

Scientific Program Schedule

Cytokines 2010: Cancer in Infectious Diseases, Autoimmune Disorders and Cancer

OCTOBER 3

SUNDAY

9:00 – 4:00 ISICR/ICS COMMITTEE MEETINGS

4:30 – 5:30 OPENING SESSION & AWARDS ♦ REGENCY BALLROOMS

4:30 Opening Remarks/Welcome

Leonidas Plataniias, President ISICR, Chair Cytokines 2010 Organizing Committee
Alberto Mantovani, President, ICS

4:40 ISICR and ICS Awards Presentations

ICS Awards:

ICS Outstanding Scholar Award
ICS Postdoctoral Investigator Award
ICS Young Investigator Award
Ed Leonard Award
Honorary Life Membership

ISICR Awards:

Seymour and Vivian Milstein Awards
ISICR Distinguished Service Awards
Honorary Membership
Seymour and Vivian Milstein Young Investigator Awards
Christina Fleischmann Award to Young Women Investigators
Sidney and Joan Pestka Graduate and Post-Graduate Awards
Seymour and Vivian Milstein Travel Awards

5:30 – 7:00 HONORARY LECTURES ♦ REGENCY BALLROOMS

5:30 HL-1

Innate resistance, inflammation, and carcinogenesis

Giorgio Trinchieri, *Cancer and Inflammation Program, CCR, NCI, Frederick, MD, USA*

ICS Honorary Life Membership Award

6:00 HL-2

Lost in translation

Eleanor Fish, *Department of Immunology, University of Toronto, Toronto, & Toronto General Research Institute, University Health Network, Toronto, ON, Canada*

ISICR Seymour and Vivian Milstein Award

6:30 HL-3

Class II cytokine receptors and their ligands: diversities and similarities

Sergei V. Kotenko, *Department of Biochemistry and Molecular Biology, University Hospital Cancer Center, New Jersey Medical School, UMDNJ, Newark, NJ USA*

ISICR Seymour and Vivian Milstein Award

7:00 – 8:00 KEYNOTE LECTURE 1 ♦ REGENCY BALLROOMS

Keynote Speaker: Richard Flavell

7:00 KL-1

The Inflammasome in health and disease

Richard Flavell, *Howard Hughes Medical Institute, Yale University School of Medicine, New Haven, CT, USA*

8:00 – 10:30 WELCOME RECEPTION ♦ CLUB AT 151, HYATT REGENCY

Complimentary event for all registered attendees. Club at 151 is in the East Tower.

9:00 – 11:30 JOINT PLENARY SESSION 1 ♦ REGENCY BALLROOMS A/B

Cytokines and Inflammation

Session Chairs:

Alberto Mantovani, *Instituto Clinico Humanitas*Sarah Gaffen, *University of Pittsburgh*

09:00 PL1-1

Regulation and function of IL-17 family cytokines in inflammatory responsesChen Dong, *Department of Immunology, The University of Texas, M. D. Anderson Cancer Center, Houston TX, USA*

09:30 PL1-2

IL-17-induced Act1-mediated signaling in EAE pathogenesisXiaoxia Li, *Ph.D., Department of Immunology, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH, USA*

10:00 PL1-3

IL-6 trans-signaling modulates TLR4- dependent inflammatory responses via STAT3Claire J. Greenhill¹, Stefan Rose-John², Walter Ferlin³, Luke O'Neil⁴, Paul Hertzog¹, Ashley Mansell¹ and Brendan J. Jenkins¹, ¹Centre for Innate Immunity and Infectious Diseases, Monash Institute of Medical Research, Clayton, Victoria, Australia; ²Institute of Biochemistry, Christian-Albrechts-University of Kiel, Germany; ³NovImmune SA, Geneva, Switzerland; ⁴School of Biochemistry and Immunology, Trinity College Dublin, Dublin, Ireland

10:20 PL1-4

IL-36 (formerly IL-1F7) suppresses innate immunity by inhibiting inflammatory cytokines and reducing dendritic cell activation by association with SMAD3Marcel F. Nold^{1,2}, Claudia A. Nold-Petry^{1,2}, Jarod A. Zepp^{1,3}, Philip Bufler⁴, Brent E. Palmer¹, and Charles A. Dinarello¹, ¹Department of Medicine, University of Colorado Health Sciences Center, Denver, Colorado, USA; ²Ritchie Centre, Monash Institute of Medical Research, Melbourne, Victoria, Australia; ³Department of Immunology and Department of Molecular Medicine, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, Cleveland, Ohio, USA; ⁴Children's Hospital, Ludwig-Maximilians University, Munich, Germany

10:40 PL1-5

IL-6 promotes acute and chronic inflammatory disease in the absence of SOCS3Ben A Croker, Hiu Kiu, Donald Metcalf, Joanne O'Donnell, Louise Cengia, Warren S Alexander, Andrew W Roberts, *Cancer and Haematology Division, The Walter and Eliza Hall Institute of Medical Research, 1G Royal Parade, Parkville, VIC 3052, Australia*

11:00 PL1-6

PKR-dependent control of obesity-related diseaseAJ Sadler¹, A Pindel¹, O Latchoumanin¹, G Lancaster², M Febbraio², A Cao³, P Tipping³, BR Williams¹, ¹Monash Institute of Medical Research, Monash University; ²Monash Centre for Inflammatory Disease, Monash University; ³Baker IDI Heart & Diabetes Institute, Melbourne, Victoria, Australia

11:30 LUNCH BREAK – on your own

1:00 – 3:00 CONCURRENT SESSION 1 ♦ REGENCY BALLROOM A

Immunoregulation

Session Chairs:

Warren Leonard, *National Institute of Health*John Schrader, *University of British Columbia*

1:00 CS1-1

IL-7 signaling and the control of B cell developmentHarinder Singh, *Department of Molecular Genetics and Cell Biology, The University of Chicago, Chicago, IL and Department of Discovery Immunology, Genentech, S. San Francisco, CA, USA*

1:30 CS1-2

Targeted removal of IFN-gamma 3' untranslated region Au-rich element alters B cell function resulting in lupus-like disease in C57bl6 miceDeborah L. Hodge¹, Cyril Berthet², Jeff Subleski¹, Vincenzo Coppola², Hidekazu Shirota¹, Matthew Buschman¹, Catherine Razzook¹, Howard A. Young¹, ¹Laboratory of Experimental Immunology, Cancer and Inflammation Program, Center for Cancer Research, National Cancer Institute-Frederick, Frederick, MD, USA 21702-1201; ²Mouse Cancer Genetics Program, Center for Cancer Research, National Cancer Institute-Frederick, Frederick, MD, USA

1:45 CS1-3

Carbosilane Dendrimer 2G-NN16, as a TH17 immune response repressorRafael Gras^{1,2}, M. Isabel García¹, Rafael Gómez³, F. Javier de la Mata³, María Sanjurjo¹, Luis A. Lopez-Fernandez¹, and M. Ángeles Muñoz-Fernandez², ¹Laboratory of Pharmacogenetics and Pharmacogenomics, Hospital General Universitario Gregorio Marañón, Madrid, Spain; ²Laboratory of Molecular Immunobiology, Hospital General Universitario Gregorio Marañón, Madrid, Spain; ³Departamento de Química Inorgánica, Universidad de Alcalá, Campus Universitario, Alcalá de Henares, Spain

2:00 CS1-4

IL-16 mediates CD4 T cell lymph node dequstration through inhibition of S1P1Daniel S. Green^{1,2}, Bo Harstine¹, Jillian Richmond^{1,3}, William W. Cruikshank¹, ¹The Pulmonary Center; ²The Department of Microbiology; ³The Department of Pathology, Boston University School of Medicine, Boston MA, USA

2:15 CS1-5

Depletion of natural T regulatory cells (Tregs) by anti-CD25 antibodies treatment increases the severity of intestinal inflammation in SAMP1/YitFc (SAMP) MiceDai Ishikawa, Daniele Corridoni, Wei Xi, Li Guo, and Fabio Cominelli, *Digestive Health Research Center, Case Western Reserve University, Cleveland, OH, USA*

2:30 CS1-6

Protection of insulin producing beta cells by the anti-inflammatory acute phase protein alpha-1- antitrypsinAvishag Abecassis, David Ochayon, Eyal Ozeri, Mark I. Mizrahi, Noa Kalay, David Sabag, Efrat Ashkenazi, Galit Shahaf and Eli C. Lewis, *Department of Clinical Biochemistry, Ben-Gurion University of the Negev, Beer-Sheva, Israel*

2:45 CS1-7

Activated fibrocytes contribute to disease pathogenesis in rheumatoid arthritisCarole L. Galligan^{1,2}, Katherine Siminovitch^{1,3}, Edward Keystone^{1,3}, Vivian Bykerk³, Omar Perez⁴ and Eleanor Fish^{1,2}, ¹Department of Immunology, University of Toronto; ²Toronto General Research Institute, University Health Network, Toronto, Ontario, Canada; ³Mount Sinai Hospital Samuel Lunenfeld and Toronto Hospital Research Institutes, Toronto, Ontario, Canada; ⁴Tocagen, Director of Preclinical Development, San Diego, CA, USA

3:00 BREAK

Refreshments in Regency D Exhibit Hall

1:00 – 3:00 CONCURRENT SESSION 2 ♦ REGENCY BALLROOM B

Host-Pathogen Interactions

Session Chairs:

Otto Haller, *University of Freiburg*Paul Hertzog, *Monash Institute of Medical Research*

1:00 CS2-1

RIG-I like receptors: sensing and responding to RNA virus infectionJohn Hiscott¹, Peyman Nakhaei¹, Suzanne Paz¹, Myriam Vilasco², Delphine Goubau¹, Zheng-Yun Xu¹, Eliane F. Meurs², Rongtuan Lin¹, ¹*Molecular Oncology Group, Lady Davis Institute, McGill University, Montreal H3T1E2, Canada. Department of Virology;* ²*Institut Pasteur, Paris, France*

1:30 CS2-2

Interferon and influenza: characterizing the mechanisms of antagonismDanlin Jia¹, Ben Wang^{1,2}, Jae-Kwang Yoo^{1,2}, Ramtin Rahbar¹, Craig Hawkshaw^{1,2}, Darren P. Baker³, John M. Nicholls⁴ and Eleanor Fish^{1,2}, ¹*University Health Network, Toronto, Ontario, Canada;* ²*Department of Immunology, University of Toronto, Toronto, Ontario, Canada;* ³*BiogenIdec Inc., Cambridge, MA, USA;* ⁴*Dept. of Pathology, University of Hong Kong, Hong Kong, PRC*

2:00 CS2-3

Viral-host interactions during XMRV infectionsRobert H. Silverman, Ao Zhang, Beihua Dong, Jaydip Das Gupta, *Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, USA*

2:15 CS2-4

Novel pathways involved in extracellular double-stranded RNA recognition, entry and signalingStephanie DeWitte-Orr, Devangi Mehta, Susan Collins and Karen Mossman, *Department of Pathology & Molecular Medicine, Institute for Infectious Disease Research, McMaster University, Hamilton, Ontario, Canada*

2:30 CS2-5

African swine fever virus (ASFV) has evolved multiple strategies to evade IFN responsesSilvia Correia¹, Ana Luisa Reis², Steve Goodbourn³, RME Parkhouse¹, ¹*Instituto Gulbenkian de Ciência, Oeiras, Portugal;* ²*National Institute for Medical Research, London, United Kingdom;* ³*St. George's Medical School, University of London, United Kingdom*

2:45 CS2-6

Linear ubiquitination of NEMO negatively regulates Type I interferon signaling pathwayS. Mehdi Belgnaoui, John Hiscott and Rongtuan Lin, *Molecular Oncology Group, Lady Davis Institute, Depts. of Medicine and Microbiology, McGill University, Montreal, Quebec, Canada*

3:00 BREAK

Refreshments in Regency D Exhibit Hall

2:30 – 5:30 AFTERNOON SPECIAL SESSION ♦ REGENCY BALLROOM C

IL-1 and Its Brave New World of Therapeutics

Session Chairs:

John Sims, *Amgen*Charles Dinarello, *University of Colorado School of Medicine*

2:30 IL1-1

History of IL-1 discoveriesCharles A. Dinarello, *University of Colorado Denver, Aurora, CO, USA*

2:35 IL1-2

The *Il1b* gene – a viable therapeutic target for the 21st centuryPhilip E. Auron, *Department of Biological Sciences, Duquesne University, Pittsburgh, PA, USA*

3:00 IL1-3

IL-1 and the inflammasomeHal M. Hoffman, *Division of Allergy, Immunology, and Rheumatology and Department of Pediatrics, University of California at San Diego, and Rady Children's Hospital of San Diego, La Jolla, CA, USA*

3:25 IL1-4

Interleukin-1 blockade prevents unfavorable cardiac remodeling following acute myocardial infarctionAntonio Abbate, *VCU Pauley Heart Center, Virginia Commonwealth University, Richmond, VA, USA*

3:50 IL1-5

Blocking IL-1B in type 2 diabetesAlan M. Solinger, *XOMA (US) LLC, Berkeley, California, USA*

4:15 IL1-6

Blocking IL-1 beta to prevent progression to multiple myelomaJohn A. Lust and Kathleen A. Donovan, *Division of Hematology, Mayo Clinic, Rochester, MN, USA*

4:40 IL1-7

Differential roles of IL-1 α and IL-1 β in the malignant processElena Voronov¹, Xiaoping Song¹, Tatyana Dvorkin¹, Shahar Dotan¹, Moshe Elkabets¹, Yaron Carmi¹, Charles A. Dinarello² and Ron N. Apte¹, ¹*The Shraga Segal Department of Microbiology and Immunology, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva 84105, Israel;* ²*University of Colorado Denver, Aurora, CO 80045, USA*

5:05 IL1-8

IL-1 β and the development of Th17 responsesMihai G. Netea, Frank van de Veerdonk, Leo A.B. Joosten, Jos W.M. van der Meer, *Department of Internal Medicine, Radboud University Nijmegen Medical Center, and Nijmegen Institute for Infection, Inflammation and Immunity (N4i), Nijmegen, The Netherlands*

3:20 – 5:40 SPECIAL SYMPOSIUM 1 ♦ REGENCY BALLROOM A

Cytokines in T Cell Biology/Adaptive Immunity

Session Chairs:

Scott Durum, *National Cancer Institute*Howard Young, *National Cancer Institute*

3:20 SS1-1

Lactococcus lactis expressing IL-27: therapeutic promise in inflammatory bowel diseaseScott K. Durum¹, Wen Qing Li¹, Julie A. Hixon¹, Barbara Felber¹, Lothar Steidler² and Miranda L. Hanson¹, ¹*National Cancer Institute, Frederick MD, USA*; ²*ActoGenix, Ghent Belgium*

3:45 SS1-a

Regulation of Th2 Inflammation by TSLPSteven Ziegler, *Benaroya Research Institute, Seattle, WA, USA*

4:10 SS1-2

SIGIRR protein suppresses Th17 cell proliferation via negative regulation of the Interleukin-1 receptor pathway and inhibition of mTOR kinase activationMuhammet F. Gulen¹, Zizhen Kang¹, Katarzyna Bulek¹, Wan Youzhong¹, Tae Whan Kim¹, Yi Chen², Cengiz Z. Altuntas¹, Kristian Sass Bak-Jensen², Mandy J. McGeachy², Jeong-Su Do¹, Hui Xiao¹, Greg M. Delgoffe³, Booki Min¹, Jonathan D. Powell³, Vincent K. Tuohy¹, Daniel J. Cua² and Xiaoxia Li¹, ¹*Department of Immunology, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH 44195, USA*; ²*Merck Research Laboratories (Schering-Plough Biopharma), 901 California Avenue, Palo Alto, CA 94304, USA*; ³*Sidney-Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, MD 20205, USA*

4:25 SS1-3

IL-17F promotes type 1 immunity by directly enhancing CD4⁺ T cell activationCe Tang^{1,2}, Tomoaki Kamiya¹, Shigeru Kakuta¹, and Yoichiro Iwakura^{1,2}, ¹*Laboratory of Molecular Pathogenesis, Center for Experimental Medicine and Systems Biology, the Institute of Medical Science, the University of Tokyo, Tokyo, Japan*; ²*Core Research for Evolutional Science and Technology (CREST), Japan Science and Technology Agency, Saitama, Japan*

4:40 SS1-4

FoxP3⁺ Tregs promote Th17 development in vivo by regulating IL-2Yi Chen¹, Kristin Hochweller², Günter Hämmerling², Daniel J Cua¹, Mandy J McGeachy¹, ¹*Merck Research Labs, Palo Alto, CA, USA*; ²*Division of Molecular Immunology, German Cancer Research Center, (DKFZ), Heidelberg, Germany*

4:55 SS1-5

Identification of novel mechanisms that govern the maintenance of Th17 effector characteristicsGareth W. Jones^{1,2} & Simon A. Jones¹, ¹*Department of Infection, Immunity & Biochemistry, The School of Medicine, Cardiff University, Wales, UK*; ²*Centre for Innate Immunity and Infectious Disease, Monash Institute of Medical Research, Monash University, Clayton, Victoria, Australia*

5:10 SS1-6

T helper 22 cells increase in multiple sclerosis patients: phenotypical and functional characterizationSimona Rolla^{1,2}, Valentina Bardina^{1,2}, Marinella Clerico³, Luca Durelli³ and Francesco Novelli^{1,2}, ¹*Center for Experimental Research and Medical Studies (CERMS), San Giovanni Battista Hospital*; ²*Department of Medicine and Experimental Oncology, University of Turin, Turin, Italy*; ³*Department of Clinical and Biological Sciences, Division of Neurology, San Luigi Gonzaga School of Medicine, Orbassano, Italy*

5:25 SS1-7

IL-27 supports germinal center function through combined effects on T follicular helper cells and B cellsMarcel Batten, Nandhini Ramamoorthi, Noelyn Kljavin, Nico Ghilardi, *Department of Molecular Biology, Genentech, Inc., South San Francisco, CA*

3:20 – 5:40 SPECIAL SYMPOSIUM 2 ♦ REGENCY BALLROOM B

Cytokines and Signal Transduction

Session Chairs:

Sandra Pelligrini, *Institut Pasteur*Ana Gamero, *Temple University*

3:20 SS2-1

Interferon signaling and the apoptotic responseMarcin Stawowczyk, Sabrina Racine-Brzostek, Sarah Van Scoy, and Nancy C. Reich, *Molecular Genetics and Microbiology, Stony Brook University, Stony Brook, NY USA*

3:50 SS2-2

Roles of mTOR complexes in IFN-signaling and IFN-dependent biological responsesSurinder Kaur¹, Sonali Joshi¹, Antonella Sassano¹, Nissim Hay², Eleanor N. Fish³ and Leonidas C. Platanias¹, ¹*Northwestern University Medical School, Chicago, IL USA*; ²*University of Illinois at Chicago, Chicago, IL USA*; ³*University of Toronto, Toronto, ON, Canada*

4:05 SS2-3

A cross-talk between the STAT3/SOCS3 and the IRS-1/PI3K/p70S6K pathways regulates anti-proliferative activity of IFN β Ignacio Moraga¹, Gilles Uzé² and Sandra Pellegrini¹, ¹*Institut Pasteur, Cytokine Signaling Unit, CNRS URA1961, Paris*; ²*CNRS, UMR 5235 Montpellier, France*

4:20 SS2-4

Molecular and cellular contributions of IL-17RC to IL-17 signaling and host defense against fungal infectionsAllen W. Ho^{1,2}, Fang Shen^{1,3}, Heather R. Conti¹, Nayan Patel², Alanna Peterson¹, Nydiaris Hernández-Santos¹, Jay K. Kolls⁴, Lawrence Kane⁵, Wenjun Ouyang³, Erin E. Childs², Sarah L. Gaffen^{1,2}, ¹*Dept. of Oral Biology, University at Buffalo, SUNY, Buffalo, NY, USA*; ²*Dept. of Medicine, University of Pittsburgh, Pittsburgh, PA, USA*; ³*Dept. of Immunology, Genentech, Inc., South San Francisco, CA, USA*; ⁴*Dept. Of Genetics, LSU Health Sciences Center, New Orleans, LA, USA*; ⁵*Dept. of Immunology, University of Pittsburgh, Pittsburgh, PA, USA*

4:35 SS2-5

Transgenic model with liver specific cell autonomous gp130 activation: consequences for liver regeneration.Antje Schütt, Claudia Drucker, Jürgen Scheller, Stefan Rose-John, *Department of Biochemistry, Christian-Albrechts-University of Kiel, Kiel, Germany*

4:50 SS2-6

The interaction of LCK and the CD4 co-receptor alters the dose response of T-cells to Interleukin-7Christina Kittipatarin, Nuska Tschammer and Annette R. Khaled, *Burnett School of Biomedical Sciences, College of Medicine, University of Central Florida, Orlando, FL*

5:05 SS2-7

The IFN-induced large GTPase, mGBP-2, inhibits Rac activation initiated by integrin engagement or treatment with either PGDF or TNF- α Angela F. Messmer-Blust, Sujata Balasubramanian, Jonathan A. Jeyaratnam, and Deborah J. Vestal, *Department of Biological Sciences, University of Toledo, Toledo, OH, USA*

5:20 SS2-8

Gastric tumour progression in gp130^{Y757F} mice is dependent of co-activation of STAT-3 and mTOR via Interleukin-11 signalingS. Thiem, A. Jarnicki, M. Palmieri, T.L. Putoczki and M. Ernst, *Ludwig Institute for Cancer Research, Royal Melbourne Hospital, Melbourne, Victoria, Australia*

3:20 – 5:30 SPECIAL SYMPOSIUM 3 ♦ TRUFFLES ROOM

Gene Regulation

Session Chairs:

Keiko Ozato, *National Institutes of Health*Curt Horvath, *Northwestern University*

3:20 SS3-1

Chromatin dynamics in interferon signaling: analysis of the histone H3.3 depositionKeiko Ozato¹, Naoyuki Sarai¹, Mira Patel¹, Natarajan Ayithan¹, and Tomohiko Tamura², ¹Program in Genomics of Differentiation, NICHD, National Institutes of Health, Bethesda MD, USA; ²Yokohama City University, School of Medicine, Yokohama, Japan

3:45 SS3-2

STAT – NFκB interaction in the regulation of antimicrobial genes through non-conventional assembly of a transcription initiation complexMatthias Farlik¹, Benjamin Reutterer¹, Christian Schindler², Florian Greten³, Claus Vogl⁴, Mathias Müller⁴ and Thomas Decker^{1*}, ¹Max F. Perutz Laboratories, Department of Genetics, Microbiology and Immunobiology, University of Vienna, Vienna, Austria; ²Departments of Microbiology and Medicine, Columbia University, NY, USA; ³Klinikum Rechts der Isar, Technical University, Munich, Germany; ⁴Institute of Animal Breeding and Genetics, University of Veterinary Medicine, Vienna, Austria

