




## Poster Program

### Presidential Student

Abstract: 1                      Poster Session I  
**Phospholipase D2 (PLD2) is crucial for oxidized cholesterol uptake and foam cell formation in atherosclerotic plaques** *Ramy Ganesan, Karen M. Henkels, Lucile Wrenshall and Julian G. Cambrono.* *Wright State University, Dayton, OH*

Abstract: 2                       Poster Session II  
**Neutrophil Superoxide Production is Inhibited by Staphylococcus aureus SaeR/S-regulated Factors** *Fermin E. Guerra, Kyler B. Pallister, Eli W. Sward and Jovanka M. Voyich.* *Department of Microbiology and Immunology, Montana State University, Bozeman, MT*

Abstract: 3                      Poster Session I  
**Metformin rewires the pro-inflammatory metabolic and functional adaptation of human inflammatory airway PMNs** *Osrlic Forrest, Milton Brown, Jessica Alvarez and Rabindra Tirouvanziam.* *Center for Cystic Fibrosis and Airways Disease Research, Children's Healthcare of Atlanta; Department of Pediatrics, Emory University School of Medicine; Immunology and Molecular Pathogenesis Program, Emory University School of Medicine and Department of Medicine, Emory University School of Medicine*

### Presidential Jr Fac/PD

Abstract: 4                      Poster Session II  
**Selective Inhibition of T Cells by Myeloid-Derived Suppressor Cells from Septic Patients** *Julie A. Stortz, Steven L. Raymond, Marvin L. Dirain, Ricardo Ungaro, Dina C. Nacionales, Savannah G. Hardiman, Zhongkai Wang, Tezcan Ozrazgat-Baslanti, Babette A. Brumback, Scott C. Brakenridge, Frederick A. Moore, Lyle L. Moldawer and Philip A. Efron.* *Dept. of Surgery, Uni. of Florida College of Med., Gainesville; Dept. of Medicine, University of Florida College of Med., Gainesville and Department of Biostatistics, Uni. of Florida, Gainesville*

Abstract: 5                      Poster Session I  
**Human neutrophils exhibit delayed apoptosis and secrete IL-1 $\beta$  after phagocytosis of Neisseria gonorrhoeae** *Christine Cho, Silvie Kremserova, Michael A. Apicella and William M. Nauseef.* *Inflammation Program and Department of Internal Medicine, Roy J. and Lucille A. Carver College of Medicine, Uni. of Iowa; Veterans Administration Medical Center, Iowa City, Iowa; Physician Scientist Training Pathway, Roy J. and Lucille A. Carver College of Medicine, Uni. of Iowa and Department of Microbiology, Roy J. and Lucille A. Carver College of Medicine, Uni. of Iowa*

Abstract: 6                      Poster Session II  
**Insights into lysis of human neutrophils after S. aureus ingestion** *Silvie Kremserova, Mallary C. Greenlee-Wacker and William M. Nauseef.* *Inflammation Program and Department of Internal Medicine, Roy J. and Lucille A. Carver College of Medicine, University of Iowa, and Veterans Administration Medical Center, Iowa City, IA 52240, USA and Biology Department, Central Michigan University, Mount Pleasant, MI 48859, USA*

### Dolph Adams Awardee

Abstract: 7                      Poster Session I  
**Inflammasomes and pathogen sensing** *Thirumala-Devi Kanneganti.* *St. Jude Children's Research Hospital*


### Jeanette Thorbecke Awardee


Abstract: 8                      Poster Session II  
**The TLR4 agonist Monophosphoryl Lipid A mediates broad protection against infection via augmentation of innate antimicrobial cell functions** *Julia K. Bohannon, Benjamin A. Fensterheim, Liming Luan, Jessica Fults, Antonio Hernandez and Edward R. Sherwood.* *Vanderbilt University Medical Center, Department of Anesthesiology and Vanderbilt University Medical Center, Department of Pathology, Microbiology, and Immunology*

### Women & Diversity Paper of the Year Awardee

Abstract: 9                      Poster Session I  
**An ocular commensal protects from corneal infection by driving an IL-17 response from mucosal  $\gamma$  T cells** *Anthony J. St.Leger, Jigar V. Desai, Rebecca A. Drummond, Abirami Kugadas, Fatimah Almaghrabi, Phyllis B. Silver, Kumarkrishna Raychaudhuri, Mihaela Gadjeva, Yoichiro Iwakura, Michail S. Lionakis and Rachel R. Caspi.* *Lab. Immunol., NEI, NIH; Lab. Clin. Infect. Dis., NIAID, NIH; Dept. Med, Harvard Med. Sch., Boston MA and Inst. Med. Sci., Tokyo Univ Sci., Tokyo, Japan*

### Microbiome in Leukocyte Memory Selected Talks

Abstract: 10                       Poster Session II  
**The mRNA and microRNA transcriptome of lung neutrophils during Streptococcus pneumoniae pneumonia in mice** *John C. Gomez, Hong Dang, Robert S. Hagan, Jason R. Mock, Matt Kanke, Samir NP Kelada, Praveen Sethupathy and Claire M. Doerschuk.* *Center for Airways Disease, Uni. of North Carolina at Chapel Hill,*

 *The author requests the audience refrain from tweeting the content of this presentation*

Chapel Hill, NC; Cystic Fibrosis/Pulmonary Research and Treatment Center, Uni. of North Carolina at Chapel Hill, Chapel Hill, NC; Marsico Lung Institute, Uni. of North Carolina at Chapel Hill, Chapel Hill, NC; Dept. of Genetics, University of North Carolina at Chapel Hill, Chapel Hill, NC, and Dept. of Medicine, Uni. of North Carolina at Chapel Hill, Chapel Hill, NC, **Travel Awardee**

