March 2013

Society for Leukocyte Biology

EDITOR'S NOTES – Souvenir D. Tachado, i-SLB Editor

This is my first issue as editor of the iSLB newsletter, and a new member of the SLB Publication Committee. First of all I would like to thank the first newsletter editor Silvia Uriarte, for passing me the torch and entrusting me to keep the fire burning. I also would like to express my appreciation to *Bill Nauseef*, for giving me this opportunity to serve SLB. Of course this newsletter would not be possible without the help of Jen Holland. Appreciate it Jen.

I had the pleasure of conducting a short interview with Phil Murphy, the 2013 Bonazinga Awardee and Keynote Speaker at the 46th Annual Meeting of the Society for Leukocyte Biology in Rhode Island. He is the current Chief of the Laboratory of Molecular Immunology at NIAID. He discusses his cutting-edge accomplishments in the areas of novel chemokine receptors. He also expounds upon his vision for the future of immunology. Hope you enjoy reading this issue of iSLB.

SLB 2013 Registration and Abstract Submission Now being accepted!

President's Message

Jill Suttles, President

It's hard to believe that we are already well into 2013, but be assured that the SLB hit the year running with our 2013 Annual Meeting chairs Al Ayala and Carol Miller-Graziano working behind the scenes to put together a terrific program for our October meeting in Newport, Rhode Island. The meeting announcement is now posted on the SLB website and includes information on abstract submission, awards, registration and accommodations. Watch for upcoming information on new sessions this year, including a satellite symposium sponsored by the Inflammation Research Association. If you missed our 2012 meeting, or if you want to revisit this successful SLB gathering, check out the SLB website for newly added media content including recordings of the 2012 sessions and the Maui 2012 slide show.

New to SLB this year is the addition of an SLB Public Affairs Officer to be our voice on issues affecting the scientific community. Given the rapidly changing scientific environment and current funding challenges, scientific societies such as ours have a responsibility to our members, and to the public, to encourage the support of research and education in our field. SLB Council Member Dan Remick will serve as our first Public Affairs Officer. Dan brings a wealth of experience to this role and welcomes input from members on issues that they feel need attention.

In other SLB news, the SLB 2014 meeting is set to be held jointly with the International Endotoxin and Innate Immunity Society in Salt Lake City, Utah. Watch the SLB website for news on dates, venue and program information. And ... the Pizza and Pub program continues to grow! See Sam Basta's summary of his group's meeting in this issue and consider joining our list of Pizza 'n Pub members.

SLB Committee Corner

Lou Justement, Chair

On behalf of members: Vishwa Deep Dixit (Council Liason), Patricia Fitzgerald-Bocarsly, Souvenir Tachado (iSLB Editor), Neeloffer Mookherjee and Suzanne Bohlson

I have only been the Chair of the Publications Committee for a short time, but have already come to appreciate the dedication, hard work and talent of Luis Montaner, Editor-in-Chief for the Journal of Leukocyte Biology, who is clearly dedicated to ensuring the success of the journal by focusing on publishing high-quality science and ensuring that there is an extremely fair review process to select the best manuscripts. Luis also has a keen sense of

how to keep the journal current and to take advantage of the various technologies available to effectively highlight and disseminate the excellent science published in the journal each month. I have also begun to appreciate the hard work of those individuals, including Cody Mooneyhan (Deputy Director of Publications, FASEB) and Amy Huter-Imming (Managing Editor) who work behind the scenes to ensure that all aspects of the journal related to production are handled efficiently and professionally.

Although our society is extremely lucky to have Luis Montaner who is such a dedicated Editor-in-Chief for at least the next four years, and a hard working Editorial Board, it is important to look forward and to be prepared for the time when it becomes necessary to select a new Editor-in-Chief or to replace members of the Editorial Board and to have robust policies and procedures in place to ensure that we maintain the high quality of leadership for the Journal of Leukocyte Biology that we currently enjoy. Towards that goal, the Publications Committee is working to develop policies pertaining to appointment and selection of the Editor-in-Chief and for review of the Editor-in-Chief that will be included in the society handbook. Things to consider in this endeavor include procedures for annual review, renewal of the position and whether there should be a term limit for the Editor-in-Chief. Additionally, the committee is working on policies and procedures that pertain to the Editorial Board. In particular, we are interested in defining the requirements to be considered for a position on the Editorial Board, as well as having policies in place for annual review, renewal and possible length of service that will be included in the handbook. Ultimately, the goal of these activities is to ensure that the Journal of Leukocyte Biology remains a robust and vibrant publication that contributes significant new information to the scientific literature and continues to serve as the flagship publication of the society.