4:10 SS3-3

Positive and negative regulation of cytokine expression by Notch pathwayHaixia Xu¹, Jimmy Zhu¹, Julia Foldi², Allen Y. Chung¹, Hasina Outtz³, Jan Kitajewski³, Ryoichiro Kageyama⁴, Manfred Gessler⁵, Yueming Li⁶, Lionel B. Ivashkiv^{1,2}, Xiaoyu Hu^{1,7}, ¹Arthritis and Tissue Degeneration Program, Hospital for Special Surgery, New York, NY, USA; ²Graduate Program in Immunology and Microbial Pathogenesis, Weill Cornell Graduate School of Medical Sciences, New York, NY, USA; ³Columbia University Medical Center, New York, NY, USA; ⁴Kyoto University, Kyoto, Japan; ⁵University of Würzburg, Würzburg, Germany; ⁶Memorial Sloan Kettering Cancer Center, New York, NY, USA; ⁷Department of Medicine, Weill Cornell Medical College, New York, NY, USA

4:25 SS3-4

Interleukin-33 expression by mast cells is regulated by a sphingosine-1-phosphate/calcium-dependent pathwayChia-Lin Hsu and Paul J Bryce, *Division of Allergy-Immunology, Department of Medicine, Northwestern University, Chicago, IL, USA*

4:40 SS3-5

Gene expression profiling reveals overlapping as well as distinct responses of CNS astrocytes and microglia to IFN-αWen Li, Gareth Denyer and Iain L. Campbell, *School of Molecular Bioscience, University of Sydney, Sydney, NSW, 2006, Australia*

4:55 SS3-6

IRF-8 negatively controls constitutive and Poly(I:C)-regulated toll-like receptor-3 gene expressionFragale Alessandra¹, Stellacci Emilia¹, Ilari Ramona¹, Shytaj Iart¹, Remoli Anna Lisa¹, Lanciotti Angela², Perrotti Edvige¹, Orsatti Roberto¹, Angela Battistini¹, ¹Department of Infectious, Parasitic and Immune-mediated Diseases; ²Department of Cell Biology and Neurosciences, Istituto Superiore di Sanità, Rome, Italy

5:10 SS3-7

Transcriptional regulation of interferon stimulated genes: role of chromatin binding protein Brd4Mira Patel¹, Maxime Debrosse¹, Matthew Smith¹, Anup Dey¹, Walter Huynh¹, Tomohiko Tamura², Tom Heightman³, and Keiko Ozato¹, ¹Program in Genomics of Differentiation, NICHD, National Institutes of Health, Bethesda MD, USA; ²Yokohama City University, School of Medicine, Japan; ³Structural Genomics Consortium, Oxford University, Oxford, UK

5:30 – 7:00 POSTER SESSION 1 ♦ REGENCY BALLROOM FLOOR

Immunoregulation

PS1-01 Nitric oxide modulation by retinoic acid, IL-17A and TNF-α in PBMC and colonic mucosa cultures from algerian patients with inflammatory bowel diseaseHayet Rafa¹, Katia Abdellouahab¹, Mourad Belkhef¹, Osama Medjeber¹, Houria Saoula², Ryma Zeriguine², M'hamed Nakmouche², Chafia Touil-Boukoffa¹, ¹Team: Cytokines and NO Synthases, LBCM-FSB, USTHB, Algiers, Algeria. ²Gastroenterology department, Maillot Hospital, Algiers, Algeria**PS1-02 ARYL hydrocarbon receptor regulates function of dc by a kynurenine-dependent mechanism**Nam Trung Nguyen¹, Akihiro Kimura², Taisuke Nakahama², Ichino Chinen², Kazuya Masuda² and Tadimitsu Kishimoto^{1,2}, ¹Laboratory of Immune Regulation, WPI-Immunology Frontier Research Center, Osaka University, Suita, Osaka, Japan; ²Laboratory of Immune Regulation, Graduate School of Frontier Biosciences, Osaka University, Suita, Osaka, Japan**PS1-03 Childhood immune mediate thrombocytopenia: cytokine polymorphisms and tandem repeats in prediction of disease severity**Karen Imfeld, Ryan Roberts, and Diane Nugent, *Pediatric Hematology, CHOC Children's Hospital and UC Irvine, California, USA***PS1-04 A novel arthritis-regulatory gene identified by using two mouse rheumatoid arthritis models**Masanori A. Murayama, Shigeru Kakuta, Harumichi Ishigame, Takuya Tada, Sachiko Kubo, Nozomi Sato, Yang Liu Tetsuo Hirano, and Yoichiro Iwakura, ¹Center for Experimental Medicine and Systems Biology, Institute of Medical Science, University of Tokyo, 4-6-1 Shirokanedai, Minato-ku, Tokyo 108-8639, Japan. ²CREST, Japan Science and Technology Agency, Saitama, Japan. ³Life Science Group, Graduate School of Integrated Arts and Sciences, Hiroshima University, Hiroshima, Japan**PS1-05 Loss of P2X7 receptor expression on dn regulatory t-cell subsets through t-cell activation**Julie Legrand, Sylvain Le Gall, Pierre Bobé, Michael Tovey, *CNRS, Villejuif, France***PS1-06 TNFα blockade exacerbates murine psoriasis-like skin inflammation by enhancing Th17 function and preventing expansion of regulatory T cells**H-L. Ma¹, L. Napierata¹, N. Stedman², S. Benoit¹, C. Nickerson-Nutter¹, D.A. Young¹, M. Collins¹, CMM Williams¹, ¹Inflammation Department, ²Cambridge and DSRD, Andover, Pfizer MA 02140, USA**PS1-07 FAS and autoimmune diabetes**Alejandra Saavedra-Ávila¹, Susan F. Wong², Anaïs Panosa^{1,3}, Elizabeth A. Green⁴, Richard Flavell⁵, Jovita Mezquita⁶, Conchi Mora¹, ¹Immunology Unit, Dept. Experimental Medicine, School of Medicine, University of Lleida, Spain. ²University of Bristol, Department of Cellular and Molecular Medicine, Bristol, UK. ³Institute for Biomedical Research-Lleida (IRB Lleida), University of Lleida, Spain. Unit of Flow Cytometry and Microscopy. ⁴Department of Pathology, Cambridge Institute for Medical Research, University of Cambridge, UK. ⁵Section of Immunobiology, Yale University School of Medicine. ⁶Dept. of Physiology I, School of Medicine, University of Barcelona, Spain**PS1-08 Alpha-1-antitrypsin protects pancreatic islets from dexamethasone-induced injury**Noa Kalay, Galit Shahaf, David Ochayon, Eyal Ozeri and Eli C. Lewis, *Department of Clinical Biochemistry, Ben-Gurion University of the Negev, Be'er-Sheva, Israel***PS1-09 Down-regulation of Th17-related cytokines by intravenous methylprednisolone in patients with an acute demyelinating event**V. van Pesch¹, K. Inaoui¹, A. Dang¹, A. Wauters¹ and C.J.M. Sindic¹, ¹Unité de Neurochimie, Institute of Neuroscience, Université catholique de Louvain, Brussels, Belgium**PS1-10 Induction of the NLRP3 inflammasome in cardiac myocytes**Eleonora Mezzaroma, Stefano Toldo, Benjamin W. Van Tassel, Ignacio M. Seropian, Antonio Abbate, *VCU Pauley Heart Center, Victoria Johnson Center for Pulmonary Research, and School of Pharmacy, Virginia Commonwealth University, Richmond, VA, USA***PS1-11 Adenosine down regulates interleukin-15 production: possible mechanism of tumor escape from immunity**Hadar Eini¹, Yair Cohen¹, Eli C. Lewis¹, Elena Bulanova³, Silvia Bulfone-Paus³, Cidio Chaimovitz² and Amos Douvdevani^{1,2}, ¹Department of Clinical Biochemistry and ²Department of Nephrology, Soroka Medical Center and Ben-Gurion University of the Negev, Beer-Sheva, Israel. ³Department of Immunology and Cell Biology, Research Center Borstel, Borstel, Germany**PS1-12 Alarmins activate immune responses by inducing dendritic cell chemotaxis and maturation**Joost J. Oppenheim¹, Poonam Tewary¹, Gonzalo de la Rosa¹ and De Yang², ¹Laboratory of Molecular Immunoregulation, CIP, CCR, NCI Frederick and ²BRP, SAIC-Frederick Inc., Frederick, MD, USA

5:30 – 7:00 POSTER SESSION 1 ♦ REGENCY BALLROOM FLOOR

Cytokines and T Cell Biology

PS1-13 LT-βR signaling in dendritic cells induces a type I IFN response that integrates with CD40-derived signals for cross-priming of CD8⁺ T cellsLeslie Summers deLuca¹, Dennis Ng¹, Yunfei Gao¹, Albert Lin², Dilan Dissanayake², Ramtin Rahbar², Pamela S. Ohashi² and Jennifer L. Gommerman¹, ¹Department of Immunology, University of Toronto ²The Campbell Family Cancer Research Institute, University Health Network, Canada**PS1-14 The importance of STAT5 activation in thymic stromal lymphopoietin mediated signaling in mouse and human T cells**Yrina Rochman and Warren J. Leonard, *Laboratory of Molecular Immunology, National Heart, Lung, and Blood Institute, NIH, Bethesda, MD, USA***PS1-15 The P28 IL27 subunit can form alternative complexes with IL6-like properties**Sandrine Crabé¹, Aurélie Jeanne Tormo¹, Yasmine Meliani¹, Dorothée Duluc², Rami Lissilaa³, Marie-Claude Letellier¹,Walter Ferlin³, Ulrick Magoungou-Bigouagou², Greg Elson³, Pascale Jeannin² and Jean-François Gauchat¹, ¹Département de Pharmacologie, Université de Montréal, Montreal, QC, Canada; ²INSERM U892, Angers, France; ³NovImmune SA, Plan-les-Ouates, Switzerland**PS1-16 Development of TH17-dependent arthritis in IL-6-deficient IL-1 receptor antagonist-deficient mice**Satoshi Ikeda, Shinobu Saijo, Yoichiro Iwakura, *Center for Experimental Medicine, The Institute of Medical Science, The University of Tokyo, Japan***PS1-17 Investigating the role of interferon alpha receptor in CD4⁺ T cell receptor induced IL-2 expression**Kristan A. Hagan¹, Ann Davis¹, Matthew Cummings², J. David Farrar¹, ¹Department of Immunology, ²Department of Neurology, University of Texas Southwestern Medical Center, Dallas, TX, USA

5:30 – 7:00 POSTER SESSION 1 continued ♦ REGENCY BALLROOM FLOOR

Cytokines and T Cell Biology

- PS1-18 West Nile Virus infection primes IL-12 and T-bet independent IFN- γ production from antigen specific CD8+ T cells**
Hilario J. Ramos, Michael Gale, Jr., Department of Immunology, University of Washington School of Medicine, Seattle, WA 98195, USA
- PS1-19 The aryl hydrocarbon receptor modulates the TH17 and Treg balance and gut immunity**
Ju Qiu¹, Gretchen Diehl², Kamonwan Fish¹, Xing Gong², Dan Littman², and Liang Zhou¹, ¹Dept. of Pathology; Microbiology and Immunology, Feinberg School of Medicine, Northwestern University, ²HHMI, Skirball Institute, New York University School of Medicine, USA
- PS1-20 IL-27 promotes T-cell dependent colitis through restriction of regulatory T-cell differentiation**
Jennifer H. Cox¹, Noelyn M. Kljavin¹, Nandhini Ramamoorthi¹, Lauri Diehl², and Nico Ghilardi¹, ¹Department of Molecular Biology, Genentech Inc., ¹DNA Way, South San Francisco, CA 94080, USA, ²Department of Pathology, Genentech Inc., 1 DNA Way, South San Francisco, CA 94080, USA

5:30 – 7:00 POSTER SESSION 1 ♦ REGENCY BALLROOM FLOOR

Cytokine-based Therapies

- PS1-21 Blockade of IL6 signaling suppresses experimental autoimmune uveoretinitis by the inhibition of inflammatory Th17 responses**
Satoshi Hohki^{1,2}, Nobuyuki Ohguro¹, Hiroshi Haruta^{1,2}, Fumitaka Terabe², Satoshi Serada², Minoru Fujimoto², Tadimitsu Kishimoto³, Tetsuji Naka¹ ¹Laboratory for Immune Signal, National Institute of Biomedical Innovation, Osaka, Japan; ²Department of Ophthalmology, Osaka University Graduate School of Medicine, Osaka, Japan; ³Laboratory of Immune Regulation, Osaka University Graduate School of Frontier Biosciences, Osaka, Japan
- PS1-22 Regulation of IFN- α 2 signaling by SHP-1 inhibitor sodium stibogluconate for peripheral immune cell activation ex vivo and in melanoma patients**
Taolin Yi¹, Mitsuhashi Masato², Keke Fan¹, Mingli Cao¹, Emese Hollovary¹, Barbara Jacobs¹ and Ernest Borden¹, ¹Cleveland Clinic Lerner Research and Taussig Cancer Institutes, The Cleveland Clinic, Cleveland, OH and ²Hitachi Chemical Research Center, Inc., Irvine, CA, USA
- PS1-23 Comparison study of recombinant human Interleukin-1 receptor antagonist for treating psoriatic and rheumatoid arthritis**
Alexander Ischenko¹, Irina Kleymenova², Kirill Raymuev³, Liudmila Solovieva¹, Tatyana Antipova¹, Andrey Simbirsev¹, ¹Institute of Highly Pure Biopreparations, Saint-Petersburg, Russia; ²NIKVI, Nizhniy Novgorod, Russia; ³Medical Academy of Post-Graduate Education, Saint-Petersburg, Russia
- PS1-24 Selective inhibition of Tumour Necrosis Factor receptor 1 by a domain antibody for treatment of pulmonary inflammatory diseases**
Joanna Cordy, Biopharm Discovery Biology, Glaxosmithkline, Stevenage, Hertfordshire, UK
- PS1-25 Characterization of neutralizing antibodies to interferon using a novel reporter-gene assay: neutralization titer is dependant upon the specific activity of the interferon a subtype**
Brigitte Blanchard¹, Christophe Lallemand¹, Jean-François Meritet², Pierre Lebon², and Michael G. Tovey¹, ¹Laboratory of Viral Oncology, CNRS FRE 3238, Villejuif, France, ²Laboratory of Virology, Groupe Hospitalier Cochin-Saint-Vincent-de-Paul, Paris France
- PS1-26 Multi-gene local immunomodulation induces a strong composite cellular response against colorectal carcinoma (CT26) in mouse liver**
Carolyn Fleischhauer¹, Constantin Biermann¹, Andrea Miegel¹, Marius Schwerg¹, Frank Schnieders¹, Nancy Brewig², Karim Sultan³, Uwe Ritter⁴, ¹Provecs Medical GmbH, Hamburg, Germany, ²Institute for Immunology, Bernhard Nocht Institute for Tropical Medicine, Hamburg, Germany, ³Laboratory of Pharmacology and Toxicology GmbH & Co. KG, Hamburg, Germany, ⁴Department of Immunology, University of Regensburg, Regensburg, Germany
- PS1-27 Lactococcus lactis expressing IL-27: a potential therapeutic for inflammatory bowel disease**
Miranda L. Hanson¹, Julie A. Hixon¹, Wenqing Li¹, Barbara K. Felber², Miriam R. Anver³, Lothar Steidler⁴, Scott K. Durum¹, ¹Laboratory of Molecular Immunoregulation, Cancer Inflammation Program, Center for Cancer Research, National Cancer Institute, Frederick, Maryland, ²Human Retrovirus Pathogenesis Section, Vaccine Branch, Center for Cancer Research, National Cancer Institute, Frederick, Maryland, ³Laboratory Animal Services Program (LASP), Science Applications International Corporation (SAIC), Center for Cancer Research, National Cancer Institute, Frederick, Maryland, ⁴ActoGenix N.V., Zwijnaarde, Belgium
- PS1-28 The effect of IL-6 overproduction in vivo on wound healing**
Minoru Fujimoto¹, Yori-hisa Kotobuki², Shun Kitaba², Tomohiro Ukita³, Fumitaka Terabe², Hiroshi Haruta², Tadimitsu Kishimoto³, and Tetsuji Naka¹, ¹Laboratory of Immune Signal, National Institute of Biomedical Innovation, Ibaraki, Japan; ²Osaka University Graduate School of Medicine, Suita, Japan; ³Osaka University Graduate School of Frontier Biosciences, Suita, Japan
- PS1-29 Interleukin 27 inhibits hyperglycemia and pancreatic islet inflammation induced by streptozotocin in mice**
Hirokazu Fujimoto¹, Tetsuaki Hirase^{1,3}, Hiromitsu Hara², Koichi Node¹, Hiroki Yoshida² ¹Department of Cardiovascular and Renal Medicine and ²Department of Bioregulation, Saga University Faculty of Medicine, Saga, Japan, ³Department of Bioscience, National Cardiovascular Center Research Institute, Suita, Japan
- PS1-30 Ingested (oral) SST inhibits acute and passive EAE**
Staley A. Brod and Zachary M. Hood, Department of Neurology Multiple Sclerosis Research Group University of Texas – Houston 6431 Fannin St. Ste. 7.044 Houston, TX 77030, USA
- PS1-31 TNF-blockade enhances T cell responses to TCR stimulation in peripheral blood while it inhibits inflammatory gene expression in target tissues**
F. Bosè¹, L. Raeli¹, C. Garutti², E. Frigerio², Flavio Caprioli³, Gianfranco Altomare², Jens Geginat¹, Sergio Abrignani¹, and Eva Reali¹, ¹Department of Immunology, INGM-National Institute of Molecular Genetics, Milan, Italy, ²Department of Dermatology, IRCCS Istituto Ortopedico Galeazzi, Milan, Italy, ³Unit of Gastroenterology II, IRCCS Ospedale Maggiore Policlinico, Mangiagalli e Regina Elena, Milan, Italy

5:30 – 7:00 POSTER SESSION 1 continued ♦ REGENCY BALLROOM FLOOR

Cytokine-based Therapies

- PS1-32 Decreased IL-7 responsiveness of T lymphocytes in patients with idiopathic CD4 Lymphopenia**
Camille E. Puronen¹, William L. Thompson¹, Hiromi Imamichi¹, Stephanie Beq², Jessica N. Hodge¹, Catherine Rehm¹, Rebecca DerSimonian³, Jason M. Brechley⁴ and Irini Sereti¹, ¹Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD USA; ²Cytheris S.A., Issy les Moulineaux, France; ³Biostatistics Branch, National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD USA ⁴Laboratory of Molecular Microbiology, National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD, USA
- PS1-33 Safety and efficacy of ITF2357, an orally active histone deacetylase inhibitor in the treatment of systemic onset juvenile idiopathic arthritis**
J Vojinovic^a, N Damjanov^b, A Furlan^c, C D'Urzo^d, G Susic^b, S Pasic^e, N Iagaru^f, M. Stefan^g and CA Dinarello^h ^aDept. of Pediatric Rheumatology, University Clinic Center Nis, Serbia, ^bInstitute of Rheumatology, Belgrade, Serbia, ^cUniversity of Colorado, Aurora, USA, ^dItalfarmaco S.p.A, Cinisello Balsamo, Italy, ^eInstitute of Child and Mother Health, Belgrade, Serbia, ^fInstitute for Mother and Child Care, Bucharest, Romania, ^gClinical Emergency Children's Hospital "M.S. Curie" Bucharest, Romania

5:30 – 7:00 POSTER SESSION 1 ♦ REGENCY BALLROOM FLOOR

Cytokines and Inflammation I

- PS1-34 Act 1 in central nervous system is critical for autoimmune encephalomyelitis**
Zizhen Kang^{1,4}, Cengiz Zubeyir Altuntas^{1,4}, Muhammet Fatih Gulen¹, Caini Liu¹, Natalia Giltiyay¹, Hongwei Qin², Liping Liu³, Wen Qian¹, Richard M. Ransohoff³, Cornelia Bergmann³, Stephen Stohlman³, Vincent K Tuohy^{1,4}, Xiaoxia Li^{1,4} ¹Department of Immunology, Cleveland Clinic Cleveland, OH 44195, USA, ²Department of Cell Biology, University of Alabama at Birmingham Birmingham, AL 35294, USA ³Neuroinflammation Research Center, Department of Neuroscience, Cleveland Clinic Department of Neuroscience, Cleveland Clinic Cleveland, OH 44195, USA, ⁴*These authors contributed equally to this work. Correspondence: tuohyv@ccf.org, lix@ccf.org
- PS1-35 NOS/arginase balance modulation by IFN- γ during Behcet disease**
Houda Belguendouz¹, Karima Lahmar¹, Mohammed L. Ahmedi¹, Ouidad S. Lahlou², Dahbia Hartani³, Djennet Hakem⁴ & Chafia Touil-Boukoffa¹. ¹"Cytokines & NO Synthases" team, LBCM, FSB, USTHB, Algiers, Algeria; ²Ophthalmic department, CHU Mustapha Bacha, Algiers, Algeria; ³Ophthalmic department, CHU Ibn Rochd, Annaba, Algeria; ⁴Ophthalmic Department of Internal Medecine, CHU Mustapha Bab el oued, Algiers, Algeria
- PS1-36 Identification of Annexin 1 (Anx A1) as a necrotic glioblastoma cell-derived chemotactic agonist for the G protein-coupled receptor FPR (FPR1)**
Ying Liu^{1*}, Yan Yang^{1,2*}, Xiaohong Yao³, Jian Huang³, Wanghua Gong⁴, Keqiang Chen¹, Xiuwu Bian³, Ji Ming Wang¹. ¹Laboratory of Molecular Immunoregulation, Cancer and Inflammation Program, Center for Cancer Research, National Cancer Institute at Frederick, MD, 21702, USA; ²College of Marine Life Sciences, Ocean University of China, Qingdao, 266003, P.R. China; ³Department of Pathophysiology and Institute of Pathology, Third Military Medical University, Chongqing, 400038, P.R.China; ⁴Basic Research Program, SAIC-Frederick, Frederick, MD, 21702, USA
- PS1-37 Aryl hydrocarbon receptor mediates suppression of colon inflammation induced by dextran sulfate sodium**
Ichino Chinen¹, Akihiro Kimura¹, Taisuke Nakahama¹, Kazuya Masuda¹, Tadimitsu Kishimoto¹. ¹Laboratory of Immune Regulation, Graduate school of Frontier Biosciences, Osaka University, Suita, Osaka, Japan
- PS1-38 Interleukin-6 blockade in CD4 T cells inhibits the development of experimental autoimmune uveitis**
Hiroshi Haruta¹, Nobuyuki Ohguro¹, Satoshi Hohki¹, Kohji Nishida¹, Minoru Fujimoto², Tetsuji Naka², ¹Department of Ophthalmology, Osaka University Graduate School of Medicine, Suita, Osaka, Japan, ²Laboratory for Immune Signal, National Institute of Biomedical Innovation, Ibaraki, Osaka, Japan
- PS1-39 Roles of IL-1 and histamine in nickel (Ni) allergy in mice**
Masayuki Kinbara^{1,2}, Yasuhiro Nagai¹, Teruko Takano-Yamamoto², Yasuo Endo¹, Shunji Sugawara¹. ¹Division of Oral Immunology, Department of Oral Biology, Tohoku University Graduate School of Dentistry, Sendai, Japan; ²Division of Orthodontics and Dentofacial Orthopedics, Department of Oral Health and Development Sciences, Tohoku University Graduate School of Dentistry, Sendai, Japan
- PS1-40 Stimulation of LY-6G on neutrophils in lipopolysaccharide-primed mice induces platelet-activating factor-mediated anaphylaxis-like shock**
Yukinori Tanaka¹, Yasuhiro Nagai¹, Toshinobu Kuroishi¹, Yasuo Endo¹, and Shunji Sugawara¹, ¹Division of Oral Immunology, Department of Oral Biology, Tohoku University Graduate School of Dentistry, Sendai, Japan
- PS1-41 Aryl hydrocarbon receptor deficiency significantly suppresses collagen induced arthritis in mice**
Nakahama T¹, Kimura A¹, Chinen I¹, Masuda K¹, Nguyen N¹, Kishimoto T¹, ¹Laboratory of Immune Regulation, Graduate school of Frontier Biosciences, Osaka University, Suita, Osaka, Japan
- PS1-42 The roles of IL-18 and IL-18R in experimental autoimmune encephalomyelitis are complex and not easily revealed by knockout studies**
Dirk E. Smith¹, Kelly Hensley¹, Brian Lipsky¹, Dean Toy¹, Gene Cutler², Lisa Marshall², John E. Sims¹ and Jacqueline Kirchner¹, ¹Department of Inflammation Research, Amgen, Seattle, WA USA and ²Chemistry Research and Discovery, Amgen, South San Francisco, CA, USA
- PS1-43 IL-1F ligands require processing for full agonist (IL-1F6, IL-1F8 and IL-1F9) or antagonist (IL-1F5) activity**
Jennifer E Towne¹, Blair R Renshaw¹, Jason Douangpanya¹, Brian P Lipsky¹, Min Shen², Christopher A Gabel¹ and John E Sims¹, ¹Inflammation Research and ²Protein Sciences, Amgen Inc, Seattle, WA, USA
- PS1-44 Premature citrus unshiu suppresses atopic dermatitis in vitro and in vivo**
Gyeoung-Jin Kang¹, Sang-Chul Han¹, Eun-Jou Yi², Hee-Kyoung Kang¹, and Eun-Sook Yoo^{1*}, ¹Department of Pharmacology, School of Medicine, Jeju National University, Jeju, South Korea. ²Department of Clothing & Textiles, College of Natural Sciences, Jeju National University, Jeju, South Korea
- PS1-45 Development of a C5AR antagonist for the treatment of reperfusion injury**
Eva Dahlén¹, Erika Gustafsson¹, Bengt Larsson¹, Jesper van der Pals², David Erlinge² and Christina Furebring¹, ¹Alligator Bioscience AB, Lund, Sweden; ²Dept. of Cardiology, Lund University, Lund, Sweden