Abstract: 11 Poster Session I  
**Helicobacter pylori modulates the lifespan and cell death mechanisms of human neutrophils** Laura C. Whitmore, Stephanie Silva-Del Toro, Megan N. Weems and Lee-Ann H. Allen. Inflammation Program, The University of Iowa; Department of Internal Medicine, The University of Iowa; Immunology Program, The University of Iowa and Department of Microbiology, The Uni. of Iowa

Abstract: 12 Poster Session II  
**Novel Pro-Resolving receptor axis activates intracellular signaling and phagocytosis** Stephania Libreros, Nan Chiang, Xavier De La Rosa and Charles N. Serhan. Center for Experimental Therapeutics and Reperfusion Injury, Harvard Medical School/ Brigham and Women's Hospital **Travel Awardee**

Abstract: 13 Poster Session I  
**The impact of the microbiome on the immunomodulation and immuno-suppression in severely burned patients** Zeid Kuzbari, Paméla Thébault, Nicolas Boily, Cecile Grange, Réjean Lapointe and Jean-François Cailhier. CRCHUM; Université de Montréal and Institut du cancer de Montréal

#### Systems Analyses of Leukocyte Memory Selected Talks

Abstract: 14 Poster Session II  
**Dyslipidemic Diet-Induced Monocyte “Priming” and Dysfunction in Non-Human Primates is Triggered by Rising Plasma Cholesterol and Accompanied by Altered Histone Acetylation** John S. Short, Sina Tavakoli, Huynh N. Nguyen, Ana Carrera, Chelbee Farnen, Laura Cox and Reto Asmis. University of Texas Health Science Center at San Antonio and Texas Biomedical Research Institute

Abstract: 15 Poster Session I  
**Systemic approach analysis of long noncoding RNAs' function in infection** Min Wu and Rongpeng Li. Department of Biomedical Sciences, University of North Dakota, Grand Forks, North Dakota 58203-9037, USA

Abstract: 16 Poster Session II  
**Transition of NAD Salvage to De Novo Biosynthesis Sustains Memory of Endotoxin Tolerance During an Acute Inflammatory Response** Tiefu Liu, Jie Tao, Caifeng Meng and Charles McCall. Wake Forest University School of Medicine, Winston-Salem, NC 27157, USA and Shanghai Public Health Clinic Center, Shanghai, China


Abstract: 17 Poster Session I  
**Maternal pregravid obesity remodels the DNA methylation landscape of cord blood monocytes disrupting its inflammatory program** Suhas Sureshchandra, Randall M. Wilson, Maham Rais, Nicole E. Marshall, Jonathan Q. Purnell, Kent L. Thornburg and Ilhem Messaoudi. Department of Molecular Biology and Biochemistry, Ayala School of Biological Sciences, University of California Irvine, Irvine CA; Division of Biomedical Sciences, University of California Riverside, Riverside CA and Department of Medicine, Oregon Health and Science University, Portland OR **Travel Awardee**

#### Leukocyte Memory and Drug Development Selected Talks

Abstract: 18 Poster Session II  
**BCL6 Inhibition Represses HIV Infection ex vivo by Suppression of Immune Activation: Implication for Viral Clearance in Secondary Lymphoid Tissue of HIV-infected patients undergoing cART treatment** Yanhui Cai<sup>1</sup>, Costin Tomescu<sup>1</sup>, Mohamed Abdel-Mohsen<sup>1</sup>, Matthew Fair<sup>1</sup>, Livio Azzoni<sup>1</sup>, Emmanouil Pappasavas<sup>1</sup>, Fengtian Xue<sup>2</sup>, Jie Sun<sup>3</sup>, Neil D Romberg<sup>4</sup>, Carole Le Coz<sup>4</sup>, Luis J. Montaner<sup>1</sup> <sup>1</sup>HIV-1 Immunopathogenesis Laboratory, The Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104; <sup>2</sup>Department of Pharmaceutical Sciences, University of Maryland School of Pharmacy, Baltimore, MD 21201; <sup>3</sup>Department of Microbiology and Immunology, Indiana University School of Medicine, Indianapolis, IN, 46202; <sup>4</sup>Department of Pediatric, Children's Hospital of Philadelphia, PA, 19104 **Travel Awardee**

Abstract: 19 Poster Session I  
**Easy isolation of particle-free human ILC2s from peripheral blood mononuclear cells** Frann Antignano, Grace FT Poon, Stephen K. Kyei, Karina L. McQueen, Carrie Peters, Fumio Takei, Yanet Valdez, Steven Woodside, Terry E. Thomas and Allen C. Eaves. STEMCELL Technologies, Vancouver, BC, Canada and Terry Fox Laboratory, BC Cancer Agency, Vancouver, BC, Canada


Abstract: 20 Poster Session II  
**Dissecting Mechanisms of beta-Glucan Trained Immunity** Cody L. Stothers, Benjamin A. Fensterheim, Julia K. Bohannon and Edward R. Sherwood. Vanderbilt University Medical Center and Vanderbilt University

Abstract: 21  Poster Session I  
**The effect of anti-CTLA-4 on tumor-infiltrating effector T cells** Erica L. Stone, Erin M. O'Brien, Jenna R. Karras, Emilio Sanseviero, Qin Liu and Brian Nam. Translational Tumor Immunology Program, The Wistar Institute, Philadelphia, PA; Molecular and Cellular Oncogenesis Program, The Wistar Institute, Philadelphia, PA and The Helen F. Graham Cancer Center & Research Institute, Christiana Care Health System, Newark, DE

**Systems Biology of Adaptive Immune Memory Selected Talks**

Abstract: 22                      Poster Session II  
**Acute Activation of CD4<sup>+</sup> Memory Tregs by Traumatic Injury** Kazuma Yamakawa, Goro Tajima, Joshua Keegan, James Dolan, Anupamaa Seshadri and James Lederer. Department of Surgery, Brigham and Women's Hospital and Harvard Medical School and Department of Emergency Medicine, Unit of Clinical Medicine, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan

Abstract: 23                      Poster Session I  
**Germline deletion of CD47, "a don't eat me signal", promotes pro-inflammatory adaptive immunity and atherosclerosis.** Francis W. Lusinskas, Daniel Engelbertsen, Anu Autio, Gail Newton, Erik Levinsohn, Robin AF Verwilligen, Marie AC Depuydt, Sarah Rattik, Petr Jarolim and Andrew H. Lichtman. Department of Pathology, Brigham & Women's Hospital, and Harvard Medical School, Boston, MA and Department of Medicine, Massachusetts General Hospital, and Harvard Medical School, Boston, MA

Abstract: 24                       Poster Session II  
**Characterization of a novel subset of tissue-resident NKp46pos Vd1 intestinal intraepithelial lymphocytes playing a key role in gut immune homeostasis and in the physiopathology of colon-cancer.** Domenico Mavilio, Joanna Mikulak, Ferdinando Oriolo, Alessandra Roberto, Elena Bruni, Paolo Tentorio, Federico Colombo, Michele Carvello, Antonino Spinelli and Bruno Silva-Santos. Unit of Clinical and Experimental Immunology, Humanitas Clinical and Research Center, Rozzano, Milan, Italy; Institute of Genetic and Biomedical Research (IRGB), CNR, Milan, Italy; Flow Cytometry and Cell Sorting Unit, Humanitas Clinical and Research Center, Rozzano, Milan, Italy; Colon and Rectal Surgery Unit, Humanitas Clinical and Research Center, Rozzano Milan, Italy; Institute of Molecular Medicine, Faculty of Medicine, University of Lisbon, Lisbon, Portugal and Department of Medical Biotechnologies and Translational Medicine (BioMeTra), University of Milan, Milan, Italy

Abstract: 25                      Poster Session I  
**The decisive role of TNF-TNFR2 pathway in the activation of CD4<sup>+</sup>Foxp3<sup>+</sup> regulatory T cells: implications in tumor immunotherapy** Xin Chen and Joost J. Oppenheim. State Key Laboratory of Quality Research in Chinese Medicine, Institute of Chinese Medical Sciences, University and Cancer and Inflammation Program, Center for Cancer Research, National Cancer Institute, Frederick, Maryland 21702, USA

**Metabolism in Leukocyte Memory Selected Talks**

Abstract: 26                      Poster Session II  
**Mitochondrial size/function controls level of viral immunity in young children** David Verhoeven. Iowa State University

Abstract: 27                      Poster Session I  
**Tissue-Resident Myeloid-Derived Suppressor Cells in Adipose from Lean Mice** Katlin B Stivers, Paula M. Chilton, Jason E. Beare, Jacob R. Dale and James B. Hoying. Cardiovascular Innovation Institute, University of Louisville; Department of Microbiology & Immunology, University of Louisville and Christine M Kleinert Institute


Abstract: 28                      Poster Session II  
**Oxidation Modulates NAD<sup>+</sup>-sensor Sirtuin 2 during Obesity with Sepsis** Vidula Vachharajani, Xianfeng Wang, Nancy L. Buechler and Cristina Furdul. Department of Anesthesiology and Medicine, Wake Forest School of Medicine; Department of Medicine, Wake Forest School of Medicine and Department of Anesthesiology, Wake Forest School of Medicine

Abstract: 29                      Poster Session I  
**Modification of macrophage metabolism and memory by TLR4 agonists** Edward Sherwood, Jamey Young, Irina Trenary, Julia Bohannon and Benjamin Fensterheim. Department of Anesthesiology, Vanderbilt University Medical Center; Department of Pathology, Microbiology and Immunology, Vanderbilt University Medical Center; Department of Chemical and Biomolecular Engineering, Vanderbilt University and Medical Science Training Program, Vanderbilt University School of Medicine

**Leukocyte Memory in Autoimmune Disease Selected Talks**

Abstract: 30                      Poster Session II  
**Regulation of inflammation by Notch signaling** Xiaoyu Hu. School of Medicine and Institute for Immunology, Tsinghua University

Abstract: 31                      Poster Session I  
**Ocular Immune Privilege Selects for Programmed Innate Memory-Tolerance** Andrew W. Taylor, Nayan Sanjiv, Sarah Nocco, Araz Chiloyan and Tat Fong Ng. Department of Ophthalmology, Boston University School of Medicine

Abstract: 32                       Poster Session II  
**The Role of MALT1 in Macrophages** Mahdis Monajemi, Susan C. Menzies and Laura M. Sly. Department of Experimental Medicine, University of British Columbia

Abstract: 33                      Poster Session I  
**Pegylated IFN-alpha-2b Decreases Latent HIV Measures in ART-suppressed Subjects** *Livio Azzoni, Emmanouil Papasavvas, Nicolas Chomont, Qingsheng Li, Bonnie J. Howell, Douglas D. Richman, Pablo Tebas, Karam Mounzer, Jay Kostman and Luis J. Montaner. Wistar Inst, Philadelphia, PA; Univ de Montreal, Montreal, QC, CA; University of Nebraska, Lincoln; Merck & Co, Inc, West Point, PA; Univ of California San Diego, La Jolla, CA; Univ of Pennsylvania, Philadelphia, PA; Philadelphia FIGHT, Philadelphia, PA and Philadelphia FIGHT Community Health Centers, Philadelphia, PA*

**Engineering Analyses of Leukocyte Memory Selected Talks**

Abstract: 34                      Poster Session II  
**Regulation of macrophage function by the adhesive microenvironment** *Wendy F. Liu. Department of Biomedical Engineering, University of California, Irvine*

Abstract: 35                      Poster Session I  
**Immunological Explorations of Ex Vivo Lung Perfusion and the Pall LeukoGuard® Filter** *David C. Holden, David Hall, Eduardo Fontena, Joshua Pickering, Mark Martin, Mahmoud Alhussaini, Kolenkode Kannan, Alicia M. Mohr, Lyle L. Moldawer, Thomas Beaver and Tiago Machuca. Uni. of FL College of Med.*


