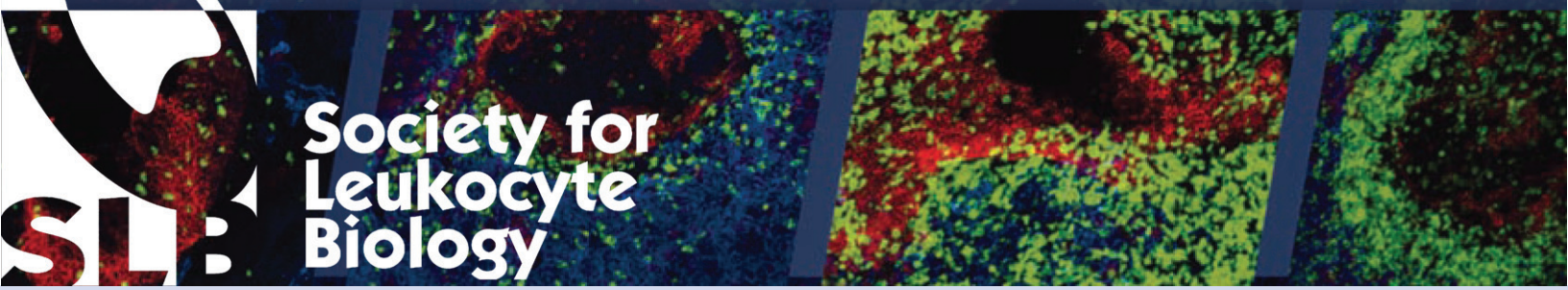
Spring 2014



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

In the spring edition, we resume the interview series I mentioned in the last edition. I had the pleasure of conducting a short interview with Ira Tabas, the 2014 Bonazinga Awardee and Keynote Speaker at the Joint Meeting of the Society for Leukocyte Biology and the International Endotoxin and Innate Immunity Society in Salt Lake City, Utah. Dr. Tabas is the Richard J. Stock Professor of Medicine and Cell Biology at Columbia University. He discusses his cutting-edge research on atherosclerosis, type 2 diabetes with emphasis on ER stress and inflammation. His recent research on hepatocyte signaling showed novel targets for type 2 diabetes. Dr. Tabas further expands upon his research in the pathogenesis of atherosclerosis and potential therapeutic approaches. I encourage you to attend this very interesting meeting. Abstract submission is due by June 26, 2014. Furthermore, I also encourage you to renew your 2014 membership if you have not done so. Member benefits include online subscriptions to iSLB, JLB, award eligibility and networking in the SLB community.

Special thanks to Jen Holland for her help in making this edition a reality.

President's Message

Ann Richmond, President

We look forward to 2014 being a fantastic year for the society. With energetic committees, we are building on the very strong foundation of programs started over the last few years to further expand the benefits of being an SLB member. In this issue of the newsletter you can read about in the Website Committee's redesign of the SLB Website. Plans are underway to unveil the new website in Salt Lake City at the 2014 Annual Society of Leukocyte Biology meeting. A number of new initiatives are underway in Professional Development. At the Salt Lake City meeting, in addition to the successful special sessions on Grant Writing, Student Street Smarts, and Women and Diversity, a new session on the Individual Development Plan will be offered and you can read more about that in this issue as well. Moreover, the program committee has a fantastic scientific program planned, so plan to register early and submit your abstracts. In addition, 2015 will bring a new menu of offerings for membership levels and benefits for membership at all levels which are designed to further the goals of SLB. We think you will find the new design to be a comprehensive offering of the best SLB and JLB have to offer, enhancing the current menu. Now with my term officially begun, I am very excited to see these changes coming for the Society and am honored to lead the leukocyte biology community into the next evolution of SLB. If you are not currently serving on an SLB committee, join in the fun by attending the meeting at Salt Lake City and sign up for membership on a committee that interest you.

Also, now is the time to begin the nomination process for the Thorbecke Award and the Dolphe Adams Awards, as well as the Presidential Awards, Student Travel Awards, and Lifetime membership awards. I would love to see at least seven to ten very strong nominations for each of these awards. Explore the membership list for strong candidates for nominations or if you like, you can self nominate, or ask a member to nominate you. The important thing is to step forward with a nomination or as a nominee.

I would also like to take this opportunity to bring our membership's attention to a recent loss in the scientific community. IEIIS has been a strong partnering organization to SLB for many years and their President, Jerry Weiss, lost his wife Theresa Gioannini, PhD after her valiant 2 ½ year battle with multiple myeloma. To further her work, a fund has been created to support a research fellowship for women in science. More details can be found on the IEIIS website HERE. I encourage you to explore this new grant both as a donor and as an applicant and celebrate the contributions of Dr. Gioannini.