Cytokines and Inflammation I

- PS1-46 Amnion epithelial cells are a source of thymic stromal lymphopoietin**
Trisha V Macfarlane, Sian-Eleri Owens, Aled H Bryant, Ruth H Jones, Gareth Morgan, Catherine A Thornton, *Institute of Life Science, School of Medicine, Swansea University, Swansea, Wales, UK*
- PS1-47 Knockout of MLCK promotes decreased intestinal inflammation after acute ethanol exposure and burn injury**
Anita Zahs^{1,3}, Luis Ramirez^{2,3}, Melanie D Bird^{2,3}, Mashkooor A Choudhry^{2,3}, Jerrold R Turner⁴, Elizabeth J Kovacs^{1,3}, ¹Cellular and Molecular Biochemistry Program, ²Department of Surgery, ³Alcohol Research Program, Burn Shock Trauma Institute, Loyola University Medical Center, Maywood, IL 60153; ⁴Department of Pathology, University of Chicago, USA
- PS1-48 CXCR4 expressed in T cells plays an important role in the development of autoimmune arthritis**
Soo-hyun Chung¹, Keisuke Seki¹, Byung-il Choi, Noriyuki Fujikado, Shinobu Saijo, Yoichiro Iwakura; Soo-hyun Chung¹, Keisuke Seki¹, Keiko B. Kimura², Akihiko Ito², Byungil Choi^{1,3}, Noriyuki Fujikado¹, Shinobu Saijo¹, Yoichiro Iwakura¹. ¹Laboratory of Molecular Pathogenesis, Center for Experimental Medicine and Systems Biology, Institute of Medical Science, University of Tokyo, 4-6-1 Shirokanedai, Minato-ku, Tokyo 108-8639, Japan, ²Division of Molecular Pathology, Institute of Medical Science, University of Tokyo, 4-6-1 Shirokanedai, Minato-ku, Tokyo 108-8639, Japan, ³126-1, 5-Ga, Anam-Dong, Sungbuk-Gu, Seoul, Korea
- PS1-49 TL1a and DR3 play a protective role against intestinal injury in dextran sodium sulfate (DSS) colitis**
Li-Guo Jia¹, Mitchell Guanzon¹, Eddie Wang² and Fabio Cominelli¹, *Department of Medicine, Case Western Reserve University, Cleveland, OH, USA*, ²Department of Medical Biochemistry and Immunology, University of Wales, UK
- PS1-50 Carpinus tschonoskii extracts inhibit the production of inflammatory cytokines and chemokines in RAW264.7 cells and HaCaT keratinocytes**
Sang-Chul Han¹, Gyeong-Jin Kang¹, Hee-Kyoung Kang¹, Byoung-Sam Yoo², and Eun-Sook Yoo^{1*} ¹Department of Pharmacology, College of Medicine, Jeju National University, Jeju, South Korea. ²Cosmetic R&D center, COSMAX Inc. Hwa Sung, Gyeonggi, South Korea
- PS1-51 Aryl hydrocarbon receptor regulates lipopolysaccharide-induced inflammation in macrophages through suppressing histamine production**
Kazuya Masuda¹, Akihiro Kimura¹, Nguyen trung Num¹, Taisuke Nakahama¹, Ichino Chinen¹, Yuichi Otoyō², Tomotaka Murotani², Atsushi Yamatodani², Tadamitsu Kishimoto¹, ¹Laboratory of Immune Regulation, Graduate School of Frontier Biosciences, Osaka University, Suita, Osaka, Japan; ²Laboratory of Pharmacology, Department of Medical Science and Technology Division of Health Science, Graduate School of Medicine, Osaka University, Suita, Osaka, Japan
- PS1-52 Interferon regulatory factor 5 (IRF5) activation in systemic lupus erythematosus**
Rivka C. Stone^{1,2}, Di Feng^{1,2}, Sukhwinder Singh³, Patricia Fitzgerald-Bocarsly³, Betsy J. Barnes^{1,2}, ¹Department of Biochemistry & Molecular Biology, New Jersey Medical School, UMDNJ, Newark, NJ, USA; ²New Jersey Medical School-University Hospital Cancer Center, UMDNJ, Newark, NJ, USA; ³Department of Pathology & Laboratory Medicine, New Jersey Medical School, UMDNJ, Newark, NJ, USA
- PS1-53 Analysis of Type I and Type III interferon in sera from autoimmune diseases**
Thomas B. Lavoie, Yognandan Pandya, Michael Skawinski, Sara Crisafulli Cabatu, Jessica Esposito, Karlene Moolchan, Sidney Pestka. *PBL InterferonSource, Piscataway, NJ, USA*
- PS1-54 Advanced age alters macrophage polarization**
Sheguftha Mahbub^{1,2,3}, Cory R. Deburghraeve^{1,2} and Elizabeth J. Kovacs^{1,2,3}, ¹Burn & Shock Trauma Institute, ²Department of Surgery, ³Immunology & Aging Program, Loyola University Medical Center, Maywood, IL, USA

Cytokines and Signal Transduction

- PS1-55 Cytokine signaling compromises the sensitivity of melanoma to Type I Interferons**
Wei-Chun HuangFu¹, Juan Qian¹, Chengbao Liu², Jianghuai Liu¹, Vera Ilyin³, Darren P. Baker⁴, Anna E. Loxsin³, Hallgeir Rui² and Serge Fuchs¹, ¹Department of Animal Biology and Mari Lowe Center for Comparative Oncology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA 19104, USA; ²Kimmel Cancer Center, Department of Cancer Biology, Thomas Jefferson University, Philadelphia, PA 19107, USA; ³University of Pittsburgh Cancer Institute and Departments of Medicine, Pathology and Obstetrics, Gynecology, and Reproductive Sciences, University of Pittsburgh School of Medicine, Pittsburgh, PA 15213, USA; ⁴Biogen Idec Inc., Cambridge, MA 02142, USA
- PS1-56 Type I interferon-dependent gene expression is a target for glucocorticoid inhibition**
Jamie R. Flammer^{1,2}, Megan A. Kennedy², Yurii Chinenov², Lionel B. Ivashkiv^{1,2} and Inez Rogatsky^{1,2}, ¹Graduate Program in Immunology and Microbial Pathogenesis, Weill Cornell Graduate School of Medical Sciences, New York, NY USA; ²Hospital for Special Surgery, New York, NY, USA
- PS1-57 Different dynamics of IL-15R activation following IL-15 cis- or trans-presentation**
Harmonie Perdreau^{1,2}, Erwan Mortier^{1,2}, Grégory Bouchaud^{1,2}, Véronique Solé^{1,2}, Yvan Boublik³, Yannick Jacques^{1,2}, and Ariane Plet^{1,2}, ¹INSERM, U 892, Centre de Recherche en Cancérologie, Nantes, France; ²Université de Nantes, IFR 26, Nantes, France; ³CNRS, U 5237, Centre de Recherche en Biochimie Macromoléculaire, Montpellier, France
- PS1-58 The role of STAT1 in regulation of mitochondrial gene expression**
Jennifer D. Sisler¹, Magdalena Szelag^{1,4}, Ramesh Potla², Qifang Zhang¹, Karol Szczepanek^{1,4}, Marta Derecka^{1,9}, Joanna Wegrzyn^{1,4}, Jozef Dulak⁴, Wenxin Zou⁵, Hossein Hamed¹, Timothy Shutt⁶, Joanna Cichy⁹, Xiaomin Chen⁵, Darren P. Baker⁷, Paul Dent¹, Gerald M. Feldman⁸, Gerald Shadel⁶, and Andrew C. Lerner^{1,10}, ¹Department of Biochemistry and Molecular Biology, and Massey Cancer Center, Virginia Commonwealth University, Richmond, VA 23298, USA; ²Laboratory of Molecular Biology, National Institute of Neurological Disorders and Stroke, NIH, Bethesda, MD, 20892 ³Department of Medical Biotechnology, Faculty of Biochemistry, Biophysics, and Biotechnology, Jagiellonian University, Krakow, Poland ⁴Department of Biochemistry and Molecular Biology, M.D. Anderson Cancer Center, Houston, TX 77030, USA

Cytokines and Signal Transduction

- PS1-59 IL-1 and IL17 control CXCL1 mRNA stability via TRAF2/ TRAF5 and the splicing factor SF2/ASF**
Dongxu Sun, Michael Novotny, and Thomas Hamilton. *Department of Immunology, Cleveland Clinic Foundation, Cleveland, OH 44120, USA*
- PS1-60 Leucine-rich diet and ascorbic-acid supplementation change the cytokine profile in tumour-bearing rats**
Thierry C. Marcondes, Maria Cristina C. Gomes-Marcondes. *Laboratory of Nutrition and Cancer, Dept of Anatomy, Cell Biology, Physiology and Biophysics, IB, UNICAMP, Campinas, 13083-862, SP, Brazil. Statistical support: Dr J. Marcondes Neto. Financial support: Fapesp # 2004/00514-5; 2006/06007-3; 2006/04645-2; CNPq # 304000/2007-8*
- PS1-61 Leucine treatment modulated the effects of Walker tumour's proteolysis-inducing factor (WF) on Vero cells activity**
Estela M. Gonçalves, Maria Cristina C. Gomes-Marcondes. *Laboratory of Nutrition and Cancer, Dept Anatomy, Cell Biology, Physiology and Biophysics, IB, UNICAMP, Campinas, 13083-862, SP, Brazil. Statistical support: Dr J. Marcondes Neto. Financial support: Fapesp # 2006/06007-3; CNPq # 304000/2007-8*
- PS1-62 Tumour evolution alters the pregnant hormones and cytokines profile inducing placental and foetal damage in pregnant rats**
Angela Drezza & Maria Cristina C Gomes-Marcondes. *Laboratory of Nutrition and Cancer, Dept Anatomy, Cell Biology, Physiology and Biophysics, IB, UNICAMP, Campinas, 13083-862, SP, Brazil. Statistical support: Dr J. Marcondes Neto; Financial support: Fapesp # 2004/00514-5; CNPq # 304000/2007-8*
- PS1-63 Interferon (IFN)γ - mediated engagement of Mnk1 and its role in regulating mRNA translation and induction of antiproliferative responses**
Sonali S. Joshi¹, Surinder Kaur¹, Eleanor N. Fish², and Leonidas C. Plataniotis¹, ¹Robert H. Lurie Comprehensive Cancer Center and Division of Hematology-Oncology, Northwestern University Medical School, Chicago, IL USA and ²Division of Cell and Molecular Biology, University of Toronto, Toronto, ON Canada
- PS1-64 Role for ISGF3 in the antiviral activity of interferon gamma**
Morrow, A.N., Schmeisser, H., Tsuno, T., and Zoon, K.C., *Cytokine Biology Section, NIAID, NIH, Bethesda, MD, USA*
- PS1-65 Investigating the effect of the FHA region of Pellino 3 on TRL4 signaling proteins**
Lisa S. Tang, Antonio Campos-Torres, Fiachara E. Humphries, Paul Moynagh, *Institute of Immunology, Biology Department, National University of Ireland, Maynooth, Maynooth, Kildare, Ireland*
- PS1-66 A phosphomimetic substitution of STAT2 serine-287 negatively regulates STAT2 function and type I interferon signaling**
Håkan C. Steen¹, Suresh H. Basagoudanavar², Roshan Thapa², Siddharth Balachandran² and Ana M. Gamero¹, ¹Department of Biochemistry, Temple University, Philadelphia, PA USA; ²Fox Chase Cancer Center, Philadelphia, PA, USA
- PS1-67 TYK2 is required for IL-17 production by innate immune cells in response to LPS**
Rita Stiefvater¹, Elisabeth Hofmann¹, Thomas Kolbe^{2,3}, Ursula Reichart¹, Caroline Lassnig^{1,2}, Claus Vogl¹, Valeria Poli⁴, Mathias Müller^{1,2} and Birgit Strobl¹, ¹Institute of Animal Breeding and Genetics, University of Veterinary Medicine, Vienna, Austria; ²University Center Biomodels Austria, University of Veterinary Medicine, Vienna, Austria; ³Institute of Biotechnology in Animal Production, Department IFA-Tulln, University of Natural Resources and Applied Life Sciences, Tulln, Austria; ⁴Department of Genetics, Biology and Biochemistry, Molecular Biotechnology Center, University of Turin, Turin, Italy
- PS1-68 STAT1α and STAT1β knockin mice: initial findings and some surprises**
Christian Semper¹, Nicole R. Leitner¹, Michael Rammerstorfer¹, Thomas Kolbe^{2,3}, Thomas Rüllicke^{2,4}, Birgit Strobl¹ and Mathias Müller^{1,2}, ¹Institute of Animal Breeding and Genetics, University of Veterinary Medicine Vienna, Vienna, Austria; ²University Center Biomodels Austria, University of Veterinary Medicine Vienna, Vienna, Austria; ³Institute of Biotechnology in Animal Production, Department IFA-Tulln, University of Natural Resources and Applied Life Sciences, Tulln, Austria; ⁴Institute of Laboratory Animal Sciences, University of Veterinary Medicine Vienna, Vienna, Austria
- PS1-69 Inducible STAT1 protein in mice**
Nicole R. Leitner¹, Thomas Kolbe^{2,3}, Caroline Lassnig^{1,2}, Konrad Hochedlinger⁴, Thomas Rüllicke^{2,5} and Mathias Müller^{1,2}, ¹Institute of Animal Breeding and Genetics, University of Veterinary Medicine Vienna, Austria; ²University Center Biomodels Austria, University of Veterinary Medicine Vienna, Austria; ³Institute of Biotechnology in Animal Production, Department IFA-Tulln, University of Natural Resources and Applied Life Sciences, Tulln, Austria; ⁴Harvard Stem Cell Institute, Massachusetts General Hospital Cancer Center and Center for Regenerative Medicine, Boston, USA; ⁵Institute of Laboratory Animal Sciences, University of Veterinary Medicine Vienna, Austria
- PS1-70 An USP18-based negative feedback control induced by Type I and Type III interferons specifically inactivates interferon α response**
Véronique Francois-Newton¹, Zhi Li¹, Béatrice Payelle-Brogard¹, Gabriel Magno de Freitas Almeida², Danièle Monneron², Gilles Uzé², Sandra Pellegrini¹, *Institut Pasteur, Cytokine Signaling Unit, CNRS URA 1961, Paris; ²CNRS UMR 5235, Montpellier, France*
- PS1-71 Characterization of a novel STAT5-regulated ubiquitin ligase in human T cells**
Marie-Jose Bijlmakers, Sang-Mi Kim, Ravneet K. Jandu, Francesca Eddy, Lemlem-Tewelde Berhan, Aradhana Rani and Susan John. *Dept. of Immunobiology, Kings College London, Guys Hospital, Great Maze Pond, London SE1 9RT. UK*
- PS1-72 Chronic and acute inflammatory conditions deterine MEK1 or MEK2 usage as regulators of IL1β and sILRa expression**
Karim J. Brandt, Nicolas Molnarfi, Lyssia Gruaz, Danielle Burger, *Division of Immunology and Allergy, Hans Wilsdorf Laboratory, IARG, Department of Internal Medicine, Faculty of Medicine, University Hospital and University of Geneva, Switzerland*

5:30 – 7:00 POSTER SESSION 1 continued ♦ REGENCY BALLROOM FLOOR

Cytokines and Signal Transduction

- PS1-73 Hypoxia-inducible factor 1 α and the glucose-regulated protein 78 are up-regulated by oncostatin M in human hepatocytes and hepatoma cells**
Stefan Vollmer¹, Valérie Kappler¹, Jakub Kaczor¹, Daniela Flügel³, Catherine Rolvering¹, Nobuyuki Kato², Thomas Kietzmann³, Iris Behrmann¹, Claude Haan¹, ¹Life Sciences Research Unit, University of Luxembourg, Luxembourg, Luxembourg; ²Department of Tumor Virology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan; ³Chemistry Department, University of Kaiserslautern, Kaiserslautern, Rheinland-Pfalz, Germany
- PS1-74 Interleukin 1 β -modulates cardiac contractility through desensitization of the β 1-adrenergic receptor**
Benjamin W. Van Tassell, Stefano Toldo, Eleonora Mezzaroma, Neeru Goyal, Ignacio M. Seropian, Antonio Abbate, Virginia Commonwealth University, Richmond, VA, USA
- PS1-75 IL-17 stimulation results in a pro-inflammatory outcome during antiviral response in human cells**
Grigory Ryzhakov, Cheryl Lai, Katrina Blazek, Irina Udalova, Kennedy Institute of Rheumatology Division, Faculty of Medicine, Imperial College of Science, Technology and Medicine, London, United Kingdom
- PS1-76 Deregulated STAT-independent cytokine signaling by IL-6 promotes pulmonary emphysema associated with apoptosis in mice**
Saleela M Ruwanpura¹, Louise McLeod¹, Alistair Miller¹, Jessica Jones², Philip Bardin¹, Gary Anderson² and Brendan J Jenkins¹, ¹Monash Institute of Medical Research, Clayton, Victoria, Australia; ²The University of Melbourne, Parkville, Victoria, Australia
- PS1-77 Interleukin-6 signal transduction and gene regulation in astroglia versus microglia: the impact of defective gp130 signaling**
Ricardo F. Frausto¹, Jürgen Scheller², Stefan Rose-John², Brendan J. Jenkins³, Matthias Ernst⁴, Gareth Denyer¹, Iain L. Campbell¹, ¹School of Molecular Bioscience, University of Sydney, Sydney, NSW, Australia; ²Department of Biochemistry, Christian-Albrechts-University, Kiel, Germany; ³Monash Institute of Medical Research, Clayton, Vic, Australia; ⁴Ludwig Institute for Cancer Research, Melbourne, Vic, Australia
- PS1-78 Human cytomegalovirus UL76 protein induces interleukin-8 through NF- κ B pathway**
H. Costa¹, R. Nascimento¹, J. Sinclair², RME Parkhouse¹, ¹Instituto Gulbenkian de Ciência, Oeiras, Portugal, ²Department of Medicine, University of Cambridge, UK
- PS1-79 Comparative analysis of responsiveness to IFN- α and IFN- λ by normal human bronchial epithelial cells and hepatocytes**
Harold Dickensheets¹, Faruk Sheikh¹, Zoltan Pos², Francesco Marincola², and Raymond P. Donnelly¹, ¹Division of Therapeutic Proteins, Center for Drug Evaluation & Research, FDA, Bethesda, MD USA; ²Department of Transfusion Medicine, Clinical Center, NIH, Bethesda, MD, USA
- PS1-80 Identification of a novel transcriptional regulatory mechanism for ACT1**
Sharlene Velichko, Johnathon Anderson, Wenhui Zhou, Stephanie Ryan, Fei Huang, Reen Wu, Center for Comparative Respiratory Biology and Medicine, Department of Internal Medicine, University of California, Davis CA, USA
- PS1-81 The HVEM and BTLA cis complex recruits SHP phosphatases**
John R. Šedý, Tim Cheung, Brian C. Ware, Matt Macauley, Paula S. Norris, Carl F. Ware; Sanford/Burnham Medical Research Institute, 10901 North Torrey Pines Road, La Jolla, CA, USA

8:30 – 9:30 KEYNOTE LECTURE 2 ♦ REGENCY BALLROOMS

Keynote Speaker: Roger Davis

- 8:30 KL-2**
Signal Transduction by the JNK Pathway
Roger Davis, Ph.D., Howard Hughes Medical Institute, University of Massachusetts Medical School, Worcester, MA, USA

9:30 – 11:30 PLENARY SESSION 2 ♦ REGENCY BALLROOMS A/B

Cytokine Signaling

Session Chairs:

George Stark, Lerner Research Institute of the Cleveland Clinic Foundation
Raymond Kaempfer, Hebrew University

- 9:30 PL2-1**
Non-canonical functions of STAT3 in growth and tumorigenesis
David Levy, Department of Microbiology, NYU Langone Medical Center, New York, NY
- 10:00 PL2-2**
Selective regulation of pro-inflammatory genes by chromatin and NF- κ B
Steve Smale, Department of Microbiology, Immunology & Molecular Genetics, University of California, Los Angeles, CA, USA
- 10:30 PL2-3**
Negative regulation of TLR-mediated NF- κ B activation by PLZF
Dakang Xu, Bandar Suliman, Anthony J. Sadler & Bryan R.G. Williams, Monash Institute of Medical Research, Monash University, Melbourne, Australia
- 10:45 PL2-4**
Unphosphorylated STAT1 prolongs the expression of interferon-induced immune regulatory genes
HyeonJoo Cheon, Elise Holvey-Bates, George R Stark, Department of Molecular Genetics, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH, USA
- 11:00 PL2-5**
Human but not mouse IL-6R is a substrate for TACE: analysis of the molecular basis of species specificity using chimeric IL-6R proteins
Christoph Garbers, Athena Chalaris, Dörte Meyer, Nathalie Jänner, Stefan Rose-John and Jürgen Scheller, Department of Biochemistry, Christian-Albrechts-University of Kiel, Kiel, Germany
- 11:15 PL2-6**
A dual action of glucocorticoids on the Type I interferon network
Jamie R. Flammer, Megan A. Kennedy, Michael Reily, Yurii Chinenov, Lionel B. Ivashkiv and Inez Rogatsky, Hospital for Special Surgery and Dept of Microbiology and Immunology, Weill Medical College of Cornell University, New York, NY USA
- 11:30 LUNCH BREAK – on your own**
- 11:30 ICS General Meeting in Regency Ballroom C**
Lunch items are available for purchase in the Regency Lobby for the convenience of attendees.