Abstract: 36                      Poster Session II  
**TLR signaling in macrophages is regulated by extracellular substrate stiffness and Rho-associated coiled coil kinase (ROCK1/2)** *Cynthia A. Leifer, Erika Gruber, Christa Heyward and Jody Cameron. Cornell University*

Abstract: 37                      Poster Session I  
**Quantifying effects of neutrophil memory on migration patterns using microfluidic platforms and ODE modeling of the mechanistic molecular pathways** *Brittany P. Boribong, Mark J. Lenzi, Sarah Kadelka, Stanca Ciupe, Liwu Li and Caroline N. Jones. Genetics, Bioinformatics, and Computational Biology, Virginia Polytechnic Institute and State University; Department of Biological Sciences, Virginia Polytechnic Institute and State University and Department of Mathematics, Virginia Polytechnic Institute and State University *Travel Awardee**

**Leukocyte Memory and Drug Development Posters**

Abstract: 38                      Poster Session II  
**Novel Pyrrole-Based N-Formyl Peptide Receptor 1 (FPR1) Antagonists** *Liliya N. Kirpotina, Igor A. Schepetkin, Yunjun Ge, Richard D. Ye and Mark T. Quinn. Department of Microbiology and Immunology, Montana State University, Bozeman, MT and Institute of Chinese Medical Sciences, University of Macau, Macau, China*

Abstract: 39                      Poster Session I  
**Site-specific anti-cancer immune response to bacterial-derived Immunotherapies** *Mark Bazett, Andy Sham, Momir Bosiljcic, Jim Pankovich, David W. Mullins, Hal Gunn and Shirin Kalyan. Qu Biologics and Geisel School of Medicine, Dartmouth*

Abstract: 40                       Poster Session II  
**Involvement of MrgX2 in the internalization of LL-37 and degranulation of LAD2 human mast cells.** *Taisuke Murakami, Kaori Suzuki and Isao Nagaoka. Dept. Host Defense & Biochem. Res., Juntendo Univ., Sch. Med.*


Abstract: 41                      Poster Session I  
**Natural Sesquiterpene Lactones Inhibit T-cell Antigen Receptor (TCR) Activation** *Igor A. Schepetkin, Liliya N. Kirpotina, Pete T. Mitchell, Anarkul S. Kishkentaeva, Zhanar R. Shaimerdenova, Gayane A. Atazhanova, Sergazy M. Adekenov and Mark T. Quinn. Department of Microbiology and Immunology, Montana State University, Bozeman, MT and International Research and Production Holding "Phytochemistry", Karaganda,, Republic of Kazakhstan*

Abstract: 42                      Poster Session II  
**IVIg and IVIg Activated Macrophages as an IL-10 Dependent Novel Therapeutic Strategy for Inflammatory Bowel Disease** *Lisa Kozicky, Susan Menzies, Naomi Hotte, Karen L. Madsen and Laura M. Sly. University of British Columbia, Vancouver, Canada; BC Children's Hospital Research Institute, Vancouver, Canada and University of Alberta, Edmonton, Canada*

Abstract: 43                      Poster Session I  
**Adherent human neutrophils depend on accessory cells for their survival response to LPS** *Thomas C. Mitchell, Madhavi J. Rane, Silvia M. Uriarte and Shuvasree SenGupta. Institute for Cellular Therapeutics and Department of Microbiology and Immunology, School of Medicine, University of Louisville, Louisville KY and Department of Medicine, School of Medicine, University of Louisville, Louisville, KY*

Abstract: 44                      Poster Session II  
**Staphylococcus aureus SaeR/S-regulated Factors Decrease Monocyte-derived TNF- $\alpha$  to Reduce Neutrophil Bactericidal Activity** *Eli W. Sward, Kyler B. Pallister and Jovanka M. Voyich. Department of Immunology and Infectious Disease, Montana State University *Travel Awardee**

**Metabolism in Leukocyte Memory Posters**


Abstract: 45                       Poster Session I  
**Lactic acid upregulates VEGF expression in macrophages and endothelial cells, facilitating choroidal neovascularization** *Juha Song, Sung Wook Park, Jeong Hun Kim and Seung Hyeok Seok. Department of Microbiology and Immunology, Seoul National*

University College of Medicine, Korea and Department of Biomedical Sciences, Seoul National University College of Medicine, Seoul National University Hospital, Korea

Abstract: 46 Poster Session II  
**Serpina6a cooperates with Serpina1a in protecting myeloid cells from cathepsin G-mediated death in vivo** Sabrina Sofia Burgener, Philip Ian Bird and Charaf Benarafa. Institute of Virology and Immunology, Vetsuisse Faculty, University of Bern, Mithelhäusern, Switzerland; Graduate School for Cellular and Biomedical Science, University of Bern, Bern, Switzerland and Department of Biochemistry & Molecular Biology, Monash University, Clayton, Australia **Travel Awardee**

Abstract: 47 Poster Session I  
**Identifying an Immune Signature Characteristic of Fetal Alcohol Spectrum Disorders** Tamara S. Bodnar, Charlis Raineki, Wladimir Wertelecki, Lyubov Yevtushok, Natalya Zymak-Zakutnya, Gordon Honerkamp-Smith, Alan Wells, Christina D. Chambers, Joanne Weinberg and the CIFASD. University of British Columbia; University of California San Diego; University of South Alabama and Rivne Oblast Medical Diagnostic Centre and OMNI-Net Centre


Abstract: 48 Poster Session II  
**Blunted neutrophil priming in children with type 1 diabetes and diabetic ketoacidosis** Blake Nichols, Jessica Hook, Kayson Weng and Jessica Moreland. University of Texas Southwestern Medical Center and University of Texas at El Paso **Travel Awardee**