As we work to define these policies and procedures, the committee invites ideas and suggestions from the membership in the Society for Leukocyte Biology. In particular, any individuals who have experience regarding these issues based on their association with other societies or journals are encouraged to share that experience with the Publications Committee. Finally, we always welcome input from the membership regarding the iSLB Newsletter and the SLB website in an effort to ensure that they serve the interests and needs of the society to the fullest extent.

Women and Diversity Committee Events at 46th Meeting

The Women and Diversity committee (W&D) will be holding our annual Round Table Discussion at the 46th Annual Meeting of Society for Leukocyte Biology in Newport Rhode Island. The focus of the session will be networking and mentoring and we are pleased to announce as our keynote speaker Dr. Ann Richmond, Professor of Cancer Biology, Vanderbilt University Medical Center, Nashville, TN. Dr. Richmond will start the forum with a talk on mentoring and then join a panel of senior scientists for an open discussion of issues surrounding mentoring and networking. The lunch session will be held Monday Oct 21st from 12:30-2:00 pm. Don't forget to register for the session and bring your questions / insights to join in the discussion.

The W&D "Paper of the Year Award" is to acknowledge an important publication by a woman or minority (underrepresented) scientist that has significantly advanced their field. Applicants for the award must fit the "Women and Diversity" category and be a member of the SLB. To apply for the aware applicants should use the SLB on-line abstract submission system (opening March 2013) and include the full reference for one selected article published within the last 5 years with calculated citations per year according to the Web of Science database. The applicant may be either first author, senior author, or corresponding author. The deadline to apply for the award is June 25, 2013; additional information on the award can be found at http://leukocytebiology.org/Categories/Awards. The winner of the award will present a 10 min talk about the paper and receive a monetary prize ($500) and award certificate at the meeting. For questions about the W&D Paper of the Year Award, application process etc, please email Julia Kzhyshkowska (Julia.kzhyshkowska@googlemail.com).

Gordon Research Conferences
frontiers of science

Phagocytes

June 9-14, 2013
Waterville Valley Resort
Waterville Valley, NH

Chair and Vice Chair:
Lee-Ann Allen and Paul Kubes
see the program at:
www.grc.org

GRC Application Deadline: May 12, 2013

Also, specifically for Graduate Students and Postdocs:

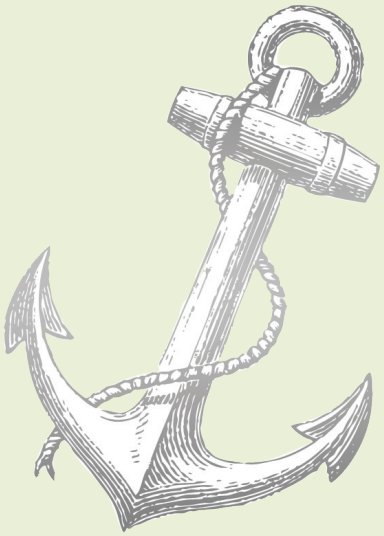
Phagocytes Gordon Research Seminar – June 8-9, 2013

"Inflammation, Infection and Repair – Exploring Phagocyte Diversity"
Co-chairs: Juhi Bagaitkar and Christine Becker

GRS deadline for candidate speakers: March 15, 2013

GRS final application deadline: May 11, 2013

SLB 2013 Registration and Abstract Submission Now being accepted!



The upcoming 2013 SLB meeting is set for Oct. 20-22. We will be meeting in Newport Rhode Island. The Society has recruited a great bunch of speakers on Regulators of Innate Cell Plasticity. Microbial effects, Endothelial Cell influences, Lymphocyte Interactions, cytokine mediators and control of trafficking will all explored as regulators of innate immunity. Some clinical aspects will also be highlighted. Generous travel awards, a great location, and new speakers should contribute to the meetings success. All that is missing is your data and participation. Send an abstract for consideration as an oral presentation or a poster presentation. We hope to see you by the sea in Newport.