1:00 – 3:00 CONCURRENT SESSION 3 ♦ REGENCY BALLROOM A

MicroRNAs and Post-transcriptional Regulation

Session Chairs:

Ana Costa Pereira, *Imperial College London*Deborah Vestal, *University of Toledo*

1:00 CS3-1

Interplay Between Akt, mTOR complexes, and FoxONissim Hay, *Department of Biochemistry and Molecular Genetics, University of Illinois at Chicago, Chicago, IL, USA*

1:30 CS3-2

Mechanisms of mRNA translation of interferon stimulated genesLeonidas Plataniias, *Robert H. Lurie Comprehensive Cancer Center, Northwestern University, Chicago, IL, USA*

2:00 CS3-3

Control of protective immunity through dynamic refolding of mRNARaymond Kaempfer¹, Smadar Cohen-Chalamish¹, Tami Megre¹, Yona Banai¹, Benoit Masquida², Sarah Namer¹, Farhat Osman¹, ¹*Hebrew University, Biochemistry & Molecular Biology, Jerusalem, 91120, Israel*; ²*CNRS UPR 9002, IBMC, Strasbourg, 67084, France*

2:15 CS3-4

Characterisation of MicroRNA turnover reveals sustained modulation of innate immunityMichael P. Gantier¹, Claire E. McCoy¹, Mark A. Behlke² and Bryan R.G. Williams¹, ¹*Centre for Cancer Research, Monash Institute of Medical Research, Monash University, Clayton, Victoria, Australia*; ²*Integrated DNA Technologies Inc., Coralville, Iowa, USA*

2:30 CS3-5

miRNA interacts with AU-rich elements stabilizing interferon gamma geneRam Savan¹, Michal Legiewicz², Eckart Bindewald³, Adelle P. McFarland¹, Selinda Orr¹, Johannes Schwerk¹, Rajesh Yalamanchili¹, Shakeeb Hakim¹, Anthony Kronfli¹, Karthika Ramakrishnan¹, Stephen Anderson¹, Bruce Shapiro³, Stuart LeGrice² and Howard A. Young^{1*}, ¹*Cancer and Inflammation Program, Laboratory of Experimental Immunology, Center for Cancer Research, National Cancer Institute, Frederick, MD, USA*; ²*HIV Drug Resistance Program, Center for Cancer Research, National Cancer Institute, Frederick, MD, USA*; ³*Nanobiology Program, Center for Cancer Research, National Cancer Institute, Frederick, MD, USA*

2:45 CS3-6

The regulation of IFN-induced apoptosis by the IFN target gene miR-21Chuan He Yang, Junming Yue and Lawrence M. Pfeffer, *Department of Pathology and Laboratory Medicine and the Center for Integrative Cancer Research, University of Tennessee Health Science Center, Memphis, TN, USA*

3:00 BREAK

Refreshments in Regency D Exhibit Hall

1:00 – 3:00 CONCURRENT SESSION 4 ♦ REGENCY BALLROOM B

Interferons in the Treatment of Diseases

Session Chairs:

Marcus Heim, *University of Basel*Darren Baker, *Biogen Idec*

1:00 CS4-1

PAMP signaling and mechanisms of IFN actions against virus infectionMichael Gale and the Gale Laboratory, *Department of Immunology, University of Washington, Seattle, WA, USA*

1:30 CS4-2

Efficacy of PEGylated interferon β -1a in human cancer xenograft modelsIngrid Joseph¹, Antonio Boccia¹, Cyrus Virata¹, Grace Yco¹, Jim Gamez¹, Kathy Wortham¹, Rebecca Kelly¹, Keli Perron¹, Lu Yang¹, Xiamei Zhang¹, Nuzhat Pathan², Nicki English², Monica Holcomb², Jennifer L. Gardner³, Bob Dunstan⁴, Donald Bennett⁵, Daniel J. Lindner⁷, and Darren P. Baker⁶, *Departments of* ¹*Oncopharmacology*, ²*Cancer Discovery*, ³*Discovery Cancer Therapeutics*, ⁴*Comparative Pathology*, ⁵*Biostatistics*, and ⁶*Drug Discovery, Biogenidec Inc., Cambridge, MA, USA*; ⁷*Cleveland Clinic, Cleveland, OH, USA*

2:00 CS4-3

IFN- β modulates Th17 induction in EAELeesa M. Pennell^{1,2}, Carole L. Galligan^{1,2}, and Eleanor N. Fish^{1,2}, ¹*Department of Immunology, University of Toronto, Toronto, ON, Canada*; ²*Toronto General Research Institute, University Health Network, Toronto, ON, Canada*

2:15 CS4-4

Cell type-specific responses to IFN- β : Implications for understanding the mechanism of IFN- β therapy in multiple sclerosisAnette H. H. van Boxel-Dezaire¹, Elizabeth Fisher², Richard M. Ransohoff³, Richard A. Rudick⁴ and George R. Stark¹, ¹*Molecular Genetics, Cleveland Clinic Foundation, Lerner Research Institute, Cleveland, OH*; ²*Biomedical Engineering, Cleveland Clinic Foundation, Lerner Research Institute, Cleveland, OH*; ³*Neuroinflammation Research Center, Cleveland Clinic Foundation, Lerner Research Institute, Cleveland, OH*; ⁴*Neurological Institute, Cleveland Clinic Foundation, Cleveland, OH, USA*

2:30 CS4-5

IFN stimulated gene expression in the liver is a better predictor of treatment response in chronic hepatitis C than the IL-28B (IFN λ 3) genotypeMichael T. Dill^{1,2}, Francois H.T. Duong¹, Julia E. Vogt³, Stéphanie Bibert⁴, Pierre-Yves Bochud⁴, Luigi Terracciano⁵, Andreas Papassotiropoulos⁶, Volker Roth³ and Markus H. Heim¹, ¹*Department of Biomedicine, Hepatology Laboratory, University of Basel, Basel, Switzerland*; ²*Division of Gastroenterology and Hepatology, University Hospital Basel, Basel, Switzerland*; ³*Computer Science Department, University of Basel, Basel, Switzerland*; ⁴*Infectious Diseases Service, Department of Medicine and Institute of Microbiology, University Hospital and University of Lausanne, Lausanne, Switzerland*; ⁵*Institute of Pathology, University Hospital Basel, Basel, Switzerland*; ⁶*Division of Molecular Psychology, Life Sciences Training Facility, Biozentrum, University of Basel, Basel, Switzerland*

2:45 CS4-6

Antiproliferative activity of interferon activated monocytes against high concentrations of human tumor cellsSamuel Baron, Joel Finbloom, Julie Horowitz, Joe Bekisz, Angel Morrow, Tongmao Zhao, Sam Fey, Hana Schmeisser, Corey Balinski, Kathryn Zoon, *NIAID, NIH, Bethesda, MD, USA*

3:00 BREAK

Refreshments in Regency D Exhibit Hall

3:20 – 5:40 SPECIAL SYMPOSIUM 4 ♦ REGENCY BALLROOM A

Pattern Recognition

Session Chairs:

Luke O'Neill, *Trinity College*

Takashi Fujita, *Kyoto University*

3:20 SS4-1

New targets and processes in the control of TLRs and Nlrp3

Luke O'Neill, *School of Biochemistry and Immunology, Trinity College, Dublin, Ireland*

3:50 SS4-2

Virus-infection or 5'ppp-RNA activates antiviral signal through redistribution of IPS-1 mediated by MFN1

Takashi Fujita, *Department of Molecular-Genetics, Institute for Virus Research, Kyoto University, Kyoto, Japan*

4:20 SS4-3

A new functional branch of TLR3 signaling

Michifumi Yamashita, Saumendra N. Sarkar, Ganes C. Sen, *Department of Molecular Genetics, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, USA*

4:35 SS4-4

KU70 is a novel cytosolic DNA sensor and induces type-III IFN rather than type-I IFN

Xing Zhang¹, Terrence W. Brann¹, Kristy B. Lidie¹, Ming Zhou², Raphael M. Oguariri¹, Jun Yang³, Brandie Fullmer³, Xin Zheng³, Gerald S. Degray⁴, Hiromi Imamichi⁵, Da-Wei Huang³, Richard A. Lempicki³, Michael W. Baseler⁶, Timothy D. Veenstra², Howard A. Young⁷, H. Clifford Lane⁵ and Tomozumi Imamichi¹, ¹Laboratory of Human Retrovirology, Clinical Services Program (CSP), Applied and Developmental Directorate (ADD), SAIC-Frederick, Inc., NCI-Frederick, Frederick, MD, USA; ²Laboratory of Proteomic and Analytical Technologies Advanced Technology Program, SAIC-Frederick, Inc., NCI-Frederick, Frederick, MD, USA; ³Laboratory of Immunopathogenesis and Bioinformatics, CSP, ADD, SAIC-Frederick, Inc., NCI-Frederick, Frederick, MD, USA; ⁴Virus Isolation Laboratory, CSP, ADD, SAIC-Frederick, Inc., NCI-Frederick, Frederick, MD, USA; ⁵Laboratory of Immunoregulation, National Institute of Allergy and Infectious Diseases, NIH Bethesda, MD, USA; ⁶AIDS Monitoring Laboratory, CSP, ADD, SAIC-Frederick, Inc., NCI-Frederick, Frederick, MD, USA; ⁷Laboratory of Experimental Immunology, Center for Cancer Research, NCI-Frederick, Frederick, MD, USA

4:50 SS4-5

Viral regulation of a TLR/RLR-independent program of host cell recognition of HIV-1 infection

Brian P. Doehle, Kristina Chang, and Michael Gale Jr., *University of Washington School of Medicine, Department of Immunology, Seattle, WA, USA*

5:05 SS4-6

MAL/TIRAP negatively regulates toll-like receptor 3-mediated IFN- β production

Jakub Siednienko¹, Annett Halle², Kamalpreet Nagpal², Douglas T. Golenbock² and Sinéad M. Miggin¹, ¹Institute of Immunology, Department of Biology, National University of Ireland Maynooth, Maynooth, Ireland; ²The Division of Infectious Diseases and Immunology, University of Massachusetts Medical School, Worcester, MA 01605, USA

5:20 SS4-7

The roles of C-type lectins in the host defense against fungal infection

Shinobu Saijo, Satoshi Ikeda, Shigeru Kakuta and Yoichiro Iwakura, *Center for Experimental Medicine, The Institute of Medical Science, The University of Tokyo, Japan*

3:20 – 5:40 SPECIAL SYMPOSIUM 5 ♦ REGENCY BALLROOM B

Cytokines in Immunity and Hematopoiesis

Session Chairs:

Giorgio Trinchieri, *National Cancer Institute*

Eleanor Fish, *University of Toronto*

3:20 SS5-1

Defining critical cytokines that mediate DC induced autoimmunity

Pamela S. Ohashi, Albert Lin, Dilan Dissanayake, *Campbell Family Institute for Breast Cancer Research, Ontario Cancer Institute, Departments of Medical Biophysics and Immunology, University of Toronto, 620 University Avenue, Toronto ON Canada, M5G 2C1*

3:50 SS5-2

IRF5 as a defining factor of M1 macrophage polarization

Thomas Krausgruber¹, David Saliba¹, Katrina Blazek¹, Helen Lockstone², Natasha Sahgal², Saba Alzabin¹, Ana Teixeira², Tracy Hussell³, Jiannis Ragoussis², Irina A Udalova¹, ¹Kennedy Institute of Rheumatology Division, Faculty of Medicine, Imperial College of Science, Technology and Medicine, London, UK; ²Wellcome Trust Centre for Human Genetics, University of Oxford, UK; ³National Heart and Lung Institute, Faculty of Medicine, Imperial College of Science, Technology and Medicine, South Kensington Campus, London, UK

4:05 SS5-3

PML, an interferon inducible gene, is a key component for myeloid cell differentiation to macrophages

Yana Khalfin and Ben-Zion Levi, *The Department of Biotechnology and Food Engineering, Haifa, Israel*

4:20 SS5-4

Constitutive activation of Shp2 blocks IFN γ -stimulated increase in Fas-sensitivity in monocytes and granulocytes

Weiqi Huang^{1,2} and Elizabeth Eklund^{1,2}, ¹Dept of Medicine and Robert H. Lurie Comprehensive Cancer Center, Northwestern University, Chicago, IL, USA; ²Jesse Brown VA Medical Center, Chicago, IL, USA

4:35 SS5-5

Anti-inflammatory effects of a novel TNFR1-selective antagonistic TNF mutant in murine experimental autoimmune encephalomyelitis

Yasuhiro Abe¹, Tetsuya Nomura¹, Masaki Inoue¹, Shu-hei Arita^{1,2}, Takeshi Furuya^{1,2}, Tomoaki Yoshikawa^{1,2}, Yasuo Yoshioka^{1,3}, Kazuya Nagano¹, Haruhiko Kamada^{1,3}, Yasuo Tsutsumi^{1,2,3}, Shin-ichi Tsunoda^{1,2,3}, ¹Laboratory of Biopharmaceutical Research (Laboratory of Pharmaceutical Proteomics), National Institute of Biomedical Innovation, Osaka, Japan; ²Department of Toxicology and Safety Science, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan; ³The Center for Advanced Medical Engineering and Informatics, Osaka University, Osaka, Japan

4:50 SS5-6

Oxysterols are ligands for the orphan nuclear receptor ROR γ t, a key regulator of Th17 cell development

Katherine Rouleau¹, Xiaoshan Min², Zhulun Wang², Anke Konrad³, Ralf Schwandner³, John E Sims¹, Antony Symons¹, ¹Amgen Inc., Inflammation, Seattle, WA, USA; ²Amgen Inc., Molecular Structure, San Francisco, CA, USA; ³Amgen GMBH, Research, Regensburg, Germany

5:05 SS5-7

Development of recombinant vesicular stomatitis virus that modulate immunity for use as an oncolytic vector

Joshua F. Heiber¹, Jennifer Acevedo², Delia Gutman², Rachel Elsby¹, Glen N. Barber^{1,2}, ¹Microbiology and Immunology; ²Sylvester Comprehensive Cancer Center University of Miami Miller School of Medicine, Miami, FL, USA

5:20 SS5-8

Inhibition of retroviral replication by human Schlafen 11

Manqing Li¹, Elaine Kao¹, Hilary Sandig¹, Sebastien Landry², Matthew D. Weitzman² and Michael David^{1,3}, ¹Section of Molecular Biology, Division of Biological Sciences, and ³Moore's Cancer Center, University of California San Diego, La Jolla, CA; ²Laboratory of Genetics, The Salk Institute for Biological Studies, La Jolla, CA, USA

3:20 – 5:30 SPECIAL SYMPOSIUM 6 ♦ TRUFFLES ROOM

Anti-Tumor Immunity and Carcinogenesis

Session Chairs:

Robert Silverman, *Lerner Research Institute of the Cleveland Clinic Foundation*

Nancy Reich, *Stony Brook University*

3:20 SS6-1

Mast cells in colorectal cancer promote the differentiation of a new sub-lineage of pathogenic Treg with Th17 properties

Khashayarsha Khazaie, Nichole Blatner, Elias Gounaris, *Department of Microbiology-Immunology, Northwestern University Feinberg School of Medicine, Division of Gastroenterology, Chicago, IL, USA*

3:35 SS6-2

Inhibition of RNase L and PKR by the anti-cancer drug Sunitinib impairs innate immunity in virus-infected mice

Babal Kant Jha, Irina Polyakova, Patricia Kessler, Robert H. Silverman, *Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, USA*

3:50 SS6-3

Identifying the tumor suppressor function of Interferon Regulatory Factor 5 (IRF5) in human ductal carcinoma

Xiaohui Bi and Betsy Barnes, *New Jersey Medical School University Hospital-Cancer Center, University of Medicine and Dentistry of New Jersey, Newark, NJ, USA*

4:05 SS6-4

IL-17A and IL-17F are important for the development of intestinal polyps in APC^{MIN} mice by accelerating blood vessel formation

Shigeru Kakuta¹, Shunsuke Suzuki¹, Yamato Sasaki¹, Mari Shibukawa¹, Hiroaki Okae¹, Harumichi Ishigame^{1,2}, and Yoichiro Iwakura^{1,3}, ¹*Center for Experimental Medicine and Systems Biology, Institute of Medical Science, University of Tokyo, Minato-ku, Tokyo, Japan*; ²*Department of Immunology, Yale School of Medicine, New Haven, CT USA*; ³*CREST, Japan Science and Technology Agency, Kawaguchi, Saitama, Japan*

4:20 SS6-5

Histamine reduces susceptibility to NK cells via down-regulation of NKG2D ligand expression on human monocytic leukemia THP-1 cells

Nagai Y., Tanaka Y., Sato R., Kuroishi T., Sugawara S., *Division of Oral Immunology, Department of Oral Biology, Tohoku University, Japan*

4:35 SS6-6

Toll-like receptor 2 and deregulated cytokine signaling contribute to gastric inflammation and tumorigenesis

Catherine L. Kennedy¹, Hazel Tye¹, Meri Najdovska¹, Louise McLeod¹, Luke A. J. O'Neill², Paul J. Hertzog¹, Ashley Mansell¹ and Brendan J. Jenkins¹, ¹*Monash Institute of Medical Research, Clayton, Victoria, Australia*; ²*School of Biochemistry and Immunology, Trinity College Dublin, Dublin, Ireland*

4:50 SS6-7

The C-terminal decapeptide of prothymosin α induces a Th1-type immune response in vitro and retards tumor growth in vivo

Kyriaki Ioannou¹, Pinelopi Samara¹, Nadia Kavrochorianou², Christina Bega^{1,3}, George Thyphronitis³, Sylva Haralambous², Ourania Tsitsilonis¹, ¹*Department of Animal and Human Physiology, Faculty of Biology, University of Athens, Athens, Greece*; ²*Laboratory of Transgenic Technology, Hellenic Pasteur Institute, Athens, Greece*; ³*Department of Biological Applications and Technologies, University of Ioannina, Ioannina, Greece*

3:20 – 5:30 SPECIAL SYMPOSIUM 7 ♦ REGENCY BALLROOM C

Interferon Lambda Special Session

Session Chairs:

Rune Hartmann, *Aarhus University*

Raymond Donnelly, *FDA, Center for Drug Evaluation and Research*

3:20 Introduction

3:30 SS7-1

Differential negative regulation of type I and type III interferons underlies extended antiviral effects of interferon-lambdas (This talk will be replaced by SS7-1a)

SS7-1a

Structure of IFN-lambda in complex with the extracellular domain of IFN- λ R1

Zachary Miknis, *National Cancer Institute – Frederick, Frederick, MD, USA*

3:50 SS7-2

IFN- λ 1 inhibits the human Th2 response

Grant Gallagher, *HUMIGEN LLC, the Institute for Genetic Immunology, Hamilton, NJ, USA*

4:10 SS7-3

A non-redundant role of IFN-lambda in antiviral defense of the intestinal tract

Markus Mordstein¹, Johanna Pott², Tanel Mahlakoi¹, Eva Neugebauer³, Vanessa Ditt³, Christian Drosten³, Mathias W. Hornef², Thomas Michiels⁴, Peter Staeheli¹, ¹*Department of Virology, University of Freiburg, Germany*; ²*Institute for Med. Microbiology and Hospital Epidemiology, Hannover Medical School, Germany*; ³*Institute of Virology, University of Bonn Medical Centre, Germany*; ⁴*de Duve Institute, Université catholique de Louvain, Brussels, Belgium*

4:30 SS7-4

Primary human hepatocytes can produce and respond to interferon-lambda (IFN- λ)

Raymond P. Donnelly, *Division of Therapeutic Proteins, Center for Drug Evaluation & Research, FDA, Bethesda, MD, USA*

4:50 SS7-6

Peg-IFN-lambda for chronic HCV infection: Early clinical development

Eleanor L. Ramos, *ZymoGenetics, Inc., Seattle, WA, USA*

5:10 SS7-5

Genetic variation in IL28B and hepatitis C outcomes

Andrew J. Muir, *Duke Clinical Research Institute and Division of Gastroenterology, Duke University School of Medicine, Durham, NC, USA*

