THURSDAY, OCTOBER 21, 2004

12:00 - 8:00 pm  Registration  San Geronimo Foyer
2:00 - 5:00 pm  ICS COUNCIL MEETING  Executive Board Room
2:00 - 5:00 pm  ISICR COMMITTEE MEETINGS  See ISICR Committee Information for Rooms
6:00 - 8:00 pm  OPENING SESSION  San Geronimo Ballroom
   6:00 pm  Opening Remarks
   6:15 pm  Keynote Address 1
   CELL SURVIVAL SIGNALS OF CYTOKINE RECEPTORS, Paper 1
           Tak Mak
           Advanced Medical Discovery Institute, Princess Margaret Hospital, Toronto, Ontario
   7:00 pm  Milstein Award I
   FLUORESCENCE RECOVERY AFTER PHOTobleaching Reveals Highly
   Transient Interaction of IRF8 with Chromatin in Live
   Differentiating Macrophages, Paper 2
           Keiko Ozato, NCI, National Institutes of Health,
           Bethesda Maryland
           (Introduced by Howard Young, President, ISICR)
   7:30 pm  Milstein Award II
   OVERCOMING RESISTANCE AND AUGMENTING CLINICAL RESPONSE TO
   Antitumor Effects of Interferons (IFNs), Paper 3
           Ernest Borden
           Cleveland Clinic Foundation, Cleveland, Ohio
           (Introduced by Howard Young, President, ISICR)
8:00 - 9:30 pm  WELCOME RECEPTION  Atlantic Garden

FRIDAY, OCTOBER 22, 2004

7:00 am - 6:00 pm  Registration  San Geronimo Foyer
9:00 am - 12:00 N  PLENARY SESSION I: Cytokines and Cancer  San Geronimo Ballroom
   Papers 4-7
   Chair: David Wallach, The Weizmann Institute of Science, Rehovot, Israel and
   Frances Balkwill, Cancer Research UK Cancer Centre, London, United Kindgom
Friday, October 22 Continued

9:00 am  
**GROWTH FACTOR REGULATION OF LYMPHANGIOGENESIS AND TUMOR METASTASIS**, Paper 4  
Kari Alitalo and collaborators  
University of Helsinki, Finland  
Helsinki, Finland

9:30 am  
**TNF-α AS AN ENDOGENOUS TUMOUR PROMOTER IN EPITHELIAL MALIGNANCIES**, Paper 5  
Frances Balkwill  
Cancer Research UK, Translational Oncology Laboratory, Barts and The London, Queen Mary's Medical School, London EC1M 6BQ, UK.

10:00 am  
**HER 2 AND EGFR IN HUMAN CANCER: SIGNALING MECHANISMS AND TARGETS FOR THERAPY**  
Yosef Yarden  
The Weizmann Institute of Science, Rehovot, Israel

10:30 am  
**Coffee Available**

11:00 am  
**REGULATION OF TYPE AND TYPE II INTERFERON THROUGH TLR3 AND TLR8 ENGAGEMENT**, Paper 6  
Christophe Caux, Stephanie Burg, Grégory Gautier, Catherine Massacrier, Florence Alloin, Florence Deauvieau, Francine Briere, Giorgio Trinchieri, Pierre Garrone  
Laboratory for Immunological research, Schering-Plough, Dardilly, France

11:30 am  
**MULTIPLE ROLES OF PERSISTENT STAT SIGNALING IN CANCER**, Paper 7  
Hua Yu and Richard Jove  
Moffitt Cancer Center and Research Institute, Tampa, FL

12:00 - 2:00 pm  
**Lunch Break (cash lunch sales)**  
San Geronimo Foyer

12:00 - 1:00 pm  
**BD BIOSCIENCES TUTORIAL**  
Flamingo A-D

**NEW BDTM CYTOMETRIC BEAD ARRAY FLEX SET PLATFORM AND THE BD FACSAARRAY BIOANALYZER: A NOVEL, MORE FLEXIBLE APPROACH FOR THE MEASUREMENT OF MULTIPLE ANALYTES FROM A SINGLE SAMPLE**  
Paper 386  
Edward L. Morgan  
BD-Biosciences, San Diego, California

12:00 - 1:00 pm  
**ICS General Business Meeting**  
San Geronimo Ballroom

2:00 - 4:00 pm  
**CONCURRENT WORKSHOPS**

2:00 - 4:00 pm  
**WORKSHOP 1: Signal Transduction**, Papers 8-14  
San Geronimo Ballroom  
Chairs: Howard Young, National Cancer Institute, Frederick, MD and Keiko Ozato, National Institutes of Health, Bethesda, MD

2:00 pm  
**REGULATION OF STAT NUCLEAR TRAFFICKING**, Paper 8  
Nancy C. Reich, Greg Banninger, Ling Liu and Kevin McBride  
Stony Brook University, Stony Brook, NY
GENETIC EVIDENCE FOR THE THRESHOLD OF GP130-DEPENDENT STAT3 SIGNALLING OUTPUT AS A CRITICAL DETERMINANT FOR PHYSIOLOGICAL RESPONSES IN MAMMALS, Paper 9
Brendan J. Jenkins¹, Dianne Grail¹, Meri Nadjovska¹, Heinz Baumann², Andrew W. Roberts³, and Matthias Ernst¹
¹Ludwig Institute for Cancer Research, Parkville, Victoria, Australia, ²Roswell Park Cancer Institute, NY and ³The Walter and Eliza Hall Institute of Medical Research, Parkville, Victoria, Australia

ICS OUTSTANDING SCHOLAR AWARD: André Limnander, 2nd Place

V-ABL SIGNALING DISRUPTS SOCS-1 FUNCTION IN TRANSFORMED PRE-B CELLS, Paper 10
André Limnander, Nika N. Danial and Paul B. Rothman
Columbia University College of Physicians and Surgeons, New York, NY

ICS YOUNG INVESTIGATOR AWARD: Annette R.Khaled, 1st Place
(Sponsored by Peprotech)

INTERLEUKIN-7 PROMOTES LYMPHOCYTE PROLIFERATION THROUGH SIGNALS TRANSDUCED BY p38 MAPK THAT REGULATE THE CELL CYCLE ACTIVATOR, Cdc25A, Paper 11
Christina Kittipatarin¹, Dmitry V. Bulavin², Wen Qing Li³, Kyungjae Kim³, Howard A. Young³, Albert J. Fornace², Scott K. Durum³ and Annette R. Khaled¹,³
¹University of Central Florida, Orlando, FL, ²National Cancer Institute, Bethesda, MD, ³National Cancer Institute-Frederick, Frederick, MD, ⁴Sahm-Yook University, Seoul, Korea

ICS POSTDOCTORAL INVESTIGATOR AWARD: Anil K. Kamaraju, 1st Place
(Sponsored by Peprotech)

CROSS TALK BETWEEN SMAD SIGNALING AND P38 MAP KINASE/RHO PATHWAYS IN TGF-β-MEDIATED GROWTH INHIBITION OF A HUMAN BREAST CANCER CELL LINE, Paper 12
Anil K. Kamaraju¹, Fang Liu² and Anita B. Roberts¹
¹National Cancer Institute, MD, and ²Rutgers University, NJ

LPS INDUCES ACTIVATION OF P21RAS IN PRIMARY MACROPHAGES THROUGH MECHANISMS DEPENDENT ON SRC AND PI3 KINASES, Paper 13
Muriel David, Chris Cochrane and John W. Schrader
The Biomedical Research Centre, University of British Columbia, Vancouver, BC, Canada

CYTOKINES AND CHEMOTHERAPEUTIC DRUGS: POTENTIAL SYNERGISTIC INTERACTIONS CAN OFFER NEW APPROACHES TO CANCER THERAPEUTICS, Paper 14
Howard A. Young¹, Victor Marquez², Dehui Duan², Peter M. Blumberg³, Noemi Kedei² and Della Reynolds¹
¹Lab. of Experimental Immunology, NCI-Frederick, ²Lab of Medicinal Chemistry, NCI-Frederick, ³Laboratory of Cellular Carcinogenesis and Tumor Promotion, NCI, Bethesda, MD, Center For Cancer Research, National Cancer Institute
2:00 - 4:00 pm WORKSHOP 2: Interferons, Papers 15-21 Flamingo A-D
Chairs: Eliane Meurs, Institut Pasteur, Paris, France and Curt Horvath, Mount Sinai School of Medicine, New York, NY

2:00 pm CHARACTERIZATION OF THE CONTRIBUTION OF INDIVIDUAL IFN- α SUBTYPES TO ANTIVIRAL PROTECTION, Paper 15
Ehtesham Baig1,2, Jiabin Chen1, Raj Deonarain1, and Eleanor Fish1,2
1Toronto General Research Institute, University Health Network, Toronto, Canada
2University of Toronto, Toronto, Canada

2:20 pm ADJUVANT ACTIVITY OF INTERFERON ALPHA: MECHANISM(S) OF ACTION
Paper 16
Michael Tovey, Christophe Lallemand, and Chantal Maury. UPR 9045 CNRS, Laboratory of Viral Oncology, Villejuif, France.

2:35 pm REGULATION OF IFN ANTIVIRAL TRANSCRIPTION RESPONSES BY PROTEIN DEACYTLYATION, Paper 17
Curt M. Horvath and Inna Nusinzon
Mount Sinai School of Medicine, New York, NY

3:50 pm DOWNREGULATION OF P53 LEVELS INDUCED BY DSRNA MODULATES THE ANTIVIRAL RESPONSE, Paper 18
Joao Trindade Marques and Bryan R. G. Williams
Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH

3:05 pm INTERFERON (IFN)-α INDUCES EXPRESSION OF IFN-α-RESPONSIVE GENES IN PRIMARY HUMAN HEPATOCYTES, Paper 19
Raymond P. Donnelly1, Faruk Sheikh1, Harold Dickensheets1, Sergei Kotenko2, and Bin Gao3
1CDER, Food and Drug Administration, Bethesda, MD, 2UMDNJ, Newark, NJ and 3National Institute on Alcohol Abuse and Alcoholism, NIH, Rockville, MD

3:35 pm IDENTIFICATION OF GENES THAT REQUIRE TANK-BINDING KINASE 1 (TBK1) OR IFNAR2C TYROSINE PHOSPHORYLATION FOR THEIR EXPRESSION, Paper 21
Sarah M. McWhirter1, Katherine A. Fitzgerald2, Jacqueline Rosains1, Harry Björkbaka3, Tom Maniatis1
1Harvard University, Cambridge, MA, 2University of Massachusetts Medical School, Worcester, MA 3Lipid Metabolism Unit, Massachusetts General Hospital, Boston, MA
Friday, October 22 Continued

2:00 - 4:00 pm  **WORKSHOP 3: Therapeutics.** Papers 22-27, 84  
Tropical A-C  
Chairs: To be Announced

2:00 pm  **BELEROFON™, AN IMPROVED IFN α WITH SINGLE AMINO ACID SEQUENCE CHANGE, DESIGNED TO REDUCE FREQUENCY OF INJECTION FOR HEPATITIS C CHRONIC INFECTION AND CANCER**, Paper 22  
T.Guyon, G.Borrelly & L Drittanti  
Nautilus Biotech SA, Evry, France

2:20 pm  **IMPROVED PHARMACOKINETICS AND EFFICACY OF N-TERMINALLY PEGYLATED INTERFERON-β-1A**, Paper 23  
Darren P. Baker¹, Ted Lin¹, KoChung Lin¹, Ling Ling Chen¹, Donna Hess¹, Dingyi Wen¹, Alan Gill¹, Blake Pepinsky¹, and Daniel Lindner²  
¹BiogenIdec, Inc., Cambridge, MA, ²Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH

2:35 pm  **INHIBITION OF B16 MELANOMA METASTASES BY THERAPY WITH M20 IL-1 INHIBITOR**, Paper 24  
V. Barak, Y. Sherman, P. Yanai. T. Halperin, I. Vlodavsky, S. Slavin and L. Weiss  
Hadassah University Hospital, Jerusalem, Israel

2:50 pm  **EXPRESSION AND REGULATION BY CYTOKINES OF MULTIPLE SCLEROSIS (MS)-ASSOCIATED RETROVIRUS (MSRV), IN VITRO AND IN VIVO**, Paper 25  
Caterina Serra, Giuseppe Mameli, Vito Astone, Giannina Arru, Stefano Sotgiu, and Antonina Dolei  
University of Sassari, Sassari, Italy

3:05 pm  **SOLUBLE MURINE INTERLEUKIN 21 RECEPTOR REDUCES CLINICAL DISEASE IN ANIMAL MODELS OF ARTHRITIS**, Paper 26  
Deborah Young, Martin Hegen, Mayra Senices, Yelena Leatherby, Leo Albert, Matthew Whitters, Cheryl Nutter, Leslie Lowe, Barbara Sheppard, James Keith, and Mary Collins  
Inflammation Discovery Research, Wyeth, Cambridge, MA

3:20 pm  **IL-2 DEFECTIVE RESPONSIVENESS OF CD4 AND CD8 LYMPHOCYTES FROM HIV PATIENTS. RESTORATION BY HAART**, Paper 84  
Marko Kryworuchko¹,⁶, Virginie Pasquier¹, Cécile Goujard², Jacques Gilquin³, Jean-Paul Viard³, Marcel Joussemet⁴, Jean-François De Ifraissy² and Jacques Thèze¹  
¹ImmunoGénétique Cellulaire, D² de Médecine Moléculaire, Institut Pasteur, Paris, ²Service de Médecine Interne, Hôpital Bicêtre, ³Hôpital St. Joseph, ⁴Necker, ⁵Percy, Paris, France

3:35 pm  **ANTI-INTERFERON-γ AND ANTI-TUMOR NECROSIS FACTOR-α IN TH1-MEDIATED AUTOIMMUNE DISEASE (RHEUMATOID ARTHRITIS) AND TH1/TH2 DISEASE (SLE)**  
Paper 27  
Galina Loukina, Yakov Sigidin, O. Pashkova, Boris Skurkovich¹, Simon Skurkovich²  
¹Institute of Rheumatology, Moscow, Russia; ²Brown Medical School, Providence, RI, ²Advanced Biotherapy, Inc., Rockville, MD
2:00 - 4:00 pm  WORKSHOP 4: Innate Immunity I, Papers 28-34  Las Olas Room
Chairs: Mihai G. Netea, Nijmegen University Medical Center, Nijmegen, Netherlands and Liwu Li, Wake Forest University School of Medicine, Winston-Salem, NC