Abstract: 49  Poster Session I  
**Protective Role of ILC2 in Sepsis-Induced Acute Lung Injury** Yuehua Li, Dengming Lai, Timothy R. Billiar, Mark A. Wilson and Jie Fan. Department of Surgery, University of Pittsburgh School of Medicine and Research and Development, Veterans Affairs Pittsburgh Healthcare System

Abstract: 50 Poster Session II  
**Monocytic Glutaredoxin 1 Protects Mice Against Obesity, Hyperglycemia and Atherosclerosis** Kevin Downs, Sina Tavakoli, John D. Short, Huynh N. Nguyen and Reto Asmis. University of Texas Health Science Center


#### Microbiome in Leukocyte Memory Posters

Abstract: 51 Poster Session I  
**Alcohol Potentiates Bacterial Overgrowth in Setting of Colitis** Paulius V. Kuprys, Abigail R. Cannon, Robin C. Gagnon, Adam M. Hammer, Niya L. Morris, Xianzhong Ding, Xiaoling Li and Mashkoor A. Choudhry. Alcohol Research Program, Burn & Shock Trauma Research Institute, Loyola University Chicago Health Sciences Division, Maywood, IL, USA and Department of Pathology, Loyola University Chicago Health Sciences Division, Maywood, IL, USA **Travel Awardee**

Abstract: 52  Poster Session II  
**Neutrophil MPO-HOCl System Regulates Inflammation** Guoshun Wang and Hang Pong Ng. Department of Microbiology, Immunology and Parasitology, Louisiana State University Health Sciences Center - New Orleans

Abstract: 53  Poster Session I  
**Adaptation to complex host niches by fungal pathogen Candida albicans drives resistance to neutrophil attack** José Pedro Lopes, Emelie Backman, Sandra Holmberg, Sujana Yellagunda, Cecilia Heimer, Rolf Claesson and Constantin F. Urban. Department of Clinical Microbiology, Umeå University, Umeå - Sweden; Section Molecular Periodontology, Department of Odontology, Umeå University, Umeå - Sweden; Umeå Centre for Microbial Research (UCMR) and The Laboratory for Molecular Infection Medicine Sweden (MIMS) **Travel Awardee**

Abstract: 54 Poster Session II  
**Cytokine analysis may be used to diagnose and monitor response to therapy in animal model of S. epidermidis CSF shunt infection** Gwenn Skar, Matthew Beaver, Kathryn Woods and Jessica Snowden. University of Nebraska Medical Center

Abstract: 55  Poster Session I  
**Production of AIM by peritoneal macrophages and its role in phagocytic activity** Satoko Arai and Toru Miyazaki. Faculty of Medicine, The University of Tokyo

Abstract: 56 Poster Session II  
**Alveolar macrophage Nox2 protects against lung injury in a murine model of systemic inflammation** Renee Potera, Mou Cao, Lin F. Jordan, Jessica S. Hook and Jessica G. Moreland. University of Texas Southwestern Medical Center

Abstract: 57 Poster Session I  
**Inflammatory modulation induced by crystalloid intravenous infusion in healthy subjects** Jean-Alexandre Sauvé, Patrick Laplante, Pamela Thébault, Nicolas Noiseux and Jean-François Cailhier. Centre de Recherche du CHUM, Université de Montréal

Abstract: 58 Poster Session II  
**Human NETs synthesis contributes to angiotensin-mediated pro-inflammatory and pro-angiogenic activities** Martin G. Sirois, Simon S. Lavoie, Branka Vulesevic, Paul-Eduard Neagoe and Michel White. Research center - Montreal Heart Institute; Department of pharmacology and physiology - Université de Montréal and Department of medicine - Université de Montréal

Abstract: 59                      Poster Session I  
**Antimicrobial cathelicidin peptide LL-37 protects septic mice by modulating macrophage pyroptosis and neutrophil NETosis** *Isao Nagaoka, Hiroshi Hosoda, Zhongshuang Hu, Kaho Nakamura, Taisuke Murakami, Hiroshi Tamura and Johannes Reich. Juntendo University Graduate School of Medicine; LPS Consulting Office and Microcoat Biotechnologie GmbH*

Abstract: 60                      Poster Session II  
**6-Formylindolo (3,2-B) Carbazole (FICZ) Improves Intestine Motility And Prevents Bacteria Growth Following Ethanol And Burn Injury** *Xiaoling Li, Adam M. Hammer, Abigail R. Cannon, Niya L. Morris and Mashkooor A. Choudhry. Alcohol Research Program, Burn & Shock Trauma Research Institute, Dept. of Surgery, Loyola University Chicago Health Sciences Division, Maywood, IL 60153, USA*

#### Systems Analyses of Leukocyte Memory Posters

Abstract: 61                      Poster Session I  
**The R753Q Polymorphism in TLR2 Attenuates Innate Immune Responses to Mycobacterial Infection and Impairs Recruitment of MyD88 to TLR2** *Andrei E. Medvedev and Goutham Pattabiraman. University of Connecticut Health Center*

Abstract: 62                      Poster Session II  
**Identification and characterization of adenosine deaminase 2 variants in pediatric vasculitis** *Kelly L. Brown, Kristen Gibson, Britt Drogemoller, Xiaohua Khan, Fudan Miao, Morishita Kimberly, Erin Gill, Robert EW Hancock, Colin Ross and David A. Cabral. Department of Pediatrics, University of British Columbia, Vancouver BC; Department of Medical Genetics, University of British Columbia, Vancouver BC; Department of Microbiology and Immunology, University of British Columbia, Vancouver BC; Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver BC; BC Children's Hospital Research Institute, Vancouver BC; BC Children's Hospital, Vancouver BC and Centre for Microbial Diseases and Host Defense Research, Vancouver, BC*