Cytokines and Inflammation II

- PS2-01** *Schistosoma mansoni* antigens down-modulate the Th2-allergic response in vitro
Luciana S. Cardoso^{1,2,3}, Sérgio C. Oliveira⁴, Alfredo M. Góes⁴, Ricardo R. Oliveira^{1,2}, Robson P. Souza¹, Edgar M. Carvalho^{1,2,5}, Marshall J. Glesby⁶, Maria Ilma Araujo^{1,2,5}, ¹Serviço de Imunologia, Hospital Universitário Prof Edgard Santos, Universidade Federal da Bahia, Salvador, BA; ²Instituto Nacional de Ciência e Tecnologia de Doenças Tropicais-INCT-DT (CNPq/MCT), ³Instituto de Ciências Biológicas, Departamento de Bioquímica e Imunologia, ICB, Universidade Federal de Minas Gerais, Belo Horizonte, MG, ⁴Universidade do Estado da Bahia, ⁵Escola Bahiana de Medicina e Saúde Pública, Salvador, BA, Brazil; ⁶Division of Infectious Diseases, Weill Cornell Medical College, New York, NY, USA
- PS2-02** Lactoferrin may contribute to synovitis in rheumatoid arthritis
Mijung Yeom¹, Bong-Jun Sur¹, Kyoung Soo Kim², Sang-Yun Choi³, Hye-Jung Lee¹, Dae-Hyun Hahm¹, ¹Acupuncture and Meridian Science Research Center, Department of Oriental Medicine, Kyung Hee University, Seoul, Korea; ²East-West Bone & Joint Research Institute, East-West Neo Medical Center, Kyung Hee University, Seoul, Korea; ³School of Life Science and Biotechnology, Korea University, Seoul, Korea
- PS2-03** Overexpression of Oncostatin-M in lungs induces eotaxin-2 and eosinophil accumulation in C57BL/6 but not Balb/C mice in vivo
Carl D. Richards, Christine Kerr, Dominik K. Fritz, Andrew D. Rowan¹ and Carrie M. Langdon. Centre for Gene Therapeutics, Department of Pathology and Molecular Medicine, McMaster University, Hamilton, Ontario, Canada and ¹University of Newcastle, Newcastle, UK
- PS2-04** Oncostatin M induces interleukin-1R1, interleukin-17 receptor A and synergistic responses to IL-1 and IL-17A ligands in mouse aortic adventitial fibroblasts
Matt Scott¹, Ali Ashkar¹, Bernardo Trigatti² and Carl D. Richards¹, ¹Centre for Gene Therapeutics, Department of Pathology and Molecular Medicine and ²Department of Biochemistry and Biomedical Sciences, McMaster University, Hamilton, Ontario, Canada
- PS2-05** Heterogeneous response of cytokine levels of rat white adipose tissue in cachexia
Miguel L. Batista Jr.^{1,3}, Rodrigo X. Neves^{1,2}, Felipe F. Donatto¹, Alex S. Yamashita¹ & Marília C. L. Seelaender¹, ¹Cancer Metabolism Research Group, Institute of Biomedical Sciences, University of São Paulo (USP), São Paulo, Brazil; ²Technological Research Group, University of Mogi das Cruzes (UMC), São Paulo, Brazil. ³Integrated Biotechnology Group, University of Mogi das Cruzes (UMC), São Paulo, Brazil
- PS2-06** Apoptotic cell recognition receptors, TYRO-3, AXL, and MER, show distinct patterns of ligand-inducible receptor activation
Wen-I Tsou^{1,2}, Khanh Quynh Nguyen¹, Raymond B. Birge¹, Sergei V. Kotenko^{1,2}. ¹Department of Biochemistry and Molecular Biology and ²University Hospital Cancer Center, New Jersey Medical School, University of Medicine and Dentistry of New Jersey, Newark, New Jersey, USA
- PS2-07** Activity of C-reactive Protein, IL-6 and TNF α in obese young people and its association with lipid profile
Trinidad García Iglesias^{1*}, A. Sara M. Zepeda Morales¹, Teresa A. García Cobián², Pedro E. Sánchez Hernández¹, Omar E. Fernández Vargas², Sylvia E. Totsuka Sutto², Leonel García Benavides², Ernesto Germán Cardona Muñoz². ¹Laboratorio de Inmunología; ²Unidad de Investigación Cardiovascular del Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara. Guadalajara, Jalisco. México. tgarcía@cucs.udg.mx
- PS2-08** Activated protein C protects the developing lung from hyperoxia-induced lung injury
Claudia A. Nold-Petry^{1,3}, Alex Veldman^{1,2}, Marcel F. Nold^{1,2,3}, Scott A. Sands¹, Reshma Silas², Elizabeth M. Skuza¹, Elaine M. Stockx¹, Gary Cohen¹, Mandar S. Joshi¹, Charles A. Dinarello³, and Philip J. Berger¹. ¹The Ritchie Centre, Monash Institute of Medical Research, Melbourne, Australia; ²Monash Newborn, Monash Medical Centre, Melbourne, Australia; ³University of Colorado Denver, Aurora, USA
- PS2-09** The deficiency of thymus fails to improve lethal inflammation in SOCS-1 knockout mice
Tomohiro Ukita¹, Minoru Fujimoto², Yongmei³, Hirohisa Kawabata⁴, Tadimitsu Kishimoto¹, Tetsuji Naka². ¹Laboratory of Immune Regulation, Osaka University Graduate School of Frontiers Biosciences, Suita, Japan; ²Laboratory of Immune Signal, National Institute of Biomedical Innovation, Ibaraki, Japan; ³Department of Acupuncture, Morinomiya University of Medical Sciences, Osaka, Japan
- PS2-10** Leukocyte transendothelial migration induced by C-type fish lectin TMC4 is mediated by $\beta 1$, $\alpha 2$, $\alpha 5$, and $\alpha 1$ integrins and independent on VCAM-1 binding
Ines Sosa-Rosales¹, Fernanda Miriane Bruni², Mônica Lopes-Ferreira², Carla Lima², ¹Escuela de Ciencias Aplicadas del Mar, Universidad de Oriente, Isla Margarita, Venezuela; ²Laboratório Especial de Toxinologia Aplicada, Instituto Butantan, São Paulo, Brazil
- PS2-11** Ameliorated course of glucose-6-phosphate isomerase (G6PI)-induced arthritis in IFN- γ receptor knockout mice exposes an arthritis-promoting role of IFN- γ
Oliver Frey¹, Tania Mitera², Hilde Kelchtermans², Evelien Schurgers², Thomas Kamradt¹ and Patrick Matthys². ¹Institute of Immunology, Jena University Hospital, Jena, Germany; and ²Laboratory of Immunobiology, Rega Institute, Katholieke Universiteit Leuven, Leuven, Belgium
- PS2-12** Mechanisms of probiotic regulation of intestinal permeability in experimental Crohn's Disease (CD)
Daniele Corridoni, Luca Pastorelli, Dai Ishikawa, Benedetta Mattioli, Marcello Chieppa, Fabio Cominelli and Theresa T. Pizarro, Departments of Medicine and Pathology and Digestive Health Research Center, Case Western Reserve University, Cleveland, OH 44106, USA
- PS2-13** Induction of Eotaxin-1 (CCL11) by co-administration of IL-12 and IL-18 in lean and obese mice
Maria Pini¹, Davina H. Rhodes¹, Giamila Fantuzzi¹, ¹Department of Kinesiology and Nutrition, University of Illinois at Chicago, Chicago, IL 60612, USA
- PS2-14** Inhibition of the heat shock protein GP96 modulates inflammatory processes during islet transplantation
David E. Ochayon, Mark Mizrahi, Eyal Ozeri, Galit Shahaf and Eli C. Lewis, Department of Clinical Biochemistry, Ben-Gurion University of the Negev, Be'er Sheva, Israel
- PS2-15** IL-6 is critical for recovery from IL-12+IL-18-induced thrombocytopenia in obese mice
Maria Pini¹, Davina H. Rhodes¹, Giamila Fantuzzi¹, ¹Department of Kinesiology and Nutrition, University of Illinois at Chicago, Chicago, IL, 60612, USA
- PS2-16** Dexamethasone inhibits expression and release of the B-cell activating factor BAFF in monocytes
Sandra M Bick, Manfred Kaps, Franz Blaes, Department of Neurology, Justus-Liebig-University, Giessen, Germany

Cytokines and Inflammation II

- PS2-17** Inflammatory reactions are orchestrated by the TNF-alpha-converting enzyme
Athena Chalaris¹, Nina Adam¹, Christian Sina², Olga Gavrilova², Jürgen Scheller¹ and Stefan Rose-John¹, ¹Institute of Biochemistry, Christian-Albrechts-University of Kiel, Kiel, Germany; ²Institute for Clinical Molecular Biology, Christian-Albrechts-University of Kiel, Kiel, Germany
- PS2-18** Evidence for a novel antigen presenting cell population, LAPCs, in a mouse model of allergic asthma
J. Craig Hawkshaw^{1,2}, Jae-Kwang Yoo^{1,2} and Eleanor N. Fish^{1,2}, ¹Toronto General Research Institute, University Health Network, Toronto, Ontario, Canada; ²Department of Immunology, University of Toronto, Toronto, Ontario, Canada
- PS2-19** Requirement of Interferon Regulatory Factor-5 for production of autoantibodies in experimental lupus
Di Feng^{1,2}, Lisong Yang^{1,2,3}, Emma Bi^{1,2}, Rivka Stone^{1,2,3}, Betsy Barnes^{1,3}, ¹Department of Biochemistry; ²Graduate School of Biomedical Sciences and ³New Jersey Medical School-University Hospital Cancer Center, UMDNJ, Newark, NJ, USA *First two authors contributed equally to this work
- PS2-20** IL-17-producing $\gamma\delta$ T cells are important for the development of arthritis in a rheumatoid arthritis model
Aoi Akitsu^{1,2}, Harumichi Ishigame¹, Shigeru Kakuta^{1,2}, Shinobu Saijo^{1,2}, Yoichiro Iwakura^{1,2}, ¹Center for Experimental Medicine and Systems Biology, The Institute of Medical Science, The University of Tokyo, Japan; ²Core Research for Evolutional Science and Technology (CREST), Japan
- PS2-21** Elevated pulmonary inflammatory response in patients sustaining greater severity of smoke inhalation injury
Joslyn M. Albright¹, Christopher S. Davis¹, Melanie D. Bird¹, Luis Ramirez¹, Hajwa Kim², Richard L. Gamelli¹, and Elizabeth J. Kovacs¹, ¹Burn & Shock Trauma Institute, Department of Surgery, Loyola University Medical Center, Maywood, IL, USA, and the ²School of Public Health, Division of Epidemiology and Biostatistics, University of Illinois at Chicago, Chicago, IL, USA
- PS2-22** Intrinsic interferon signature in dendritic cells of lupus-prone mice
Uma Sriram¹, Linda Varghese¹, Heather L. Bennett³, Neelakshi Jog², Debra K. Shivers³, Yue Ning³, Edward M. Behrens³, Roberto Caricchio² and Stefania Gallucci¹, ¹Laboratory of Dendritic Cell Biology, Dept. of Microbiology and Immunology, Temple University School of Medicine, ²Division of Rheumatology, Dept. of Medicine, Temple University School of Medicine, Philadelphia, 19140, ³Joseph Stokes, Jr. Research Institute, Division of Rheumatology, Dept. of Pediatrics, The Children's Hospital of Philadelphia, Philadelphia, 19104, USA
- PS2-23** Notch signaling-mediated regulation of inflammatory response in patients with tegumentary leishmaniasis due to L. Braziliensis
Augusto M Carvalho, Sara Passos, Rubia Costa, Viviane Andrade, Edgar M. Carvalho and Lucas P. Carvalho, Federal University of Bahia, Salvador – Brazil
- PS2-24** Regulatory T cells enhance mast cell production of IL-6 via a TGF β dependent innate mechanism
Kirthana Ganeshan and Paul J Bryce, Division of Allergy/Immunology, Northwestern University, Chicago, IL 60611, USA
- PS2-25** Absence of interleukin-6 does not attenuate pulmonary inflammation after ethanol and burn injury
Melanie D. Bird^{1,3}, Cory Deburghgraeve^{1,3}, Anita Zahs^{1,3}, Luis Ramirez^{1,3}, and Elizabeth J. Kovacs^{1,3}, ¹Department of Surgery, ²Cellular and Molecular Biochemistry Program, ³Alcohol Research Program, Burn Shock Trauma Institute, Loyola University Medical Center, Maywood, IL 60153, USA
- PS2-26** Crohn's disease associated ATG16L1 polymorphism modulates cytokine production after NOD2 engagement
Theo S. Plantinga^{1,2}, Tania Crisan^{1,2}, Marije Oosting^{1,2}, Frank L. van de Veerdonk^{1,2}, Bart-Jan Kullberg^{1,2}, Dirk J. de Jong³, Dana J. Philpott⁴, Stephen E. Girardin⁵, Leo A.B. Joosten^{1,2}, Mihai G. Netea^{1,2}, ¹Department of Medicine, ²Nijmegen Institute for Infection, Inflammation and Immunity (N4i), ³Department of Gastroenterology and Hepatology, Radboud University Nijmegen Medical Centre, Nijmegen, The Netherlands; ⁴Department of Immunology and ⁵Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, Canada
- PS2-27** Bioactive Oncostatin M is present in induced-sputum samples from house dust mite sensitive asthmatic subjects
Carl D. Richards, Matt Scott, Christine Kerr, Dominik Fritz, Param Nair¹, G. Gauvreau¹ and P. O'Byrne¹. Centre for Gene Therapeutics, Department of Pathology and Molecular Medicine, and ¹Department of Medicine, McMaster University, Hamilton, Ontario, Canada
- PS2-28** MSCs and TSG-6 abort the inflammatory cascade of zymosan-induced peritonitis by binding to CD44 on resident macrophages to inhibit NF κ B signaling
Ryang Hwa Lee^{*}, Hosoon Choi^{*}, Nikolay Bazhanov, Dong-Ki Kim, and Darwin J Prockop, Texas A&M Health Science Center, College of Medicine, Institute for Regenerative Medicine at Scott & White, Temple, TX 76702, USA *Authors with equal contributions
- PS2-29** IL-17 and its Jekyll-and-Hyde role in the regulation of fat and bone
Mushtaq Ahmed¹, Jaya Goswami¹, Nydiaris Hernández-Santos¹ and Sarah L. Gaffen¹, ¹University of Pittsburgh, Department of Medicine, Division of Rheumatology, Pittsburgh, PA, USA
- PS2-30** PTX3 is expressed in the skin and is regulated by members of TGF- β family
Andrea Doni¹, Virginia Maina¹, Marina Sironi¹, Ivan Cuccovillo¹, Irene Cambieri², Tiziana Musso³, Carlotta Castagnoli², Cecilia Garlanda¹, Barbara Bottazzi¹ and Alberto Mantovani¹, ¹Istituto Clinico Humanitas, IRCCS, Milan, Italy; ²Dept. Plastic Surgery and Burn Unit Skin Bank, CTO Hospital, Turin, Italy; ³Dept. Public Health and Microbiology, University of Turin, Italy³

Micro RNAs and Post Transcriptional Regulation

- PS2-31** Host microRNA regulation during influenza virus infection
Karen E. Johnson and Curt M. Horvath, Department of Biochemistry, Molecular Biology, and Cell Biology, Northwestern University, Evanston, IL, USA
- PS2-32** MicroRNA regulation in response to human influenza virus infection
William A. Buggele and Curt M. Horvath, Department of Biochemistry, Molecular Biology, and Cell Biology, Northwestern University, Evanston, IL, USA

5:30 – 7:00 POSTER SESSION 2 ♦ REGENCY BALLROOM FLOOR

Interferons and Treatment of Disease

- PS2-33 Expression of the cytosolic pyrimidine 5'-nucleotidase PN-I (NT5C3) in nonhematopoietic cells: a novel Type-I interferon-inducible gene**
Latifa Al-Haj and Khalid S. A. Khabar. *BioMolecular Research Program, King Faisal Specialist Hospital and Research Center, Riyadh, Saudi Arabia*
- PS2-34 Evaluation of IFN-λ responsiveness on renal cell carcinoma**
Kevin Kotredes¹, Yolanda Lopez¹ and Ana Gamero¹. ¹Temple University, Department of Biochemistry, Philadelphia, PA, USA
- PS2-35 Reduced interferon receptor levels resulting from either knockdown or prolonged Type I interferon treatment promote a shift in cellular responsiveness**
Daniel Harari^{1,2*}, Doron Levin^{1,2*}, Renana Abramovich¹, Gideon Schreiber¹. ¹Department of Biological Chemistry, The Weizmann Institute of Science, Rehovot, Israel, ²D.H. and D.L. contributed equally to this study.
- PS2-36 Limiting cellular responses to interferon alpha: Role of protein kinase D2**
Hui Zheng¹, Juan Qian¹, Bentley Varghese¹, Darren P. Baker², and Serge Fuchs¹. ¹Department of Animal Biology and Mari Lowe Center for Comparative Oncology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA 19104, USA; ²Biogen Idec Inc., Cambridge, MA 02142, USA
- PS2-37 Effect of priming on mononuclear cells that are non-responsive to Type I IFN in multiple sclerosis**
Lei Li¹, Xuan Feng¹, Bharat Kilaru¹, Mounica Yanamandala¹, Addie A Hill¹, Beverly Franek², Tim B Niewold², and Anthony T Reder¹. ¹University of Chicago, Departments of Neurology¹ and Medicine², Chicago, IL 60637, USA
- PS2-38 Ageing effects on human Type I IFN system in healthy subjects**
Kazuko Uno¹, Katsumi Yagi¹, Mari Tanigawa¹, Keiichiro Murata¹, Setsuya Fujita¹, Toshikazu Yoshikawa^{1,2}. ¹Louis Pasteur Center for Medical Research, Kyoto, Japan, ²Department of Molecular Gastroenterology and Hepatology, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan
- PS2-39 Development of a hyperglycosylated IFN alfacon1 (CIFN): Towards once a month dosing for antiviral therapy**
Jin Hong¹, Joshua S. Taylor¹, Justin G. Julander², Qingling Zhang¹, Antitsa D. Stoycheva¹, Hua Tan¹, Christabel V. Moy¹, Sushmita Chanda¹, Leo N. Beigelman¹, Lawrence M. Blatt¹. ¹Alios BioPharma, South San Francisco, CA, USA; ²Utah State University, Logan, UT, USA

5:30 – 7:00 POSTER SESSION 2 ♦ REGENCY BALLROOM FLOOR

Gene Regulation

- PS2-40 Transcriptional regulation of the human Type I IFN gene cluster**
Jonathan E. Freaney¹ and Curt M. Horvath¹. ¹Department of Biochemistry, Molecular Biology, and Cell Biology, Northwestern University, Evanston, IL, USA
- PS2-41 TIS7/IFRD1 determines sensitivity to DSS colitis through distinct functions in hematopoietic and non-hematopoietic cell populations**
Shyamasree Datta¹, Paul G. Pavicic, Jr.¹, Hui Xiao¹, Xiaoxia Li¹, and Thomas Hamilton¹. ¹Department of Immunology, Cleveland Clinic Foundation, Cleveland, OH, USA
- PS2-42 Protein encoded by an isoform of IRF5 associated with autoimmune diseases is a strong transcriptional activator of the inflammatory cytokine genes**
Sujayita Roy², Paula M. Pitha^{1,2}. ¹The Sidney Kimmel Comprehensive Cancer Center and ²Biology Department, The Johns Hopkins University, Baltimore, MD, USA
- PS2-43 IL-17A signaling: Roles of NF-kappa B and the adaptor protein CIKS**
Soeren U Soender, Sun Saret, Wanhu Tang, Andrea Paun, Stefania Claudio and Ulrich Siebenlist, *Laboratory of Immunoregulation, NIAID, NIH, Bethesda, MD, USA*
- PS2-44 Notch signaling regulates interleukin-12 expression via interferon regulatory factor 8**
Haixia Xu^{1,2}, Jimmy Zhu¹, Julia Foldi³, Allen Y. Chung¹, Chao Shi³, Yueming Li⁴, Lionel B. Ivashkiv^{1,3}, Xiaoyu Hu^{1,5}. ¹Arthritis and Tissue Degeneration Program, Hospital for Special Surgery, New York, NY, USA; ²The 3rd Affiliated Hospital of Sun Yat-sen University, ³Graduate Program in Immunology and Microbial Pathogenesis, Weill Cornell Graduate School of Medical Sciences, New York, NY, USA; ⁴Memorial Sloan Kettering Cancer Center, New York, NY, USA; ⁵Department of Medicine, Weill Cornell Medical College, New York, NY, USA
- PS2-45 Transcriptional diversity between IL1B and TNF genes in human and murine monocytes**
Juraj Adamik¹, Kent Z.Q. Wang¹, Anjey Su, and Philip E. Auron¹. ¹Department of Biological Sciences, Duquesne University, Pittsburgh, PA USA
- PS2-46 Expression and activation of protein kinase PKR and its role in the inhibition of global synthesis induced by bacterial agonists**
Paula C.M. Sales¹, Bryan R.G. Williams², Aristóboles M. Silva¹. ¹Laboratory of Inflammatory Genes, Federal University of Minas Gerais, Belo Horizonte, MG, Brazil, and ²Monash Institute of Medical Research, VIC, Australia
- PS2-47 The interferon-inducible IFI16 protein in age-dependent prostatic diseases**
Eric Dickerson¹, Larissa Ponomareva^{1,2}, Hui Shen^{1,2}, Jordan Reynolds¹, Hai X. Bui¹ & Divaker Choubey^{1,2}. ¹Department of Environmental Health, University of Cincinnati, Cincinnati, OH; ²Research Services, Cincinnati VA Medical Center, Cincinnati, OH, USA

