta and Stephania Libreros

SOCIETY FOR LEUKOCYTE BIOLOGY
The Members in Transition and Training Group
MTTG

An Interview with 2017 Thorbecke Awardee

Julia Bohannon

by Juhi Bagaitkar

Julia Bohannon, Ph.D., received the 2017 Jeanette Thornbecke Award. Julia is an Assistant Professor at Vanderbilt University.

What are the major research goals of your laboratory? The research goals of my laboratory are aimed at investigating immunomodulatory therapies for the prevention and treatment of infection and sepsis following a severe burn injury. Infection is the leading cause of prolonged hospitalization and death in severely burned patients that survive the acute phase of injury. Loss of the skin barrier, impaired innate immunity and the prevalence of antibiotic resistant bacteria increase the susceptibility of burn patients to serious infections. This leads to a great need for developing immunomodulation strategies aimed at augmenting the host response to infection in these patients. Studies in our laboratory show that priming with Toll-like receptor (TLR) 4 agonists augment neutrophil antimicrobial responses and enhance resistance against infection after severe burn injury in mice. However, the role of the classical MyD88- and TRIF-dependent TLR signaling cascades in mediating this protection, are not fully understood. The Bohannon lab utilizes multiple post-burn murine infection models, including a *Pseudomonas aeruginosa* burn wound infection as well as *Staphylococcal aureus* and *Candida albicans* systemic infections, to assess the effect of various TLR agonists on mediating protection against infection. The information gained from this project will significantly advance current knowledge by elucidating the role played by the two primary TLR signaling pathways in mediating resistance to infection in burn patients. Further, these studies will allow us to investigate the potential of harnessing these pathways for therapeutic benefit in these critically ill patients.

What has been the most exciting discovery in your research so far? Our most exciting discovery to date is that TLR agonists are capable of protecting immunocompromised hosts against a wide variety of infection-causing pathogens, including both Gram negative (*Pseudomonas aeruginosa*) and Gram positive (*Staphylococcus aureus*) bacteria, as well as fungus (*Candida albicans*). All of these pathogens have a high propensity for resistance and are listed as a *Serious* threat to global health by the Centers for Disease Control. We have found that TLR agonist treatment enhances the antimicrobials responses of innate leukocytes, resulting in a more effective and rapid innate immune response that leads to more efficient clearance of bacteria, and reduction of systemic inflammation.

Translational potential and overall impact of your work Our studies have shown that priming immunocompromised hosts with TLR agonists increases resistance to lethal infections caused by a variety of nosocomial pathogens. This has major implications for the development of novel therapeutics that could protect high-risk immunocompromised patients (burn patients, surgical patients, cancer patients, elderly, etc) against deadly antibiotic-resistant infections. We have shown that this protection can last up to 2 weeks after treatment. We are also conducting studies currently to test whether TLR agonist treatment can improve survival outcomes when given *after* infection in conjunction with antibiotics, with promising results thus far. Our studies will provide proof-of-concept data for testing these TLR agonists in clinical trials.

What excited you most about research and could you tell us a little about your transition from a trainee (graduate student/ postdoc) to you first position? From a very young age I've had a love for science, discovery, and learning. I spent a significant portion of my early childhood in a children's hospital, recovering from severe burns sustained as an infant, along with both of my parents. My mother and I both received physical therapy and underwent reconstructive surgeries over the span of more than a decade. This experience exposed me to the medical world early on and fostered a strong desire to want to help other patients like us in some way. I became interested in perusing research during my undergraduate studies, and then began my graduate studies in burn research at Shriners Burn Hospital for Children. My postdoctoral studies at Vanderbilt University Medical Center expanded this research further and allowed me to excel in this important niche of burn immunology-focused research. My postdoctoral studies led to the development of my first R01 application, which I submitted a year after transitioning from a postdoc fellow to a junior faculty position at Vanderbilt. I was awarded my first R01 on the first submission, and since then, things have progressed quickly. I have my own laboratory space in the Department of Anesthesiology and my own research team. I'm lucky to have a wonderfully supportive department and a great team of mentors to guide me through the transition. My dreams of helping burn patients like myself is

becoming a reality as I work each day with my team to discover new treatments to protect these patients, and other high risk patients, from deadly infections.

