Pre-Program

Wednesday, October 4th

Location: MacKenzie

1:00 – 6:00 pm Aging, Inflammation and **Chairs:** Fibrosis Satellite Symposium Sponsored by Jane Conner, MedImmune; Lynne Murray, MedImmune; Elizabeth J. Kovacs, Uni. of MedImmune and National Institutes on Aging (NIA) Colorado Denver; Rebecca Fuldner, NIA 1:00 pm **Opening Remarks** Inflammation in Tissue Regeneration and Fibrosis, Tom Wynn, NIAID 1:15 pm Granzyme B in Aging and Impaired Collagen Remodeling, David Granville, University of British 2:00 pm Columbia Interconnected Stress Responses in Aging and Fibrosis of the Lung, Ana Mora, University of 2:30 pm Pittsburgh 3:00 pm Break 3:15 pm Inflammatory Cells in the Response to Sterile Damage: New Roles for Unexpected Players, Fabio Rossi, University of British Columbia 3:45 pm Therapeutic Targeting of Age-associated Pathological Mechanisms in Fibrotic Lung Disease, Louise Hecker, University of Arizona Discussion 4:15 pm 5:00 pm Reception

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50th Annual Meeting of The Society for Leukocyte Biology **"Leukocyte Memory: Health and Disease"**

October 5-7, 2017 The Westin Bayshore, Vancouver, Canada *Organizers:* Liwu Li and Lionel Ivashkiv

Thursday, October 5th

Registration	Speaker Ready Room	Exhibits
8:00 am – 6:00 pm	8:00 am – 6:00 pm	10:00 am – 6:00 pm
Bayshore Foyer	Fraser	Bayshore Foyer

9:00 – 11:00 am Poster Flash Talks: Highlighted Poster Session Presentations	Chairs: Silvia Uriarte, University of Louisville; Stephania Libreros, Harvard; Juhi Bagaitkar, University of Louisville	Location: Bayshore Grand Ballroom Salon A
Neutrophil Immune Evasion: Co-Chair: Madison Collins		
Understanding the Regulation of Virulence in	Blunted Neutrophil Priming in Childre	en with Type 1
Staphylococcus aureus during Innate Immune Evasion, Diabetes and Diabetic Ketoacidosis, Blake Nic		ake Nichols,
Madison Collins, Montana State University, Travel	University of Texas Southwestern Medica	al Center, Travel
Awardee Abstract 64	Awardee Abstract 48	
The Role of Neutrophils and Extracellular Adenosine in Shaping Age-driven Susceptibility to Streptococcus	Adaptation to Complex Host Niches by Pathogen Candida albicans Drives Res	0
pneumoniae Lung Infection, Elsa Bou Ghanem, Tufts	Neutrophil Attack, J. Pedro Lopes, Ume	eå Universitet,
University, Travel Awardee Abstract 80	Travel Awardee Abstract 53	

Innate Mechanisms of Human Disease: Co-Chair: Abigail Cannon

IVIg and IVIg Activated Macrophages as an IL-10 Dependent Novel Therapeutic Strategy for Inflammatory Bowel Disease , Lisa Kozicky, <i>University of</i> <i>Alberta</i> , Abstract 42	Inflammatory Modulation Induced by Crystalloid Intravenous Infusion in Healthy Subjects , Jean- Alexandre Sauvé, <i>University of Montreal</i> Abstract 57
Alcohol Increases Susceptibility to Enteropathogens in Mice with DSS-Induced Colitis, Abigail Cannon, Loyola University Chicago, Travel Awardee Abstract 76	Identification of S100A14 as a Potential Mechanism of Innate Immune Resistance in HIV-exposed Sero- negative Injection-drug Users (HESN-IDU) , Krystal Colon-Rivera, Wistar Institute, <i>Travel Awardee</i> Abstract 71