5:30 – 7:00 POSTER SESSION 2 ♦ REGENCY BALLROOM FLOOR

Interferons and Viral Infections

- PS2-48 PIAsy inhibits virus induced Type I interferon production**
Toru Kubota¹, Mayumi Kubota², Sean Xu³, Makoto Takeda¹, Ke Shuai⁴, Atsushi Kato¹, and Keiko Ozato³. ¹Department of Virology III and ²Department of Bacterial Pathogenesis and Infection Control, National Institute of Infectious Diseases, Musashi-Murayama, Tokyo, Japan; ³National Institute of Child Health and Human Development, NIH, Bethesda, MD, USA; ⁴Department of Biological Chemistry, University of California, Los Angeles, CA, USA
- PS2-49 Natural RNA agonists of RIG-I trigger a robust antiviral response that inhibits influenza infection**
Zheng-Yun Xu¹, Meztli Arguello², Marieline Goulet¹, John Hiscott^{1,2} and Rongtuan Lin¹. ¹Molecular Oncology Group, Lady Davis Institute, Department of Experimental Medicine, ²Department of Microbiology and Immunology, McGill University, Montreal, Quebec, Canada
- PS2-50 Comparative analysis of influenza A virus NS1 proteins in modulating cytokine expression**
Janilyn Arsenio¹, Chad Myskiw¹, Yvon Deschambault², Cheryl Hirst², Peter Chen², and Jingxin Cao^{1,2}. ¹Department of Medical Microbiology and Infectious Diseases, University of Manitoba, Winnipeg, Canada. ²Viral Diseases Division, National Microbiology Laboratory, Public Health Agency of Canada, Winnipeg, MB, Canada
- PS2-51 Interferon regulatory factor 5 (IRF-5) modulates the cross talk between innate and adaptive immune responses to pathogen infection**
Chee-Mun Fang², Hubert Lee², Simona Stager³ and Paula M. Pitha^{1,2}. ¹The Sidney Kimmel Comprehensive Cancer Center, The Johns Hopkins University, Baltimore, MD, ²Biology Department, The Johns Hopkins University, Baltimore, MD, ³Department of Pharmacology and Molecular Sciences, The Johns Hopkins University, Baltimore, MD, USA
- PS2-52 Simian immunodeficiency virus infection in the brain leads to differential Type I interferon signaling during acute infection**
Luna Alammur, Lucio Gama, Janice E. Clements. *Department of Molecular and Comparative Pathobiology, Johns Hopkins School of Medicine, Baltimore, MD USA*
- PS2-53 Intracellular DNA-mediated mechanisms of Type I interferon production: Host defense against DNA pathogens**
H. Ishikawa, H. Konno, T. Xia, M. Manrique, K. Konno, P. Ruiz and G. N. Barber. *Sylvester Comprehensive Cancer Center and the Department of Medicine, University of Miami School of Medicine, Miami, Florida, USA*
- PS2-54 Sting regulates intracellular DNA-mediated, type I interferon-dependent innate immunity**
Hiroyasu Konno¹, Hiroki Ishikawa¹, Zhe Ma¹, Glen N. Barber¹. ¹Department of Medicine and Sylvester Comprehensive Cancer Center, University of Miami Miller School of Medicine, Miami, FL USA
- PS2-55 RNase L activation induces autophagy during the host antiviral response**
Arindam Chakrabarti, Robert H. Silverman. *Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH USA*
- PS2-56 Evolution of interferons**
Ole Hamming. *Department of Molecular Biology, Aarhus University, Denmark*
- PS2-57 Characterization of IFIT3 as a novel antiviral protein**
Christopher R. Clark, H. Schmeisser, J. Mejido, C. A. Balinsky, A. N. Morrow, T. Zhao, and K.C. Zoon. *Cytokine Biology Section, National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD USA*
- PS2-58 Role of Noxa in mediating endoplasmic reticulum stress responses in virus infected cells**
Kuladeep R. Sudini, Douglas W. Leaman. *Department of Biological Sciences, The University of Toledo, Toledo, Ohio, USA*
- PS2-59 In vitro evaluation of interferon gamma responses against recombinant merkel cell polyomavirus-like**
Arun Kumar¹, Tingting Chen¹, Minna S Vuojolainen³, Anu Kantele³, Maria Söderlund-Venermo¹, Klaus Hedman^{1,2}, Rauli Franssila¹. ¹Departments of Virology, Haartman Institute, University of Helsinki and ²Helsinki University Central Hospital Laboratory Division; ³Department of Bacteriology and Immunology, Haartman Institute, University of Helsinki
- PS2-60 Biological characterization of feline interferon-NU: A new member of the Type I interferon family**
Steven Carbone, Sidney Pestka, Ronald G. Jubin. *PBL InterferonSource, Piscataway, NJ, USA*
- PS2-61 Transcriptional regulation of miR-155 by IRFs in antiviral immunity and viral tumors**
Ling Wang, Shunbin Ning. *Department of Medicine Miller School of Medicine Sylvester Comprehensive Cancer Center University of Miami, Miami, Florida 33136, USA*
- PS2-62 Differential STAT targeting by paramyxovirus proteins**
Andy Schroeder, Curt Horvath. *Department of Biochemistry, Molecular Biology, and Cell Biology, Northwestern University, Evanston, Illinois USA*
- PS2-63 A shared interface mediates paramyxovirus interference with antiviral RNA helicases MDA5 and LGP2**
Jean-Patrick Parisien¹, Darja Bamming¹, Akihiko Komuro¹, Aparna Ramachandran¹, Jason J. Rodriguez¹, Glen Barber², Robert D. Wojahn¹, and Curt M. Horvath¹. ¹Department of Biochemistry, Molecular Biology, and Cell Biology, Northwestern University, Evanston, Illinois USA, ²Department of Microbiology and Immunology, University of Miami School of Medicine, Miami, Florida USA
- PS2-64 Phosphorylations of the NFAR proteins constitute a novel, conserved mechanism of translational regulation and cellular defence**
Ai Harashima, Toumy Guettouche and Glen N Barber. *Department of Medicine and Sylvester Comprehensive Cancer Center, University of Miami School of Medicine, Miami, FL USA*
- PS2-65 Antiviral activity of Type I and Type III interferons against Oriboca virus (Orhtounyviridae)**
Marieta T. A. Assis, Carla A. Pinto, Cintia L. B. Magalhães, João R. Santos, Cláudio A. Bonjardim, Erna G. Kroon, Paulo C.P. Ferreira. *Laboratory of Virus, Dept. of Microbiologia, ICB, Federal University of Minas Gerais, Belo Horizonte, Minas Gerais, Brasil*
- PS2-66 Interferon-stimulated genes (ISGs) and expression in A549 cells after Caraparu virus infection (Bunyaviridae)**
Carla A. Pinto, Cintia L.B. Magalhães, Marieta T.A. Assis, Luma G. Cascão; João R. Santos, Cláudio A. Bonjardim, Erna G. Kroon, Giliane S. Trindade. *Paulo C.P. Ferreira, Virus Laboratory, Dept of Microbiology, ICB, Federal University of Minas Gerais. Belo Horizonte, Minas Gerais, Brasil*
- PS2-67 PKR: innate immunity and cell biology**
Aaron T Irving¹, Anthony J Sadler¹, Bryan RG Williams¹. ¹Monash Institute of Medical Research, Monash University, Clayton, Victoria, Australia

Interferons and Viral Infections

- PS2-68 Low dose oral Type 1 interferon prophylaxis reduces the incidence and severity of acute respiratory viral illness through immune activation**
Manfred Beilharz¹, David Smith^{1,2}, Martin Cummins³, Peter Jacoby⁴, Joseph Cummins³ and Alayne Bennett¹ ¹University of Western Australia, School of Biomedical, Biomolecular and Chemical Sciences, Perth, WA, Australia. ²PathWest Laboratories WA. ³Amarillo Biosciences, Texas, USA. ⁴Telethon Institute of Child Health Research, Perth, WA, Australia
- PS2-69 RNase L produces small RNA activators of innate immunity signaling in Sendai virus infected cells**
Shuvojit Banerjee, Robert H. Silverman, Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, USA
- PS2-70 STAT3 negatively regulates Type I IFN-mediated signaling and functions**
Wei-Bei Wang, Hao-Kang Den, David E. Levy, Chien-Kuo Lee, Rm 513, No. 1, Section 1, Jen-Ai Road, Taipei 100, Taiwan 2. Department of Pathology, New York University School of Medicine, New York, NY, USA
- PS2-71 Differential effects of human interferon-alpha subtypes on CD4 T cell function**
Doria M Gold, Philippa Hillyer, Nataly Raviv, Melissa A Heuer, B Chi, Ronald L Rabin, FDA, Bethesda, MD, USA
- PS2-72 Extracellular 2'-5' Oligoadenylate synthetase stimulates RNase L-independent antiviral activity: A novel mechanism of virus-induced innate immunity**
Helle Kristiansen¹, Susanne Vends¹, Karthiga Thavachelvam¹, Thomas B. Steffensen¹, Søren R. Paludan², Christina A. Scherer³, Maralee McVean³, Shawn P. Iadonato³, Thomas Kuri⁴, Friedemann Weber⁴ & Rune Hartmann¹, ¹Centre for Structural Biology, Dept. of Molecular Biology and ²Dept. for medical immunology and microbiology, Aarhus University, Aarhus, Denmark; ³Illumigen Biosciences, Seattle, WA, USA; ⁴Dept of Virology, University of Freiburg, Freiburg, Germany
- PS2-73 Resistance to rabies viral infection conferred by PMLIV isoform**
Danielle Blonde^{1*}, Sabrina Kheddache^{2*}, Xavier Lahaye¹, Laurent Dianoux² and Mounira K. Chelbi-Alix², ¹UPR 3296 CNRS, 91198 Gif sur Yvette, France, ²CNRS, FRE 3235, Université Paris Descartes, 75006 Paris, France. *Equal contribution
- PS2-74 Molecular identification of MDA5 and STAT2 binding site for measles virus V protein**
Aparna Ramachandran, Jean-Patrick Parisien and Curt M. Horvath, Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, IL 60208, USA
- PS2-75 Regulation of the response to interferon therapy through innate immune tolerance during hepatitis C virus infection**
Daryl T.Y. Lau¹, Jie Chen¹, Takeshi Saito², Nanette Crochet², Yuhong Zhang¹, Sharon Holder¹, Michael Gale Jr.²; ¹Medicine, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, United States. ²Immunology, University of Washington, Seattle, USA
- PS2-76 KSHV encoded vIRF-3 downregulates IFN-gamma by counteracting cellular IRF-5**
Katharina Schmidt, Effi Wies, Frank Neipel, Virologisches Institut, Universitätsklinikum Erlangen, D-91054 Erlangen, Germany
- PS2-77 IFN-mediated regulation of protein translation and its role in an antiviral immune response**
Daniel Burke¹, Nahum Sonenberg², Leonidas C. Platanias³, Eleanor N. Fish¹; ¹Toronto General Research Inst. & University of Toronto, Toronto, Canada, ²McGill University, Montreal, Canada, ³Northwestern University School of Medicine, Chicago, IL, USA
- PS2-78 Lymphotoxin-interferon axis is required for CD69 upregulation after cytomegalovirus infection**
Shilpi Verma¹, Chris Benedict¹ and Carl Ware¹, ¹Division of Molecular Immunology, LIAI, La Jolla, CA, USA
- PS2-79 Virus particle entry induces an interferon-independent antiviral response that is mediated by reactive oxygen species**
Tracy Chew¹, Karen L. Mossman^{1,2}, ¹Departments of Pathology and Molecular Medicine and ²Biochemistry and Biomedical Sciences, McMaster University, Hamilton, Ontario, Canada
- PS2-80 Cloning, expression and characterization of chicken IFNλ**
Adam J. Karpala, Kirsten R. Morris, Mary M. Broadway, Peter G. D. McWaters, Terri E. O'Neil, Kate E. Goossens, John W. Lowenthal and Andrew G. D. Bean, CSIRO, Australian Animal Health Laboratory, Private Bag 24, Geelong, Victoria, 3220, Australia

Novel Therapeutic Targets in Malignancies

Session Chairs:

William Carson, Ohio State University

Leonidas Platanias, Northwestern University

9:00 PL3-1

IL-15 for the treatment of metastatic malignant melanoma and metastatic renal cell cancer

Thomas A. Waldmann, Metabolism Branch, CCR, National Cancer Institute, National Institute of Health, Bethesda, MD, USA

9:30 PL3-2

TGF-β and androgen signaling cross-talk regulates apoptosis and epithelial-mesenchymal-transition (EMT) in prostate cancer

Natasha Kyprianou, Departments of Surgery/Urology, Molecular Biochemistry and Pathology, University of Kentucky College of Medicine, Lexington, KY, USA

10:00 PL3-3

Silencing of Irf7 expression in breast cancer cells promotes bone metastasesP.J. Hertzog¹, B.N. Bidwell², N. Withana², N. Mangan¹, D. Andrews², S. Samarajiva¹, R. Anderson² and B.S. Parker², ¹Centre for Innate Immunity and Infectious Diseases, Monash Institute of Medical Research, Monash University, Clayton Victoria, Australia; ²Peter MacCallum Institute for Cancer Research, Melbourne Victoria, Australia

10:20 PL3-4

Opposing p21^{CIP1/WAF1} regulation by TGFβ and activin in colon cancerJennifer Cabral¹, Sharon Tracy¹, Jessica Gomez¹, Judith Sporn^{1,2}, and Barbara Jung^{1,2}, ¹Department of Medicine, University of California, San Diego; ²Department of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, USA

10:40 PL3-5

A novel role of IL-22R1 as a possible driver of inflammation in ALK⁺ anaplastic large cell lymphomaRam Savan^{1*}, Della A. Reynolds¹, Adelle P. McFarland¹, Lionel Feigenbaum², Karthika Ramakrishnan¹, Hidekazu Shirota¹, Dennis M. Klinman¹, Kieron Dunleavy³, Stefania Pittaluga⁴, Stephen K. Anderson¹, Raymond P. Donnelly⁵, Wyndham H. Wilson³ and Howard A. Young^{1*}, ¹Cancer and Inflammation Program, Center for Cancer Research, National Cancer Institute, Frederick, MD 21702, USA; ²Laboratory of Animal Science Program, Center for Cancer Research, National Cancer Institute, Frederick, MD 21702, USA; ³Metabolism Branch, Lymphoma Therapeutics Section, Center for Cancer Research, National Cancer Institute, Bethesda, MD 20892, USA; ⁴Laboratory of Pathology, Hematopathology Section, Center for Cancer Research, National Cancer Institute, Bethesda, MD 20892, USA; ⁵Division of Therapeutic Proteins, Center for Drug Evaluation and Research, Food and Drug Administration, Bethesda, MD 20892, USA

11:00 PL3-6

New roles for Interleukin-11 in mucosal immunity and colorectal cancerTracy Putoczki¹, Andrea Loving¹, Stefan Thiem¹, Brent McKenzie², Matthias Ernst¹, ¹Ludwig Institute for Cancer Research, Melbourne, Victoria, Australia; ²CSL Ltd., Melbourne, Victoria, Australia

11:30 LUNCH BREAK – on your own

1:00 – 3:00 CONCURRENT SESSION 5 ♦ REGENCY BALLROOM A

Interferons and Viral Infections

Session Chairs:Alan Lau, *University of Hong Kong*Michael David, *University of California San Diego***1:00 CS5-1****Multiple antiviral pathways are activated by TLR3 And RIG-I Signaling**Ganes C. Sen, Michifumi Yamashita, Paramananda Saikia, Volker Fensterl, Christine White and Saurabh Chattopadhyay, *Department of Molecular Genetics, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, USA***1:30 CS5-2****Tipping the balance: ADAR1 deaminase and PKR kinase can display opposing roles during viral infection**Charles E. Samuel, Zhiqun Li, Annie M. Toth, Christopher A. McAllister, Kristina Okonski, Nora Taghavi, Ying Wang, and Cyril X. George, *Department of Molecular, Cellular and Developmental Biology, University of California, Santa Barbara, CA, USA***2:00 CS5-3****The role of Interferon Epsilon in viral infection of the reproductive tract**Niamh E. Mangan¹, Ka Yee Fung¹, Sebastian Stifter¹, Daniel J. Carr², Paul J. Hertzog¹, ¹*Centre for Innate Immunity and Infectious Diseases, Monash Institute of Medical Research, Monash University, Clayton, Victoria, Australia;* ²*Department of Ophthalmology, University of Oklahoma Health Sciences Center, OK, USA***2:15 CS5-4****TRIM79, a novel interferon stimulated gene, restricts flavivirus replication by degrading the viral RNA polymerase**R. Travis Taylor, Kirk J. Lubick and Sonja M. Best, *Laboratory of Virology, Rocky Mountain Laboratories, DIR, NIAID, NIH, Hamilton, MT, USA***2:30 CS5-5****Characterization of the Interferon Lambda (IL28/29) antiviral pathway in cell culture, human and chimpanzee models of HCV infection**Emmanuel Thomas, Veronica D. Gonzalez, Ankit A. Modi, Mazen Nouredin, Yaron Rotman, T. Jake Liang, *Liver Diseases Branch, NIDDK/NIH, Bethesda, MD, USA***2:45 CS5-6****Structural and functional insights into the antiviral MxA GTPase**Otto Haller¹, Alexander von der Malsburg¹, Petra Zimmermann¹, Song Gao², Oliver Daumke², Georg Kochs¹, ¹*Department of Virology, University of Freiburg, Freiburg, Germany;* ²*Crystallography Department, Max Delbrück Centre for Molecular Medicine, Berlin, Germany***3:00 BREAK***Refreshments in Regency D Exhibit Hall*

1:00 – 3:00 CONCURRENT SESSION 6 ♦ REGENCY BALLROOM B

Cytokines/Chemokines and Their Receptors Structure/Function

Session Chairs:Amanda Proudfoot, *Merck Serono*Menachem Rubinstein, *Weizmann Institute of Science***1:00 CS6-1****A SEFIR is not enough: structure and function in the IL-17 receptor super family**Sarah L. Gaffen¹, Reiko M. Onishi¹, Sangmi J. Park¹, Allen W. Ho^{1,2}, Amarnath Maitra², Walter Hanel², Fang Shen², ¹*University of Pittsburgh Dept. of Medicine, Pittsburgh, PA, USA;* ²*SUNY at Buffalo, Buffalo, NY, USA***1:30 CS6-2****What nature can teach us about chemokine function**Amanda E. I. Proudfoot, *Geneva Research Centre, Merck Serono SA, Geneva, Switzerland***2:00 CS6-3****Post-transcriptional control of neutrophil-specific chemokine gene expression**Tom Hamilton, *Department of Immunology, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH, USA***2:30 CS6-4****New insights into the control of cytokine receptor degradation and ectodomain shedding**Tavernier Jan, De Ceuninck Leen, Wauman Joris, *Cytokine Receptor Lab, Ghent University, Ghent, Belgium***2:45 CS6-5****A new class of cell signaling molecules derived from aminoacyl-tRNA synthetases**Xiang-Lei Yang¹, Quansheng Zhou^{1,2}, Mili Kapoor¹, Min Guo¹, Rajesh Belani^{1,3}, Xiaoling Xu¹, William B. Kiosses⁴, Melanie Hanan¹, Chulho Park³, Eva Armour³, Minh-Ha Do³, Leslie A. Nangle³, and Paul Schimmel¹, ¹*Department of Molecular Biology, The Scripps Research Institute, La Jolla, CA USA;* ²*Cyrus Tang Hematology Center, Jiangsu Institute of Hematology, Soochow University, Suzhou, China;* ³*aTyr Pharma Inc., San Diego, CA USA;* ⁴*Core Microscopy Facility, The Scripps Research Institute, La Jolla, CA, USA***3:00 BREAK***Refreshments in Regency D Exhibit Hall*

3:20 – 5:40 SPECIAL SYMPOSIUM 8 ♦ TRUFFLES ROOM

Cytokines and Cell Death

Session Chairs:Betsy Barnes, *University of Medicine and Dentistry of New Jersey*Lawrence Pfeffer, *University of Tennessee Health Science Center***3:20 SS8-1****The ‘apoptotic’ caspases as regulators of inflammation: new lessons from the study of caspase-8 function**David Wallach, Akhil Rajput, Tae-Bong Kang, Jin-Chul Kim, Konstantin Bogdanov, Seung-Hoon Yang and Andrew Kovalenko, *Department of Biological Chemistry and The Weizmann Institute of Science, Rehovot, Israel***3:50 SS8-2****Interferon and cancer: a GRIM road to and tumor suppression**Dhan V. Kalvakolanu, Shreeram C. Nallar, Sudhakar Kalakonda, and Peng Sun, *Department of Microbiology & Immunology, Greenebaum Cancer Center, University of Maryland School of Medicine, Baltimore, MD, USA***4:20 SS8-3****IRF-3 and Bax-mediated cellular apoptosis: a novel antiviral response**Saurabh Chattopadhyay, Michifumi Yamashita and Ganes C. Sen, *Department of Molecular Genetics, Lerner Research Institute, Cleveland, OH, USA***4:35 SS8-4****A novel requirement for the Janus kinase TYK2 as a mediator of drug resistance induced by fibroblast growth factor-2 in cancer cells**Catarina Ramos do Carmo, Janet Lyons-Lewis, Michael J. Seckl and Ana P. Costa-Pereira, *Imperial College London, Hammersmith Hospital Campus, London, UK***4: 50 SS8-5****Interferon-β affects p53 transactivating activity in cutaneous human papillomavirus 38 (HPV38)-transformed keratinocytes**M.V. Chiantore¹, S. Vannucchi¹, R. Accardi², M. Tommasino², E. Affabris³, G. Fiorucci^{1,4} and G. Romeo^{1,5}, ¹Dept of Infectious, Parasitic and Immune-mediated Diseases, Istituto Superiore di Sanità, Rome, Italy; ²Infections and Cancer Biology Group, International Agency for Research on Cancer-WHO, Lyon, France; ³Dept. of Biology, University of Rome 3; ⁴Institute of Molecular Biology and Pathology, CNR; ⁵Dept of Experimental Medicine, Sapienza University of Rome, Rome, Italy**5:05 SS8-6****Anti-metastatic effects of interferons and role of DAPK1 and its regulators**Padmaja Gade and Dhan V Kalvakolanu, *University of Maryland School of Medicine, Baltimore, MD, USA***5:20 SS8-7****The anti-proliferative activity of IFN-alpha mediated by BID through TRAIL**Takaya Tsuno, Josef Mejido, Togmao Zhao, Terry Phillips Joseph Bekisz and Kathryn C. Zoon, *Cytokine Biology Section, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD 20892, USA*

3:20 – 5:40 SPECIAL SYMPOSIUM 9 ♦ REGENCY BALLROOM A

Cytokines and Inflammation II

Session Chairs:Carl Ware, *Sanford/Burnham Medical Research Institute*Michael Tovey, *Institute Andre Lwoff***3:20 SS9-1****Cytokines in the interplay between cellular and humoral innate immunity: PTX3 as a paradigm**Alberto Mantovani^{1,2}, Cecilia Garlanda¹, Barbara Bottazzi¹, ¹Laboratory of Immunology and Inflammation, Istituto Clinico Humanitas, Rozzano (Milan), Italy; ²Department of Translational Medicine, University of Milan, Italy**3:50 SS9-2****Role of proinflammatory cytokines in respiratory diseases**Tomoaki Hoshino¹, Yuki Sakazaki¹, Tomotaka Kawayama¹, Haruki Imaoka¹, Takashi Kinoshita¹, Masanori Sawada¹, Hanako Oda¹, Masaki Okamoto¹, Howard A. Young², and Hisamichi Aizawa¹, ¹Department of Internal Medicine, Kurume University School of Medicine, Kurume, Japan; ²Cancer and Inflammation Program, Center for Cancer Research, National Cancer Institute, Frederick, MD 21702, USA**4:20 SS9-3****Interleukin-6-induced STAT3 signaling links inflammation to chronic lung disease in mice**Robert J.J. O'Donoghue^{1,2}, Darryl A Knight³, Andrew G Jarnicki¹, Jessica Jones², Gary P Anderson², Steven E Mutsaers⁴, Matthias Ernst¹, ¹Ludwig Institute for Cancer Research, Parkville, VIC, Australia; ²Departments of Pharmacology and Medicine, University of Melbourne, Parkville, VIC, Australia; ³UBC James Hogg Research Centre Heart + Lung Institute, Vancouver, BC, Canada; ⁴Lung Institute of Western Australia, Nedlands, WA, Australia**4:35 SS9-4****Thioredoxin suppresses airway inflammation independently of systemic Th1/Th2 immune modulation**Mie Torii^{1,2}, Linan Wang^{1,3}, Ning Ma⁴, Kanako Saito^{1,5}, Tomohide Hori^{1,6,8}, Maremi Sato-Ueshima⁷, Yoshikazu Koyama⁴, Hiroyoshi Nishikawa³, Naoyuki Katayama⁵, Akira Mizoguchi², Hiroshi Shiku^{3,9}, Junji Yodoi¹⁰, Kagemasa Kuribayashi¹, and Takuma Kato¹, ¹Departments of Cellular and Molecular Immunology, ²Neural Regeneration and Cell Communication, ³Cancer Vaccine, ⁴Hematology and Oncology, ⁵Hepatobiliary Pancreatic Surgery, and ⁶Immuno-Gene Therapy, University Graduate School of Medicine, Mei, Japan; ⁷Divisions of Hepato-pancreato-biliary and Transplant Surgery, Department of Surgery, Kyoto University Hospital, Kyoto, Japan; ⁸Suzuka University of Medical Science, Suzuka, Mie, Japan; ⁹Hokkaido Information University, Ebetsu, Hokkaido, Japan; ¹⁰Department of Biological Responses, Institute for Virus Research, Kyoto University, Kyoto, Japan**4:50 SS9-5****Anti-B cell activating factor (anti-Blys) acts as a potential therapeutic in chronic asthma**Heather Wasserman¹, Tim Carlson¹, Thi-Sau Migone², Angie Snell¹, Chris Ward², and Matt Devalaraja¹, ¹Department of Pharmacology, Toxicology, and Pharmakinetcs, Human Genome Sciences, Rockville, MD, USA; ²Clinical Immunology Department, Human Genome Sciences, Rockville, MD, USA**5:05 SS9-6****In vivo imaging of high endothelial venules and lymphatic vessels in lymph nodes and tertiary lymphoid organs**Nancy H. Ruddle, Lucy A. Truman, and Kevin L. Bentley, *Departments of Epidemiology and Public Health and Immunobiology, Yale University School of Medicine, New Haven, CT, USA***5:20 SS9-7****TSLP, IL-25 and IL-33 work in cooperation to drive Th2 and Th1 CD4+ T-cell responses**Michael R. Comeau, Tod J. Martin and Heidi K. Jessup, *Inflammation Research, Amgen Inc., Seattle, WA, USA*