What skills or talents are most essential for effective job performance as a new/early investigator? One essential trait to have in research is perseverance. You can't let a grant or paper rejection dissuade you. You have to be ready for roadblocks along the way and take each one as an opportunity for improvement. Every failure has the potential to bring you closer to excellence. Secondly, insatiable curiosity is key. A drive to ask critical questions, to read as much as you can, to dig and pursue the answers to those questions is essential to maintain success as an investigator. Finally, a crucial trait that I have learned from my mentor is to strive to maintain an attitude of tenacious optimism. This allows you to take criticism in stride and learn from it to make you a better scientist and person. Sometimes it has to be a conscious decision that you have to make – it's not always easy. But I think having this type of attitude allows you to maintain passion and excitement about your research and allows you to recognize opportunities that you might otherwise dismiss. It also helps keep you from spiraling into negativity and despair, which can unmotivate you, slow progress, and prevent you from engaging in potentially rewarding opportunities.

How has your involvement with the Society of Leukocyte Biology facilitated your career? How impactful was receiving the Jeanette Thorbecke award for you/your career? The Society of Leukocyte Biology is the professional society that I identify with most, in regards to my research area. I first became acquainted with SLB in 2006 as a graduate student when I attended the annual meeting in San Antonio with my Ph.D. advisor. I then went on to attend and present at annual meetings in 2008 as a graduate student, in 2014 as a postdoctoral fellow, and again in 2017 as the recipient of the Jeanette Thorbecke Award. I have also published numerous manuscripts in the Journal of Leukocyte Biology. I find the SLB meetings to be much more relevant to my research interests as compared to larger immunology society meetings. I find this society to be a close-knit group, and I recognize people each year I attend from previous years. Participation in this society has led to a number of collaborations for me and introduced me to key researchers in my field of study. Many of these researchers have reviewed my grants and/or papers, referred me for manuscript reviews, collaborated with me on projects, and written references for me. These interactions have been critical to my success as a researcher. Winning the Jeanette Thorbecke Award was a great honor to me, considering the role this society has played in my career from the beginning. I am very proud to showcase this award on my vitae, and I have no doubt it will strengthen my accomplishments as I continue to advance in my career.

What are your expectations from students/postdocs in your laboratory? My expectations of trainees in my laboratory include a moderate amount of independence, including openness to creativity when it comes to project ideas and design, experimental techniques, and interpretations. I want to encourage trainees to think outside the box and always be aware of the 'big picture' with respect to the goals of the projects within the lab. They should be curious and not afraid to ask questions, with the intent of doing some work to seek the answers to those questions. I expect honesty and transparency with regards to making mistakes, because every mistake teaches something new.

What is the most rewarding part of your job? At this point in my career, there are two key rewarding qualities of my job. The first is seeing my dreams of becoming a researcher realized. I truly am doing a job that gives me personal satisfaction every day. Secondly, training young scientists (undergrads, PhD students, medical students, postdocs, fellows, etc) how to perform meaningful research is an incredibly rewarding experience.

Can you tell us one surprising thing about you? I'm a mom of 3 boys – ages 4, 8, and 10. I had my older two during graduate school, and the youngest during my postdoc. While becoming a mom during my training certainly had its challenges, it was an incredibly rewarding experience. It is very common for young women considering entering an advanced science degree program to think that they must choose between starting a family and starting their career, often times putting off one for the other. In fact, this is often encouraged. But I hope to encourage young female aspiring scientists that they can achieve both their dreams of having a family and having a meaningful career in science without having to sacrifice, if they so choose.

Consider applying for the 2018 Thorbecke Award or one of several other award opportunities SLB provides to its members at all career levels.

Learn more…

Impactful Science

A sample of highly cited articles from JLB….