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Molecular Mechanisms of Innate a	and Adaptive Resp	onses: Co-Chair: Ya	nhui Cai		
Serpinb6a Cooperates with Serpinb1a in Protecting Myeloid Cells from Cathepsin G-mediated Death in vivo, Sabrina Sofia Burgener, University of Bern, Travel Awardee Abstract 46Characterization and Consensus of the Conv Housed C57BL/6J Antibody Repertoire, Trist Kansas State University, Travel Awardee Abstract 46		re, Trisha Rettig,			
Efferocytosis and Phagocytosis, Charles Yin, WesternInflammateUniversity, Ontario, Travel Awardee Abstract 75by Super-le			hment of Non-resolving Low-grade natory Monocytes Due to Autophagy Disruption r-low Dose LPS, Allison Rahtes, Virginia Tech, wardee Abstract 74		
11:00 am - 1:00 pm MTTG (N	Members in	Chairs:		Location:	
Transition and Training) Session Lunch: Hig			Libreros, <i>Harvard</i> ; tkar, <i>University of</i>	Stanley Park Ballroom Salon 3	
Throughput Technologies – P	erspectives and				
Insights Pre-registration required					
Somalogic - Somamer Based Technolo Somalogic	ogy, Dan Drolet,	Functional Imm	otype and Genotype: mology with Ex Vivo speed, Imaging Flow reSigma	assays and High	
12	:00-1:00 pm I	Lunch on your	own		
1:00 - 2:30 pm Welcome and of Tissue Location and Micro	•	Liwu Li, V	'irginia Tech; hkiv, Hospital for gery	Location: Bayshore Grand Ballroom Salon A&B	
1:00 pm Nature and Nurture of Macrophage Identity and Function, Chris Glass, <i>University of California, San Diego</i>	1:30 pm The Power of One the Age of Single (Amit, <i>Weizmann In</i>	Cell Genomics, Ido	2:00 pm Negative Regulatio Inflammation , Car <i>University</i>		
2:30 - 3:15 pm SLB President Nominees	ial Student	Chair: Lee-Ann A	llen, University of Iowa	Location: Bayshore Grand Ballroom Salon A&B	
2:30 pm Phospholipase D2 (PLD2) is Crucial for Oxidized Cholesterol Uptake and Foam Cell Formation in Atherosclerotic Plaques , Ramya Ganesan, <i>Wright State Uni</i> . Abstract 01	2:45 pm Neutrophil Superc Inhibited by Staph SaeR/S-regulated Guerra, <i>Montana S</i> Abstract 02	Factors, Fermin	3:00 pm Metformin Rewire inflammatory Met Functional Adapta Inflammatory Air Forrest, <i>Emory Uni</i>	abolic and ation of Human way PMNs, Osric	

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3:15 - 4:00 pm SLB Presidential Jr. Faculty/Postdoc Nominees

Chair: Robert A. Clark, *UT Health Science Center* **Location:** Bayshore Grand Ballroom Salon A&B

3:15 pm Selective Inhibition of T Cells by Myeloid-Derived Suppressor Cells from Septic Patients, Julie Stortz, University of Florida Abstract 04

3:30 pm Human Neutrophils Exhibit Delayed Apoptosis and Secrete IL-1ß after Phagocytosis of Neisseria gonorrhoeae, Christine Cho, University of Iowa Abstract 05

3:45 pm Insights into Lysis of Human Neutrophils after S. aureus Ingestion, Silvie Kremserova, University of Iowa Abstract 06

4:00 – 4:15 pm Coffee Break, Bayshore Foyer

4:15 - 5:30 pm	Senior Level Awards	Chairs: Lee-Ann Allen, University of Iowa; Robert A. Clark, UT Health Science Center	Location: Bayshore Grand Ballroom Salon A&B

<u>4:15 pm Dolph Adams</u>	4:40 pm Jeanette Thorbecke	5:05 pm Women & Diversity Paper
Awardee:	Awardee:	of the Year Awardee:
Inflammasomes and Pathogen	The TLR4 Agonist Monophosphoryl	Commensal Microbes and the Eye,
Sensing, Thirumala-Devi	Lipid A Mediates Broad Protection	Inside and Out, Rachel Caspi, NIH/NEI
Kanneganti, St Jude Children's	Against Infection via Augmentation	Abstract 09
Research Hospital Abstract 07	of Innate Antimicrobial Cell	
	Functions, Julia Bohannon, Vanderbilt	
	University Abstract 08	