2:00 pm  FUNCTIONAL CONSEQUENCES OF THE Asp299Gly TOLL-LIKE RECEPTOR POLYMORPHYSM  Paper 28
Mihai G. Netea1,2, Chantal van der Graaf1,2, Leo Joosten1, Bart Jan Kullberg1,2, and Jos W.M. Van der Meer1,2
1University Medical Center St. Radboud Nijmegen, and 2Nijmegen University Center of Infectious Diseases, The Netherlands

2:20 pm  CPG MOTIFS OF BACTERIAL DNA CONTRIBUTE TO THE PERPETUATION OF CHRONIC INTESTINAL INFLAMMATION BY INTERACTION WITH TLR9  Paper 29
Florian Obermeier, Nadja Dunger, Ulrike G. Strauch, Nicole Grunwald, Jürgen Schölmerich and Werner Falk
University of Regensburg, D-93042 Regensburg, Germany

2:35 pm  TOLL-LIKE RECEPTORS 7: TYPE I INTERFERON SIGNALING VIA MYD88, IRAK1, TRAF6 AND IRF-5/7  Paper 30
Annett Schoeneveldt1, Eicke Latz1, Jun-Ichiro Inoue2, Betsy J. Barnes3, Paula M. Pitha3, Katherine A. Fitzgerald1 and Douglas T. Golenbock1
1University of Massachusetts Medical School, Worcester, MA; 2University of Tokyo, Tokyo, Japan; 3Johns Hopkins University School of Medicine, Baltimore, MD

2:50 pm  BAX-DEPENDENT MITOCHONDRIAL DEPOLARIZATION IS REQUIRED FOR IRF-3 ACTIVATION DURING VESICULAR STOMATITIS VIRUS ONCOLYSIS  Paper 31
Ehssan Sharif-Askari1, Stephanie Oliere1, Jennifer Harris1, Rongtuan Lin1, John Bell2, and John Hiscott1
1Lady Davis Institute, McGill University, Montreal, Canada and 2Ottawa Health Research Institute, Ottawa, Canada

3:05 pm  SYNERGISTIC ACTIVATION OF INNATE IMMUNITY BY POLY-IC AND CPG DNA STIMULATES ENHANCED ANTITUMOR ACTIVITY AGAINST ESTABLISHED B16-F10 PULMONARY METASTASES  Paper 32
Mark M Whitmore, Andrea E Edling, and Bryan RG Williams
Lerner Research Institute, The Cleveland Clinic Foundation, Cleveland, OH

3:20 pm  DIFFERENTIAL INDUCTION OF APOPTOSIS BY LPS AND TAXOL IN MONOCYTIC CELLS  Paper 33
Tao Li, Jean Hu, James Thomas, and Liwu Li
Wake Forest University School of Medicine, Winston Salem, NC

3:35 pm  VACCINIA VIRUS A46R TARGETS MULTIPLE TOLL-LIKE RECEPTOR ADAPTORS AND CONTRIBUTES TO VIRULENCE  Paper 34
Julianne Stack1, Ismar Haga2, Martina Schroeder1, Geraldine Maloney1, Geoff Smith2 and Andrew Bowie1
1Trinity College Dublin, Ireland and 2Imperial College London, UK.
Friday, October 22 Continued

4:00 - 6:00 pm  POS TER SESSION 1, Papers 35 -113  San Cristobal Ballroom
with wine and cheese

SIGNALING, Papers 35-61

RESTORATION OF NF-κB ACTIVATION WITH TNFα RECEPTOR COMPLEX-
TARGETED MEKK3 IN RIP-DEFICIENT CELLS, Paper 35
Marzenna Blonska¹, Yun You¹, Romas Geleziunas², and Xin Lin¹
¹State University of New York, Buffalo, NY and ²Merck Research Laboratories,
West Point, PA

MONITORING B CELL RESPONSES TO CYTOKINES AND BCR ENGAGEMENT
USING A NOVEL MULTIPLEX TRANSCRIPTION FACTOR ASSAY, Paper 36
M.M. Brodey, S. Dhandapani, Y. Wu, R. Brandt, and J.A. Mikovits
BioSource International, Camarillo, CA USA

IFNβ INDUCES SECRETED IL-1RA PRODUCTION IN HUMAN MONOCYTES
THROUGH A PI3K-DEPENDENT, STAT1-INDEPENDENT PATHWAY, Paper 37
Nicolas Molnarfi, Lyssia Gruaz, Jean-Michel Dayer and Danielle Burger
Faculty of Medicine, University Hospital, Geneva, Switzerland

MITOTIC DELAY, CYCLIN DEPENDENT SIGNALING, AND APOPTOSIS
ASSOCIATED WITH RADIATION-INDUCED DOUBLE STRAND BREAKS IN NIH/3T3
FIBROBLAST, Paper 38
Mickael J. Cariveau¹, ², Charles J. Kovacs², Ron R. Allison², and Mark Evans²
¹East Carolina University, Greenville, NC ²The Brody School of Medicine,
Greenville, NC

INTERLEUKIN-1 ALPHA (IL-1α) RADIOPROTECTION OF THE MURINE COLONIC
EPITHELIUM : DOWNREGULATION OF THE CASPASE RESPONSE, Paper 39
Elizabeth S. Smith, Charles J. Kovacs, Mark J. Evans, Mickael J Cariveau,
Roberta M. Johnke, Ron Allison
Brody School of Medicine, East Carolina University, Greenville, North Carolina

NOVEL SIGNALLING REQUIREMENTS FOR THE CLASS II HLA AND ANTIVIRAL
RESPONSES TO INTERFERON-γ, Paper 40
Ana P. Costa-Pereira¹, ², Heike M. Hermanns², ², Hayaatun Is’harc¹, Timothy M.
Williams¹, Diane Watling¹, Velmurugesan Arulampalam³, Sally J. Newman¹,
Peter C Heinrich² and Ian M. Kerr¹
¹Cancer Research UK - London Research Institute, London , United Kingdom, ²Institut
fuer Biochemie, Uniklinik RWTH Aachen, Germany, ³Karolinska institute, Stockholm,
Sweden

REGULATION OF IRF-7 AND IFN-α PRODUCTION BY ENVELOPED VIRUS AND LPS
IN HUMAN PLASMACYTOID DENDRITIC CELLS, Paper 41
Jihong Dai, Nicholas J. Megjugorac, Sheela B. Amrute, and Patricia Fitzgerald-Bocarsly
UMDNJ-NJ Medical School-GSBS,

A PROTOCOL FOR ANALYSIS OF MAPK ACTIVATION IN WHOLE BLOOD,
Paper 42
John DeSimone, Mark Donovan, Jimin Wang, and Kevin Reagan
BioSource International, Inc., Camarillo, CA, USA
SIGNALING continued

REGULATION OF INNATE AND ADAPTIVE IMMUNE RESPONSES BY MAP KINASE PHOSPHATASE 5, Paper 43
Yongliang Zhang1, Joseph N. Blattman1, Norman J. Kennedy2, Julie Duong1, Thang Nguyen1, Ying Wang1, Roger J. Davis5, Philip D. Greenberg1, Richard A. Flavell3,4 and Chen Dong1,4
1University of Washington, Seattle, WA, 2Howard Hughes Medical Institute, University of Massachusetts, Worcester, MA 3Section of Immunobiology, Howard Hughes Medical Institute, Yale University, New Haven, CT

DISRUPTION OF THE INTERFERON-γ TRANSCRIPTION FACTOR STAT-1 A IN PANCREATIC ISLETS INHIBITS SUSCEPTIBILITY TO β-CELL KILLING, Paper 44
C. Gysemans1, L. Ladière2, H. Callewaert1, P. Matthys3, D. Eizirik2 and C. Mathieu1

REGULATED NUCLEAR LOCALIZATION OF THE STAT5 TRANSCRIPTION FACTOR, Paper 45
Janaki Iyer, Ling Liu and Nancy C. Reich
Stony Brook University, Stony Brook, New York

IL-22 CAN ENHANCE ACTIVITY OF IFN-γ THROUGH THE IFN-γ RECEPTORS CHAINS, Paper 46
Lara S. Izotova, Christopher D. Krause, Barbara Schwartz, Youngsun Kim, Olga V. Mirochnitchenko, Naomi Logsdon1, Mark R. Walter1 and Sidney Pestka
UMDNJ-Robert Wood Johnson Medical School, Piscataway, NJ and
1University of Alabama, Birmingham, AL

A PAN PKC INHIBITOR DIFFERENTIALLY REGULATES TLR-3 MEDIATED SIGNALING PATHWAY IN HUMAN DENDRITIC CELLS, Paper 47
Jolyn Johnson1, Ezra Aksoy1, Fabienne Willems1, and Michel Goldman1
Universite Libre de Bruxelles, Laboratory of Experimental Immunology1 Brussels, Belgium

THE INTRACELLULAR DOMAIN OF CRF2-4 IS REQUIRED FOR IL-10 RECEPTOR SIGNALING, Paper 48
Barbi A. Judd1, Brian K. Weaver1, Koon S. Lai2, and Robert D. Schreiber1
1Washington University School of Medicine, St. Louis, Missouri, USA

MEP50, A STIMULATOR OF METHYLTRANSFERASE ACTIVITY OF PROTEIN ARGinine METHYlTRANSFERASE 5, Paper 49
Youngsun Kim1, Lara Izotova1, Zihong Yang1, Olga Mirochnitchenko1, Jin H. Lee1, Jeffry R. Cook1, Tina L. Branscombe2, Steven Clarke3 and Sidney Pestka1
1University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School, Piscataway, NJ, 2Institute, UCLA, Los Angeles, CA

DIFFERENTIAL REGULATION OF KEY SIGNALING MOLECULES BY DISTINCT TLR LIGANDS, Paper 50
Liwu Li
Wake Forest University School of Medicine, Winston Salem, NC
SINGALING, continued

CONSTITUTIVE NUCLEAR PRESENCE OF THE STAT3 TRANSCRIPTION FACTOR, Paper 51
Ling Liu, Kevin McBride, and Nancy C. Reich
Stony Brook University, Stony Brook, New York

THE POXVIRUS TOLL-LIKE RECEPTOR ANTAGONIST A52R DIFFERENTIALLY MODULATES NF_{κ}B AND MAP KINASE ACTIVATION, Paper 52
Geraldine Maloney and Andrew Bowie
The Viral Immune Evasion Group, Department of Biochemistry, Trinity College Dublin, Ireland

ROLE OF TYK2 KINASE IN MITOCHONDRIAL RESPIRATION, Paper 53
1Lerner Research Institute, Cleveland Clinic, Cleveland, OH, 2Cleveland State University, Cleveland, OH 3Laboratory of Experimental Immunology, National Cancer Institute, Frederick, MD 4Kyushu University Graduate School of Medical Sciences, Fukuoka, Japan, 5University of Maryland School of Medicine, Baltimore, MD

KINASE ACTIVITY IS REDUNDANT FOR IRAK PHOSPHORYLATION AND IL-1 RESPONSIVENESS, Paper 54
Jinzhong Qin, Zhengfan Jiang, Youcun Qian, Jean-Laurent Casanova, and Xiaoxia Li
Cleveland Clinic Foundation, Cleveland, OH

STAT-INDEPENDENT INDUCTION OF IRF-9 BY INTERFERON-β, Paper 55
1Lerner Research Institute, The Cleveland Clinic Foundation, Cleveland, Ohio and 2Berlex Biosciences Inc., Richmond, California

HUMAN BONE MARROW FIBROBLASTS SUPPORT SURVIVAL OF B-CLL CELLS THROUGH ACTIVATION OF PI3-K / AKT PATHWAY, Paper 56
Medhat Shehata, Josef D. Schwarzmeier, Martin Hilgarth, Dieter Mitteregger, Rainer Hubmann, Markus Düchler
Medical University of Vienna, Internal Medicine I, Haematology Department, and L. Boltzmann Institute for Cytokine Research, Vienna, Austria

CORRELATING DENDRITIC CELL FUNCTION WITH SEGREGATED TRAF6-DEPENDENT SIGNALING MECHANISMS, Paper 57
Matthew C. Walsh and Yongwon Choi
Department of Pathology and Laboratory Medicine and Abramson Family Cancer Research Institute, University of Pennsylvania School of Medicine, Philadelphia, PA.

A TWO-STEP REGULATION OF TOLL-LIKE RECEPTOR-MEDIATED CYTOKINE PRODUCTION THROUGH AN INDUCIBLE NUCLEAR PROTEIN, Paper 58
Masahiro Yamamoto and Shizuo Akira
1Research Institute for Microbial Diseases, Osaka University, 2ERATO, Suita, Osaka, Japan
SIGNALING, continued

NOVEL ROLES OF UNPHOSPHORYLATED STAT3 IN ONCOGENESIS AND TRANSCRIPTIONAL REGULATION, Paper 59
Jinbo Yang¹, Moitreyee Chatterjee-Kishore¹, Susan M. Staugaitis¹, Hannah Nguyen¹, Karni Schlessinger², David E. Levy³, and George R. Stark¹
¹Lerner Research Institute, The Cleveland Clinic Foundation, Cleveland, OH
³New York University School of Medicine, New York, NY

CHARACTERIZATION OF PROTEINS THAT INTERACT WITH PROTEIN ARGININE METHYLTRANSFERASE 5, Paper 60
Zhi-Hong Yang, Youngsun Kim, Lara Izotova and Sidney Pestka
Robert-Wood-Johnson Medical School and Graduate School of Biomedical Sciences, University of Medicine and Dentistry of New Jersey, Piscataway, NJ

SIGNAL TRANSDUCTION MECHANISMS OF INTERLEUKIN 17, Paper 61
Seon Hee Chang, Heon Park and Chen Dong
University of Washington, Seattle, WA and MD Anderson Cancer Center, Houston, TX

INTERFERONS, Papers 62-63

ICS Outstanding Scholar Award: Yuko Ishida, 3rd Place

ESSENTIAL INVOLVEMENT OF CROSSTALK BETWEEN INTERFERON-γ AND TRANSFORMING GROWTH FACTOR-BETA IN THE SKIN WOUND HEALING PROCESS, Paper 62
Yuko Ishida¹,², Toshikazu Kondo², Yoichiro Iwakura³, and Naofumi Mukaida¹
¹Cancer Research Institute, Kanazawa University, Kanazawa, Japan, ²Wakayama Medical University, Wakayama, Japan, ³The Institute of Medical Science, The University of Tokyo, Tokyo, Japan.