JLB JOURNAL OF LEUKOCYTE BIOLOGY

10.1189/jlb.5BT0615-247R	AT THE BENCH: NEUTROPHIL EXTRACELLULAR TRAPS (NETS) HIGHLIGHT NOVEL ASPECTS OF INNATE IMMUNE SYSTEM INVOLVEMENT IN AUTOIMMUNE DISEASES Peter C. Grayson, Mariana J. Kaplan
10.1189/jlb.2MR0316-117RR	MOLECULAR MECHANISMS OF REGULATION OF TOLL-LIKE RECEPTOR SIGNALING Cynthia A. Leifer, Andrei E. Medvedev
10.1189/jlb.5BT0615-234R	AT THE BEDSIDE: NEUTROPHIL EXTRACELLULAR TRAPS (NETS) AS TARGETS FOR BIOMARKERS AND THERAPIES IN AUTOIMMUNE DISEASES April Barnado, Leslie J. Crofford, Jim C. Oates
10.1189/jlb.3MR0915-440R	THE SWEET SPOT: HOW GAGS HELP CHEMOKINES GUIDE MIGRATING CELLS Yoan Monneau, Fernando Arenzana-Seisdedos, Hugues Lortat-Jacob
10.1189/jlb.5RI0116-013RR	COMBINATORIAL APPROACH TO CANCER IMMUNOTHERAPY: STRENGTH IN NUMBERS Anna E. Vilgelm, Douglas B. Johnson, Ann Richmond
10.1189/jlb.3RI0116-021R	GLYCOBIOLOGY SIMPLIFIED: DIVERSE ROLES OF GLYCAN RECOGNITION IN INFLAMMATION Ronald L. Schnaar
10.1189/jlb.3MR0615-272RR	INFLAMMATION AND PRETERM BIRTH Monica Cappelletti, Silvia Della Bella, Enrico Ferrazzi, Domenico Mavilio, Senad Divanovic
10.1189/jlb.3RU0316-151R	ENDOTOXEMIA-MENACE, MARKER, OR MISTAKE? Robert S. Munford
10.1189/jlb.3RU0316-144R	BIOLOGICAL ROLE OF GRANULOCYTE MACROPHAGE COLONY-STIMULATING FACTOR (GM-CSF) AND MACROPHAGE COLONY-STIMULATING FACTOR (M-CSF) ON CELLS OF THE MYELOIDLINEAGE Irina Ushach, Albert Zlotnik
10.1189/jlb.3RU1015-451R	A MATTER OF TIME: STUDY OF CIRCADIAN CLOCKS AND THEIR ROLE IN INFLAMMATION Stuart J. Carter, Hannah J. Durrington, Julie E. Gibbs, John Blaikley, Andrew S. Loudon, David W. Ray, Ian Sabroe
10.1189/jlb.2RI0815-354RR	NEW DEVELOPMENT IN STUDIES OF FORMYL-PEPTIDE RECEPTORS: CRITICAL ROLES IN HOST DEFENSE Liangzhu Li, Keqiang Chen, Yi Xiang, Teizo Yoshimura, Shaobo Su, Jianwei Zhu, Xiu-wu Bian, Ji Ming Wang
10.1189/jlb.2MR0915-441R	BIASED SIGNALING PATHWAYS VIA CXCR3 CONTROL THE DEVELOPMENT AND FUNCTION OF CD4(+) T CELL SUBSETS Nathan Karin, Gizi Wildbaum, Marcus Thelen
10.1189/jlb.5RU0116-016R	THE ROLE OF MACROPHAGES IN OBESITY-DRIVEN CHRONIC LIVER DISEASE Lindsey Devisscher, Xavier Verhelst, Isabelle Colle, Hans Van Vlierberghe, Anja Geerts
10.1189/jlb.4MR0316-102R	ANGIOGENESIS AND WOUND REPAIR: WHEN ENOUGH IS ENOUGH Luisa A. DiPietro
10.1189/jlb.1MR0915-403	IN THE EYE OF THE NEUTROPHIL SWARM-NAVIGATION SIGNALS THAT BRING NEUTROPHILS TOGETHER IN INFLAMED AND INFECTED TISSUES Tim Lämmermann

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MTTG focus on Career Transitions
Moving Countries to Expand Opportunities and Experience

As young scientists, we always hear about how international research positions can ultimately improve our academic prospects. It can provide us with the opportunity to work with top-level researchers at internationally renowned institutes, to learn different techniques and see research from an entirely new perspective. Not only does it advantage the scientists, it also has multiple benefits for the foreign institutes as well. While the advantages are clear, many young researches have little understanding of the realities of uprooting your life for a PhD or post-doc position. Here the MTTG presents an interview series with Dr Laurent Gorvel and Dr Caitlin Gillis, two successful scientists who moved countries to pursue their careers in academia.

Dr Laurent Gorvel

What is your current position and what are you working on? I am currently a junior scientist at the CRCM (Cancer Research Center of Marseille) in France where I investigate myeloid and lymphoid immune cell interactions to discover new approaches for Immunotherapies in Cervical cancer.