5:30 - 6:30 pm 50th Anniversary Presentation

Keynote speakers Mary Dinauer, Past SLB Treasurer; Joe Oppenheim, Past JLB Editor-in-Chief; and Peter Ward, Past President. Chairs:

Ann Richmond, Vanderbilt University School of Medicine

Location: Bayshore Grand Ballroom Salon A&B

6:30 - 7:30 pm Opening Reception, Bayshore Foyer/Pool Garden

7:30 - 8:30 pm Keynote Lecture

Bonazinga Award Winner, Sponsored by Accurate Chemical slan+-Monocyte/slan+-Macrophage/slanDC/slan+-cell: The True Story about this Cell Type and its Involvement in Human Cancer Marco A. Cassatella, University of Verona **Chairs:** Lee-Ann Allen, *University of Iowa;* Robert A. Clark, *UT Health Science Center*

Location:

Bayshore Grand Ballroom Salon A&B

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Friday, October 6 th				
Registration 8:00 am – 4:00 pm Bayshore Foyer	8:00 am –	eaker Ready RoomExhibits8:00 am – 4:00 pm9:00 am – 4:00 pmFraserBayshore Foyer		
7:00 - 9:00 am Networking Breakfast Stanley Park Ballroom Salon 1& Enjoy breakfast while networking with in speakers (Mashkoor A. Choudhry, Loy University; Mary Dinauer, Washington Un Med; Lewis Lanier, UCSF; Peng Liu, Unn of North Carolina at Chapel Hill; and Ira Columbia University), exhibitors, or you group.	nvited vola niv Sch iversity Tabas,	Career Prepar Stanle Chair: Claire D Featuring: A special session faculty member your core me	nal Development Breakfast: Counseling, Guidance, and ration for a Job Interview ey Park Ballroom Salon 3 Pre-registration required oerschuk, Uni of N. Carolina Sch of Med : John Lombardo, Career Counselor n targeted to students, postdocs, and young rs providing two segments 1) Developing essage / "Elevator Speech" and 2) Job aration: How to interview your next boss.	

9:00 - 10:30 am Plenary II: Epigenetic Mechanisms of Memory in Innate Immune Cell Activation

Chairs: Domenico Mavilio, *Uni. Of Milan*; Ilhem Messaoudi, *University of California at Irvine* **Location:** Bayshore Grand Ballroom Salon A&B

9:00 am **Epigenetic Regulation of Human Macrophage Activation and Function**, Lionel Ivashkiv, *Hospital for Special Surgery* 9:30 am Regulatory Mechanisms in Trained Immunity, Mihai Netea, *NIJMGEN*

10:00 am Transcriptional and Chromatinmediated Control of Macrophage Function, Gioacchino Natoli, *IFOM-IEO*

10:30 – 10:45 am Coffee Break, *Bayshore Foyer*

10:45 am - 12:15 pm Concurrent Sessions 1 & 2

Concurrent Session 1: Microbiome in Leukocyte Memory

Chairs: Andrew Gewirtz, *Georgia State University;* Diane Bimczok, *Montana State University* **Location:** Bayshore Grand Ballroom Salon A&B

Featured Speaker:

10:45 am **Gut Microbiota, Chronic Inflammation, and Metabolic Syndrome** Andrew Gewirtz, *Georgia State University*

Selected Talks:

11:15 am The mRNA and microRNA Transcriptome of Lung Neutrophils during Streptococcus pneumoniae Pneumonia in Mice, John Gomez, University of North Carolina, Travel Awardee Abstract 10

11:30 am Helicobacter pylori Modulates the Lifespan and Cell Death Mechanisms of Human Neutrophils, Laura Whitmore, *University of Iowa* Abstract 11

11:45 am Novel Pro-Resolving Receptor Axis Activates Intracellular Signaling and Phagocytosis, Stephania Libreros Ruiz, *Harvard Medical School, Travel Awardee* Abstract 12

12:00 pm **The Impact of the Microbiome on the Immuno-modulation and Immuno-suppression in Severely Burned Patients,** Zeid Kuzbari, *Université de Montréal* Abstract 13

Concurrent Session 2: Systems Analyses of Leukocyte Memory

Chairs: Christina Leslie, *Memorial Sloan Kettering Cancer Center*; Reto Asmis, *UTHSCSA* **Location:** Bayshore Grand Ballroom Salon C