3:20 – 5:40 SPECIAL SYMPOSIUM 10 ♦ REGENCY BALLROOM B

Viral Mechanisms that Block Cytokine Responses

Session Chairs:

Paula Pitha Rowe, *Johns Hopkins School of Medicine*Santo Landolfo, *University of Turin*

3:20 SS10-1

Activation and inhibition of interferon signaling and antiviral responses by RNA virusesCurt Horvath, *Robert H. Lurie Comprehensive Cancer Center of Northwestern University, Chicago, IL, USA*

3:45 SS10-2

Phosphorylation-dependent regulation of IFNAR1 stability and signalingSerge Fuchs, *Department of Animal Biology, University of Pennsylvania School of Veterinary Medicine, Philadelphia, PA, USA*

4:10 SS10-3

H5N1 influenza A virus non-structural protein 1 down-regulates type I interferon signal transductionBen Wang^{1,2} and Eleanor Fish^{1,2}, ¹*Toronto General Research Institute, University Health Network, Toronto, Ontario, Canada;* ²*Department of Immunology, University of Toronto, Toronto, Ontario, Canada*

4:25 SS10-4

Expression of HPV16 oncoproteins alters cytokine secretion profile of primary human keratinocytes in response to toll-like receptor ligandsIsmar R. Haga, Ana P. Lepique, Enrique Boccardo, Luisa L. Villa, *Ludwig Institute for Cancer Research, Sao Paulo, Brazil*

4:40 SS10-5

HSV γ 34.5 impairs TLR4 mediated inflammatory cytokine responses through dephosphorylation of IKK- β Huali Jin, Zhipeng Yan, Yijie Ma, Tibor Valyi-Nagy, and Bin He, *Department of Microbiology and Immunology, College of Medicine, University of Illinois, Chicago, IL, USA*

4:55 SS10-6

Tick-borne flavivirus infection of dendritic cells inhibits IL-12 productionShelly J. Robertson and Sonja M. Best, *Laboratory of Virology, Rocky Mountain Laboratories, DIR, NIAID, NIH, Hamilton, MT, USA*

5:10 SS10-7

The battle between host and virus: how Chikungunya virus is inhibited by 2'-5'-oligoadenylate synthetases and how it may escape the battleHans Henrik Gad¹, Sylvie Paulous¹, Valerie Caro², Rune Hartmann³, Beate Kümmerer⁴ and Philippe Despres¹, ¹*Unité Interactions moléculaires Flavivirus-Hôtes, Institut Pasteur, Paris, France;* ²*Plate-forme de Génotypage des Pathogènes et santé publique, Institut Pasteur, Paris, France;* ³*Department of Molecular Biology, Aarhus University, Aarhus, Denmark;* ⁴*Institut für Virologie, Universitäts Klinikum Bonn, Bonn, Germany*

5:25 SS10-8

The interferon-inducible IFI16 gene acts as a restriction factor for human cytomegalovirus replicationMarco De Andrea^{1,2}, Anna Lugini¹, Francesca Gugliesi¹, Giorgio Gribaudo¹, Marisa Gariglio², and Santo Landolfo¹, ¹*Department of Public Health and Microbiology, University of Turin;* ²*Department of Clinical and Experimental Medicine, University of Piemonte Orientale, Novara, Italy*

3:20 – 5:40 SPECIAL SYMPOSIUM 11 ♦ REGENCY BALLROOM C

Cytokines and Infectious Diseases

Session Chairs:

Kathy Zoon, *National Institute of Health*Angela Battistini, *Istituto Superiore di Sanità*

3:20 SS11-1

Therapeutic exploitation of shared IFN γ and IFN α signaling for mycobacterial diseaseH Bax, AF Freeman, AP Hsu, SK Browne, BE Marciano, M Paulson, C Fowler, L Ding, EP Sampaio, SM Holland, *Laboratory of Clinical Infectious Diseases, National Institutes of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, USA*

3:50 SS11-2

ISG15 and protein ISGylationXiuli Cong, Brian Reuter, Ming Yan, Dong-Er Zhang, *Department of Pathology, Division of Biological Sciences, and Moores UCSD Cancer Center, University of California San Diego, La Jolla, CA 92093, USA*

4:20 SS11-3

Interleukin-15 expression in dendritic cell and T cell subsets revealed using a novel reporter systemSara L. Colpitts¹, Thomas A. Stokalsek¹, Joshua J. Obar¹, Caiying Guo², and Leo Lefrançois¹, ¹*Department of Immunology, Center for Integrated Immunology and Vaccine Research and* ²*The Gene Targeting and Transgenic Facility, University of Connecticut Health Center, Farmington, CT, USA*

4:35 SS11-4

Local manipulation of IL-6 trans-signaling therapeutically enhances anti-microbial host defenseBarbara Coles, Chantal Colmont, Ceri A. Fielding, Ann Kift-Morgan, Emily Hams, Nicholas Topley and Simon A. Jones, *Department of Infection, Immunity & Biochemistry, The School of Medicine, Cardiff University, Wales, UK*

4:50 SS11-5

Role of Interleukin-17 in immunity to intracellular pulmonary pathogensRadha Gopal, Yin-Yao Lin and Shabaana A. Khader, *Department of Pediatrics, University of Pittsburgh, PA, USA*

5:05 SS11-6

A proinflammatory role for IL-22 in acute hepatitis BYe Zhang^{1,2}, Melissa A. Cobleigh¹, Jian-Qi Lian², Chang-Xing Huang², Xue-Fan Bai², Michael D. Robek¹, ¹*Department of Pathology, Yale University School of Medicine, New Haven, CT, USA;* ²*Center for Infectious Diseases, Tangdu Hospital, Fourth Military Medical University, Xi'an, Shaanxi Province, P.R. China*

5:20 SS11-7

Cytokine expression profiles characteristic of immune imbalances in persistent post-infectious fatigueBen Z. Katz¹, Mary Ann Fletcher², Frederick A. Smith³, Renee Taylor⁴, Suzanne D. Vernon⁵, Gordon Broderick⁶, ¹*Div. of Infectious Diseases, Children's Memorial Hospital, Chicago, IL, USA;* ²*Dept. of Medicine, University of Miami, Miami, FL, USA;* ³*Dept. of Pathology and Laboratory Medicine, Children's Memorial Hospital, Chicago, IL, USA;* ⁴*Dept. of Occupational Therapy, University of Illinois at Chicago, Chicago, IL, USA;* ⁵*CFIDS Association of America, Charlotte, NC, USA;* ⁶*Dept. of Medicine, University of Alberta, Edmonton, AB, Canada*

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Infectious Agents and Cytokine Induction

- PS3-01 Multiplex profiling of cytokines released by A549 human lung epithelial cells after infection with encephalomyocarditis virus and vesicular stomatitis virus**
Yognandan Pandya*, Christina Caruso*, Daniela Rotaru, Ronald G. Jubin, William A. Clark, Thomas B. Lavoie*, and Sidney Pestka. PBL InterferonSource Piscataway, NJ, USA
- PS3-02 Neutralization of endogenous IL-12 inhibits the T-helper Type 1 immune response in experimental *Sporothrix Schenckii* infection**
Aurelio Flores-García¹, Vicente Garibaldi-Becerra², Martha Barba-Barajas³, Jesus S. Velarde-Félix⁴, Luis E. Wong-Ley-Madero¹, Pedro Aguiar-García¹, Rodolfo Ramos-Zepeda³, ¹Laboratorio de Inmunobiología molecular, Unidad Académica de Medicina, Universidad Autónoma de Nayarit, Tepic, Nayarit, México; ²Secretaría de Salubridad y Asistencia, Guadalajara, Jalisco, México; ³Laboratorio de Inmunología Molecular, Centro de Investigación Biomédica de Occidente, Instituto Mexicano del Seguro Social, Guadalajara, Jalisco, México; ⁴Centro de Medicina Genómica del Hospital General de Culiacán "Dr. Bernardo J. Gastélum," Culiacán, Sinaloa, México
- PS3-03 Effect of Hepatitis C virus core and core+1 proteins on pro- and anti-inflammatory cytokine and chemokine gene expression**
Emmanouil Kochlios¹, Pelagia Foka¹, Polyxeni P. Doumba^{2,3}, John Koskinas³ and Penelope Mavromara¹. ¹Molecular Virology Laboratory, Hellenic Pasteur Institute, Athens, Greece; ²Laboratory of Surgical Research, Medical School of Athens, Hippokraton Hospital, Athens, Greece; ³2nd Department of Internal Medicine, Medical School of Athens, Hippokraton Hospital, Athens, Greece
- PS3-04 Cytokine induction during corona virus entry**
Taylor Heald-Sargent, Thomas Gallagher, Department of Microbiology and Immunology, Loyola University Chicago, Maywood, IL, USA
- PS3-05 The chemokine network in the formation of tertiary lymphoid structures in colorectal cancer**
Marchesi F^{1,2}, Martin AP², Furtado GC², Allavena P¹, Lira SA², Mantovani A^{1,3}. ¹Department of Immunology and Inflammation, IRCCS Humanitas Clinical Institute, ²Immunology Institute, Mount Sinai School of Medicine, New York, NY 10029, USA, ³Department of Translational Medicine, University of Milan, Italy
- PS3-06 Differences in magnitude and timing of human monocyte derived dendritic cell innate immune responses to two strains of respiratory syncytial virus**
Philippa Hillyer, Aaron Chen, Lynnsie M. Schramm, Viraj P. Mane, Maria Navarro, Doria M. Gold, Nataly Raviv, Ronald L. Rabin. Laboratory of Immunobiochemistry, Center for Biologics Evaluation and Research, US Food and Drug Administration, Bethesda, MD, USA
- PS3-07 Differential patterns of response to toll-like receptor 9 agonist and exogenous interferon- α in the mouse liver**
Zuzanna Makowska¹, Nicola La Monica², Markus H. Heim¹. ¹University Hospital of Basel, Basel, Switzerland; ²Idera Pharmaceuticals, Cambridge, MA, USA

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Pattern Recognition

- PS3-08 Role of IL-1 and TNF in human monocyte-derived dendritic cell responses following beta-glucan and LPS stimulation**
Marco Cardone¹, Anna Mason¹, Elena Riboldi¹, Charles A. Stewart¹, Franca Gerosa², Giorgio Trinchieri¹ and Lyudmila Lyakh¹. ¹Cancer Immunobiology Section, Laboratory of Experimental Immunology, Cancer and Inflammation Program, CCR, National Cancer Institute, Frederick, MD 21702; ²Department of Pathology, Section of Immunology, University of Verona, Verona, Italy
- PS3-09 An RNase L mediated cleavage product of hepatitis C virus RNA requires a 3'-Phosphate**
Krishnamurthy Malathi^{1,4}, Takeshi Saito², Nannette Crochet², David J. Barton³, Michael Gale Jr.³ and Robert H. Silverman¹. ¹Department of Cancer Biology, Lerner Research Institute, Cleveland Clinic, 9500 Euclid Avenue, Cleveland, OH 44195; ²Department of Immunology, School of Medicine University of Washington, 1959 NE Pacific Street, H-578 Health Sciences, Box 357650 Seattle, WA 98195-7650; ³Department of Microbiology, University of Colorado School of Medicine, Mail Stop 8333, PO Box 6511, Aurora, CO 80045; ⁴Department of Biological Sciences, University of Toledo, Toledo, OH 43606, USA
- PS3-10 A common retinoic inducible gene I (RIG-I) polymorphism in amino acid 7 is responsible for a differential interferon beta induction probably due to differences in RIG-I ubiquitination**
Estanislao Nistal-Villán^{1,6*}, Jianzhong Hu^{1,5*}, Gloria González Aseguinolaza⁶, Adolfo García-Sastre^{1,2,3}, James Wetmur^{1,5}. ¹Department of Microbiology, ²Division of Infectious Diseases, Department of Medicine, ³Global Health and Emerging Pathogens Institute, ⁴Center for Translational Systems Biology, ⁵Department of Genetics and Genomic Sciences, Mount Sinai School of Medicine, New York, NY, USA, ⁶Division of Hepatology and Gene Therapy, Center for Investigation in Applied Medicine (CIMA), Pamplona, Spain. *Equal contribution
- PS3-11 Selective recognition of RNA by the retinoic acid inducible gene I receptor**
Simone A. Beckham^{1,2}, Anna Roth¹, Die Wang², Anthony J. Sadler², Bryan R. G. Williams², Jackie A. Wilce¹, Matthew C. J. Wilce¹. ¹Department of Biochemistry and Molecular Biology, Monash University, Clayton, Victoria, Australia; ²Monash Institute of Medical Research, Monash University, Clayton, Victoria, Australia
- PS3-12 Activation of RIG-I-dependent innate immune responses by incoming RNA virus nucleocapsids containing a 5'-triphosphorylated genome**
Ali Gawanbacht-Ramorrhose¹, Matthias Habjan¹, and Friedemann Weber^{1,2}. ¹Department of Virology, University Freiburg, Hermann-Herder-Strasse 11, D-79008 Freiburg, Germany; ²Institute for Virology, Philipps-University Marburg, D-35043 Marburg, Germany
- PS3-13 A role for the DEXH box protein LGP2 in innate immune responses induced by cytosolic DNA and Listeria monocytogenes**
Darja Pollpeter¹, Akihiko Komuro¹, Glen N. Barber², Curt M. Horvath¹. ¹Department of Biochemistry, Molecular Biology and Cell Biology, Northwestern University, Evanston, IL, USA, ²Department of Medicine and Sylvester Comprehensive Cancer Center, University of Miami School of Medicine, Miami, FL, USA
- PS3-14 A high throughput screen of TLR3-IRF3 signaling pathway modulators identifies several anti-psychotic drugs as TLR modulators**
Jianzhong Zhu¹, Kevin Smith³, Paishiun N. Hsieh¹, Yvonne K. Mburu², Saurabh Chattopadhyay³, Ganes C. Sen³, and Saumendra N. Sarkar^{1,2,3}. ¹Molecular Virology Program, University of Pittsburgh Cancer Institute and Department of Microbiology and Molecular Genetics, Pittsburgh, PA ²Department of Immunology, University of Pittsburgh School of Medicine, Pittsburgh, PA ³Department of Molecular Genetics, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, USA

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Novel Therapeutic Targets in Malignancies

- PS3-15 Anti-leukemic effects of the AMPK Activators AICAR and metformin in BCR-ABL expressing cells**
Eliza Vakana¹ and Leonidas C. Platanias¹. ¹Robert H. Lurie Comprehensive Cancer Center and Division of Hematology/Oncology, Northwestern University Medical School and Jesse Brown VA Medical Center, Chicago, IL, USA
- PS3-16 Protein kinase R (PKR) in the regulation of normal hematopoiesis and in myelodysplastic syndromes**
Bhumika Sharma¹, Amit Verma², and Leonidas C. Platanias¹. ¹Robert H. Lurie Comprehensive Cancer Center, Northwestern University, Chicago, IL 60611, ²Albert Einstein College of Medicine, Bronx, NY 10461, USA

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Cytokines/Chemokines and Their Receptors: Structure/Function

- PS3-18 Pushing fluorescence resonance energy transfer (FRET) to the limit: high-throughput FRET applied to cytokine receptors**
Christopher D. Krause¹, Erwen Mei², June Davies², Mark Champion², and Sidney Pestka¹. ¹Department of Molecular Genetics, Microbiology and Immunology, Robert Wood Johnson Medical School – University of Medicine and Dentistry of New Jersey, Piscataway, NJ 08854 USA ²GE Healthcare, 800 Centennial Avenue, Piscataway, NJ 08855, USA
- PS3-19 Active regulation of common gamma chain expression is critical for T cell development and homeostasis**
Changwan Hong, Megan Luckey, Anthony J. Adams, and Jung-Hyun Park. Experimental Immunology Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892, USA
- PS3-20 A comparison of the binding of interferon alpha subtypes to isolated IFNAR1 and IFNAR2 with activity in antiviral and antiproliferative assays**
Thomas B. Lavoie¹, Renne Abramovich², Sara Crisafulli Cabatu¹, Gina DiGioia¹, Karlene Moolchan¹, Sidney Pestka¹, Gideon Schreiber². ¹PBL InterferonSource Piscataway, NJ, USA, ²Department of Biological Chemistry, Weizmann Institute, 76100 Rehovot, Israel
- PS3-21 Preclinical validation of CCR5 pharmacodynamic biomarkers**
Chen-Yi Hung, Kathleen Gillooly, Jesse Miller, Ragini Vuppugalla, Jian Pang, Vojkan Susulic, Nicole Vincelli, Sophie Beyer, Jenny Xie, Kim McIntyre, Wanda West, Percy Carter, Paul Davies, Luisa Salter-Cid, Qihong Zhao. Immunoscience R&D, Bristol-Myers Squibb, Princeton, NJ, USA
- PS3-22 Analytical development and empirical demonstration of fluorescence resonance energy transfer among three proteins: application to cytokine receptors**
Christopher D. Krause, Lara S. Izotova, and Sidney Pestka, Department of Molecular Genetics, Microbiology and Immunology, Robert Wood Johnson Medical School - University of Medicine and Dentistry of New Jersey, Piscataway, NJ 08854, USA
- PS3-23 In human multiple sclerosis, T-helper 17 lymphocytes display increased levels of JAK2 that stabilize cell surface IFN- γ R2 chain**
Simona Rolla^{1,2}, Laura Conti^{1,2}, Raffaele De Palma³, Daniela Boselli^{1,2}, Valentina Bardina^{1,2}, Gabriella Rodolico³, Olli Silveinonen⁴, Marinella Clerico⁵, Luca Durelli⁵ and Francesco Novelli^{1,2}. ¹Center for Experimental Research and Medical Studies (CERMS), San Giovanni Battista Hospital; ²Department of Medicine and Experimental Oncology, University of Turin, Turin, Italy; ³Department of Clinical and Experimental Medicine, Second University of Naples, Napoli; ⁴Institute of Medical Technology, University of Tampere, Tampere, Finland; ⁵Department of Clinical and Biological Sciences, Division of Neurology, San Luigi Gonzaga School of Medicine, Orbassano, Turin, Italy
- PS3-24 Structural profiles of cytokine families – Revisiting classification**
Awanti Sambarey¹ and Nagasuma Chandra¹. ¹Bioinformatics Centre, Indian Institute of Science, Bangalore, Karnataka, India
- PS3-25 Platelets are a source of macrophage-derived chemokine and thymus and activation-regulated chemokine in the newborn**
Trisha V Macfarlane, Ruth H Jones, Aled H Bryant, Ina Laura Pieper, Gareth Morgan, Catherine A Thornton. Institute of Life Science, School of Medicine, Swansea University, Swansea, Wales, UK

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Cytokines and Cell Death

- PS3-26 Phosphorylation of PACT at specific serines in response to stress signals regulates PKR activation by reducing PACT's interaction with TRBP**
Madhurima Singh¹, David Castillo¹, Chandrashekar V. Patel², Rekha C. Patel¹. ¹Department of Biological Sciences, University of South Carolina, Columbia, SC USA; ²Department of Cell, Developmental Biology, and Anatomy, University of South Carolina Medical School, Columbia, SC, USA
- PS3-27 A defect in store-operated calcium entry sensitizes T cells to Type I interferon-induced apoptosis**
Chanyu Yue¹, Jonathan Soboloff¹ and Ana M. Gamero¹. ¹Department of Biochemistry, Temple University School of Medicine, Philadelphia, PA, USA
- PS3-28 IL-21 induces apoptosis of splenic conventional dendritic cells through STAT3 and BIM and can be rescued by GM-CSF**
Edwin C.K. Wan, Warren J. Leonard. Laboratory of Molecular Immunology, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, MD, USA
- PS3-29 Modulation of caspase-1 activity in experimental acute myocardial infarction using exogenous α 1-Antitrypsin**
Stefano Toldo, Eleonora Mezzaroma, Ignacio M. Scropan, Benjamin W. Van Tassel, Antonio Abbate. VCU Pauley Heart Center, Victoria Johnson Center for Pulmonary Research, and School of Pharmacy, Virginia Commonwealth University, Richmond, VA. Department of Medicine, University of Colorado Denver, Aurora, CO, USA

5:30 – 7:00 POSTER SESSION 3 continued ♦ REGENCY BALLROOM FLOOR

Cytokines and Cell Death

- PS3-31 Synergy of interferons and bortezomib: advantages of combination treatments in facilitating apoptosis in multiple myeloma cells**
 Doranelly H. Kotchev, Barbara Schwartz, Steven Carbone, Matthew Carroll, Sidney Pestka, Ronald G. Jubin. *PBL InterferonSource Piscataway, NJ, USA*
- PS3-32 Synergistic effects of tumor necrosis factor alpha and interferon gamma on puma upregulation and apoptosis in colorectal cancer cells**
 Danielle M. Pastor¹, Gerrit John¹, Lisa S. Poritz¹. ¹Department of Surgery, Penn State Milton S. Hershey Medical Center & College of Medicine, Hershey, PA, USA
- PS3-33 Dose and time depending effects of TNF- α on shedding of CD45 and CD30 from K-562 cells**
 Vladimir Jurisic^{1,2}, Tatjana Srdic¹, Gordana Konjevic¹. ¹Institute of Oncology and Radiology of Serbia, Belgrade, Serbia; ²School of Medicine University of Kragujevac, Serbia
- PS3-35 Caspase-1 processes high mobility group box 1 and is required for its release during infection and septic shock**
 Philippe M. LeBlanc^{1,2}, Katherine Labbé^{1,2}, Garabet Yeretssian¹, Maya Saleh^{1,2}. ¹Department of Medicine, Division of Critical Care, and Centre for the Study of Host Resistance, McGill University, Montreal, Canada; ²Department of Microbiology and Immunology, McGill University, Montreal, Canada