IMPACTS OF TYPE I INTERFERONS (huIFN-α and ovIFN-γ) and TYPE II INTERFERON (huIFN-γ) ON THE TRYPTOPHAN CATABOLISM IN HUMAN PRIMARY MACROPHAGES, Paper 63
Benjamin Manéglier¹,², Christine Rogez-Kreuz¹,³, Odile Spreux-Varoquaux², Nathalie Dereuddre-Bosquet³, Jacques Martal³, Patrice Théron², Charles Advenier², Dominique Dormont¹ and Pascal Clayette³
¹CEA, CRSSA, Université Paris XI, EPHE, IPSC, Fontenay-aux-Roses, France, ²Département de Biologie, Centre Hospitalier de Versailles, Faculté de Médecine Paris Ile de France Ouest, Le Chesnay, France, ³Unité de Biologie du Développement et de la Reproduction, INRA, Jouy-en-Josas, France, ⁴SPI-BIO, CEA, Fontenay-aux-Roses, France

THERAPEUTICS, Papers 64-86

PLACENTAL TRANSFORMING GROWTH FACTOR BETA (PTGF β) PROTECTS P53-NULL OVARIAN CANCER CELLS FROM PALA-MEDIATED DEATH, Paper 64
Mukesh K Agarwal, Kedar Hastak, Munna L Agarwal and George R Stark
Lerner Research Institute, The Cleveland Clinic Foundation, Cleveland, OH
Title to be Announced, Paper 65
Siddharth Balachandran
Sylvester Comprehensive Cancer Center, Miami, FL

EX-VIVO ASSESSMENT OF VESICULAR STOMATITIS VIRUS ONCOLYTIC ACTIVITY IN ADULT T-CELL LEUKEMIA, Paper 66
Ehsan Sharif-Askari¹, Stephanie Oliere¹, Raymond Cesaire², Rebecca Taylor³, John Bell³, John Hiscott¹
¹Terry Fox Molecular Oncology Group, Lady Davis Institute for Medical Research, McGill University, Montreal, Quebec, Canada. ²Laboratoire de Virologie-Immunologie and UMR433 INSERM, Centre hospitalier universitaire de Fort-de-France, Martinique. ³Ottawa Regional Cancer Centre, Ottawa, Ontario, Canada.

MXA IS A SENSITIVE MARKER FOR IFN BIOACTIVITY AND NEUTRALIZING ANTIBODIES IN CHRONIC HEPATITIS C VIRUS INFECTION, Paper 67
Carl Jorns, Robert Thimme, Hans C. Spangenberg, Nadine Kersting, Manfred Weidmann, Jens Rasenack, Hubert E. Blum, Otto Haller and Georg Kochs
University Hospital, Freiburg, Germany

OPTIMIZATION OF THE TET-ON SYSTEM TO REGULATE INTERLEUKIN 12 EXPRESSION IN THE LIVER FOR THE TREATMENT OF HEPATIC TUMORS Paper 68
Maider Zabala¹, Lin Wang¹, Ruben Hernandez-Alcoceba¹, Wolfgang Hillen², Cheng Qian¹, Jesus Prieto¹ and M. Gabriela Kramer¹
¹University of Navarra-FIMA, Pamplona, Spain and ²Friedrich-Alexander Universität Erlangen, Germany

BINDING OF INTERLEUKIN-2 TO OPIOID RECEPTORS AND ITS SUPPRESSION OF MORPHINE WITHDRAWAL SYNDROME, Paper 69
J.F. Gu¹, J.H. Wang¹, M.Z. Yao¹, Y. Wang¹, W.H. Zhou², Z.L. Zhang¹, Z.F. Pei¹ and X.Y. Liu¹
¹Institute of Biochemistry and Cell Biology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, P. R. China, ²Ningbo Institute of Microcirculation & Henbane, Ningbo Drug Addiction Research and Treatment Center, Ningbo, P. R. China

PHYTOCHEMICAL PICROLIV ENHANCES WOUND HEALING: DIFFERENTIAL REGULATION OF GROWTH FACTORS, Paper 70
Anoop K Singh, Anuj Sharma, James Warren, Keith Steele, Radha K Maheshwari
Uniformed Services University of the Health Sciences, Bethesda, MD

ANTI-TUMOR AND ANTI-METASTATIC EFFECTS OF INTERFERON GAMMA AND TNF-RELATED APOPTOSIS INDUCING LIGAND IN A XENOGRAFT MODEL OF EWING’S SARCOMA, Paper 71
Melinda S. Merchant¹, H. Udo Kontny², Ruth Klein³, Maria Romero², Maria Tsokos², Crystal L. Mackall¹.¹Pediatric Oncology Branch, ²Laboratory of Pathology, National Cancer Institute, Bethesda, MD and ³Children's Hospital of the Albert-Ludwigs University, Freiburg, Germany
SYNTHESIS AND STUDIES OF PEPTIDES STIMULATING BACTERICIDAL ACTIVITY OF MACROPHAGES, Paper 72
Elena A. Navolotskaya1, Yulia A. Kovalitskaya1, Vera I. Vanina1, Timo Korpela.2, and Valery Lipkin1, Branch of Shemyakin and Ovchinnikov Institute of Bioorganic Chemistry Russian Academy of Sciences, Moscow Region, Russia, 2Finnish-Russian Joint Biotechnology Laboratory, University of Turku, Turku, Finland

HIGH-THROUGHPUT SCREENING ASSAYS FOR THE DISCOVERY OF SIGNAL TRANSDUCER AND ACTIVATOR OF TRANSCRIPTION 3 NUCLEAR IMPORT INHIBITORS, Paper 73

NEXT-GENERATION INTERFERON THERAPEUTIC CANDIDATES, Paper 74
Doranelly Philipova, Michael Skawinski, Susan Skelly, Lara Izotova, Tracy Midrano, Finn Hung, Sara Crisafulli, Barbara Schwartz, Thomas B. Lavoie, William A. Clark and Sidney Pestka
PBL Biomedical Laboratories, PBL Therapeutics, Piscataway, NJ

PHARMACODYNAMICS OF INTERFERON BETA IN RELAPSING-REMITTING MULTIPLE SCLEROSIS WITH AND WITHOUT NEUTRALIZING ANTIBODIES, Paper 75
Carolina Scagnolari1, Petra Duda2, Alessia Alberelli2, Vito Lavolpe3, Francesca Bagnato4, Enrico Girardi5, Maria Trojano5, Ludwig Kappos2, Guido Antonelli1
1University "La Sapienza", Rome, Italy, 2University Hospitals, Basel, Switzerland, 3University of Bari, Italy, 4NIH-NINDS-NIH, Bethesda, and 5Inmi "L. Spallanzani", Rome, Italy

OPTIMIZING THE BINDING AFFINITY OF A CARRIER PROTEIN: A CASE STUDY ON THE INTERACTION BETWEEN SOLUBLE IFNAR2 AND IFNb, Paper 76
Tal Peleg-Shulman, Laila C. Roisman, Gorge Zupkovitz, and Gideon Schreiber
The Weizmann Institute of Science, Rehovot, Israel

HIGH THROUGHPUT SCREENING FOR RNASE L/HPC1 ACTIVATORS AS EXPERIMENTAL THERAPEUTICS FOR CANCER AND VIRAL INFECTIONS, Paper 77
Chandar S Thakur1,2, Zan Xu3 and Robert H. Silverman2
1Cleveland State University; 2The Cleveland Clinic Foundation; 3Ridgeway Biosystem, Inc.

A PHASE I INVESTIGATION OF INTRAVENOUS IL-12/PULSE IL-2 IN ADULTS WITH ADVANCED SOLID TUMORS, Paper 78
Jon Wigginton1, Cynthia Donovan1, Peter Choyke2, Robert Wiltrout3, and John Janik4
1Pediatric Oncology Branch and 2Metabolism Branch, NCI-CCR, and 3Functional Tumor Imaging Group, Department of Radiology, Bethesda, MD; 4Laboratory of Experimental Immunology, NCI at Fredrick, Frederick, MD

THERAPEUTIC APPLICATIONS OF AFFIBODY ANTIBODY MIMETICS THAT BIND TO CYTOKINES AND CYTOKINE RECEPTORS, Paper 79
Tim Wood, Fredrik Nilsson, Nina Nilsson and Lars Abrahmsén
Affibody AB, Bromma, Stockholm, Sweden
THE THERAPEUTIC POTENTIAL OF INTERFERON-α FOR SARS, Paper 80
Joanna R. Zorzitto, Eleanor N. Fish. 1, 2 Department of Immunology, University of Toronto, Toronto, Ontario, Canada, 2 Toronto General Research Institute, University Health Network, Toronto, Ontario Canada.

THE EFFECT OF RHGM-CSF TO NON-INFECTED WOUND HEALING, Paper 81
Byung Soo Kim, Seung Gyu Han, Yae Li Kim, Seok Jin Kim, Kyong Hwa Park, Sang Cheul Oh, Jae Hong Seo, Chul Won Choi, Sang Won Shin, Yeul Hong Kim, and Jun Suk Kim. Korea University Medical Center, Seoul, Korea

THE RANDOMIZED AND ACTIVE CONTROL COMPARATIVE OPEN PHASE STUDY TO EVALUATE THE EFFECTIVENESS AND SAFETY OF LEUKOKINE 7 (FILGRASTIM, RHG-CSF) FOR THE NEUTROPENIA INDUCED BY CHEMOTHERAPY IN ADVANCED CANCER, Paper 82
Byung Soo Kim, Jun Suk Kim, Joo Hang Kim, Jung Bae An, Joon Oh Park, Ik Joo Chung, Chang Yoel Yim, Jae Yong Kwak, Tae Jun Jeong, Young Yiul Lee, Tae Young Kang. Department of Internal Medicine Korea University Medical Center, Yonsei Cancer Center, Chonnam National University Hospital, Chonbuk National University Hospital, Hanyang University Hospital. Korea

ANTI-INTERLEUKIN-10 STRATEGIES IN TREATMENT OF MALIGNANT DISEASES, Paper 83
I. Bubanovic, S. Najman. 1 Ob/Gyn Department, Medica Centre, Nis, Serbia and Montenegro, 2 Institute for Biology, Medical School B Nis, Serbia and Montenegro

Paper 84 presented in Therapeutics Workshop

NK CELLS AND POLYMORPHONUCLEAR NEUTROPHILS ARE BOTH CRITICAL FOR IL-2-INDUCED PULMONARY VASCULAR LEAK SYNDROME, Paper 85
Eric Assier, Valérie Jullien, Jean Lefort, Jean-Louis Moreau, James P. Di Santo, B. Boris Vargaftig, Jose Lapa e Silva J.R and Jacques Thèze. 1 Unité de Pharmacologie Cellulaire, 2 Unité d'Immuno-Génétique Cellulaire, 3 Unité des Cytokines et Dévelopement Lymphoïde, Institut Pasteur, Paris; France

HIV INFECTION: ROLE OF IL-7 IN IMMUNE RECONSTITUTION AFTER HAART OR IL-2 PLUS HAART, Paper 86
Stéphanie Beq, Jean-Hervé Colle, Marie-Thérèse Rannou, Arnaud Fontanet, Jean-François Delfraissy and Jacques Thèze. 1 Unité d'Immunogénétique Cellulaire, Institut Pasteur, Paris; 2 Service de Médecine Hôpital Bicêtre, Assistance Publique BHopitaux de Paris; 3 Unité d'Epidémiologie des Maladies Emergentes, Institut Pasteur, Paris, France.
DIFFERENTIAL ACTIVATION OF IRF-3 AND IRF-5 TRANSCRIPTION FACTORS DURING VIRAL INFECTION, Paper 87
Tsu-Fan Cheng, Osamu Ando, Sabrina Brzostek, Sarah VanScoc, and Nancy C. Reich
Stony Brook University, Stony Brook, New York

REGULATION OF TLR MEDIATED RESPONSES IN THE PERITONEAL CAVITY
Paper 88
Chantal S Colmont1, Mario O Labéta2, Emanuel LeBouder2, Simon A Jones3 and Nicholas Topley1
1Institute of Nephrology and 2Section of Infection and Immunity, UWCM, Cardiff, UK and 3Cardiff School of Biosciences, Cardiff University, Cardiff, UK

MISSORTING OF LACROSSE VIRUS NUCLEOCAPSID PROTEIN BY THE INTERFERON-INDUCED MXA GTTPASE INVOLVES SMOOTH ER MEMBRANES
Paper 89
Mike Reichelt1, Silke Stertz1, Jacomine Krijnse-Locker2, Georg Kochs1, and Otto Haller1
1University of Freiburg, Freiburg, Germany; 2European Molecular Biology Laboratory, Heidelberg, Germany

MX1 GTTPASE ACCUMULATES IN DISTINCT NUCLEAR DOMAINS AND INHIBITS INFLUENZA A VIRUS IN CELLS THAT LACK PML NUCLEAR BODIES, Paper 90
Othmar G. Engelhardt1, Hüseyin Sirma2, Pier-Paolo Pandolfi3, and Otto Haller1
1University of Freiburg, Freiburg, Germany; 2Heinrich-Pette-Institut, Hamburg, Germany and 3Memorial Sloan-Kettering Cancer Center, Sloan-Kettering Institute, New York NY

NON-VIRAL INDUCTION OF TYPE-I INTERFERON, Paper 91
Peter L Smith1, Meleri Jones1, Giovanna Lombardi1, and Graham R Foster1
Institute of Cell and Molecular Science, Queen Mary's School of Medicine and Dentistry, London, UK and 2Imperial College at Hammersmith Hospital, London, UK

PUTATIVE ANTI-BACTERIAL ROLE OF ISGYLATION SYSTEM, Paper 92
Keun Il Kim, Oxana A. Malakhova, Dong-Er Zhang
The Scripps Research Institute, La Jolla, CA

EFFECT OF THE XAF1-INTERACTING PROTEIN XIRP ON EMCV REPLICATION AND CELLULAR DS RNA RESPONSIVENESS, Paper 93
Keyur Vyas, Haiying Li and Douglas W. Leaman
University of Toledo, Toledo, OH

EXPRESSION AND CHARACTERIZATION OF XIRP: A NOVEL RING FINGER PROTEIN THAT INTERACTS WITH THE IFN-REGULATED PROTEIN XAF1
Paper 94
Haiying Li, Keyur Vyas, Monila Reheman and Douglas W. Leaman
University of Toledo, Toledo, OH