Tell us about your journey to get to where you are today, where have you come from and where did you move? I did all my university studies in Marseille, first at the Science University of Luminy, then a Master degree at Marseille School of Medicine studying human pathologies and tropical diseases. In 2010, I joined the lab of Pr. J.L. Mege at the U.R.M.I.T.E to work on Tropheryma whipplei, an intracellular bacterial pathogen responsible for Whiple's disease, which led to my first publication. As I found the environment great, had access to human samples directly from the hospital and was working with very knowledgeable people in the field, I decided to stay there for my PhD. My project focused on the infection of human dendritic cells (hDCs) by Coxiella burnetii (Q Fever agent). I defended my thesis in December 2013 and decided to move abroad for my first post-doc working with Dr. Eynav Klechevsky at Washington University in Saint Louis, School of Medicine. This was a great place to interact with some of the biggest names in the field, learn about hDCs in depth and develop a real interest in the way they are regulating adaptive immunity and which subset of hDC are able to induce which responses. I stayed there for almost 4 years and published a first author paper and a couple of second author papers. After that, I had the opportunity to move back to Marseille to work on immunotherapies and I joined Pr. Daniel Olive's Laboratory at the end of 2017.

Why did you decide to move countries to take up an overseas post-doc? I knew I wanted to be a Principal Investigator in France and complete my career there. However, to obtain a permanent position in France, the advice is to go abroad for a post-doc to learn new approaches, publish high impact papers and then apply for a transition position back to France with the aim of finding a permanent position. That was one reason, although I had spent almost 6 years in the same laboratory with my master and PhD combined so I also needed to change the way I was seeing science and projects. So, I decided that the best way for me to achieve that goal was to move abroad to one of the best institution in the field of Immunology, which I was lucky to do when I joined Washington University in Saint Louis.

How did you find your overseas position? Mainly by looking to open positions online, but also by using connections in other laboratories to find out about open positions where I could fit. Here, your network really helps a lot.

What was the application and interview process like? I started to send resumes to the head of laboratories I was interested to work with, quite a lot to be honest, six months before my PhD defense. I was also using social media such as Linkedin or Research Gate to look for open positions. This worked well for me as I received a few positive responses. After that I submitted online applications sometimes through the university job application webpages and where I could arranged skype interview with the head of laboratories. I had a few Skype interviews, where I was mainly discussing how I would fit into one of the projects of that lab and the state of the field. After I decided to join Dr. Klechevsky's laboratory, she invited me to give a talk and we started all the paperwork. On my side it was fairly easy, I had to obtain a J1 visa to work in the U.S.A and fill in the various forms emailed by Washington University. Once I obtained my visa, I moved to Saint-Louis, completed a few others documents and then I could start work. I think the main difference when looking for a job abroad is that you have to start as early as possible, because there will be a lot more paperwork, you often need a visa and you will also have to fill extra documents for the hiring process as you are a foreigner. Personally, it went pretty smoothly as Washington University HR was really helpful.

Did you find there were many cultural difference in the workplace in your home country compared to your adopted nation? Moving from France to the U.S.A I could see some minor cultural differences. But nothing that would interfere with my

work or social life there. I basically just needed to learn how to interact with my new lab mates and coworkers.

Do you think moving overseas has been good for your career? I think it was great for my career, as I learned new techniques, approaches and a different vision of Immunology in general. That helped me design the project I am currently working on. The fact that you need to adapt to a "new life" also helps you to see life differently and, of course, it helps to grow your network, which is harder to do if you stay in the same country.

What was your biggest highlight moving overseas? I left Marseille in January and the temperature was 13C, when I landed in Saint Louis there was a snowstorm and the temperature was -20C. I was not sure that I wanted to stay there for a few years anymore. That was first impression of St. Louis, it changed after a little while.

What was the biggest hurdle or challenge you faced? The biggest challenge I faced was to set up in a new country without knowing anybody. But besides that, I think it went well, both scientifically and socially speaking.

What is the best advice you can give to someone who is thinking about moving countries for their career? If you plan it properly it will be a great experience, try to have a plan in your mind and stick to it as much as possible, even though you can make some amendments to it along the way.

Life is not just about work; how did you make friends and establish your social life? Are there any recourses you found useful? I made my first friends at work. I was lucky enough to have friendly lab mates, that introduced me to the other people. It is also nice to have "a bit of home" abroad, so I met French people living in Saint Louis, I think most of communities now have a web page where you can find contacts. One of the best way to meet new friends is also to have activities outside of the laboratory, I met some of my friends on a soccer field and others playing basketball.

Did you have to overcome a language barrier in your adopted country? If so, how did you navigate this? Even though English was not my first language, I learnt it at school and my level was not so bad, so it was not really a barrier. But I improved a lot a lot while speaking with everybody there.