Are Individual Development Plans in Your Future?

By Louis Justement

Whether you are a graduate student, postdoctoral fellow or faculty mentor, the answer to that question is almost certainly yes. Although individual development plans (IDP) have been actively used in a range of occupations, they are just now beginning to be adopted by the biomedical research community. This is in large part due to recent recommendations by various organizations, including the National Postdoctoral Association, which recommends that all postdoctoral fellows complete an IDP, as well as the National Institutes of Health. In 2011, the National Institute of General Medical Sciences adopted the use of IDPs as part of a comprehensive plan for training, and most recently as a result of the Biomedical Workforce Report from the Advisory Committee to the Director, NIH has recommended that all graduate students and postdoctoral fellows create an IDP. Going forward, the IDP process will become an integral part of institutional training grants and individual NRSA fellowship applications.

So, what is an IDP? In general terms, the IDP constitutes a career planning process that will help individuals identify their career of choice and implement a plan to ensure that they are successful in achieving that career goal. This is a critical activity in the current biomedical research environment as the opportunities for research-intensive jobs are highly competitive and as a result many trainees are choosing to pursue a wider range of careers that utilize their skills and knowledge. The focus of the IDP process is to encourage individual **self-assessment** of knowledge, skills, and values throughout the training process. In connection with this, individuals undertake the process of **career exploration**. It is essential for trainees to begin to familiarize themselves with the wide range of occupations that will utilize the skills they learn in graduate school and as postdoctoral fellows. The third component of the IDP process involves setting goals, which can be of short-, mid- and long-term duration to promote the acquisition of knowledge and skills that will facilitate success in a future career of one's choosing. When setting goals, individuals should keep in mind that they need to be setting **SMART** goals that are **S**pecific, **M**easurable, **A**ction oriented, **R**ealistic and **T**ime bound. Finally, one has to receive feedback and actively **evaluate progress** towards the goals they set.

As a trainee, evaluating your strengths and weaknesses, will allow you to determine the essential knowledge and skills that you need to acquire. By examining your values, you can insure that your future career will have the right balance between work and family and that it will focus on something you are passionate about such as research, teaching, business, public policy, etc. An IDP is not something you create and then throw in a desk drawer. It is a "living" document that is constantly refined through an iterative process; your IDP will evolve and change as your training progresses and as you refine your future career goals. Graduate students and postdoctoral fellows, must take responsibility for driving the development of your IDP and be sure to start this process early. Meet with your mentor or graduate school/postdoctoral office staff to find out what resources are available to you. Most importantly, do not be afraid to discuss your IDP with your mentor, and remember that developing an IDP will take time and should be approached as an iterative process that you will adopt as a way of life. A good place to start is by visiting the myIDP web based resource on Science Careers (myidp.sciencecareers.org/).

Mentors should actively encourage trainees to participate in career and professional development programs offered at your institutions, at scientific meetings and through professional organizations. Mentors should be prepared to work with trainees to assist them in the process of creating an IDP and realize that the time spent is well worth it in terms of ensuring the long-term happiness, productivity and success of your trainees.

The Society for Leukocyte Biology through the Professional Development Committee is already planning to assist trainees and their mentors who are just beginning to consider what is involved in the process of developing an IDP by offering a workshop at the upcoming annual meeting in Salt Lake City, Utah. So, if you are interested

PIZZA AND PUBS PROGRAM

Sign up to get $200 per year to local groups to be used at regular meetings!

To qualify, your group needs to have at least 10 people, of which at least two must be PIs who are SLB members, and one student/postdoc who will join SLB as a new member.

To apply, simply send us an email (slb@faseb.org) with the names and email addresses of the members of your group, a brief description of the lab group/journal club/discussion group, and a paid application for a student membership (you may download this off the SLB Web site (www.leukocytebiology.org).

2014 Bonazinga Awardee

Dr. Tabas is the Richard J. Stock Professor of Medicine and Cell Biology at Columbia University. His research focuses on (1) molecular-cellular mechanisms of atherosclerosis, with an emphasis on endoplasmic reticulum (ER) stress and inflammation in macrophages and dendritic cells; (2) pro-atherogenic roles of insulin resistance and type 2 diabetes; and (3) calcium and ER stress signaling pathways in hepatocytes that contribute to the metabolic disturbances of obesity and diabetes. His most recent research on hepatocyte signaling has revealed novel drug targets for type 2 diabetes.