Abstract: 63                      Poster Session I  
**Cross-talk between two DNA sensing pathways in human plasmacytoid dendritic cells** *Patricia Fitzgerald-Bocarsly and Pratik Deb. Department of Pathology and Lab. Medicine Rutgers, New Jersey Medical School and Rutgers School of Graduate Studies*

Abstract: 64                      Poster Session II  
**Understanding the regulation of virulence in Staphylococcus aureus during innate immune evasion** *Madison M. Collins, Elizabeth R. Gritzmacher, Justice G. Roberts, Willis Pullman, Caralyn E. Flack, Kyler B. Pallister and Jovanka M. Voyich. Montana State University, Bozeman, MT*

#### Systems Biology of Adaptive Immune Memory Posters

Abstract: 65                      Poster Session I  
**Plasma interleukin 10 concentrations in Standardbred racehorses by means of a novel validated ELISA** *Jinwen Chen, Zibin Jiang, Larry R. Soma and Mary A. Robinson. University of Pennsylvania and Pennsylvania Equine Toxicology and Research Laboratory*

Abstract: 66                      Poster Session II  
**Human gastric epithelial cells recruit dendritic cells for luminal H. pylori uptake in a novel gastric organoid co-culture model.** *Thomas A. Sebrell, Marziah Hashimi, Barkan Sidar, James N. Wilking and Diane Bimczok. Department of Microbiology and Immunology, Montana State University and Chemical and Biological Engineering Department, Montana State University*

Abstract: 67                      Poster Session I  
**Molecular mechanisms underlying the evolution of the slp76 signalosome** *Yingqiu Li, Xuemei Qu and Xin Lan. Sun Yat-sen University*

Abstract: 68                      Poster Session II  
**Dendritic cell and monocyte immune tolerance following coronary artery bypass graft surgery** *Alexis J. Perros, Arlanna Esguerra-Lallen, Kelly Rooks, Fenny Chong, Sanne Engkilde Pedersen, Rishendran Naidoo, John-Paul Tung, John F. Fraser, Peter Tesar, Marc Ziegenfuss, Susan Smith, Donalee O'Brien, Robert L. Flower and Melinda M. Dean. Research and Development, Australian Red Cross Blood Service, Brisbane, Australia; School of Medicine, University of Queensland, Brisbane, Australia; Faculty of Health, Queensland University of Technology and The Prince Charles Hospital, Brisbane, Australia*

Abstract: 69                      Poster Session I  
**Comparison of Gene Segment Usage in Complementarity-Determining Regions of Unchallenged Mice** *Bailey A. Bye, Trisha A. Rettig, Michael J. Pecaut and Stephen K. Chapes. Division of Biology, Kansas State University, Manhattan, KS and Department of Basic Sciences, Loma Linda University, Loma Linda, CA*

Abstract: 70                      Poster Session II  
**Characterization and consensus of the conventionally housed C57BL/6J antibody repertoire** *Trisha A. Rettig, Claire Ward, Bailey Bye, Michael J. Pecaut and Stephen K. Chapes. Kansas State University and Loma Linda University **Travel Awardee***

Abstract: 71                      Poster Session I  
**Identification of S100A14 as a Potential Mechanism of Innate Immune Resistance in HIV-exposed Sero-negative Injection-drug Users (HESN-IDU)** *Krystal Colon, Costin Tomescu and Luis J. Montaner. Wistar Institute, Philadelphia, PA Travel Awardee*

**Epigenetic Mechanisms of Memory in Innate Immune Cell Activation Poster**

Abstract: 72                      Poster Session II  
**Efficient enrichment of functional ILC subsets from human PBMC by immunomagnetic selection** *Frann Antignano, Yanet Valdez, Stephen Kyei, Grace Poon, Peters Carrie, Steven Woodside, Allen C Eaves and Terry Thomas. STEMCELL Technologies Inc., Vancouver, BC, Canada and Terry Fox Laboratory, BC Cancer Agency, Vancouver, BC, Canada.*

**Leukocyte Memory in Chronic Disease Posters**

Abstract: 73                      Poster Session I  
**Reduced chronic pain by rubber flooring alters leukocyte populations, phenotypes, and response to substance P of dairy cows** *Susan D. Eicher, Michael M. Schutz and Jeremy N. Marchant-Forde. Livestock Behavior Research Unit, USDA-ARS and Purdue University*

Abstract: 74                      Poster Session II  
**Establishment of non-resolving low-grade inflammatory monocytes due to autophagy disruption by super-low dose LPS** *Allison Rahtes, Shuo Geng and Liwu Li. Department of Biological Sciences, Virginia Tech University Travel Awardee*

Abstract: 75                      Poster Session I  
**Rab17 mediates differential antigen sorting following efferocytosis and phagocytosis** *Charles Yin, Yohan Kim, Dean Argintaru and Bryan Heit. Department of Microbiology and Immunology, Western University, London, Ontario, Canada Travel Awardee*

Abstract: 76                      Poster Session II  
**Alcohol Increases Susceptibility to Enteropathogens in Mice with DSS-Induced Colitis** *Abigail Cannon, Melanie Hartman, Paulius Kuprys, Adam Hammer, Niya Morris, X Ding, Xiaoling Li and Mashkoor Choudhry. Loyola University Chicago Travel Awardee*

**Leukocyte Memory in Infection and Injury Posters**

Abstract: 77                      Poster Session I  
**Neutrophil Binding To ICAM-1 Expressed On Both Endothelial Cells & Pericytes Contributes To Pericyte Dissociation & Development of Indirect ARDS** *Joanne L. Lomas-Neira, Kaitlyn Petitpas and Chun-Shiang Chung. Rhode Island Hospital/Brown University, Providence, RI*

Abstract: 78                      Poster Session II  
**Epigenetic Programmer SIRT1 Bridges Innate and Adaptive Immunity during Acute Inflammation from Sepsis.** *Ayana Martin, Martha Alexander-Miller, Vidula Vacahharahani and Charles E. McCall. Wake Forest University School of Medicine*