Featured Speaker:

10:45 am **Epigenetic Memory in T lymphocytes** Christina Leslie, *Memorial Sloan Kettering Cancer Center*

Selected Talks:

11:15 am Dyslipidemic Diet-Induced Monocyte "Priming" and Dysfunction in Non-Human Primates is Triggered by Rising Plasma Cholesterol and Accompanied by Altered Histone Acetylatiot, Reto Asmis, UTHSCSA Abstract 14

11:30 am **Systemic Approach Analysis of Long Noncoding RNAs' Function in Infection,** Min Wu, *University of North Dakota* Abstract 15

11:45 am Transition of NAD Salvage to De Novo Biosynthesis Sustains Memory of Endotoxin Tolerance During an Acute Inflammatory Response, Tiefu Liu, Wake Forest University School of Medicine Abstract 16

12:00 pm Maternal Pregravid Obesity Remodels the DNA Methylation Landscape of Cord Blood Monocytes Disrupting its Inflammatory Program, Suhas Sureshchandra, *University of California Irvine, Travel Awardee* Abstract 17

12:15 - 2:15 pm Poster Session I Lunch, Bayshore Grand Ballroom Salon D - F

OR

Enjoy lunch while viewing poster presentations of ODD abstract numbers.

2:15 pm2:45 pm3:15 pmNatural Killer Cells Remember, Lewis Lanier, UCSFGenomic Clues to Lymphocyte Function, Yuka Kanno, NIAMS/NIHTranscriptional and Epigenetic Regulation of CD8 T cell Immunity.	2:15 – 3:45 pm Plenary III: 1 in Lymphocytes	Epigenetic Memory	Health Scien	, Univ of Oklahoma ces Center; Lou Ini of Alabama at	Location: Bayshore Grand Ballroom Salon A&B
Ananda Goldrath, UCSD	Natural Killer Cells Remember,	Genomic Clues to Lymph		Transcriptional an Regulation of CD8	T cell Immunity,

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3:45 – 4:00 pm Coffee Break, Bayshore Foyer

OR

4:00 - 5:30 pm Concurrent Sessions 3 & 4

Concurrent Session 3: Leukocyte Memory and Drug Development

Chairs: Matthew Sleeman, *MedImmune*; Erica Stone, *Wistar Institute* **Location:** Bayshore Grand Ballroom Salon A&B

Featured Speaker:

4:00 pm Using Biologics to Turn Bad Memories into Good? Matthew Sleeman, *MedImmune*

Selected Talks:

4:30 pm **BCL6 Inhibition Represses HIV Infection ex vivo by Suppression of Immune Activation**, Yanhui Cai, *Wistar Institute, Travel Awardee* Abstract 18

4:45 pm Easy Isolation of Particle-free Human ILC2s from Peripheral Blood Mononuclear Cells, Fran Antignano, *StemCell Technologies Inc.* Abstract 19

5:00 pm **Dissecting Mechanisms of beta-glucan Trained Immunity**, Cody Stothers, *Vanderbilt University* Abstract 20

5:15 pm The Effect of anti-CTLA-4 on Tumorinfiltrating Effector T cells, Erica Stone, *Wistar Institute* Abstract 21

Concurrent Session 4: Systems Biology of Adaptive Immune Memory

Chairs: Ellen Rothenberg, *California Institute of Technology*; Bill Luscinskas, *Partners Healthcare* **Location:** Bayshore Grand Ballroom Salon C

Featured Speaker:

4:00 pm **Transcription Factor Action in the Gene Regulatory Network for T-cell Development**, Ellen Rothenberg, California *Institute of Technology*

Selected Talks:

4:30 pm Acute Activation of CD4+ Memory Tregs by Traumatic Injury, James Lederer, *Harvard Medical School* Abstract 22

4:45 pm Germline Deletion of CD47, "A Don't Eat Me Signal", Promotes Pro-inflammatory Adaptive Immunity and Atherosclerosis., Bill Luscinskas, Partners Healthcare Abstract 23