After working in another country, do you plan on staying in your adopted nation or ultimately do you want to return home? I decided to return home last year as it was my plan in the first place and I had a great opportunity to move on with my career.

Weighing up all of the factors, would you recommend MTTG members to move countries to study or work? Definitely, moving abroad is a great experience. It just requires being open-minded for the most part of it.

Dr Caitlin Gillis

What is your current position and what are you working on? I'm currently a postdoctoral researcher at VIB/University of Ghent in Belgium. Our lab studies apoptotic cell clearance, and my project investigates how we can modulate apoptotic cell clearance by both macrophages and "non-professional" phagocytes – and whether this could be of benefit in an inflammatory disease context.

Tell us about your journey to get to where you are today, where have you come from and where did you move? Originally from Australia, I moved to Institut Pasteur, Paris, for my PhD training. I worked in the "Antibodies in Therapy and Pathology" lab, and studied pathways of IgG-dependent anaphylaxis, and the role of neutrophils in systemic inflammation. I defended my PhD in September 2016, then stayed for a short period as a post-doc in the same lab. In August 2017, I moved to Ghent to take up a postdoc position here.

Why did you decide to move countries to take up an overseas PhD? I wanted to pursue my PhD training overseas, having always dreamed of living in Europe. I wanted to expose myself to an international learning and scientific environment. Then, I had the occasion to be selected for a PhD program to live and study in Paris, and that was certainly an opportunity not to be missed! I have since moved to Belgium because I love Europe, and I now have a lot of friends here - and I didn't feel ready to go back to Australia. The job offer here in Belgium was very exciting – it's a great opportunity with a lot of potential to enhance my professional training and network.

How did you find your overseas position? I looked up all the major research institutes in Europe and the UK to find appropriate PhD programs. Some had lists of projects on offer, some I read through the institutional websites to find out the available labs. I applied for some programs in the UK as well as the one in Paris.

What was the application and interview process like? I applied directly to my future potential boss, with a CV and a letter of motivation. He accepted my candidature and, after a skype conversation, together we applied for my entry into the Pasteur-

Paris University International Doctoral Program. I was invited to attend a week of interviews and meetings in Paris, and gave an oral presentation. This selection week was very important as it also gave me a good feel for working with my future boss, and the environment of the institute and future lab.

Did you find there were many cultural differences in the workplace in your home country compared to your adopted nation? If so, how did you adapt? Yes, many; some more subtle than others. Patience is the best answer. Taking the time to learn how the culture works, to make friends and good relationships with colleagues, so you can ask them for advice. I found it important to respect the rhythm of work of those around me; and that coffee and lunch breaks are a great way to connect with colleagues. Normally, for every negative there is also a positive side to cultural differences – it's important to have an open mind and be aware that perhaps your known way of doing things is not the only 'right' way. It's good to have other expat friends with whom you can discuss these issues – but also be wary that these conversations can often descend into "just" complaining, and I tried really hard when I first arrived not to complain too much.

Do you think moving overseas has been good for your career? Yes, professionally and personally, it's been very good for me. I worked in great labs, and published well, and have made professional contacts with people I would not have had the opportunity to meet in Australia. The quantity and quality of weekly/monthly seminars, even within the departments, has been very high. In a European context, it is much easier to travel for smaller congresses or meetings – and I could attend several international meetings during my time in Paris. It's been important for me also to see how different people work, both practically and theoretically, and different ways of thinking and scientific approaches. I think we are extremely fortunate in science, that we can frequently move countries, and that we are not limited by or looked badly upon for being foreign in a new workplace – in fact, it is usually the opposite, that mobility is strongly encouraged, and supported.

What was your biggest highlight moving overseas? It is difficult to choose a single highlight. Professionally, probably my first 'first-author' publication, and the satisfaction of responding to the reviewers' criticisms and getting it published. Personally, learning a new language and culture – and the moment I realized that I could handle all my administration in French.

What was the biggest hurdle or challenge you faced? Loneliness and isolation. Losing your support network can also be a big blow to your self-confidence. The answer I found is to really make use of electronic communication to keep in touch with family and friends that are elsewhere – and to make the effort to travel as often as you can to see your loved ones.