Abstract: 79                      Poster Session I  
**Staphylococcus aureus-induced neutrophil-derived ectosomes alter neutrophil-Staphylococcus interaction** *Benjamin S. Avner and William M. Nauseef. Inflammation Program, Roy J. and Lucille A. Carver College of Med., Uni. of Iowa, Iowa City, IA; Department of Internal Medicine, Roy J. and Lucille A. Carver College of Medicine, Uni. of Iowa, Iowa City, IA and Veterans Administration Med. Cntr, Iowa City, IA*

Abstract: 80                      Poster Session II  
**The role of neutrophils and extracellular adenosine in shaping age-driven susceptibility to Streptococcus pneumoniae lung infection** *Elsa N. Bou Ghanem, Nalat Siwapornchai, James N. Lee and John M. Leong. Department of Molecular Biology and Microbiology at Tufts University School of Medicine, Boston, MA Travel Awardee*

Abstract: 81                      Poster Session I  
**Oxidative Signals in Bone Marrow Hematopoietic Niche Regulate Innate Immune Responses after Ischemic Tissue Damage** *Milie Fang, Rita Mirza, Ronald D. McKinney, Jing Deng, John W. Christman, Xiaping Du, Tohru Fukai, William J. Ennis, Timothy J. Koh, Masuko Ushio-Fukai and Norifumi Urao. Center for Wound Healing and Tissue Regeneration, Uni. of Illinois at Chicago; Department of Pharmacology, University of Illinois at Chicago; Department of Medicine, Ohio State University School of Medicine; Department of Medicine (Cardiology), Uni. of Illinois at Chicago; Jesse Brown Veterans Affairs Medical Center, Chicago and Department of Surgery, Uni. of Illinois at Chicago College of Medicine*

Abstract: 82                      Poster Session II  
**Anti-Microbial Resistance via Enhancement of Innate Immunity Using Novel Synthetic TLR4 Agonists** *Antonio Hernandez, Julia K. Bohannon, Benjamin A. Fensterheim, Jessica B. Fults, Naeem K. Patil, Ryan Parker, Yin Guo, Jingbin Wang and Edward R. Sherwood. Department of Anesthesiology, Vanderbilt University Medical Center*

Abstract: 83                      Poster Session I  
**Mitochondrial Pyruvate Dehydrogenase Complex Directs Immunometabolic and Bioenergy Reprogramming and is a Druggable Target for Improving Sepsis Survival in Mice.** Charles E. McCall, Barbara K. Yoza and Vidula Vachharajani. Wake Forest Uni. Schl of Med.

Abstract: 84                      Poster Session II  
**USP18 tunes the host antiviral response to favor HIV replication in macrophages** Mark A. Walle, Jared P. Taylor, Katherine Santostefano, Naohiro Terada and Melanie Cash. University of Florida

Abstract: 85                      Poster Session I  
**Evidence of potential immune tolerance in sheep: Reduced sheep neutrophil respiratory burst function post-orthopedic trauma surgery** John-Paul Tung, John F. Fraser, Peter Wood, Martin E. Wullschleger and Yoke Lin Fung. Research and Development, Australian Red Cross Blood Service, Brisbane, Australia; Faculty of Health, Queensland University of Technology, Brisbane, Australia; Critical Care Research Group, The University of Queensland and The Prince Charles Hospital, Brisbane, Australia; School of Medicine, The University of Queensland, Brisbane, Australia; Haematology Department, The Princess Alexandra Hospital, Brisbane, Australia; Trauma Services, Gold Coast University Hospital, Gold Coast, Australia and School of Health and Sport Sciences, University of the Sunshine Coast, Maroochydore, Australia

#### Memory of Tissue Location and Micro-environment Poster

Abstract: 86                      Poster Session II  
**Mammary tumor cells release soluble factors that modulate phagocytic activity of macrophages in vitro** Débora M. Silvestro, José Renildo Carvalho, Thiago Albuquerque, Toshie C. Konno, Maria Anete Lallo and Elizabeth C. Perez. Environmental and Experimental Pathology Program, Paulista University, São Paulo, Brazil

#### Late Breaking Posters

Abstract: 87                      Poster Session I  
**Differential regulation of SOCS1 and SOCS3 gene expression by interferon-beta and IL-10 in endotoxin-stimulated macrophages** Raymond P. Donnelly. FDA Center for Drug Evaluation and Research

Abstract: 88                      Poster Session II  
**SIGMA-1R and Cocaine Interplay in Cathepsin B Secretion in HIV-1 Infected Macrophages** Omar Velez Lopez, Anabelle Segarra Marrero Ph.D. and Loyda M. Melendez Ph.D.. University of Puerto Rico Medical Sciences Campus Microbiology Department and University of Puerto Rico Medical Sciences Campus Physiology Department *Travel Awardee*

Abstract: 89                      Poster Session I  
**Differential Expression of the Check-point protein, VISTA, both in Response In vitro Stimuli and In vivo Septic Insult.** Bethany Biron Girard, Jessica Tolbert, Chun-Shiang Chung and Alfred Ayala. Brown University/Rhode Island Hospital

Abstract: 90                      Poster Session II  
**Cytokine analysis may be used to diagnose and monitor response to therapy in an animal model of S. epidermidis CSF shunt infection** Gwenn Skar, Matthew Beaver, Kathryn Woods, Jessica Snowden; University of Nebraska Medical Center *Travel Awardee*

Abstract: 91                      Poster Session I  
**The role of alternative polyadenylation in the antiviral innate immune response** Shaochun Yuan, Xin Jia, Yao Wang and Anlong Xu. State Key Laboratory of Biocontrol, Department of Biochemistry, College of Life Sciences, Sun Yat-Sen University, Guangzhou 510275, People's Republic of China.