THE HEPATITIS C VIRUS NS3/4A SERINE PROTEASE DISRUPTS A TLR-AND TRIF-INDEPENDENT PATHWAY LEADING TO VIRUS ACTIVATION OF IRF3, Paper 95
Kui Li1, Josephine C. Ferreron1, Eileen Foy1, Mitsuyasu Nakamura1, Masanori Ikeda1, Michael Gale, Jr2, and Stanley M. Lemon1
1Univ.Texas Medical Branch, Galveston, TX, and 2Univ.Texas Southwestern Medical Center, Dallas, TX
ENCEPHALOMYOCARDITIS VIRUS INDUCES ISG15 MRNA BUT NOT PROTEIN, Paper 96
Xiao-Ling Li¹, Jesper B. Andersen² and Bret A. Hassel¹,²
¹Program in Molecular and Cell Biology, and ²Greenebaum Cancer Center, University of Maryland, Baltimore, MD

REGULATION OF THE RIG-I MEDIATED INNATE ANTIVIRAL RESPONSE BY RNA VIRUSES, Paper 97
Yueh-Ming Loo, Rhea Sumpter, Jr., Roger T. Taylor, Brenda L. Fredericksen, Eileen Foy, and Michael Gale, Jr.
University of Texas Southwestern Medical Center, Dallas, TX

IDENTIFICATION OF A NOVEL ANTIVAL PATHWAY IN INNATE IMMUNE RESPONSE TO THE INFECTION, Paper 98
Gengshi Lu, Atsushi Okumura, and Paula M. Pitha
Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University, Baltimore, MD

VIRAL MODULATION OF PULMONARY INNATE ANTI-BACTERIAL INFLAMMATORY RESPONSES, Paper 99
Patricia A. Manderscheid, Ryan P. Bodkin, Thomas A. Russo, Paul R. Knight
University at Buffalo, Buffalo, NY

A NOVEL METHOD FOR SCREENING VIRAL INTERFERON-RESISTANCE GENES, Paper 100
Princess Alexandra Hospital, University of Queensland, Brisbane, Australia

ANTI-CYTOKINE AUTOANTIBODIES IN AUTOIMMUNITY: PREPONDERANCE OF NEUTRALIZING AUTOANTIBODIES AGAINST INTERFERON-ALPHA, INTERFERON-OMEGA AND INTERLEUKIN-12 IN PATIENTS WITH THYMOMA AND/OR MYASTHENIA GRAVIS, Paper 101
Tony Meager¹, Meenu Wadhwa¹, Paúla Dilger¹, Chris Bird¹, Kumi Visvalingam, Robin Thorpe¹, John Newsom-Davis¹, Nick Willcox².
¹The National Institute for Biological Standards and Control, Blanche Lane, South Mimms, Herts, and ²Weatherall Institute of Molecular Medicine, John Radcliffe Hospital, Oxford, UK

INTERFERON ALFA INHIBITS CRIMEAN-CONGO HEMORRHAGIC FEVER VIRUS (CCHFV) REPLICATION CYCLE, Paper 102
Ida Andersson¹, K-E. Magnusson², Å. Lundqvist¹, O. Haller³ and A. Mirazimi¹
¹Swedish Institute for Infectious Disease Control, Solna, Sweden and ²Div. of Medical Microbiology, Linköping, Sweden, ³University of Freiburg, Germany

PICIBANIL (OK-432) ACTIVATION OF HUMAN MONOCYTES DEPENDS ON SYK AND MEK KINASES, Paper 103
Carla Olsnes, Hans Jørgen Aarstad, and Jan Olofsson
Haukeland University Hospital, Bergen, Norway
INNATE IMMUNITY, continued

INDUCTION OF INTERFERON-INDUCIBLE MX GENES DURING RESPIRATORY SYNCTIAL VIRUS AND INFLUENZA VIRUS INFECTIONS IN VIVO. Paper 104
Lioubov M. Pletneva, Marti Ottolini, Jorge C. G. Blanco and Gregory A. Prince
Virion Systems Inc., Rockville, MD

THE INTERFERON-INDUCIBLE PROTEIN ISG12 ASSOCIATES WITH THE MITOCHONDRIA AND SENSITIZES HT1080 TO ETOPOSIDE-INDUCED APOPTOSIS
Paper 105
Shaun Rosebeck and Douglas W. Leaman
University of Toledo, Toledo, OH

ANTI-TUMOR AUTOCRINE/PARACRINE ACTIVATION PATHWAY LEADING TO IL-12/IL-18-STIMULATED IFN-g PRODUCTION OF MONOCYTES IN TUMOR-BEARING PATIENTS. Paper 106
Kazuko Uno1, Yoko Mitsuishi1, Norimichi Kan1, Kiyotaka Okuno2, Hideo Saotome2, Junnji Hamuro2, Tsunataro Kishida1

A REGULATORY ROLE OF IL-4 AND IL-482 IN MATURATION OF DENDRITIC CELLS. Paper 107
Irina O. Chikileva, Galina Yu. Puchkova, Anatoly M. Vasiliev, Mikhail V. Kiselevsky1, Valentin S. Khlebnikov, Grigory Ya. Scherbakov, Viacheslav M. Abramov and Raisa N. Vasilenk
Institute of Immunological Engineering, Lyubuchany, Moscow Region, Russia, 1Cancer Research Center, Moscow, Russia

NEW CYTOKINES, Papers 108-113

AN INDUCIBLE KNOCK-IN MODEL TO STUDY CARDIOTROPHIN-LIKE CYTOKINE FUNCTION AND EXPRESSION. Paper 108
Florence Guilhot1, Isabelle Cognet1, Alexandra Bert1, Hugues Gascan2, Bernadette Drayton1, Odile deLapeyrière3 and Jean-François Gauchat1
1Département de Pharmacologie, Faculté de Médecine, Université de Montréal, Montréal, Québec, Canada, 2INSERM U564, CHU, Angers, France, 3INSERM U382, Institut de Biologie du Développement, Marseille, France.

IL-20 IS AN ANGIOGENIC FACTOR. Paper 109
Renhai Cao1, Yihai Cao1, Jes T. Clausen1, Steen Dissing2, Anker J. Hansen1, Erik Hasselager1, Maja Myren1, Peder L. Nerby1, Uffe B. Olsen1, Katerina Tritsaris2
1Discovery, Novo Nordisk A/S, Bagsvaerd & Maaloev, Denmark, 2Department of Medical Physiology, Copenhagen, Denmark, 1Microbiology and Tumor Biology Center, Stockholm, Sweden
NEW CYTOKINES, continued

INTERLEUKIN-20 PROTEIN IN PSORIATIC SKIN PLAQUES DISAPPEARS AFTER SHORT TERM TREATMENT WITH CYCLOSPORINE A OR CALCIPOTRIOL, Paper 110
Erik Hasselager¹, Torben Steiniche², Stefan Zahn³, John Rømer⁴, Tom Bukowski⁵, Jes T. Clausen⁶, and Knud Kragballe⁷
¹Discovery, Novo Nordisk, Maaloev, Denmark; ²Aarhus Kommunehospital, Aarhus, Denmark, ³Discovery, Novo Nordisk, Bagsvaerd, Denmark, ⁴Finsenlaboratoriet, Copenhagen, Denmark, ⁵ZymoGenetics, Seattle, WA, and ⁶Dept of Dermatology, Marselisborg Hospital, Aarhus, Denmark.

ISOLATION AND CHARACTERIZATION OF cDNAs ENCODING CHICKEN IL-16 AND 1L-17, Paper 111
Erik P. Lillehoj¹, Wongi Min², and Hyun S. Lillehoj²
¹University of Maryland, Baltimore, MD; ²Animal Parasitic Diseases Laboratory, ARS, USDA, Beltsville, MD

BIRA-BIOTINYLATED CARDIOTROPHIN LIKE CYTOKINE: A NEW TOOL TO STUDY CILIARY NEUROTROPHIC FACTOR AND CARDIOTROPHIN LIKE CYTOKINE RECEPTOR EXPRESSION, Paper 112
Isabelle Cognet¹, Florence Guilhot¹, Mélanie Gabriac¹, Alexandra Bert¹, Greg Elson², Hugues Gascan³ and Jean-François Gauchat¹
¹Pharmacology, University of Montreal, Montreal, Quebec, Canada; ²NovImmune, Geneva, Switzerland and ³INSERM U564, Angers, France

T-CELL DERIVED CYTOKINE, INTERLEUKIN-31, INDUCES A DERMATITIS PHENOTYPE IN MICE, Paper 113
ZymoGenetics Inc., Seattle, WA

6:00 - 7:30 pm  LECTURES  San Geronimo Ballroom
6:00 pm  Keynote Address 2
THE IKB KINASE (IKK) AND THE CONTROL OF IMMUNITY, INFLAMMATION AND CANCER, Paper 114
Michael Karin
University of California, San Diego School of Medicine, La Jolla, California

6:45 pm  ICS Lifetime Achievement Award
Joost J. Oppenheim, National Institutes of Health, Frederick, Maryland
(Introduced by Warren Leonard, President, ICS)
SATURDAY, OCTOBER 23, 2004

9:00 am - 12:00 noon   **PLENARY SESSION 2: Signal Transduction**,  San Geronimo Ballroom  
Papers 115-118  
Chairs: **Eleanor Fish**, University of Toronto, Ontario, Canada and  
**George Stark**, Lerner Institute, Cleveland Clinic, Ohio

9:00 am   **HUMAN INTERFERON-β GENE REGULATION: SIGNALING PATHWAYS AND TRANSCRIPTION MECHANISMS**, Paper 115  
Tom Maniatis  
Harvard University, Cambridge MA

9:30 am   **MAP KINASE PATHWAYS IN TYPE I INTERFERON SIGNALING**, Paper 116  
L.C. Platanias  
Northwestern University School of Medicine, Chicago IL

10:00 am   **THE RNA HELICASE RIG-I FUNCTIONS AS A RECEPTOR FOR CYTOPLASMIC DOUBLE-STRANDED RNA AND PLAYS CRITICAL ROLES IN INNATE ANTI-VIRAL RESPONSES**, Paper 117  
M. Yoneyama1, M. Kikuchi1, T. Natsukawa1, N. Shinobu1, T. Imaizumi2, S. Akira3, M. Miyagishi1, K. Taira2 and T. Fujita1  
1Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan  
2Hirosaki University School of Medicine, Hirosaki, Japan  
3Research Institute for Microbial Diseases, Osaka, Japan  
4School of Engineering, University of Tokyo, Tokyo, Japan

10:30 am   **Coffee Available**

11:00 am   **CYTOKINE SIGNALING AND LYMPHOID DEVELOPMENT, DIFFERENTIATION AND IMMUNOREGULATION**, Paper 118  
John J. O’Shea  
NIAMS, National Institutes of Health, Bethesda, MD

11:30 am   **mTOR SIGNALING TO TRANSLATION FACTORS**  
Nahum Sonenberg  
McGill University, Montreal, Canada

12:00 - 2:00 pm   **Lunch Break (cash lunch sales)**  
San Geronimo Foyer

12:30 - 2:00 pm   **WOMENS’ FORUM: Skills for Success**  
San Geronimo Ballroom

2:00 - 4:00 pm   **CONCURRENT WORKSHOPS**

2:00 - 4:00 pm   **WORKSHOP 5: Gene Regulation**, Papers 119-125  
San Geronimo Ballroom  
Chairs: **David Levy**, New York University School of Medicine, New York  
**Betsy Barnes**, Johns Hopkins University, Baltimore, Maryland

2:00 pm   **REGULATION OF NUCLEAR FACTOR κB SUBUNIT C-REL THROUGH PHOSPHORYLATION BY TWO IκB KINASE (IKK)-RELATED KINASES, IKKe AND TANK-BINDING KINASE-1**, Paper 119  
Jennifer Harris1,2, Nathalie Grandvaux1, Sonia Sharma1,2, Rongtuan Lin1 and John Hiscott1,2  
1Lady Davis Institute for Medical Research and 2McGill University, Montreal, Quebec, Canada
2:20 pm  
GENE EXPRESSION PROFILING OF MYELOID AND FIBROBLAST CELLS LACKING BOTH C-REL AND RELA IN RESPONSE TO TNF α. Paper 120  
Rebecca McCrackan1, Raelene Grumont1, Liam O'Connor1, Dobrila Nesic1, Raffi Gugasyan1, and Steve Gerondakis1  
1Walter and Eliza Hall Institute of Medical Research, Parkville, Australia and 2Incyte Genomics, Inc., Palo Alto, CA  

2:35 pm  
THE ROLE OF NF-κB IN THE ANTIVIRAL ACTION OF IFN AND IFN-REGULATED GENE EXPRESSION. Paper 121  
Lawrence M. Pfeffer1, Jong-Gwan Kim1, Susan R. Pfeffer1, Dennis J. Carrigan1, Darren P. Baker2, Lai Wei3, and Ramin Homayouni1  
1University of Tennessee Health Science Center, Memphis, TN and 2Biogen Idec, Inc., Cambridge, MA

2:50 pm  
CHARACTERIZATION OF THE MULTIPLE IRF-5 VARIANTS: A CLOSER LOOK AT THEIR REGULATION AND FUNCTION. Paper 122  
Betsy J. Barnes, Margo E. Mancl, Guodong Hu, Katherine Hoops, and Paula M. Pitha, The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University, Baltimore, MD

3:05 pm  
IRF-8/ICSBP IS A MASTER REGULATOR OF MATURE MACROPHAGES, ESSENTIAL FOR INNATE IMMUNITY TO INTRAPHAGOSOMAL PATHOGENS. Paper 123  
Michal Alter-Koltunoff, Natalie Dror, Aviva Azriel, and Ben-Zion Levi, Technion, Haifa, Israel

3:20 pm  
PHYSIOLOGY AND PATHOLOGY OF STAT1 and STAT3 , Paper 124  
David E. Levy, Alicia Corlett, Marta Sabbadini, Marion Bonnet, Chien-Kuo Lee, and Giorgio Inghirami, New York University School of Medicine, New York NY

3:35 pm  
CONTROL OF ANTIVIRAL CYTOKINE GENE EXPRESSION BY SIGNALING THROUGH RNA SENSORS, Paper 125  
Anat Hasson, Sarah Namer, Smadar Cohen-Chalamish, Merav Persky, Yona Banai, Farhat Osman and Raymond Kaempfer, The Hebrew University-Hadassah Medical School, Jerusalem, Israel

2:00 - 4:00 pm  
WORKSHOP 6: Receptor Mechanisms  
Flamingo A-D

2:00 pm  
MOLECULAR DISSECTION OF DIFFERENTIAL RECEPTOR ASSEMBLING BY TYPE I INTERFERONS, Paper 126  
José Van der Heyden1, Gilles Uzé1, Tal Peleg-Shulman2, Laila C. Roisman2, Gideon Schreiber2, Peter Lamken3, Eva Jaks3, Jacob Pichler3, 1UMR 5124, CNRS, Montpellier, France, 2Dept. of Biological Chemistry, Weizmann Institute of Science, Rehovot, Israel, 3Institute of Biochemistry, Goethe-University, Frankfurt/Main, Germany
Saturday, October 23 Continued

2:20 pm  TWO-STEP ACTIVATION OF IRF-3: ROLE OF PI3 KINASE IN TLR3-MEDIATED SIGNALING BY DSRNA, Paper 127
Saumendra N. Sarkar, Kristi L. Peters, Christopher P. Elco and Ganes C. Sen
The Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH

2:35 pm  THE ROLE OF JANUS KINASES IN CYTOKINE RECEPTOR TRAFFIC: TYK2 CATALYTIC ACTIVITY CONTRIBUTES TO LIGAND-DEPENDENT DEGRADATION OF IFNAR1, Paper 128
Z. Marijanovic, J. Ragimbeau and S. Pellegrini
Unité de Signalisation des Cytokines, Institut Pasteur, Paris, France

2:50 pm  INTERFERONγ RESPONSES ARE BLOCKED UNDER CONDITIONS THAT PREVENT THE ASSEMBLY OF CLATHRIN COMPLEXES, Paper 129
John A. Lewis
SUNY Downstate Medical Center, Brooklyn, NY.