He has lectured worldwide and published over 200 original research articles and reviews. These papers have been published in Cell, Nature, Science, Nature Cell Biology, Nature Reviews Immunology, Cell Metabolism, Journal of Clinical Investigation, Proceedings of the National Academy of Sciences, and other top journals. Dr. Tabas also serves on the Board of Reviewing Editors for the journal Science. He was elected to both the Society for Clinical Investigation and the Association of American Physicians. Dr. Tabas' other honors include the American Heart Association Established Investigator Award, the Columbia University Doctor Harold and Golden Lamport Research Award, the American Heart Association/ATVB Council Special Recognition Award, and the 2011 Alumni Achievement Award from Washington University School of Medicine.

in learning more, watch for future announcements. As a community, we need to embrace the concept of providing guidance and resources to help trainees identify rewarding and stable positions that utilize their scientific training and fulfill their career aspirations. Supporting the development of IDPs by trainees is a step in the right direction.

Interview with 2014 Awardee, Ira Tabas

By Souvenir Tachado

Q. How does hepatic CaMKII play an important role in insulin resistance?

A. CaMKII provides a critical link between obesity and defects in the ability of liver cells to sense insulin, which is a crtiical determinant of insulin resistance type 2 diabetes (T2D). CaMKII works by integrating two key pathological signals in obese liver: excessive glucagon signaling and ER stress. These two processes, which are known to occur in liver in human obesity and are highly correlated with insulin resistance and T2D, activate CaMKII by raising intracellular calcium. Once activated, CaMKII triggers two distinct but interacting pathways. In one pathway, CaMKII promotes excessive hepatic glucose production (HGP) by facilitating the nuclear entry of a key transcription factor called FoxO1. Excessive HGP, in turn, causes hyperglycemia and places stress on insulin-producing pancreatic beta cells, leading to compensatory hyperinsulinemia and down-regulation of peripheral insulin receptors. In the second pathway, CaMKII leads to the induction of a protein called Trb3, which block the ability of insulin to trigger the phosphorylation of a key molecule in insulin signal transduction, AKT. Together, these two CaMKII pathways contribute to the two hallmarks of T2D, hyperglycemia and insulin resistance.

Q. In atherosclerosis during chronic ER stress, what is the role of CHOP and how is CHOP associated with such diverse diseases such as atherosclerosis, Alzheimer's disease, and diabetes?

A. Excessive, chronic CHOP expression triggers apoptotic pathways in macrophages in advanced atherosclerotic lesions. When macrophage death occurs in the setting of defective clearance of dead cells (defective efferocytosis), which is characteristic of advanced atherosclerotic lesions, cell necrosis ensues. Accumulation of necrotic cells promotes inflammation and atherosclerotic lesion disruption, which are two key processes leading to acute atherothrombotic vascular disease, including myocardial infarction, sudden cardiac death, and stroke. CHOP may also play pathogenic roles in other cells in atherosclerotic lesions, including smooth muscle cells and endothelial cells. Chronic elevated CHOP may also contribute to Alzheimer's disease, perhaps by promoting neuronal cell death, and diabetes, but the mechanisms are complex and still being explored.

Q. In your multi-hit model for macrophage apoptosis in the atherosclerotic necrotic core, you identified the first hit as the Unfolded Protein Response (UPR) in the ER stress pathway. For the "Second hit," Which of the Toll-like receptors and scavenger receptors do you think will be involved?

A. We think that a combination of both types of receptors are important, because deleting any one of them does not have a major effect. Thus, macrophage apoptosis can be abrogated by targeting both scavenger receptor type A and CD36 or by targeting both TLR2 and TLR4.

Q. Would those targets within the necrotic core of the atherosclerotic plaque be accessible and druggable?

A. These targets have important roles in host defense, so the only hope would be athero-specific inhibition, perhaps through athero-targeted nanoparticles. However, we believe the best way to approach atherosclerosis is by enhancing the resolution phase of inflammation, which dampens inflammation without compromising host defense. There is evidence that inflammation resolution is defective in atherosclerosis. Indeed, we believe this defect is behind the compromised efferocytosis known to occur in advanced atherosclerosis--and defective efferocytosis is really the key pathologic process that makes macrophage apoptosis such a problem. We believe that resolution can be promoted by athero-targeted delivery of specific mediators of inflammation resolution.