SLB Pizza and Pubs Report

This report was formulated by Rylend Mulder and Sam Basta, Department of Biomedical and Molecular Sciences, Queen's University, Kingston, Ontario, Canada

At Queen's University, Canada, we recently formed a research group (18 groups) focusing on infection, immunity and inflammation (3IQ). We meet twice a month during lunch time and we were so excited to have the support of the SLB Pizza Program. Our inaugural 3IQ 2012 journal club session debated a recent manuscript by Honke *et al., Nat. Immunol*. 13: 51-7, 2012. The discussions were centered on how the innate immune system inhibits vesicular stomatitis virus (VSV) replication yet still allows for sufficient antigen presentation to activate T cells. This phenomenon was shown to be associated with the early restriction of VSV replication in CD169+ macrophages in the spleen, because CD169+ macrophages express higher levels of *USP18*, a negative regulator of type I interferons (IFN), than other splenic macrophages. Subsequent discussion during the session broached topics such as the importance of CD169+ macrophages in antiviral immunity, cancer, antigen presentation, and the regulation of *USP18*. Participants engaged in dialogue on *USP18* expression in cancer cells; it's potential role in cancer cell survival and oncolytic viral therapy, the necessity of replication restrictive niches for adaptive responses to non-cytopathic viruses, and the dogmas surrounding T cell priming and cross-priming by macrophages and dendritic cells.

Queen's University Pizza lovers

SLB 2013 Registration and Abstract Submission Now being accepted!

October 20-22, 2013
Newport Marriott, Newport, Rhode Island

46th Annual Meeting of the Society for Leukocyte Biology

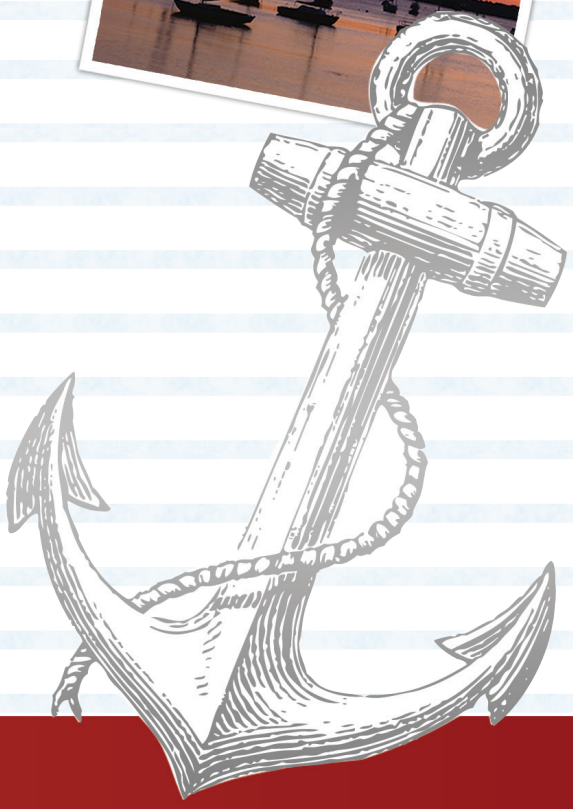
Regulators of Innate Cell Plasticity

Plenary Sessions

1. Unique approaches to Dissecting Innate Cell Microbial Interactions
   – Christian Stehlik, Leonard Shultz & Fiona Powrie
2. Myeloid Subset as Contributors to Pathology
   – Liwu Li, Lisa Coussens, & Alberto Mantovani
3. Life at the Leukocyte: Epi-/Endo-thelial Cell Interface
   – Mark Miller, Paul Kubes & Claire Doerschuk
4. Novel Prospective on Co-Inhibitor Function and Modulation in Inflammation and Disease
   – Andrew Lichtman, Al Ayala, & Carol Miller-Graziano
5. Leukocyte Function/Significance in the Aging Host
   – Ruth Montgomery, Elizabeth Kovacs, & Carlos Orihuela

Concurrent Sessions

1. Lymphocyte roles in Innate Immunity – Dana Philpott
2. Under Appreciated Leukocyte Roles in Immunity – Joel Ernst
3. Novel Leukocyte regulators – Bonnie Dittel
4. Negative signaling regulators of Lymphocyte and Leukocyte Differentiation – Francisco Quintana
5. Regulatory Mechanisms in Leukocyte Trafficking – Minsoo Kim
6. Leukocyte Mediators in Inflammation/Infection – Dan Remick
7. Novel Adjuvants/Activators of Leukocyte Function
   – Jonathan Reichner
8. Mechanisms of Immune Privilege and/or Tolerance
   – Rachel Caspi



Visit **www.leukocytebiology.org** for more information

CONGRATULATIONS to Phil M. Murphy, 2013 Bonazinga Winner!