Abstract: 92                      Poster Session II  
**The JNK-mediated NADPH oxidase-independent NETosis** Leandro C. D. Breda, Meraj A. Khan, Armin Faravash, Sandro Rogério de Almeida, Hartmut Grasemann, Neil Sweezey and Nades Palaniyar. Lung Innate Immunity Research Laboratory, Program in Physiology & Experimental Medicine, The Hospital for Sick Children Research Institute, Toronto, ON, Canada; Biomedical Science Institute. Program in Immunology, University of São Paulo, São Paulo, SP, Brazil.; Division of Respiratory Medicine, Department of Paediatrics, The Hospital for Sick Children, Toronto, ON, Canada; Institute of Medical Sciences, University of Toronto, Toronto, ON, Canada.; Department of Physiology University of Toronto, Toronto, ON, Canada; Department of Pediatrics University of Toronto, Toronto, ON, Canada; and Department of Laboratory Medicine & Pathobiology, University of Toronto, Toronto, ON, Canada; Institute of Medical Sciences, University of Toronto, Toronto, ON, Canada

Abstract: 93                      Poster Session I  
**Immunological Changes in Host Lung Environment during Antecedent Influenza A Infection Lead to Expression of S. aureus SaeR/S Dependent Virulence Expression during Secondary Bacterial Pneumonia** Timothy R. Borgogna, Bennet Hisey, Teresa Hoyt, Eli Sward, Kyler Pallister, Nicole Meissner and Jovanka Voyich. Department of Microbiology and Immunology, Montana State University *Travel Awardee*

Abstract: 94                      Poster Session II  
**Extracellular Alkaline pH Promotes NADPH Oxidase-Independent NETosis: A Matter of Calcium Influx** Cristiane Souza, Leandro Breda, Meraj Khan, Niels Camara, Sandro Almeida, Hartmut

☞ The author requests the audience refrain from tweeting the content of this presentation



Grasemann, Neil Swezey and Nades Palaniyar. Lung Innate Immunity Research Laboratory, Program in Physiology & Experimental Medicine, The Hospital for Sick Children Research Institute, Toronto, ON, Canada;;Department of Immunology, Biomedical Science Institute. Uni. of São Paulo, São Paulo, SP, Brazil.;Division of Respiratory Medicine, Department of Paediatrics, The Hospital for Sick Children, Toronto, ON, Canada; Institute of Medical Sciences, Uni. of Toronto, Toronto, ON, Canada.;Department of Physiology Uni. of Toronto, Toronto, ON, Canada; Department of Pediatrics Uni. of Toronto, Toronto, ON, Canada; and Department of Laboratory Medicine & Pathobiology, Uni. of Toronto, Toronto, ON, Canada; Institute of Medical Sciences, Uni. of Toronto, Toronto, ON, Canada.

Abstract: 95 Poster Session I

**IL-4 signaling is required for optimal production of IFN-gamma by T cells during Leishmania infection** Prajwal Gurung. University of Iowa, Inflammation Program, Infectious Diseases Division, Department of Internal Medicine and University of Iowa, Immunology Graduate Program **Travel Awardee**

Abstract: 96 Poster Session II

**The role of ADAM17-mediated shedding of leukocyte cell surface proteins in inflammation and gut homeostasis** Thorsten Maretzky. Uni. of Iowa, Department of Medicine - Division of Infectious Diseases, Roy J. and Lucille A. Carver Coll. of Med. **Travel Awardee**

Abstract: 97  Poster Session I

**NADPH oxidase deficiency increases pro-inflammatory signaling and cytokine production in neutrophils challenged with sterile fungal PAMPs** Dae-goon Yoo, Rachel A. Idol, Guangming Huang, Nancy K. Pech and Mary C. Dinauer. Washington Uni. in St. Louis School of Medicine, St. Louis, Missouri **Travel Awardee**

Abstract: 98  Poster Session II

**The emerging oral pathogen, Filifactor alocis, inhibits PMA and bacteria-induced formation of neutrophil extracellular traps.** Silvia M. Uriarte,

Cortney L. Armstrong, Christopher K. Klaes and Richard J. Lamont. Department of Medicine. University of Louisville, Louisville, KY; Department of Microbiology and Immunology. University of Louisville, Louisville, KY and Department of Oral Immunology and Infectious Diseases. University of Louisville, Louisville, KY

Abstract: 99 Poster Session I

**Regenerating Islet-Derived Protein 3 Enhances Innate Response to Influenza A Virus Infection** Xavier De Luna, Mitchell R. White, I-Ni Hsieh and Kevan L. Hartshorn. Department of Medicine, Section of Hematology and Oncology, Boston University Medical Center and Graduate Program in Molecular and Translational Medicine, Division of Graduate Medical Sciences, Boston University

Abstract: 100 Poster Session II

**RIP2 is Important in the Response to House Dust Mite and Attenuates Allergic Airway Inflammation in Response to Dermatophagoides farinae** Madelyn H. Miller, Michael G. Shehat, Karel Alcedo, Lina P. Spinel and Justine T. Tigno-Aranjuez. University of Central Florida, Burnett School of Biomedical Sciences, College of Medicine, Orlando, FL 32827 and University of North Carolina, Department of Cell Biology and Physiology, Chapel Hill, NC, 27599 **Travel Awardee**

Abstract: 101 Poster Session I

**Involvement of RIP2 in signaling mediated through the FcγR** Michael G. Shehat and Justine T. Tigno-Aranjuez. University of Central Florida, Burnett School of Biomedical Sciences, College of Medicine, Orlando, FL 32827 **Travel Awardee**

Abstract: 102 Poster Session II

**MafB /GATA-1 axis bares the potential mechanism for immune suppression and anemia of critical illness - a neuro-immune link** Kuzhali Muthumalaiappan, Shirin Hasan, Nicholas B. Johnson, Michael J. Mosier and Peggie Conrad. Loyola University Chicago, Department of Surgery, Cell and Molecular Physiology, Burn & Shock Trauma Research Institute