5:00 pm Characterization of a Novel Subset of Tissueresident NKp46pos Vd1 Intestinal Intraepithelial Lymphocytes Playing a Key Role in Gut Immune Homeostasis and in the Physiopathology of Coloncancer, Domenico Mavilio, *Uni. Of Milan* Abstract 24

5:15 pm The Decisive Role of TNF-TNFR2 Pathway in the Activation of CD4+Foxp3+ Regulatory T cells: Implications in Tumor Immunotherapy, Xin Chen, University of Macau Abstract 25

6:30 - 10:00 pm 50th Anniversary Cruise

Harbor Dinner Cruise, ticket required

Join your fellow attendees and enjoy a dinner cruise conveniently located right outside the conference hotel. Take in the beautiful views, network, and reflect on 50 years of SLB!

Saturday, October 7th

Registration	Speaker Ready Room	Exhibits
8:00 am – 4:30 pm	8:00 am – 4:30 pm	9:00 am – 4:30 pm
Bayshore Foyer	Fraser	Bayshore Foyer

OR

7:00 - 9:00 am

Networking Breakfast

Stanley Park Ballroom Salon 1&2 Enjoy breakfast while networking with invited speakers (Marco A. Cassatella, University of Verona; Lionel Ivashkiv, Hospital for Special Surgery; Liwu Li, Virginia Tech; Mitzi Nagarkatti, University of South Carolina School of Medicine; and Carla Rothlin, Yale University), exhibitors, or your own group.

9:00 - 10:30 am Concurrent Sessions 5 & 6

Concurrent Session 5: Metabolism in Leukocyte Memory

Chairs: Danica Chen, *University of California, Berkley*; Vidula Vachharajani, *Wake Forest Univ Sch of Med* **Location:** Bayshore Grand Ballroom Salon A&B

Featured Speaker:

9:00 am Mitochondrial Metabolic Checkpoint, Stem Cell Aging and Rejuvenation, Danica Chen, University of California, Berkley

Selected Talks:

9:30 am Mitochondrial Size/Function Controls Level of Viral Immunity in Young Children, David Verhoeven, *Iowa State Uni*. Abstract 26

9:45 am **Tissue-Resident Myeloid-Derived Suppressor Cells in Adipose from Lean Mice**, Katlin Stivers, *University of Louisville* Abstract 27

10:00 am **Oxidation Modulates NAD+-sensor Sirtuin 2 during Obesity with Sepsis**, Vidula Vachharajani, *Wake Forest Uni Sch of Med* Abstract 28

10:15 am Modification of Macrophage Metabolism and Memory by TLR4 Agonists, Edward Sherwood, *Vanderbilt University* Abstract 29

Women & Diversity Breakfast: Managing Up, Down and Across: Effective Strategies for Obtaining the Resources You Need

Stanley Park Ballroom Salon 3 Pre-registration required

Chair: Amanda Brown, *John's Hopkins*, Keynote Speaker: Elizabeth J. Kovacs, *University of Colorado Denver* A special session for anyone interested in effective techniques for managing up, down, and across including

how to handle crucial conversations, effective selfadvocacy strategies, and controlling emotions.

Concurrent Session 6: Leukocyte Memory in Autoimmune Disease

Chairs: Virginia Pascual, Baylor *University Medical Center*; Xiaoyu Hu, *Tsinghua University* **Location:** Bayshore Grand Ballroom Salon C

Featured Speaker:

9:00 am Novel Insights into Human Lupus Pathogenesis, Virginia Pascual, *Baylor University Medical Center*

Selected Talks:

OR

9:30 am **Regulation of Inflammation by Notch Signaling**, Xiaoyu Hu, *Tsinghua University* Abstract 30

9:45 am **Ocular Immune Privilege Selects for Programmed Innate Memory-Tolerance**, Andrew Taylor, *Boston University Sch of Med* Abstract 31

10:00 am **The Role of MALT1 in Macrophages**, Mahdis Monajemi, *British Columbia Children's Hospital Res. Institute* Abstract 32

10:15 am **Pegylated ifn-alpha-2b Decreases Latent HIV Measures in Art-Suppressed Subjects**, Luis Montaner, *Wistar Institute* Abstract 33

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10:30 – 10:45 am Coffee Break, Bayshore Foyer