Philip M. Murphy is a Senior Investigator and Chief of the Laboratory of Molecular Immunology (LMI) at the National Institute of Allergy and Infectious Diseases (NIAID) of the National Institutes of Health in Bethesda. Dr. Murphy received his undergraduate degree from Princeton and medical degree from Cornell, and trained in Internal Medicine at New York University-Bellevue Hospital Center. He has spent his entire research career at NIAID, starting in 1985 as a Medical Staff Fellow in the Laboratory of Clinical Investigation, where he was mentored by Harry L. Malech, M. D. and John I. Gallin, M. D. He was promoted to Principal Investigator with tenure in 1992 and to Chief of the LMI in 2006. Dr. Murphy's research has focused on leukocyte chemotactic receptors, from their basic molecular and biologic properties to their roles in human disease. His laboratory's accomplishments include discovery of 1) the first neutrophil-, monocyte- and eosinophil-selective chemoattractant receptors, 2) the family of *N*-formylpeptide receptors, 3) the first virally-encoded chemokine receptors, 4) the HIV coreceptor CCR5 and the HIV restriction factor CCR5Δ32, and 5) the role of CCR5 in West Nile virus pathogenesis. More recently he has initiated a clinical program to develop mechanism-based therapy targeting the chemokine receptor CXCR4 in a rare immunodeficiency disorder known as WHIM syndrome, and has pioneered studies to define the role of chemoattractant receptors on non-hematopoietic cells and in behavior. Dr. Murphy serves on the editorial board of several scientific journals, including the *Journal of Leukocyte Biology* and has published over 200 peer-reviewed articles, particularly on chemokines and related chemoattractants. He has trained over 40 investigators, many of whom are recognized experts in their fields. He has received numerous patents and awards including the NIAID Mentor of the Year Award, the NIH Director's Award (twice), the Pillars of Immunology Award from the *Journal of Immunology* and the Dolph Adams Award from the Society of Leukocyte Biology, and has had several papers selected as Classics by *Science* magazine. In addition, he has been elected to the Association of American Physicians, the American Society for Clinical Investigation and the Henry Kunkel Society.

Interview with 2013 Bonazinga Winner, Phil Murphy

Q. As this year's recipient of the prestigious Bonazinga Award, you will deliver the Bonazinga Award lecture at the SLB annual meeting in Rhode Island. What are some of the themes or larger ideas you will present in your address?

A. I think I'll talk about how the same immunoregulatory toolbox has evolved to subserve multiple often radically different functions, shaped by genomic limitations as well as the conflict between hosts and pathogens. I will also talk about the importance of breaking down barriers between basic and clinical research, as well as the recent clinical research we and others are doing to find treatments and mechanisms of pathogenesis in diseases related to chemokine receptor dysfunction.

Q. Which of your accomplishments has had the greatest conceptual impact on the field of leukocyte biology?

A. Without a doubt, our discovery of viral mimics of the chemokine system, including host chemokine receptors pirated by herpesviruses and HIV gp120 exploitation of CCR5 for cell entry. Although mimicry of both types was known for other classes of molecules in these and other pathogens, the attention paid by microbes to the chemokine system is truly extraordinary in sheer number and diversity, and in the case of HIV, in its ability to explain many previously mysterious aspects of pathogenesis. The HIV work, done in collaboration with Ed Berger of NIH and independently by several other groups, established a mechanism for M-tropic HIV infection of specific leukocytes, and our later discovery of CCR5delta32, a loss-of-function mutation in CCR5, provided proof of principle that CCR5 was crucial for disease transmission and could be a safe anti-retroviral drug target. This led to development by Pfizer of Maraviroc, the first drug to target a host factor in infectious disease, and the first drug approved that targeted the chemokine system.

Q. You currently have two clinical trials under way. Which chemokine receptors or chemoattractant receptors do you think represent good targets for therapeutic development and for what indications?