Q. How would you envision a way to create an anti-atherosclerosis vaccine?

A. We have shown that atherosclerotic lesional dendritic cells, at least in the earlier stages of atherosclerosis, have an inherent tendency to activate inflammation-suppressing regulatory T cells (Tregs). This finding fits well with ongoing attempts in other labs to activate dendritic cells ex vivo under tolerogenic conditions using antigens thought to be present in atherosclerotic lesions, followed by injecting these cells with the hope of suppressing atherosclerosis. Other labs are also trying direct in vivo immunization for the same purpose.

SLB Professional Development 2014 Workshops

The SLB will hold 3 educational workshops in Salt Lake City for junior faculty/postdocs/grad students, as part of the educational program of the Society and its Professional Development Committee (PDC).

First, the "Street Smarts of Science" will by led Drs. Elizabeth Kovacs and Sulie Chang. This educational activity is directed to grad students, and the objective is to provided ideas on how to present one's science (and yourself) to a more senior scientist during, for example, a national meeting. The leaders will share their own experiences, with the overriding idea being to give them practical advice of how we "succeeded" in our scientific careers.

The second educational program will be the "Grant writing workshop". It is open for grad students, post docs and new junior faculty. The workshop will open with a presentation by the PDC Chair, Dr. Julian Gomez-Cambronero, with ample resources and practical tips for preparing and submitting a grant. It will be followed by round tables, lead by the faculty, Drs. Louis Justement, Dan Remick, Liz Kovacs, Carol Miller-Graziano. Discussion topics will include the importance of the "Hypothesis" and the "Aims page"; how to deal with the reviewers' comments; the different approaches for different programs (i.e. R01, R21, R03, K99, postdoctoral fellowships and others). We expect to count on the presence of an NIH Program Officer (PO) who will presnet an overview on the role of a PO, how and when she/he could be contacted regarding a grant proposal.

The third educational activity, will be the Individual Development Plan (IDP) Workshop. As known, this is a web-based instrument that allows an investigator to assess her/his career objectives and delineate possible opportunities extending beyond academic research, such as pharmaceutical companies, science policy, science writing, patent law, etc. It will be led by Dr. Louis Justement, Professor at the Dept. of Microbiology, University of Alabama at Birmingham School of Medicine. Following the presentation of the IDP basics, then participants will be assigned to 4-5 round tables where they will begin to work hands-on developing their individual IDPs on their laptops.

JLB EIC, Luis Montaner receives $6.2 million to Lead Curative HIV Trial

Luis Montaner, D.V.M., D.Phil., has to received a four-year, $6.2 million NIAID grant to conduct a clinical trial to see if a combination of interferon-alpha and standard antiretroviral therapy (ART) can "drain the reservoir" of HIV-1 that persists in patient with HIV/AIDS. Depleting the total amount of HIV-1 virus within patients is the first step toward curing what has become, thanks to ART, a chronic disease.

An article about the announcement appears as the lead health and science article on WHYY's Newsworks.org and an accompanying interview has aired on WHYY radio. You can also watch Dr. Montaner describe the trial on YouTube.

Change is coming! (...to the website)

"To improve is to change; to be perfect is to change often." Winston Churchill

In an effort to aspire to Churchillian perfection, and to keep up with ever-advancing technology, the SLB website is getting a facelift. If all goes to plan (and what could possibly go wrong?) we hope to roll out the updates in October this year before the annual meeting. The main differences you'll notice include a slightly different look to the website, better access to social media and a much better user experience – especially for those of us addicted to our hand-held devices.

The website committee, together with Jen Holland, has been working on a plan for updates to the website for the last 6-12 months. We had some valuable input from SLB membership and committees. We've taken note of what you think we have done well, as well as what you have told us needs some improvement. Many more people are now using tablets and smartphones to access web content so it also makes sense for us to focus some changes on helping everyone get the most from our website whether they are using their home desktop, a laptop or an iPad.

I am as excited as anyone to see the new-look website. And I'll be even more excited (no... really!) to hear from SLB members with feedback once we have made the updates. I hope the changes we are making will make the SLB website an even more valuable and useable resource for all our members.

DON'T DELAY, RENEW TODAY!

2014 membership renewals have begun. Continue uninterrupted benefits like iSLB, JLB, award eligibility and networking in the SLB community. Now is the time to take advantage of the 3 year membership option to lock in SLB's uncommonly low membership fees as 2015 will bring a new membership menu with new rates and benefits. Contact slb@faseb.org for assistance.

Thank you to our Sustaining Members!

Richard R. Kew
Charles R. Rinaldo
Jill M Kramer
Lesley A. Doughty
Michael E. Selsted

Women & Diversity Paper of the Year: Apply for 2014!