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Viral Mechanisms that Block Cytokine Responses

- PS3-37 Role of Δ NP63 in virus-induced apoptosis**
 Lallemand C¹, Blanchard B¹, and Tovey M.G. ¹Laboratory of Viral Oncology, CNRS FRE 3228, Institut Andre Lwoff, 94801 Villejuif, France
- PS3-38 Vaccinia virus encoded Type I IFN antagonist can suppress IFN signaling independently of IFN binding**
 Murugabaskar Balan¹, Ahmed Lasfar¹, Sergey V. Smirnov¹, Walid Abushahba¹, and Sergei V. Kotenko¹. ¹Department of Biochemistry and Molecular Biology and University Hospital Cancer Center, New Jersey Medical School, University of Medicine and Dentistry of New Jersey, Newark, NJ, USA
- PS3-39 Neutralization activity of the vaccinia virus B18R protein against the human interferon alpha protein family**
 Ronald G. Jubin, Matthew Carroll, Sidney Pestka. *PBL InterferonSource, Piscataway, NJ, USA*

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Cytokines and Infectious Diseases

- PS3-40 The potential use of IL-1 family cytokines as mucosal adjuvants for a NASA influenza vaccine**
 Shu-hei Arita^{1,2}, Hiroyuki Kayamuro^{1,2}, Yasuhiro Abe¹, Yasuo Yoshioka³, Haruhiko Kamada^{1,3}, Tsuyoshi Furuya^{1,2}, Norio Itoh², Tomoaki Yoshikawa^{1,2}, Kazuya Nagano¹, Yasuo Tsutsumi^{1,2,3}, Shin-ichi Tsunoda^{1,3}. ¹Laboratory of Biopharmaceutical Research (Laboratory of Pharmaceutical Proteomics), National Institute of Biomedical Innovation, Osaka, Japan; ²Department of Toxicology and Safety Science, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan.; ³The Center For Advanced Medical Engineering and Informatics, Osaka University, Osaka, Japan
- PS3-41 IL-27 is a dominant negative immunoregulator during *Listeria Mongyotogenes* infection**
 Yeonseok Chung^{1,2}, Tomohide Yamazaki¹, Yongliang Zhang¹, Joseph M. Reynolds¹, Gustavo J. Martinez¹, and Chen Dong¹. ¹Department of Immunology, MD Anderson Cancer Center, Houston, TX. ²Center for Immunology and Autoimmune Diseases, Institute of Molecular Medicine, The University of Texas, Houston, TX, USA
- PS3-42 Cytokine profile in individuals resistant to *Schistosoma Mansoni* infection**
 Ricardo R. Oliveira^{1,2}, Luciana S. Cardoso^{1,2}, Sérgio C. Oliveira³, Rafael L. Jabar¹, Robson P. Souza¹, Edgar M. Carvalho^{1,2,4}, Kathleen Barnes⁵, Marshall J. Glesby⁶, Maria Ilma Araujo^{1,2,4}. ¹Serviço de Imunologia, HUPES-UFBA, Salvador, BA; ²INCT-DT (CNPq/MCT), ³ICB, Dep. Bioquímica e Imunologia, UFMG, Belo Horizonte, MG, ⁴Escola Bahiana de Medicina e Saúde Pública, Salvador, BA, Brazil; ⁵Division of Allergy and Clinical Immunology, Dep. of Medicine, the Johns Hopkins University School of Medicine, Baltimore, MD, USA; ⁶Division of Infectious Diseases, Weill Cornell Medical College, New York, NY, USA
- PS3-43 Limited secretion of IL-2 by CD4⁺ T effector cells maintains low numbers of FOXP3⁺ regulatory T cells during *Plasmodium Chabaudi* as infection in C57BL/6 mice**
 Floriana Berretta^{1,3}, Ciriaco A. Piccirillo^{1,2}, and Mary M. Stevenson^{1,3}. ¹Department of Medicine, McGill University, Montreal, QC, Canada; ²Department of Microbiology and Immunology, McGill University, Montreal, QC, Canada; ³Centre for Host-Parasite Interactions, Research Institute of the McGill University Health Centre, McGill University, Montreal, QC, Canada

5:30 – 7:00 POSTER SESSION 3 continued ♦ REGENCY BALLROOM FLOOR

Cytokines and Infectious Diseases

- PS3-44 Characterisation of chicken IFN- λ receptor complex molecule IL10R2**
 Kate E. Goossens^{1,2}, Alister C. Ward² and Andrew G. D. Bean¹. ¹CSIRO, Australian Animal Health Laboratories, Geelong, Victoria, Australia; ²School of Medicine, Deakin University, Geelong, Victoria, Australia
- PS3-45 The roles of TLR2 and CD36 in response to *Staphylococcus Aureus* in vivo**
 Min Yi¹, Masashi Kohanawa¹, Songji Zhao² and Nagara Tamaki². ¹Department of Advanced Medicine, Graduate School of Medicine, Hokkaido University, Sapporo, Japan; ²Department of Nuclear Medicine, Graduate School of Medicine, Hokkaido University, Sapporo, Japan
- PS3-46 Differential inflammatory response to herpes simplex virus type 1 variants in a murine model**
 MC Artuso¹, C Mateu¹, S Gazzaniga², CA Pujol¹, R Wainstok², MJ Carlucci¹. ¹Departamento de Química Biológica, Laboratorio de Virología, Facultad de Ciencias Exactas y Naturales, Ciudad Universitaria, Universidad de Buenos Aires, Argentina; ²Departamento de Química Biológica, Laboratorio de Biología Tumoral, Facultad de Ciencias Exactas y Naturales, Ciudad Universitaria, Universidad de Buenos Aires, Argentina
- PS3-47 IL15 triggers the *in vitro* production of IL17 from CD4⁺ T cells of HIV-1 infected patients**
 Lorenzo Zaffiri¹, Gabriella D'Ettore¹, Mauro Andreotti², Cecilia Rizza¹, Sonia Marcellini¹, Giancarlo Ceccarelli¹, Claudio M Mastroianni¹, Vincenzo Vullo¹. ¹Department of Tropical and Infectious Diseases, "La Sapienza" University of Rome, Rome, Italy. ²Department of Drug Research and Evaluation, Istituto Superiore di Sanita, Rome, Italy
- PS3-48 A role for autophagy in CXCL10 and interferon- α induction upon influenza infection**
 Anna HY Law¹, Davy CW Lee¹, Kwok-Yung Yuen², Malik Peiris², Allan SY Lau¹. ¹Cytokine Biology Group, Department of Paediatrics and Adolescent Medicine; and ²Department of Microbiology, Li Ka Shing Faculty of Medicine, The University of Hong Kong, Pok Fu Lam, Hong Kong Special Administrative Region, PR China
- PS3-49 IL-6 is required for the generation of T follicular helper cells during *Toxoplasma gondii* infection**
 Jonathan S. Silver, Jason S. Stumhofer and Christopher A. Hunter. *The University of Pennsylvania School of Veterinary Medicine, Department of Pathobiology, USA, Philadelphia, PA 19104, USA*
- PS3-50 Differential transcriptome profiles and antiviral effect of interferon- λ and interferon- α on HCV-infected and uninfected hepatoma cells**
 Alison A. Murphy¹, Xiaozhen Zhang¹, Jun Yang², Raymond Donnelly³, Howard Young⁴, Richard A. Lempicki², Shyam Kottlil¹. ¹Laboratory of Immunoregulation, NIAID, NIH, Bethesda, MD 20892, ²SAIC-Frederick, Frederick, MD., ³CDER, FDA, Bethesda, MD, ⁴Laboratory of Experimental Immunology, Center for Cancer Research, National Cancer Institute, Frederick, MD 21702
- PS3-51 TNF-alpha-induced pro-inflammatory monocyte differentiation in cutaneous leishmaniasis: Role for notch signaling**
 Sara Passos, Angela Giudice, Thais Delavechia, Olivia Bacellar, Lucas P. Carvalho and Edgar M. Carvalho. *Immunology Service – Federal University of Bahia, Salvador, BA, Brazil*
- PS3-52 Inhibitory effects of heme arginate on HIV-1 growth**
 Prakash Shankaran and Zora Melkova. *Department of Immunology and Microbiology, 1st Medical Faculty, Charles University, Prague, Czech Republic*
- PS3-56 Cytokine expression profiles in HIV-infected women preceding tuberculosis (WIHS project W08012)**
 Rafael Fernandez-Botran¹, Jie Zhang¹, Guy Brock², Savitri Appana², Michael Plankey³, Mary Young³, Betsy Herold⁴, Helen Durkin⁵, Maria C. Villacres⁶, Ruth M Greenblatt⁷, Audrey French⁸, Jonathan Golub⁹, and José Bordón³. ¹Department of Pathology & Laboratory Medicine and ²Department of Bioinformatics and Biostatistics, University of Louisville, Louisville, KY, USA; ³Department of Medicine, Georgetown University Medical Center, Washington DC, USA; ⁴Montefiore Medical Center, Bronx, NY, USA; ⁵SUNY Downstate Medical Center, Brooklyn, NY, USA; ⁶Keck School of Medicine, University of Southern California, Los Angeles, CA, USA; ⁷University of California, San Francisco; ⁸Infectious Diseases Division, San Francisco, CA, USA; ⁹Chicago WIHS Center, Chicago, IL, USA; ⁹Johns Hopkins Bloomberg School of Public Health and Johns Hopkins School of Medicine, Baltimore, MD, USA
- PS3-57 Cytokine studies in relation to anti-TB antibodies in brain tuberculosis**
 Shripad A. Patil and GB Kulkarni, *Department of Neuro-Microbiology and Neurology, National Institute of Mental health and Neurosciences, Bangalore, INDIA*
- PS3-58 Comprehensive *Borrelia burgdorferi* specific inflammatory immune response analysis in patients with Lyme disease**
 Pranay D. Khare¹, Meenakshi Khare², Gottfried H. Kellermann^{1,2}. ¹NeuroScience Inc., Osceola, WI, USA ²Pharmasan Labs, Osceola, WI, USA

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Anti-tumor Immunity/Carcinogenesis

- PS3-59 Enhanced effect of new proteasome inhibitor cucurbitacin D on LPS-induced IL-1**
Yasuhiro Yoshida, Ding Ning. *Department of Immunology and Parasitology, School of Medicine, University of Occupational and Environmental Health, Japan*
- PS3-60 Sustained IFN α treatment inhibits metastasis in 4T1 mammary adenocarcinoma and correlates with decreasing tumor-induced myeloid-derived suppressor cells**
Kalyan Pande, Corinne Cayatte, Antara Banerjee, Roanna Ueda, Dan Gorman, Maribel Beaumont and Drake LaFace. *Merck Research Laboratories - Biologics Palo Alto, Palo Alto, CA, USA*
- PS3-61 Physical exercise and leucine-rich diet improve the inflammatory response produced by the tumour growth in rats**
Emilianne M. Salomão, Aline T. Toneto, Gisele O. Silva and Maria Cristina C. Gomes-Marcondes. *Laboratory of Nutrition and Cancer, Department of Anatomy, Cell Biology, Physiology and Biophysics, IB, UNICAMP, Campinas, 13083-862, SP, Brazil*
- PS3-62 Kaposi's sarcoma-associated herpesvirus-encoded nuclear antigen vIRF-3 targets tumor suppressor p53**
Petra Baresova and Barbora Lubyova. *Institute of Immunology and Microbiology, 1st Medical Faculty of Charles University, Prague, Czech Republic*
- PS3-63 Polymorphisms in members of the Interleukin-1 family, Interleukin-1 α -889 C/T associated with cervical cancer in women of the Occident of Mexico**
Rosales-Rivera Lizet Y.¹, Ramirez-Dueñas Guadalupe¹, Garcia-Iglesias Trinidad¹, Daneri-Navarro Adrian¹, Carrillo-Garibaldi Oscar J.², Chavez-Chavez Pedro², Cortes-Marron Manuel³, Sanchez-Hernandez Pedro E.¹ *¹Laboratorio de Inmunología, Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara, Guadalajara, Jalisco, Mexico. ²Instituto Jalisciense de Cancerología, Secretaría de Salud Jalisco, Guadalajara, Jalisco, Mexico. ³Clinica de Displasias, Hospital General de Occidente "Zoquipan", Zapopan Jalisco, Mexico*

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Chemokines

- PS3-64 The role of CCL5/RANTES in regulating nutrient receptor trafficking, metabolism and protein expression in activated T cell**
Olivia Chan¹, Thomas T. Murooka^{1,2}, Eleanor N. Fish^{1,3}, *¹Department of Immunology, University of Toronto, Ontario, ²The Center for Immunology and Inflammatory Diseases, Massachusetts General Hospital, Charlestown, MA, ³Division of Cellular Molecular Biology, Toronto General Hospital Research Institute, Toronto, Ontario*
- PS3-65 Multi-analyte study of circulating cytokines in smokers, with or without chronic obstructive pulmonary disease, and with or without lung cancer, using biochip array technology**
Mark W. Duncan¹, David S. Gibson¹, Paul A. Bunn Jr², Anna Spreafico², Anna E. Barón³, Brandie Wagner³, York E. Miller⁴, Vicki Toner⁵, Ivan McConnell⁵, John V. Lamont⁵ and S. P. FitzGerald⁵. *¹Division of Endocrinology, Metabolism & Diabetes, Department of Medicine, ²Division of Medical Oncology, Department of Medicine, ³Department of Biostatistics and Informatics, Colorado School of Public Health, ⁴Division of Pulmonary Sciences/Critical Care Medicine, Department of Medicine, University of Colorado Denver, Aurora Colorado 80045 USA and ⁵Randox Laboratories Limited, 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom*

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Methods of Cytokine Detection

- PS3-66 MilliplexTTM MAP multiplex immunoassays for simultaneous detection of human and mouse cytokines/chemokines**
Yao Chen, Brandon Proctor, Jehangir Mistry, and Qiang Xiao. *Millipore Bioscience Division, St Charles, MO 63304, USA*
- PS3-67 Gigh dynamic range (HDR) immunoassay for the multiple simultaneous quantification of cytokines**
Chris Lyman and Abby Tyler, *Quansys Biosciences, Logan, UT, USA*
- PS3-68 Low volume, highly sensitive immunoassays for detecting cytokines in animal fluids**
Jean-Francois Michaud¹, Nathalie Rouleau¹, Veronique Brechler¹ and Francesco Lipari¹. *¹PerkinElmer Inc. Bio-discovery, Montréal, Québec, Canada*
- PS3-69 Binding and neutralization of monoclonal antibodies to human interferon alpha subtypes**
Sara Crisfulli Cabatu, Yognandan Pandya, Gina DiGioia, Joyce Xu, Jessica Esposito, Sidney Pestka, Thomas B. Lavoie. *PBL InterferonSource Piscataway, NJ, USA*
- PS3-70 Alternative non-linear models for fitting cytokine ELISA curves**
Todd L Watterson, Chris Lyman. *Quansys Biosciences, Logan, UT, USA*
- PS3-71 High-throughput cytokine quantification using multiplex ELISA microarrays**
Ying Qing Mao¹, Zachary Hale¹, Ruochun Huang¹, Ying Zhang¹, Weidong Jiang¹, Jianming Fang¹, Brett Burkholder¹, Rani Fan Huang^{1,2} and Ru-Pan Huang^{1,2} *Raybiotech, Inc., Norcross, GA (USA) ²Guangzhou RayBiotech, Guangzhou (P.R. China)*
- PS3-72 Use of the enhanced sensitivity cytometric bead array to detect cytokines present in low concentrations**
Jacob Rabenstein, Feng-Jun Luan, Vicki Chau, Homero Sepulveda, Yu Chen, Patricia Maher and Victor Zhang, *BD Biosciences, San Diego, CA, USA*
- PS3-73 OptimiserTM: The next generation of microplates**
A. Puntambekar¹, J. Kai¹, S. Lee¹, J. Han¹, and C. H. Ahn^{1,2}. *¹Siloam Biosciences, Cincinnati, OH, USA; ²ECE Dept., University of Cincinnati, Cincinnati, OH, USA*

5:30 – 7:00 POSTER SESSION 3 continued ♦ REGENCY BALLROOM FLOOR

Methods of Cytokine Detection

- PS3-74 Detecting secreted IL-15 using IL-15/IL-15 receptor alpha complex-specific antibodies**
Natalie P Ruiz¹, Miguel Alvarez¹, Matthew J Schifano¹, Nicolas Schrantz¹, Mark P Rubinstein² and Peggy Just¹; *¹eBioscience, Inc., San Diego, CA, USA; ²College of Medicine, Medical University of South Carolina, Charleston, SC, USA*
- PS3-75 Micropatterning aptamer beacons on cell culture surfaces for detection of cytokine release**
Nazgul Tuleuova^{1,2}, Erlan Ramankulov², Alexander Revzin¹, *¹Biomedical Engineering Department, University of California, Davis, CA USA; ²National Center for Biotechnology, Astana, Kazakhstan*

5:30 – 7:00 POSTER SESSION 3 ♦ REGENCY BALLROOM FLOOR

Other

- PS3-76 Study of the effect of GRIM-19 mutations on cell growth**
Sudhakar Kalakonda, Shreeram Nallar and Dhan V Kalvakolanu. *Greenebaum Cancer Center, University of Maryland School of Medicine, Baltimore, MD, USA*
- PS3-77 DCIR: A new therapeutic target for autoimmune disorders**
Guangyu Ma¹, Noriyuki Fujikado¹, Tomonori Kaifu¹, Rikio Yabe¹, Takumi Maruhashi¹, Akimasa Seno¹ and Yoichiro Iwakura¹. *¹Laboratory of Molecular Pathogenesis Center for Experimental Medicine and System Biology, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan*
- PS3-78 Analysis of antigen incorporating and processing cells in sublingual immunotherapy**
Shiraishi D^{1,2}, Nagai Y², Tanaka Y², Endo Y², Shimauchi H¹, Sugawara S². *¹Department of Periodontology and Endodontology, ²Oral Immunology, Graduate School of Dentistry, Tohoku University, Sendai, Japan*
- PS3-79 Determining the mechanism(s) of interferon regulatory factor 5 (IRF5)-mediated gene regulation in death receptor signaling**
Justyna A. Korzeniewska^{1,2,3}, Di Feng^{1,3}, Robert Donnelly⁵, Sukhwinder Singh⁴, Li Hao¹, Betsy J. Barnes^{1,3,4,6}, *¹Department of Biochemistry & Molecular Biology, ²Graduate School of Biomedical Sciences, ³New Jersey Medical School-University Hospital Cancer Center, ⁴Department of Pathology and Laboratory Medicine and ⁵Molecular Resource Facility, UMDNJ, Newark, NJ 07103; ⁶Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, MD 21231, USA*
- PS3-80 Generation and preclinical development of a fully human anti-CCL5 monoclonal antibody**
Florence Guilhot, Walter Ferlin, Claire Garin, Véronique Potier-Ljapchev, Giovanni Magistrelli, Sébastien Calloud, Franck Gueneau, Ulla Ravn, Marie Kosco-Vilbois and Nicolas Fischer. *NovImmune S.A., 14 chemin des Aulx, 1228 Plan-Les-Ouates, Geneva, Switzerland*
- PS3-81 Generation and preclinical development of a fully human anti-CCL5 monoclonal antibody**
Florence Guilhot, Walter Ferlin, Claire Garin, Véronique Potier-Ljapchev, Giovanni Magistrelli, Sébastien Calloud, Franck Gueneau, Ulla Ravn, Marie Kosco-Vilbois and Nicolas Fischer. *NovImmune S.A., 14 chemin des Aulx, 1228 Plan-Les-Ouates, Geneva, Switzerland*
- PS3-82 An automatable device for high content chemotaxis assays in the presence of a stable gradient**
Elizabeth Vu, Ivar Meyvantsson, Tracy Worzella, Allyson Skoien, Victoria Echeverria, Casey Lamers, Daniella Echeverria, Steven Hayes, *BellBrook Labs Madison, WI, USA*

7:30 – 10:00 CYTOKINE 2010 CELEBRATION EVENT ♦ CHICAGO HOUSE OF BLUES

Great Music, Food and Fun

House of Blues
329 North Dearborn Street

Walking distance from the Hyatt. Map included in Conference bag.

8:30 – 9:30 KEYNOTE LECTURE 3 ♦ REGENCY BALLROOMS

Keynote Speaker: George Stark

8:30 KL-3

Regulation of chromatin-bound NFκB and STAT3 by lysine methylation, and functions of unphosphorylated STATs
George Stark, *Department of Molecular Genetics, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH, USA*

9:30 – 11:30 PLENARY SESSION 4 ♦ REGENCY BALLROOMS A/B

Cytokine-based Therapies

Session Chairs:

Sidney Petska, *University of Medicine & Dentistry of New Jersey*
 Ernest Borden, *Lerner Research Institute of the Cleveland Clinic Foundation*

9:30 PL4-1

Exaggerated molecular response to injections of Interferon-β predicts disease activity in multiple sclerosis
Richard Ransohoff, *Department of Neurosciences, Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH, USA*

10:00 PL4-2

Cytokine-based therapies in HIV infection: Lessons from IL-2 and expectations from IL-7
Irini Sereti, *Department of Infectious Diseases, NIH, Bethesda, MD, USA*

10:30 PL4-3

Targeted therapies in the systemic autoinflammatory diseases
Daniel Kastner, *Department of Genetics and Genomics Section, NIH, Bethesda, MD, USA*

11:00 PL4-4

Heterdimeric IL-15/IL-15Rα accelerates immune reconstitution in lymphopenic mice
Cristina Bergamaschi¹, Brunda Ganneru¹, Margherita Rosati¹, Osamu Usami¹, Antonio Valentin¹, Rachel K. Beach¹, Candido Alicea², Barbara K. Felber² and George N. Pavlakis¹, ¹*Human Retrovirus Section*; ²*Human Retrovirus Pathogenesis Section, Vaccine Branch, Center for Cancer Research, National Cancer Institute at Frederick, Frederick, MD, USA*

11:15 PL4-5

Blockade of IL-6 signaling via soluble IL-6R is superior to global IL-6 blockade by antibodies in models of inflammation and septic shock
Stefan Rose-John¹, Tanja Barkhausen², Nina Adam¹, Athena Chalaris¹, Georg Waetzig³, and Jürgen Scheller¹, ¹*Department of Biochemistry, Christian-Albrechts-University of Kiel, Kiel, Germany*; ²*Trauma Department, Hannover Medical School, Hannover, Germany*; ³*CONARIS Research Institute AG, Kiel, Germany*

11:30 CLOSING REMARKS