3:05 pm  DOWN REGULATION OF TYPE I INTERFERON RECEPTOR VIA UBIQUITINATION OF IFNAR1: ROLE OF SCFßTRCP E3 UBIQUITIN LIGASE, Paper 130
K.G. Suresh Kumar and Serge Y. Fuchs
University of Pennsylvania, Philadelphia, PA

3:20 pm  NATURAL SOLUBLE IL-15RA IS GENERATED BY CLEAVAGE THAT INVOLVES THE TUMOR NECROSIS FACTOR-A-CONVERTING ENZYME, Paper 131
Vadim Budagian¹, Elena Bulanova¹, Zane Orinska¹, Andreas Ludwig², Stefan Rose-John², Paul Saftig² and Silvia Bulfone-Paus¹
¹Research Center Borstel, Borstel, Germany, ²Christian-Albrechts-University, Kiel, Germany

3:35 pm  THE ANTIVIRAL STATE INDUCED BY HUMAN IFN-BETA LASTS MUCH LONGER THAN THAT INDUCED BY IFN-ALPHA2, Paper 132
Menachem Rubinstein, Daniela Novick and Sara Barak
The Weizmann Institute of Science, Rehovot, Israel

2:00 - 4:00 pm WORKSHOP 7: Innate Immunity 2, Papers 133 - 139
Los Olas
Chairs: Joan Durbin, Ohio State University, Columbus, Ohio and Christine Biron, Brown University, Providence, Rhode Island

ICS POSTDOCTORAL INVESTIGATOR AWARD: Ana Fernandez-Sesma, 3rd Place

2:00 pm  THE INTERFERON ANTAGONIST NS1 OF INFLUENZA VIRUS ATTENUATES HUMAN DENDRITIC CELL MATURATION AND FUNCTION, Paper 133
Ana Fernandez-Sesma, Svetlana Marukian, Barbara J. Ebersole, Man-Seong Park, Stuart C. Sealfon, Adolfo García-Sastre and Thomas M. Moran
Mount Sinai School of Medicine, New York, NY

2:20 pm  TYPE I INTERFERON INDUCTION BY RESPIRATORY VIRUS INFECTION IN VIVO, Paper 134
Nancy Jewell, Negin Gitiban, Paris Akter, Randall Harris, Sara Mertz, Russell Durbin, Lauren Bakaletz, and Joan Durbin
Columbus Children's Research Institute, Ohio State University, Columbus, OH
2:35 pm  CHARACTERIZATION OF PLASMACYTOID DENDRITIC CELLS FROM MURINE PEYER’S PATCHES, Paper 135
Nikhat Contractor\textsuperscript{1}, Jennifer Louten\textsuperscript{2}, Christine Biron\textsuperscript{2}, and Brian Kelsall\textsuperscript{1}
\textsuperscript{1}National Institute of Allergy and Infectious Disease, National Institutes of Health, Bethesda, MD and \textsuperscript{2}Brown University, Providence, RI

ISICR CHRISTINA FLEISHMANN MEMORIAL AWARD: Brenda Fredericksen

2:50 pm  EXAMINATION OF THE MECHANISM BY WHICH WEST NILE VIRUS DELAYS THE ACTIVATION OF THE HOST ANTIVIRAL RESPONSE , Paper 136
Brenda L. Fredericksen and Michael Gale Jr.
University of Texas Southwestern Medical Center, Dallas, TX

ISICR YOUNG INVESTIGATOR AWARD: Tomohiko Tamura

3:05 pm  IRF-4 AND IRF-8 REGULATE DENDRITIC CELL SUBSET DEVELOPMENT AND THEIR FUNCTIONAL DIVERSITY , Paper 137
Tomohiko Tamura\textsuperscript{1}, Prafullakumar Tailor\textsuperscript{1}, Hee Jeong Kong\textsuperscript{1}, Hideki Tsujimura\textsuperscript{1}, Harinder Singh\textsuperscript{2} and Keiko Ozato\textsuperscript{1}, \textsuperscript{1}Lab. of Molecular Growth Regulation, NICHD, NIH, Bethesda, MD, \textsuperscript{2}Howard Hughes Medical Institute, University of Chicago, Chicago, IL

3:20 pm  IFNa\textsubscript{b} COOPERATES WITH FLT3L AND PLASMACYTOID PRE-DENDRITIC CELLS DURING HERPES SIMPLEX VIRUS TYPE 1 INFECTION IN NEONATAL MICE, Paper 138
Sabine Vollstedt, Bettina Glanzmann, Beat Ryf, Vicky Meier and Mark Suter
\textsuperscript{1}Institute for Virology, University of Zurich, Switzerland

3:35 pm  THE ANTIVIRAL ACTIVITY OF TBK1 AND IKKE IN HCV INFECTION , Paper 139
Adrien Breiman\textsuperscript{1}, Nathalie Grandvaux\textsuperscript{2}, Rongtuan Lin\textsuperscript{3}, Catherine Qütte\textsuperscript{1}, Lydiane Pichard\textsuperscript{2}, Pierre Charneau\textsuperscript{1}, Patrick Maurel\textsuperscript{3}, Shizuo Akira\textsuperscript{5}, John Hiscott\textsuperscript{2}, and Eliane F. Meurs\textsuperscript{1}
\textsuperscript{1}Unité Hépacivirus, Institut Pasteur, Paris, France; \textsuperscript{2}Lady Davis Institute for Medical Research, Montreal, Canada; \textsuperscript{3}INSERM-U632, Montpellier, France; \textsuperscript{4}Laboratoire Virologie Moléculaire et Vectorologie, Institut Pasteur, Paris, France; \textsuperscript{5}Research Institute for Microbial Diseases, Osaka University, Osaka, Japan

2:00 - 4:00 pm  WORKSHOP 8: ADAPTIVE IMMUNITY  Tropical A-C
Papers 140 - 146
Chairs: Filippo Belardelli, Istituto Superiore di Sanità, Rome, Italy and Angela Battistani, Istituto Superiore di Sanità, Rome, Italy

2:00 pm  IRF-1 IS A CRITICAL FACTOR IN THE CONTROL OF TOLEROGENIC IMMUNE FUNCTIONS, AFFECTING THE DEVELOPMENT OF TOLEROGENIC DENDRITIC CELLS AND CD4\textsuperscript{+}CD25\textsuperscript{+} REGULATORY T CELLS, Paper 140
Lucia Gabriele, Alessandra Fragale, Paola Borghi, Paola Sestili, Emilia Stellacci, Massimo Venditti, Filippo Belardelli, and Angela Battistini
Istituto Superiore di Sanità, Rome, Italy
2:20 pm  MONOCYTE-DERIVED DENDRITIC CELLS GENERATED WITH IFN-γ: MOLECULAR SIGNATURE AND ADVANTAGES FOR THEIR USE IN THE DEVELOPMENT OF THERAPEUTIC VACCINES, Paper 141
Stefania Parlato, Paolo Sirabella, Lucia Gabriele, Irene Canini, Caterina Lapenta, Stefano M. Santini, and Filippo Belardelli
Istituto Superiore di Sanità, Rome, Italy

2:35 pm  ROLE OF TYPE I INTERFERONS IN THE INITIATION OF AN IMMUNE RESPONSE
Paper 142
Graham R Foster¹, Conrad Germain², Meleri Jones¹, Linda Hibbert¹, Federica Marelli³, Robert I Lechler² and Giovanna Lombardi³
¹Queen Mary's School of Medicine and Dentistry, Barts and The London, London, UK, ²Faculty of Medicine, Imperial College at Hammersmith Hospital, London, UK

2:50 pm  INTERFERON-GAMMA IS NOT NECESSARY FOR BORNA DISEASE VIRUS-INDUCED IMMUNOPATHOLOGY BUT REQUIRED FOR ANTIVIRAL DEFENCE BY CD8 T CELLS, Paper 143
Juergen Hausmann, Karin Engelhardt, Karen Baur, Axel Pagenstecher, and Peter Staeheli
University of Freiburg, Germany

3:05 pm  DECREASED IL-12 AND IL-15 PRODUCTION AND IMPAIRED IL-12 INDUCED T-HELPER RESPONSES IN HIV-1 INFECTED INDIVIDUALS, Paper 144
Vainav Patel, Antonio Valentin and George N. Pavlakis
National Cancer Institute-Frederick, MD

3:20 pm  ENHANCING CTL RESPONSES TO WHOLE CANCER CELL VACCINES IN VIVO: SYNERGISTIC INCREASES OBTAINED USING IFNγ PRIMED AND IFNβTREATED B7-1⁺ CELLS, Paper 145
Shala Dezfouli, Irene Hatzinisiriou, Pauline Low and Stephen J. Ralph
Griffith University, Gold Coast, Southport, Queensland, Australia

3:35 pm  REGULATION OF TYPE 1 INTERFERONS EFFECTS ON CD8 T CELL RESPONSES DURING VIRAL INFECTION, Paper 146
M. Pilar Gil, Rachelle Salomon and Christine A. Biron
Brown University, Providence, Rhode Island

4:00 - 6:00 pm  POSTER SESSION 2, Papers 147-241
San Cristobal Ballroom
with wine and cheese

GENE REGULATION, Papers 147-173

THE INTERFERON-INDUCED GTPASE, MGBP-2, DOWNREGULATES MATRIX METALLOPROTEINASE-9 EXPRESSION, Paper 147
Sujata Balasubramanian, Jill A. Trendel, and Deborah J. Vestal
University of Toledo, Toledo, OH

MECHANISMS OF INTERFERON REGULATORY FACTOR-1 DEREGULATION IN RAS-TRANSFORMED MOUSE FIBROBLASTS, Paper 148
Frank A. Attard, Tze-Jou Annie Yeh, Sara Contente, Dorothy L. Buchhagen, and Robert M. Friedman
Uniformed Services University of the Health Sciences, Bethesda, MD
GENE REGULATION, continued

IRF-1 BINDS THE ENHANCER REGION OF THE HIV-1 LTR AND COOPERATES WITH NF-KB IN INDUCING LTR TRANSCRIPTION, Paper 149
Anna L. Remoli, Giulia Marsili, Marco Sgarbanti, Alessandra Borsetti, Barbara Ridolfi, Edvige Perrotti, Ramona Iliari, Roberto Orsatti, Emilia Stellacci, Barbara Ensoli and Angela Battistini
Diseases, Istituto Superiore di Sanità, Rome, Italy

NOVEL POSITIVE AND NEGATIVE REGULATORY ELEMENTS IN THE HUMAN STAT1 GENE, Paper 150
Samuel J. Cutler, Ibtisam Ghazawi, Albert S. Mellick, and Stephen J. Ralph
School of Health Sciences, Griffith University, Gold Coast, Queensland, Australia

INTERLEUKIN 10 AND ITS FUNCTIONAL DOMAIN IT9302 REGULATE GENE EXPRESSION IN MALIGNANT AND HIGH METASTATIC MELANOMA CELLS
Borbala Gesser1, Mogens Kruhøffer2, Friedrik P. Wikman2, Torben F. Ørntoft2, and Christian G Larsen1,
1Aarhus Amtssygehus, Aarhus, and 2Aarhus University Hospital, Skejby, Aarhus, Denmark

INTERLEUKIN-6-TYPE CYTOKINES NEGATIVELY REGULATE TISSUE INHIBITOR OF METALLOPROTEINASES-3 EXPRESSION IN SYNOVIAL LINING CELLS
Katrin Golz1, Eddy van de Leur2, Peter C. Heinrich1 and Heike M. Hermanns1
1Institut of Biochemistry; 2Institute of Clinical Chemistry, University Hospital RWTH Aachen, Germany

TRANSLATIONAL CONTROL OF INTERLEUKIN-3 MRNA: INVOLVEMENT OF THE ADENOSINE/URIDINE-RICH ELEMENT, Paper 153
Kiril R. Maurás-Rivera, Félix Araujo-Pérez, and Carlos I. González1
University of Puerto Rico-Rio Piedras, College of Natural Sciences, San Juan, PR

TRANSCRIPTIONAL PROFILING IN JURKAT T CELLS TREATED WITH INTERFERON-β1A AND INTERFERON-γ
Jaya Goyal, Deborah Kinch, Karen Flynn, Quyen Duong, Matthew Cooper, and Meena Subramanyam
Clinical Science and technology, PCDS, Biogen Idec Inc., Cambridge, MA, USA

THE ISG15-SPECIFIC PROTEASE, UBP43, INTERACTS WITH SSRP1 IN AN INTERFERON-DEPENDENT MANNER, Paper 155
Janette Harro1, Xiao-Ling Li1, and Bret A. Hassel1,2
1Program in Molecular and Cell Biology, and 2Greenebaum Cancer Center, University of Maryland, Baltimore, MD

MIXED LINEAGE KINASES AND THE INTERFERON-γ SIGNAL TRANSDUCTION PATHWAYS, Paper 156
Sanjit K. Roy1, Jon D. Shuman3, Paul S. Shapiro2, Leonidas Platanias2, Peter F. Johnson3 and Dhan V. Kalvakolanu1
1Greenebaum Cancer Center, University of Maryland School of Med., Baltimore, MD; 2Northwestern University Feinberg School of Medicine, Chicago, IL and 3National Cancer Institute Frederick Cancer Research Facility, Frederick, MD
GENE REGULATION continued

IFNγ-MEDIATED REGULATION OF 25-HYDROXYVITAMIN D-1-ALPHA-HYDROXYLASE IN HUMAN MONOCYTES, Paper 157
K. Stoffels, L. Overbergh, A. Giulietti, R. Bouillon, and C. Mathieu
Catholic University of Leuven, Leuven, Belgium.