What is the best advice you can give to someone who is thinking about moving countries for their career? Do it! It's not easy, but you will not regret it. The positive experiences far outweigh the negative. Just be sure you move somewhere you are excited about the work, or the location – ideally both! The main difficulty is assessing what your future living conditions will be like (salary, expenses, etc), especially if it is a foreign currency. For that I found that it is necessary to meet and talk with people on your level/grade. Double check that you will have administrative/ financial/ linguistic support; talk to people who already live there about how hard it is to find accommodation, to integrate, to obtain and renew your working visa, etc. Make sure you know what you should bring with you to handle the bureaucracy; e.g. original versions of documents, certified translations.

Life is not just about work; how did you make friends and establish your social life? Are there any resources you found useful? At my previous institute, there was a lot of expats, and a good community of PhDs and post-docs that ran weekly social events, which was a great way to meet people. Also joining a sporting club or language exchange, or some expat meetup groups, can put you in touch with new friends. Within the workplace, I found it useful to volunteer on committees, and find ways to try to help out – it will help you meet people, make friends, and network.

Did you have to overcome a language barrier in your adopted country? If so, how did you navigate this? In France, definitely. I was fortunate that my boss and the majority of my colleagues were comfortable in English, and that we held all our lab meetings in English. On the other hand, communication with technical staff, support facilities, and external vendors was sometimes very difficult due to the language barrier. Often, I would ask my colleagues to call or communicate for me. For my work contract, we had HR staff explain the conditions to us. For my housing contract, I sent it to a family friend who had some experience in France to check that is was a "standard" contract with reasonable terms. Google translate was a big help! Eventually, I pushed myself to learn French – I took courses and I made friends with locals – and I was very proud and glad when I could successfully proceed in work negotiations by myself. Here in Belgium, the language barrier is much less as most people speak English.

After working in another country, do you plan on staying in your adopted nation or ultimately do you want to return home? I expect to stay in Belgium three to four years. By then I think it will be about time to go home to Australia for a while; I miss my country very much – and my family. I plan to establish myself as a scientist back home, but I very much intend to continue to collaborate and work with Europeans, and to revisit on a regular basis.

Weighing up all of the factors, would you recommend MTTG members to move countries to study or work? YES! Science is an international field, and moving countries is a fantastic way to learn new ways of thinking about and doing science, connect with people of different expertise, and make new connections.

iSLB

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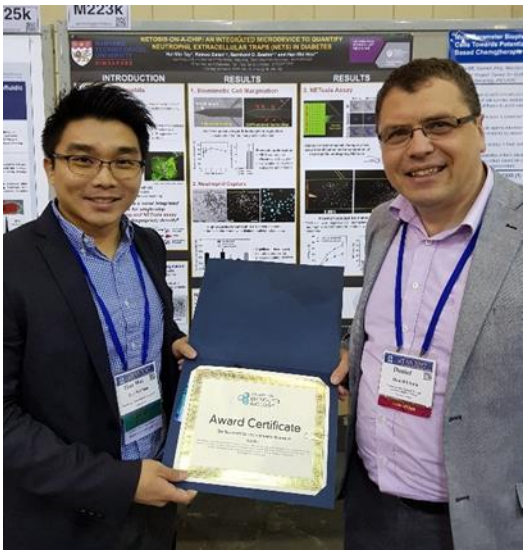
SLB Ambassadors Identify the Next Generation of Researchers

By Daniel Irimia

SLB Ambassadors are a recent initiative from SLB aimed at enhancing the interactions between researchers in various fields that share a common interest in leukocyte biology.

Leukocyte biologists today cross the boundaries between fields of research more than ever. Just by reading the most recent issues of JLB, one could find the topics include apoptosis, stem cells, metabolism, microbiology, neurology, hemorrhagic shock, cancer, and aging. Scientists from various fields venture in the area of leukocyte biology as well, and the boundaries between traditional fields of research are fluid. At cross-disciplinary conferences, SLB ambassadors reach out to researchers interested in leukocyte biology to identify those that could bring new ideas to SLB conferences and benefit from the expertise of SLB members. New members receive support towards their SLB membership. The SLB Ambassador initiative will enrich the society and help all new and existing members. Consider becoming an SLB Ambassador. Contact us to sign-up today!



SLB Ambassador, Daniel Irimia, with Dr. HanWei Hou (Nanyang Technological University, Singapore) who presented his work on neutrophil-derived extracellular traps in diabetes, enabled by novel technologies, at the uTAS conference (Savannah, GA 2017).

SLB Ambassador, Coy Allen, with Ashwin Ramesh at the Virginia Maryland College of Veterinary Medicine at Virginia Tech. Ashwin presented a poster in the lymphocyte biology/immunology category