A. CCR5 is a proven therapeutic target in HIV/AIDS and the first of only two chemokine receptors for which there are FDA-approved drugs. The other, CXCR4, is the target of Plerixafor, a small molecule approved together with G-CSF to mobilize hematopoietic stem cells for transplantation of patients with multiple myeloma or non-Hodgkins' lymphoma. Other disease targets where

there is some traction include WHIM syndrome, a rare immunodeficiency disease caused by gain-of-function mutations in CXCR4, where plerixafor or other CXCR4 blocking agents could provide mechanism-based therapy; HIV/AIDS where additional CCR5 blocking strategies are under development including mAbs and zinc-finger nucleases; CCR3 blockade in asthma; CCR4 blockade in ATL and Th2-mediated allergic disease including asthma; CCR9 blockade in Crohn's Disease; CCR2 blockade for complications of diabetes and for atherosclerosis; CCR1 blockade in Rheumatoid Arthritis; CXCR2 blockade in COPD; and CXCR4 blockade for cancer chemosensitization.

Q. Major pharmaceutical companies are making major efforts to engage academic researchers in drug target, drug discovery and development. Is this the way of the future for pharmaceutical research or just a passing stage?

A. With pipelines drying up and grants shrinking, I think there will be increased leveraging of effort through academic-industry partnership, just as the same forces have also driven mergers in Pharma. The two cultures have always mixed, but in my opinion they can, will and should mix further in the future. Managed creatively, the economies of scale could even relieve stress on basic science. Mitigating potential conflicts of interest will keep ethics offices busy though.

Q. What do you predict will be the major advances in immunology in the next few years?

A. In the future, I think there will increasingly be a shift in emphasis from animal models of disease to direct interrogation of human subjects. Health care economics will drive centralization of health care information that can be mined anonymously. Systems biology will reveal key immunoregulatory pathways associated with human disease pathogenesis. Tissue specific factors will be identified that explain tissue-specific immunity. Specific states of the microbiome, virome and cytokinome will be defined as major risk factors in disease. Specific microbes will be identified that act as remote causal triggers in autoimmune and chronic inflammatory diseases. All this will be integrated into personalized medicines. That's my fantasy.

Send Us Your Best Science: Rising JLB Impact Facor Will Serve You In The End

Have you noticed that JLB's impact factor has been rising each year for the last 3 years? We are up to 4.99 and we all expect this trend will continue. Our turnaround is also among the fastest around – less than 25 days. All due to you are submitting better papers and our reviewers (you as well!) expecting greater mechanistic insight of authors. Know that publishing in JLB serves US and not a profit margin – all JLB income is shifted to support yearly meetings, travel awards, Society – so keep our impact factor rising with your best science and see the dividends of your work come back to serve you as a member of SLB.

Gordon Research Seminars

June 22-23, 2013
University of New England
Biddeford, ME, U.S.A.

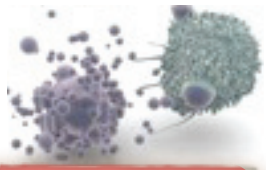
The **Gordon Research Seminars** are unique forums for **graduate students, post-docs**, and other scientists to present and exchange new data and cutting edge ideas.

- Topics covered by the **Apoptotic Cell Recognition and Clearance** GRS:
  regulatory mechanisms required for handling of apoptotic cells, including recognition, engulfment and digestion; involvement of these processes in immunological tolerance, physiological and pathological conditions.

- Preliminary Program:
  Speakers: to be selected from abstracts by graduate students and post-docs
  Discussion Leaders: Gerhard Krönke, Zsuzsa Szondy and Christopher Gregory
  Keynote Speaker: Douglas Green

- Deadlines:
  - **Applications** for the meeting must be submitted by **May 25, 2013**
  - Applicants to be considered for **oral presentation** should apply by **March 22**

This meeting will be held in conjunction with the Apoptotic Cell Recognition & Clearance Gordon Research Conference, June 23-28 2013....
all GRS participants are invited to attend!



Check us out at www.grc.org !!!

Chair: Lucia Cottone, Ph.D., San Raffaele Institute, Italy - cottone.lucia@hsr.it
Associate Chair: Hui Xiao, Ph.D., The Scripps Research Institute, U.S.A.