IDENTIFICATION OF A DISTINCT PROMOTER ACTIVITY IN THE PROXIMAL UPSTREAM OF SWINE INTERLEUKIN-12 RECEPTOR BETA 2 GENE, Paper 158
Takehiro Kokuho, Satoko Watanabe, Shigeki Inumaru, and Takayuki Kubota
National Institute of Animal Health, Tsukuba, Ibaraki, Japan

STAT AND TGF-b SIGNALS COLLABORATE IN THE DAUER DEVELOPMENTAL DECISION IN THE NEMATODE, C. ELEGANS, Paper 159
Yaming Wang and David E. Levy
New York University School of Medicine, New York, NY

LPS STABILIZES FORMYL PEPTIDE RECEPTOR 1 mRNA VIA AUTOCRINE ACTION OF TNFα, Paper 160
Palash Mandal and Thomas Hamilton
Cleveland Clinic Foundation, Cleveland, OH

REGULATION OF THE TYPE I IFN LOCUS DURING VIRAL INFECTION, Paper 161
Isabelle J. Marié, Nadia Cohen, and David E. Levy
New York University School of Medicine, New York, NY

ROLE OF ETS-1 IN ERYTHROID ANG MEGAKARYOCYTIC DIFFERENTIATION, Paper 162
Giovanna Marziali, Valentina Lulli, Paolo Romania, Simona Mazzeo, Ornella Morsilli, Marco Gabbianelli, Alfredo Pagliuca, Ugo Testa and Cesare Peschle.
Istituto Superiore Sanità, Rome, Italy

IDENTIFICATION OF RNA ACTIVATORS OF 2',5'-OLIGOADENYLATE SYNTHETASE IN PROSTATE CANCER CELLS, Paper 163
Ross J. Molinaro1,2, Krishnamurthy Malathi1, and Robert H. Silverman1
1Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH and 2Cleveland State University, Cleveland, OH

P38 MAP KINASE REGULATES STAT1- AND NF-κB-DEPENDENT TRANSCRIPTIONAL SYNERGY VIA ENHANCEOSOME FORMATION IN INTERFERON AND LPS-STIMULATED MACROPHAGES, Paper 164
Yoshihiro Ohmori and Miki Hiroi
Meikai University School of Dentistry, Sakado, Saitama, Japan

ROLE OF ETS-1 IN TRANSCRIPTIONAL REGULATION OF TRANFERRIN RECEPTOR IN PRIMARY HUMAN LYMPHOCYTES ACTIVATION, Paper 165
Edvige Perrotti, Ramona Ilari, Ornella Morsilli, Ugo Testa, Giovanna Marziali and Angela Battistini
Istituto Superiore di Sanità, Rome, Italy
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TNF-α/IL-1β STIMULATION OF HepG2 CELLS LEADS TO A TIME DEPENDENT SHIFT IN THE COM-POSITION OF THE NF-κB DIMERS AND IN THE NF-κB BINDING AFFINITY TO IL-8/P53 PROMOTERS, Paper 166
Mads Rasmussen, Borbala Gesser, Lars Iversen, and Knud Kragballe
Marselisborg Hospital, Aarhus University, Denmark

COOPERATIVE REGULATION OF THE ACETYL TRANSFERASE AND CCAAT DISPLACEMENT PROTEIN ON THE EXPRESSION OF NF-κB-REGULATED CHEMOKINES IN MELANOMA CELLS, Paper 167
Yukiko Ueda and Ann Richmond.
1Vanderbilt University School of Medicine and 2VA Medical Center, Nashville, TN

IFN-α REGULATED INTERLEUKIN-21 AND INTERLEUKIN-21 RECEPTOR GENE EXPRESSION IN HUMAN NK AND T CELLS, Paper 168
Mari Strengell, Ilkka Julkunen, and Sampsa Matikainen, National Public Health Institute, Helsinki, Finland

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Paper 169
Mikio Tomida1 and Takeshi Saito1, 2
1Saitama Cancer Center, Ina-machi, Saitama, Japan and 2REDS Group (Saitama Prefecture Collaboration of Regional Entities for the Advancement of Technological Excellence, JST), Saitama Small Enterprise Promotion Corporation, Kawaguchi, Saitama, Japan

IL-1β REGULATES THE EXPRESSION OF IL-6-INDUCED SUPPRESSOR OF CYTOKINE SIGNALING -3 POSITIVELY AND NEGATIVELY THROUGH NF-kB ACTIVATION, Paper 170
Xiang-Ping Yang1, Ute Albrecht2, Vera Zakowski2, Dieter Häussinger2, Peter C. Heinrich1, Stephan Ludwig2, Johannes G. Bode2, and Fred Schaper1
RWTH, Aachen, Germany, 1Heinrich-Heine-Universität, Düsseldorf, Germany

IDENTIFICATION AND CHARACTERIZATION OF A NEW PROTEIN ARGinine METHYLTRANSFERASE, PRMT7, Paper 171
Jin-Hyung Lee1, Jeffrey R. Cook1, Olga Mirochnitchenko1, Samuel Gunderson2, Arthur M. Felix3, Nicole Herth4, Ralf Hoffmann4 and Sidney Pestka1, 5
1UMDNJ-Robert Wood Johnson Medical School, Piscataway, NJ, 2Rutgers University, Piscataway, NJ; 3Rutgers University, Piscataway, NJ; 4Ramapo College of New Jersey, Mahwah, NJ, 5University of Leipzig, Leipzig, Germany;

SIRNA AGAINST EUKARYOTIC TRANSLATION INITIATION FACTOR 5A SIGNIFICANTLY REDUCES TNF-α SECRETION IN PBMCS AND U937 CELLS IN RESPONSE TO LPS, Paper 172
Adrienne N Boone, Marianne T Hopkins, Catherine A Taylor and John E Thompson
University of Waterloo, Waterloo, Ontario, Canada

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Eli C. Lewis and Charles A. Dinarello
University of Colorado Health and Science Center, Denver, CO
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PROTHYMOSIN α STIMULATES ENDOTHELIAL CELL MIIGRATION AND ANGIOGENESIS, Paper 174
Anna V. Khodyakova, Lyudmila M. Khromykh, Raisa N. Vasilenko, Galina D. Kozlovskaya, Anatoly M. Vasiliev, and Viacheslav M. Abramov
Institute of Immunological Engineering, Lyubuchany, Moscow Region, Russia

ELIMINATION OF P53-DEFICIENT TUMOR CELLS VIA IRF-1- AND IRF-5-MEDIATED CROSS-TALK BETWEEN DNA DAMAGE AND DEATH RECEPTOR-SIGNALING
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Betsy J. Barnes, Margo E. Mancl, Guodong Hu, Rajani Ravi, and Atul Bedi
The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University, Baltimore, MD

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P.J.Hertzog, J.E.Fenner, S.J.Noppert, S.Samarajiwa, B.Scott and C.Owczarek
Monash Institute of Reproduction and Development, Monash University, Clayton, Victoria, Australia

MOLECULAR MECHANISMS UNDERLYING SENSITIVITY OF GASTROINTESTINAL STROMAL TUMOR CELLS (GIST) TO INTERFERONS (IFNS), Paper 177
Barbara Jacobs1, Taolin Yi1, Mingli Cao1 and Ernest C. Borden1
1Center for Cancer Drug Discovery and Development, 2Cancer Biology, Cleveland Clinic Foundation, Cleveland, OH

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A.Kishi1, Y.Mitsuishi1, A.Kokubo1, K.Nagata2, H.Hirai2, K.Ogawa2, M.Iwasaki2, S.Fujita1, and T.Kishida1
1Louis Pasteur Center for Medical Research, Kyoto, Japan and 2R&D Center, BML, Saitama, Japan

OPTIMIZATION OF THE TET-ON SYSTEM TO REGULATE INTERLEUKIN 12 EXPRESSION IN THE LIVER FOR THE TREATMENT OF HEPATIC TUMORS
Paper 179
Maider Zabala, Lin Wang, Ruben Hernandez-Alcoceba, Wolfgang Hillen*, Cheng Qian, Jesus Prieto and M. Gabriela Kramer
University of Navarra-FIMA, Hepatology and Gene Therapy Unit, Pamplona, Spain
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Wim Van Molle1, Kenji Sekikawa2, Marja Jäättelä3, George Kollias4 and Claude Libert1
1Ghent University, Ghent, Belgium, 2National Institute of Agrobiological Sciences, Tsukuba, Japan, 3Institute of Cancer Biology, Danish Cancer Society, Copenhagen, Denmark and 4Institute of Immunology, Biological Sciences Research Center Alexander Fleming, Vari, Greece
ADAPTIVE IMMUNITY, continued

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Dmitry J. Liepinsh1, Alexei V. Tumanov1,2, Sergei I. Grivennikov1,2, Lino Tessarollo3, Dmitry V. Kuprash1,2, and Sergei A. Nedospasov1,2.
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3Mouse Cancer Genetics Program, NCI- Frederick, Frederick, MD

VITAMINS A AND E EFFECTS ON γ-INTERFERON PRODUCTION AND PHAGOCYTOSIS DURING IN-VITRO STIMULATION, Paper 182
Balram. Mahabir, Zenora Asgarali, Winthrop Harewood2, Dan D. Ramdath3
1Department of Para-Clinical Sciences, 2Department of Clinical Sciences, 3Department of Pre-Clinical Science Faculty of Medical Sciences University of the West Indies St. Augustine, Trinidad. W.I.

BIOLOGICAL ACTIVITY OF INTERLEUKINS-28 AND -29: COMPARISON WITH A TYPE I INTERFERON, Paper 183
Tony Meager, Meenu Wadhwa, Paula Dilger, Kumi Visvalingam, Donna Bryan, Robin Thorpe. Division of Immunology and Endocrinology, The National Institute for Biological Standards and Control, Blanche Lane, South Mimms, Herts.

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M.G. Netea1, C.A. Munro2, S. Bates2, N. Gow2, D.L. Williams3, J.W.M. Van der Meer1, B.J. Kullberg1
1University Medical Center St. Radboud, Nijmegen, Netherlands, 2Institute of Medical Sciences, University of Aberdeen, Aberdeen, United Kingdom, 3Department of Surgery, East Tennessee State University, Johnson City, TN

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Mihai G. Netea, Anne-Marie Brouwer, Jos W.M. Van der Meer, Bart-Jan Kullberg Department of Medicine, University Medical Center St. Radboud, and Nijmegen University Center for Infectious Diseases, Nijmegen, The Netherlands

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Markus Dühler2, Josef D. Schwarzmeier1,2, Medhat Shehata2, Martin Hilgarth1, and Rainer Hubmann1
1University of Vienna, Clinic of Internal Medicine I., Dept. Hematology, Waehringer Vienna, Austria and 2Ludwig Boltzmann Institute for Cytokine Research, University of Vienna, Vienna, Austria

PRODUCTION AND CHARACTERIZATION OF AN ANTI-HUMAN INTERLEUKIN-6 TANDEMAB: A HIGH AFFINITY IL-6 BLOCKER, Paper 187
Eric J. Smith, Ashique Rafique, Xia Liu, Aldo Coppi, Warren Mikulka, Tammy Huang, Laura Carpenter, and Margaret Karow Regeneron Pharmaceuticals, INC., Tarrytown, NY
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Heinz Niggli, Samuel Gaveriaux, Denis Eichlisberger, Bruno Cenni, Helmut Sparrer, Arthritis and Transplantation Department, Novartis Institute of Biomedical Research, Basle, Switzerland

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Jane Linnell1, Simon Field1, Hans Ackermann1, Richard Mott1, Jiannis Ragoussis1 and Irina A. Udalova1,2
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MECHANISM OF INTERLEUKINE-4 REGULATED PROLIFERATION AND HOMING OF CD8+ T CELLS, Paper 192
Ailin Bai1, Hui Hu1, Herman N. Eisen1, and Jianzhu Chen1. 1Center for Cancer Research, Massachusetts Institute of Technology, Cambridge, MA,

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Sylvie Ferrari-Lacraz1, Donald C. Foster2, Rachel Chicheportiche1
1University Hospital, Faculty of Medicine, Geneva, Switzerland, and 2Zymogenetics, Seattle, WA

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Ramireddy Bommireddy¹, Orlando Bueno², Ilona Ormsby¹, Greg. P. Boivin¹, Jeff. D. Molkentin², George F. Babcock¹ and Thomas Doetschman¹
¹University of Cincinnati College of Medicine, Cincinnati, OH, ²Children's Hospital Medical Center, and ³Shriners Hospital for Children, Cincinnati, OH

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University Hospital, Geneva, Switzerland

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Noriyuki Fujikado¹, Shinobu Saijo¹, Michiyasu Takeyama², Reiko Sasada² and Yoichiro Iwakura¹
¹Institute of Medical Science, University of Tokyo, Tokyo, Japan and ²Takeda Chemical Industries, Ltd., Tsukuba, Japan

RAPID INCREMENT OF ABSOLUTE NEUTROPHIL COUNT MORE THAN 1000/UL FROM NEUTROPENIA STATUS LESS THAN 500/UL, BY G-CSF INJECTION, HAS THE RISK OF PNEUMONIA EXACERBATION TO ARDS, Paper 199
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College of Medicine, Korea University, Seoul, Korea

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Rachel M. McLoughlin¹,², Clare Parker², Simon A. Jones¹ and Nicholas Topley²
¹Cardiff School of Biosciences, Cardiff University, Cardiff, UK and ²Institute of Nephrology, UWCM, Cardiff, UK

TNF-STIMULATED GENE 6 (TSG-6) PROTEIN INDUCES CYCLOOXYGENASE-2 AND PROSTAGLANDIN SYNTHESIS IN MACROPHAGE CELL LINE, Paper 201
Catalin Mindrescu, Hans-Georg Wisniewski, and Jan T. Vilcek
New York University School of Medicine, New York, NY