10:45 am - 12:15 pm Concurrent Sessions 7 & 8

Concurrent Session 7: Engineering Analyses of Leukocyte Memory

Chairs: Daniel Irimia, *Harvard University;* Cynthia Leifer, *Cornell University* **Location:** Bayshore Grand Ballroom Salon A&B

Featured Speaker: 10:45 am **Probing Neutrophil Memory Using Microfluidic Devices, During Infections and Sepsis,** Daniel Irimia, *Harvard University*

Selected Talks: 11:15 am Regulation of Macrophage Function by the Adhesive Microenvironment, Wendy Liu, University of California Irvine Abstract 34

11:30 am Immunological Explorations of Ex Vivo Lung Perfusion and the Pall LeukoGuard® Filter, David Holden, *University of Florida* Abstract 35

11:45 am TLR Signaling in Macrophages is Regulated by Extracellular Substrate Stiffness and Rho-associated Coiled Coil Kinase (ROCK1/2), Cynthia Leifer, *Cornell University* Abstract 36

12:00 pm Quantifying Effects of Neutrophil Memory on Migration Patterns using Microfluidic Platforms and ODE Modeling of the Mechanistic Molecular Pathways, Brittany Boribong, Virginia Tech, Travel Awardee Abstract 37

Concurrent Session 8: Best of Journal of Leukocyte Biology

Chairs: Luis Montaner, *Wistar Institute;* Mark Wallet, *University of Florida Health* **Location:** Bayshore Grand Ballroom Salon C

Featured JLB Authors:

10:45 am Δ^9 -Tetrahydrocannabinol Attenuates Allogeneic Host-versus-graft Response and Delays Skin Graft Rejection through Activation of Cannabinoid Receptor 1 and Induction of Myeloidderived Suppressor Cells, Mitzi Nagarkatti, University of South Carolina School of Medicine.

OR 11:15 am Tumor-reactive Immune Cells Protect Against Metastatic Tumor and Induce Immunoediting of Indolent but not Quiescent Tumor Cells, Kyle Payne, *Wistar Institute*

11:45 am **Myeloid-derived Suppressor Cells Regulate T cell and B cell Responses during Autoimmune Disease,** Peng Liu, *University of North Carolina at Chapel Hill*

12:15 - 2:15 pm Poster Session II Lunch, *Bayshore Grand Ballroom Salon D - F* Enjoy lunch while viewing poster presentations of EVEN abstract numbers.

2:15 – 2:45 pm Member Business Meeting & Presidential Award Announcements, Bayshore Grand Ballroom Salon A&B

Chairs Robert A. Clark & Lee-Ann Allen share news about the society and journal. Announcements of Presidential award winners along with honorary society awards and recognition of SLB Travel Awardees. The author requests the audience refrain from tweeting the content of this presentation

2:45 - 4:15 pm Plenary IV: Leukocyte Memory in Chronic Disease

Chairs: Véronique Witko-Sarsat, INSERM; David Underhill, Cedars-Sinai

Location: **Bayshore Grand Ballroom Salon** A&B

2:45 pm Macrophage Efferocytosis in **Inflammation Resolution and** Atherosclerosis, Ira Tabas, Columbia University

3:15 pm Mesenteric Macrophages, Gwendalyn Randolph, Washington University in St. Louis, School of Medicine

3:45 pm **MicroRNA Shuttling during Acute** Lung Injury, Holger Eltzschig, UT Health/ McGovern Medical School

4:15 – 4:30 pm **Coffee Break**, Bayshore Foyer

Chairs:

4:30 - 6:00 pm Plenary V: Leukocyte Memory in **Infection and Injury**

4:30 pm **Inflammatory Monocyte Differentiation in Metabolic** Vascular Disease, Hong Wang, Temple University School of Medicine 5:00 pm **Gastrointestinal Response to Alcohol** and Trauma, Mashkoor Choudhry, Loyola University

Walcheck, Univ of Minnesota A&B 5:30 pm **Dynamic Programming and** Memory of Innate Leukocytes in Acute and Chronic Diseases, Liwu

Li, Virginia Tech

Location: Claire Doerschuk, Uni of North **Bayshore Grand** Carolina Sch of Med; Bruce Ballroom Salon