For the third year in a row the SLB Women and Diversity Committee is pleased to sponsor the Paper of the Year Award. The winner will present their work at a special session during the 2014 Joint meeting of SLB and IEIIS and also receive an award stipend and plaque. See the website for details and apply during abstract submission or by sending an email directly to Kim Dyer.

2014 SLB Women and Diversity Session

The Women and Diversity committee will be holding our Round Table Discussion at the 47th Annual Meeting of the Society for Leukocyte Biology in Salt Lake City, Utah. One of the keys to a successful career in science is the ability to negotiate and that will be the theme of this year's session. To begin to cover the breadth of situations that require negotiations we will feature two keynote speakers; Dr. Jill Suttles, Associate Dean of Faculty Affairs University of Louisville, Louisville, KY and Dr. Luis Montaner, Editor-in-Chief of JLB, Professor, Wistar Institute Philadelphia PA. Dr. Suttles will speak about the importance of negotiating for job offers and promotions as well as provide useful tips to be successful in those negotiations. Dr Montaner will speak about when and how to negotiate with Journal editors over manuscript reviews. The speakers will be available to answer questions on both topics. The breakfast session will be held Saturday Oct 25th from 7:30-9:30 pm. Don't forget to register for the session and bring your questions / insights to join in the discussion.

Visit the W&D committee webpage for information on the 2014 meeting session and other upcoming events and news. http://leukocytebiology.org/Committees/Women-and-Diversity-Committee.aspx

Upcoming Meetings

AASLD World Leading Meetings
Miami, Florida | March 8-9, 2014
www.aasld.org

48th Annual Scientific Meeting of the European Society for Clinical Investigation
Utrecht, The Netherlands
April 30 – May 3, 2014
www.aai.org

IMMUNOLOGY 2014™
AAI Annual Meeting
May 2-6, 2014 | Pittsburgh, PA
www.aai.org

Neutrophil 2014
Montreal, Canada | May 13 – June 3, 2014
www.theneutrophil.com

3rd Conference of translational medicine on pathogenesis and therapy of immune-mediated diseases
Milan, Italy | September 29 - October 1, 2014
http://www.translationalimmunology.it

International Eosinophil Society
9th Biennial Symposium
Chicago, IL | July 11-18, 2015
www.aai.org

Joint Meeting of

The Society for Leukocyte Biology &
The International Endotoxin and Innate Immunity Society

October 23-25, 2014 ▪ Salt Lake City Sheraton ▪ Salt Lake City, Utah

Development of Innate Immunity

Keynote Lecture – Bonazinga Award Winner

"Defective Inflammation Resolution and Innate Immunity in Atherosclerosis: Mechanisms and Therapeutic Opportunities"
Ira Tabas, Columbia University

Plenary Topics

- Immune Phylogeny, Chair: Lyle Moldawer, University of Florida
- Immune Ontogeny, Chair: Ruth Montgomery, Yale University School of Medicine
- Microphysiologic Systems and Bioengineering, Chair: Dan Huh, University of Pennsylvania
- Targeting Immunity to Treat Disease, Chair: David Fox, University of Michigan
- Concurrent Topics
- Granulocytes and Their Progenitors
- Regulation of Host-Microbe Interactions by Reprogramming/Remodeling of MAMPs/PAMPs
- Special Journal Session: Best of JLB and Innate Immunity
- Structure and Function of Pattern Recognition Receptors or Their Targets
- Animal Models: Challenges and New Developments
- Immunological Assays
- Immunoglobulins - Unexpected Functions
- The Human Microbiome in Health and Disease
- Epigenetic Regulation of Innate Immunity
- Adjuvants and Vaccines
- Discovery and Invention
- Inflammasomes: Mechanisms of Sterile and Infectious Inflammation

Meeting Organizers

Ofer Levy, Boston Children's Hospital and Harvard Medical School
Dan Remick, Boston University School of Medicine

Important Dates:

March 2013 *NOW OPEN!*
Online Registration, Abstract & Award Submission Register at: slbieiis2014.org

June 26th
Early-Bird Registration, Abstract & Award Submission Deadline

July 16th - August 8th
Late Breaking Abstracts Open

Early August 2013
Abstract & Award Notifications

October 2nd
Hotel Reservation Deadline

Special Sessions:

Sign-up for these free events when you register for the meeting:

Thursday, October 23rd
11:00 am – 12:00 pm
Street Smarts of Science

Friday, October 24th
12:00 pm – 1:30 pm
Grant Writing Workshop

7:00 – 8:00 pm
Individual Development Plan (IDP) Workshop

Saturday, October 25th
7:30 – 9:30 am
Women & Diversity Session