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Raffaella Ravera¹, Michele Mondini¹,², Serena Mazzini¹, Claudia Zannetti¹, Marisa Gariglio² and Santo Landolfo¹
¹University of Turin, Turin, Italy, ²University of Eastern Piedmont, Novara, Italy
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Akiko Nakajima¹, Mayumi Komine², Taizo Matsuki¹, Reiko Horai¹, Akihiko Asahina², and Yoichiro Iwakura¹, The Institute of Medical Science, University of Tokyo, Tokyo, Japan, ²University of Tokyo, Tokyo, Japan

TYPE I INTERFERONS PLAY A CRITICAL ROLE IN LIPOPOLYSACCHARIDE-INDUCED INFLAMMATION
Paper 204
S. Noppert¹, ², ³, A. Mansell¹, ², ³, J. Gould¹, ², ³, S. Samarajiwa¹, ², J. Fenner¹, and P. Hertzog¹, ²
¹Monash Institute of Reproduction and Development, Monash University, Clayton, Australia, ²School of Applied Sciences, Monash University, Gippsland, Australia ³CRC for Chronic Inflammatory Disease

THE SOLUBLE IL-6R IN ARTHRITIS: A POTENTIAL TARGET FOR THERAPEUTIC INTERVENTION
Paper 205
Mari A Nowell¹, Peter J. Richards¹, Sara Carty², Stefan Rose-John³, Anwen S Williams², Nicholas Topley⁴, and Simon A Jones¹,
¹Cardiff School of Biosciences, Cardiff University, Cardiff, ²Department of Rheumatology, UWCM, UK ³Christian-Albrechts Universität, Kiel, Germany ⁴Cardiff, UK, Institute of Nephrology, UWCM, Cardiff, UK

PROBIOTIC TREATMENT PREVENTS CHRONIC ILEITIS BY INHIBITING TH1 CYTOKINE PRODUCTION IN EXPERIMENTAL CROHN'S DISEASE
Paper 206
Cristiano Pagnini¹, Charles Martin III¹, Giorgos Bamias¹, Claudio De Simone¹, and Fabio Cominelli¹, ¹University of Virginia, Charlottesville, VA

THE MITOCHONDRIAL UNCOUPLING PROTEIN 2 MODULATES THE MACROPHAGE RESPONSE DURING INFECTION
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Sophie Rousset, Yalin Emre, Daniel Ricquier, and Anne-Marie Cassard-Doulcier CNRS-UPR9078, Institut de recherche Necker-Enfants malades, Paris, France.

THE ROLE OF IL-6 IN THE DEVELOPMENT OF ARTHRITIS IN MOUSE MODELS
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Shinobu Saijo and Yoichiro Iwakura
The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

GAMMA INTERFERON INDUCES DECREASED EXPRESSION OF METALLOPROTEASE MT1-MMP IN INTESTINAL EPITHELIAL CELLS
Paper 209
Luz E. Thomas, Jansi Alvarado, and Jesús del Castillo
Laboratorio de Fisiología Gastrointestinal, Centro de Biofísica y Bioquímica, Instituto Venezolano de Investigaciones Científicas, Caracas, Venezuela

INTERLEUKIN-1β AND INTERFERON-γ SYNERGY: ROLE IN PATHOLOGY OF RHEUMATOID ARTHRITIS
Paper 210
Eleri Thomas¹, Mari A Nowell², Peter J Richards², Simon A Jones², Nicholas Topley¹, and Anwen S Williams¹ ¹University of Wales College of Medicine, Cardiff, United Kingdom ²Cardiff School of Biosciences, Cardiff, United Kingdom
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EXACERBATION OF ALLERGEN-INDUCED AIRWAY HYPER- RESPONSIVENESS BY AUGMENTED TH2 RESPONSES IN WSX-1-DEFICIENT MICE, Paper 211
Hiroki Yoshida1,2,3, Shinjiro Hamano3, Hiromasa Inoue4, Akihiko Yoshimura2, and Yoshiyuki Miyazaki1,2
1PRESTO, Japan Science and Technology Agency, Japan, 2Division of Molecular and Cellular Immunology, Medical Institute of Bioregulation, 3Department of Parasitology, Faculty of Medical Sciences, 4Research Institute for Diseases of the Chest, Graduate School of Medical Sciences, Kyushu University, 5Division of Molecular and Cellular Immunoscience, Department of Biomolecular Sciences, Saga Medical School, Japan

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Sang-Heon Kim1,2, Hye-Kyung Park1,2, Hyouk-Soo Kwon1,2, Min-Hee Oh1,2, Soo-Yeoun Lee1,2, Seong-Gyu Jeon1,2, Kyung-Mook Kim1,2, Tae-Bum Kim1,2, Yoon-Seok Chang1,2, Yoon-Keun Kim1,2, Sang-Heon Cho1,2, Kyung-Up Min1,2, You-Young Kim1,2,1
Seoul National University College of Medicine, 2Seoul National University Medical Research Center, Seoul, Korea

INFLUENCE OF IL-17 UPON IMMUNOREGULATORY MOLECULES OF THE PERITONEAL MESOTHELIAL CELLS FROM PATIENTS WITH CIRRHOSIS AND ASCITES, Paper 213
Félix Broche Valle1, Josè M. Tellado1, Paloma Sánchez2, Emilia Cercenado3 and Gerardo Clemente4,1 Surgical Infection Research Laboratory, 2Laboratory of Immunology, 3Laboratory of Microbiology, 4Hepatology Section, Hospital “Gregorio Marañón”, Madrid, Spain.

INTERLEUKIN-23 (IL-23), A NOVEL CYTOKINE WITH TH1 PROPERTIES, AND IL-23 RECEPTORS ARE UPREGULATED IN INTESTINAL MUCOSA OF CROHN ’S DISEASE PATIENTS, Paper 214
Paul Guarino, William G. Ross, Sharon Hoang, Christopher G. Bachmann, Brian K. Reuter, Fabio Cominelli, and Theresa T. Pizarro
University of Virginia Health System, Charlottesville, VA

MECHANISM OF INTESTINAL TNF-INDUCED CROHN ’S DISEASE (CD)-LIKE DISEASE IN TNF DARE MICE, Paper 215
Theresa T. Pizarro1, Mohamed I. Dahman1, Menelaos Manoloukos2, Dimitris Kontoyiannis3, Giorgos Kollia4, Fabio Cominelli1
1University of Virginia Health System, Charlottesville, VA, and 2Institute of Immunology, Biomedical Sciences Research Center, Vari, Greece

INCREASED EXPRESSION OF PRO-INFLAMMATORY CYTOKINES IN PLACENTAS OF WOMEN UNDERGOING SPONTANEOUS PRETERM DELIVERY OR PREMATURE RUPTURE OF MEMBRANES, Paper 216
Sherief El-Shazly1, Masoumah Makhseed2, Fawaz Azizieh3, Raj Raghupathy1
1Faculty of Medicine, Kuwait University and 2Department of Obstetrics and Gynecology, Faculty of Medicine, Kuwait University and Maternal Hospital, Kuwait
LARGE VARIETY OF YERSINIA PESTIS ADHESINS, Paper 217
Institute of Immunological Engineering, Lyubuchany, Moscow Region, Russia

HHV-8 LATENT NUCLEAR ANTIGEN (LANA-1) UPREGULATES PRO-INFLAMMATORY GENE EXPRESSION IN PRIMARY EFFUSION LYMPHOMA CELLS
Paper 218
Meztli Arguello, Eduardo Hernandez, Catherine Corriveau-Bourque, Raphaelle Romieu, Rongtuan Lin, and John Hiscott
McGill University, Molecular Oncology Group, Lady Davis Institute, Jewish General Hospital, Montreal, Canada

DOES MURINE AIDS INDUCE ANTIGEN SPECIFIC REGULATOR T CELLS?
Paper 219
Andrea Paun and Manfred W. Beilharz
1The University of Western Australia, Perth, WA, Australia

CYTOKINES IN BACTERIAL VAGINOSIS , Paper 220
S. Cauci¹, G. Casabellata¹, M. Di Santolo¹, S. Driussi¹,², D. De Santo³, F. De Seta⁴, and S. Guaschino⁵
¹ School of Medicine, University of Udine, Udine; ²ASS4_medio Friuli; ³Gynecologic and Obstetric Clinic, Monfalcone Hospital, ASS2-Isontina; ⁴IRCCS Burlo Garofolo Hospital, University of Trieste, Trieste, Italy

SPECIFIC IGA IN VAGINAL FLUID BEFORE AND AFTER THERAPY OF BACTERIAL VAGINOSIS , Paper 221
S. Cauci¹, S. Driussi¹,², G. Casabellata¹, N. Verdolina², D. De Santo³, F. De Seta⁴, and S. Guaschino⁵
¹School of Medicine, University of Udine, Udine; ²ASS4 Medio Friuli; ³Monfalcone Hospital, ASS2 Isontina; ⁴IRCCS Burlo Garofolo Hospital, University of Trieste, Italy

THE EFFECTS OF M. TUBERCULOSIS ANTIGENS ON PRODUCTION OF PRO-INFLAMMATORY CYTOKINES OF DENDRITIC CELLS , Paper 222
Jinmin Lee, Junglim Lee, Sang-Nae Cho, Se-Jong Kim, and In-Hong Choi
Brain Korea 21 Project for Medical Science, Yonsei University College of Medicine, Seoul, Korea

INCREASED SENSITIVITY OF SARS-CORONAVIRUS TO A COMBINATION OF HUMAN TYPE I AND TYPE II INTERFERONS , Paper 223
Carolina Scagnolari¹, Elisa Vicenzi², Francesca Bellomi¹, Maria Giuseppina Stillitano¹, Debora Pinna², Guido Poli³, Massimo Clementi³, Massimo Clementi³, Massimo Clementi³, Ferdinando Dianzani⁵, Guido Antonelli¹
¹University “La Sapienza”, Rome; ²AIDS Immunopathogenesis Unit, San Raffaele Scientific Institute, Milan; ³School of Medicine, Vita-Salute University, Milan ⁴Microbiology and Virology Laboratory, San Raffaele Scientific Institute, Milan and ⁵Università “Campus Biomedico”, Rome, Italy
INFECTIOUS DISEASES, continued

PHOSPHOLIPID SCRMBLASE 1 (PLSCR1) MARKEDLY POTENTIATES THE ANTIVIRAL ACTIVITY OF INTERFERON, Paper 224
Beihua Dong1, Quansheng Zhou2, Ji Zhao2, Aimin Zhou3, Ronald N. Harty4, Santanu Bose1, Amiya Banerjee1, Jeanna Guenther1, Roger Slee1, and Bryan R. G. Williams1
1Lerner Research Institute, The Cleveland Clinic Foundation, Cleveland, OH, 2The Scripps Research Institute, La Jolla, CA, 3Cleveland University, Cleveland, OH, and 4School of Veterinary Med, University of Pennsylvania, Philadelphia, PA

EVALUATION OF INTERFERON-BETA AS A THERAPEUTIC TREATMENT FOR EBOLA HEMORRHAGIC FEVER IN NONHUMAN PRIMATES, Paper 225
Elizabeth A. Fritz1, Lisa E. Hensley1, Christopher L. Karp2, Robert Fisher1, Jason Paragas3, Howard A. Young3, Peter B. Jahrling1, and Thomas W. Geisbert1
1United States Army Medical Institute of Infectious Diseases, Fort Detrick, MD, 2Cincinnati Children's Hospital Research Foundation, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, and 3NCI-FCRDC, Frederick, MD

NSs PROTEIN OF RIFT VALLEY FEVER VIRUS BLOCKS INTERFERON PRODUCTION BY INHIBITING HOST GENE TRANSCRIPTION, Paper 226
Agnès Billecocq1, Martin Spiegel2, Pierre Vialat3, Alain Kohl1, Friedemann Weber2, Michèle Bouloy1, and Otto Haller2
1Unité de génétique moléculaire des Bunyaviridés, Institut Pasteur, Paris, France; 2Department of Virology, University of Freiburg, Freiburg, Germany

FUNCTIONAL GENOMIC ANALYSIS OF FILOVIRUS INFECTED LIVER CELLS REVEALS DIFFERENCES IN THE INHIBITION OF TYPE I INTERFERON RESPONSES BY EBOLA ZAIRE AND EBOLA RESTON VIRUSES, Paper 229
John C. Kash1, Elke Mühlberger2, Victoria Carter1, Hans-Dieter Klenk2, and Michael G. Katze1
1Department of Microbiology and Washington National Primate Research Center, University of Washington School of Medicine, Seattle, WA, 2Institute for Virology, Philipps-University, Marburg, Germany

IFN-BETA INCREASES PARASITE BURDEN IN LEISHMANIA-INFECTED HUMAN MACROPHAGES THROUGH A SUPEROXIDE-DEPENDENT, NITRIC OXIDE-INDEPENDENT MECHANISM, Paper 230
A.R. Khouri1, G. Santana1, A. Báfica1, J. Wietzerbin2, M. Barral-Netto1, and J. Van Weyenbergh1
1LIMI-CpqGM-FIOCRUZ, Salvador-BA, Brazil and 2U563 INSERM, Institut Curie, Paris, France

INFECTIONOUS DISEASES, continued
INFECTIONOUS DISEASES, continued

THE ANTIVIRAL AND OTHER FUNCTIONS OF THE ISG15 CONJUGATION PATHWAY INDUCED BY INTERFERON-α/β, Paper 231
Chen Zhao, Sylvie L. Beaudenon, Melissa L. Kelley, Brenda A. Schulman, Cuifeng Yin, Gaetano T. Montelione, Jon M. Huibregtse, and Robert M. Krug.
1Institute for Cellular and Molecular Biology, Section of Microbiology and Molecular Genetics, University of Texas at Austin, Austin, TX, USA; 2Department of Structural Biology, St. Jude Children's Research Hospital, Memphis, TN, USA; 3Center for Advanced Biotechnology and Medicine, Rutgers University, Piscataway, NJ, USA

MECHANISM(S) OF PATHOGENESIS OF VEE: ROLE OF THE BLOOD BRAIN BARRIER, Paper 232
Radha K Maheshwari, Anuj Sharma, James Warren, Keith Steele, Franziska Grieder, and Anoop Singh
Uniformed Services University of The Health Science, Bethesda, MD.

INHIBITION OF INTERFERON GAMMA-STIMULATED GENE EXPRESSION BY M. TUBERCULOSIS, Paper 233
Y. Qiao, S. Prabhakar, A. Canova, Y. Hoshino, M. Weiden, and R. Pine
1Public Health Research Institute, Newark, NJ and 2New York University School of Medicine, New York, NY

CHARACTERIZATION OF THE ROLES OF CXCL-8 IN HEPATITIS C VIRUS REPLICATION AND INHIBITION OF INTERFERON, Paper 234
Paula McPoland, Bon Chang Koo, Courtney Plumlee, Michael J. Gale Jr, Mette Peters, Roger E. Bumgarner, and Stephen J. Polyak
University of Washington, Seattle, WA and 2University of Texas Southwestern Medical Center, Dallas, TX

TYPE I IFN IS A POWERFUL ADJUVANT FOR SYSTEMIC AND MUCOSAL VACCINATION AGAINST INFLUENZA VIRUS IN BOTH ADULT AND AGED MICE, Paper 235
Enrico Proietti, Laura Bracci, Federica Moschella, Massimo Venditti, Massimo Spada, Simona Puzzilli, Isabella Donatelli, and Filippo Belardelli
1Department of Cell Biology and Neurosciences, 2Department of Infectious, Parasitic and Immune-mediated Diseases, Istituto Superiore di Sanità, Rome, Italy

VACCINIA VIRUS ENGAGEMENT OF CCR5, Paper 236
Ramtin Rahbar and Eleanor N. Fish
1Toronto General Research Institute, University Health Network and 2Department of Immunology, University of Toronto, Toronto, Canada

DNA MICRO-ARRAY ANALYSIS OF GENES INDUCED BY INTERFERON AND RIBAVIRIN IN HEPATITIS C PATIENTS, Paper 237
Milton W. Taylor, Howard J. Edenberg, Takuma.Tsukahara, Matthew Stephens, Joel Schaley and the Viral Hep C Study Group
Indiana University Biology, Bloomington, IN, 1 and Center for Medical Genomics, Indiana University Medical School, IN, 2

WEST NILE VIRUS INHIBITS THE INTERFERON RESPONSE BY A NOVEL MECHANISM, Paper 238
J.-T. Guo, Junpei Hayashi, Qing Zhu and Christoph Seeger
Fox Chase Cancer Center, Philadelphia, PA
INFECTIOUS DISEASES, continued

INTERFERON INDUCTION, AND ITS SUPPRESSION, BY INFLUENZA VIRUSES
Paper 239
Philip I. Marcus, Jillian M. Rojek, and Margaret J. Sekellick
Depts. Molecular & Cell Biology, Pathobiology & Veterinary Science, and Center for Excellence in Vaccine Research, University of Connecticut, Storrs, CT

INHIBITION OF INTERFERON-BETA INDUCTION BY SARS-CORONAVIRUS
Paper 240
Martin Spiegel, Andreas Pichlmair, Luis Martínez-Sobrido, Adolfo García-Sastre, Otto Haller, and Friedemann Weber
Institut für Medizinische Mikrobiologie und Hygiene, Universität Freiburg, Germany; Mount Sinai School of Medicine, New York, NY

VIRAL IRF-3 INHIBITOR CONFERS PATHOGENICITY IN VIVO
Paper 241
Stephanie Jennings, Andreas Pichlmair, Friedemann Weber, Otto Haller, Peter Staehele and Georg Kochs
Universität Freiburg, Freiburg, Germany

6:00 - 7:30 pm
CONCURRENT SYMPOSIA

6:00 - 8:00 pm
SYMPOSIUM 1: Gene Regulation, Papers 242-243
San Geranimo Ballroom
Chair, John Hiscott, McGill University, Montreal, Canada and Dimitris Thanos, Institute of Molecular Biology and Genetics, B.S.R.C., Vari-Athens

6:00 pm
THE ROLE OF CHROMATIN ARCHITECTURE IN GENE TRANSCRIPTION
Paper 242
Marios Aggelopoulos, Efie Apostolou and Dimitris Thanos
Institute of Molecular Biology and Genetics, B.S.R.C., Vari-Athens

6:30 pm
CRYSTAL STRUCTURE OF IRF-3 REVEALS MECHANISM OF AUTOINHIBITION AND VIRUS INDUCED PHOSPHO-ACTIVATION
Paper 243
Bin Y. Qin, Cheng Liu, Suvana S. Lam, Hema Srinath, Rachel Delston, John J. Correia, Rik Derynck, and Kai Lin
1University of Massachusetts Medical School, Worcester, MA, 2University of California at San Francisco, San Francisco, CA and 3University of Mississippi Medical Center, Jackson, MS

7:00 pm
TRANSCRIPTIONAL PROGRAMS IN T CELLS
Aanja Rao
The CBR Institute for Biomedical Research, Boston, MA

7:30 pm
STRUCTURAL AND BIOCHEMICAL STUDIES OF STAT PROTEINS
Xiaomin Chen
University of Texas, MD Anderson Cancer Center, Houston, TX
Saturday, October 23 Continued

6:00 - 8:00 pm SYMPOSIUM 2: Chemokines, Papers 244-245 Flamingo A-D
Chair: Amanda Proudfoot, Serono, Geneva, Switzerland

6:00 pm EFFECTS OF MCP-1/CCL2 ON MAMMARY CARCINOMAS IN VIVO
Barrett Rollins
Dana-Farber Cancer Institute, Boston, MA

6:30 pm THE PARTICIPATION OF CHEMOKINES IN DIVERSE BIOLOGICAL PARADIGMS, Paper 244
Steven L. Kunkel
University of Michigan Medical School, Ann Arbor, MI

7:00 pm ORF74, KAPOSI'S SARCOMA, AND ANGIOGENESIS, Paper 245
Sergio A. Lira, Kristian K. Jensen, Marcos G. Grisotto, Alexandre Garin, Andrea P. Martin
Immunobiology Center, Mount Sinai School of Medicine, New York, NY

7:30 pm To be Announced
Tracey Handel
University of California, Berkeley, CA

6:00 - 8:00 pm SYMPOSIUM 3: Inflammation, Papers 246-247 Las Olas Room
Chair Matthew Fenton, University of Maryland School of Medicine, Baltimore, MD

6:00 pm THE INFLAMMASOMES: KEY REGULATORS OF INFLAMMATION, Paper 246
Jurg Tschopp
University of Lausanne, Epalinges, Switzerland

6:30 pm To be Announced
Marco Colonna
Washington University, St. Louis, MO

7:00 pm TUNING OF INFLAMMATORY CYTOKINES AND CHEMOKINES BY DECOY RECEPTORS, Paper 247
Alberto Mantovani
Istituto di Ricerche Farmacologiche Mario Negri and Institute of General Pathology
University of Milan, Italy

7:30 pm THE INFLAMMATORY REFLEX
Kevin Tracey
North Shore Hospital, Manhasset, NY

8:00 pm Dinner (on your own)
9:00 am SUPPRESSOR OF CYTOKINE SIGNALLING PROTEINS AND IMMUNE REGULATION, Paper 248
Christine Brender¹, Joel Fletcher¹, Douglas J. Hilton², Warren S. Alexander², and Robyn Starr³
¹St Vincent's Institute, Fitzroy, VIC, and ³Walter and Eliza Hall Institute of Medical Research, Parkville, VIC, Australia.

9:30 am REGULATION OF INFLAMMATORY DISEASES BY ANTI-IL6 RECEPTOR ANTIBODY
Tadamitsu Kishimoto
Osaka University, Osaka, Japan

10:00 am SOCS1 AND SOCS3; CRITICAL REGULATORS FOR CYTOKINE SIGNALING, INFLAMMATION, AUTOIMMUNITY, CANCER AND OBESITY, Paper 249
Akihiko Yoshimura, Hitomi Nishinakamura, Hiroshi Shiraiishi, Yumiko Matsumura and Toshikatsu Hanada
Medical Institute of Bioregulation, Kyushu University, Fukuoka/Japan

10:30 am Coffee Available

11:00 am REGULATION OF CYTOKINE SIGNALING BY PIAS PROTEINS, Paper 250
Ke Shuai
University of California, Los Angeles

12:30 - 2:00 pm Lunch Break (cash lunch sales)
Sunday, October 24 Continued

2:00 - 4:00 pm  
**CONCURRENT WORKSHOPS**

2:00 - 4:00 pm  
**WORKSHOP 9: Negative Regulation**  
San Geronimo Ballroom  
Papers 251-257  
Chairs: Robyn Starr, The Walter and Eliza Hall Institute of Medical Research, Parkville, Australia and Elena Toniato, University of Chieti, Italy

2:00 pm  
**CONDITIONAL DELETION OF SUPPRESSOR OF CYTOKINE SIGNALLING-3 IN THE MAMMARY GLAND**, Paper 251  
Kate D Sutherland, Geoffrey J Lindeman, Ben A Croker, Warren S Alexander, and Jane E Visvader  
The Walter and Eliza Hall Institute of Medical Research, Parkville, Victoria, Australia.

2:20 pm  
**COEXPRESSIONN OF TRIM8/GERP WITH SOCS-1 DECREASES SOCS-1 PROTEIN STABILITY**, Paper 252  
Vincenzo Flati¹, Emanuele Laglia¹, Alessandro Allegrini², Francesco Cipollone², Andrea Mezzetti², Lucia Cilenti², Raffaella Faricelli², Chen XP⁴, Paul Rothman⁴, Stefano Martinotti⁴, Elena M. Toniato²  
¹University of L'Aquila, L’Aquila, Italy; ²Ce.S.I. (Centro Studi sull'Invecchiamento) University of Chieti, Chieti, Italy, ³University of Central Florida, Orlando, FL and ⁴Columbia University, New York, NY

2:35 pm  
**TYPE I INTERFERONS (IFNs) CONTRIBUTE TO SUPPRESSOR OF CYTOKINE SIGNALING (SOCS)1-MEDIATED PHYSIOLOGICAL AND PATHOLOGICAL EFFECTS**, Paper 253  
Jennifer E. Fenner¹, Robyn Starr², Ann Cornish², Donald Metcalf², Warren S. Alexander², Douglas J. Hilton² and Paul J. Hertzog¹  
¹Monash Institute of Reproduction and Development, Monash University, Melbourne, Australia. ²The Walter and Eliza Hall Institute of Medical Research, Parkville, Australia

2:50 pm  
**ISICR YOUNG INVESTIGATOR AWARD: Chen Dong**

3:05 pm  
**REGULATION OF INNATE AND ADAPTIVE IMMUNE RESPONSES BY MAP KINASE PHOSPHATASE 5**, Paper 254  
Yongliang Zhang¹, Joseph N. Blattman¹, Norman J. Kennedy², Julie Duong¹, Thang Nguyen¹, Ying Wang¹, Roger J. Davis², Philip D. Greenberg¹, Richard A. Flavell³,⁴ and Chen Dong¹,⁴  
¹University of Washington, Seattle, WA ²Howard Hughes Medical Institute, University of Massachusetts, Worcester, MA ³Howard Hughes Medical Institute, Yale University, New Haven, CT

3:05 pm  
**ICS POSTDOCTORAL INVESTIGATOR AWARD: Youcun Qian, 2nd Place**

3:05 pm  
**ACT1, A NEGATIVE REGULATOR IN CD40- AND BAFF-MEDIATED B CELL SURVIVAL**, Paper 255  
Youcun Qian and Xiaoxia Li  
Cleveland Clinic Foundation, Cleveland, OH
3:20 pm  **UBP43 PHYSICALLY INTERACTS WITH STAT1 AND REMOVES ISG15 FROM ISG15-MODIFIED STAT1**, Paper 256
Oxana A. Malakhova, Keun Il Kim and Dong-Er Zhang
The Scripps Research Institute, La Jolla, CA

3:35 pm  **NOVEL FUNCTION OF STAT1 AS A CYTOPLASMIC ATTENUATOR OF RUNX2 IN THE TRANSCRIPTIONAL PROGRAM OF OSTEOBLAST DIFFERENTIATION**, Paper 257
Sunhwa Kim, Takako Koga, Hiroshi Takayanagi, and Tadatsugu Taniguchi
1Graduate School of Medicine and Faculty of Medicine, University of Tokyo, Tokyo, Japan, 2The CBR Institute for Biomedical Research, Harvard Medical School, Boston, MA, 3Tokyo Medical and Dental University, Tokyo, Japan

2:00 - 4:00 pm  **WORKSHOP 10: Chemokines**, Papers 258 -262  
Flamingo A-D  
Chair: Amanda Proudfoot, Serono, Geneva, Switzerland and Richard Horuk, Berlex Biosciences, Richmond, California

2:00 pm  **CHEMOKINES NETWORK MODULATION IN DIFFERENTIAL MACROPHAGE POLARIZATION**, Paper 258
1Institute of General Pathology, University of Milan, Milan, Italy; 2Mario Negri Institute, Milan, Italy; 3BioXell, Milan, Italy.

2:20 pm  **INDUCTION OF A CXCL8 CHEMOKINE BINDING SITE ON ENDOTHELIAL SYNDECAN-3 IN INFLAMMATION**, Paper 259
Angela M Patterson, Lucy Gardner, Jennifer Shaw, Guido David, Emilie Loreau, Luc Aguilar, Brian A Ashton, Jim Middleton

2:35 pm  **IMMUNOBIOLOGY OF CCR5: UNDERSTANDING THE CONTRIBUTION OF TYROSINE PHOSPHORYLATION**, Paper 260
Thomas T. Murooka, Mark M. Wong and Eleanor N. Fish
University of Toronto & Toronto General Research Institute, Toronto, Canada

2:50 pm  **COSTIMULATORY FACTOR-DEPENDENT β-CHEMOKINE EXPRESSION IS DOWNREGULATED BY HIV-1 THROUGH A TGF-β-DEPENDENT MECHANISM**, Paper 261
Paola DiMarzio, Larisa Dýbrovský, Shirin Rahman, David Shepp, Helena Schmidt Mayerova, Michael Bukrinsky and Barbara Sherry
1Center for Immunology and Inflammation, NS-LIJ Research Institute Manhasset, NY, 2George Washington University, Washington DC, 3Division of Infectious Disease, North Shore University Hospital, Manhasset, NY

3:05 pm  **To be Announced**

3:20 pm  **GLOBAL ANALYSIS OF GENES INDUCED BY A TYPE I AND TYPE II INTERFERON ALONE AND IN COMBINATION IN A549 CELLS**, Paper 262
1Indiana University, Bloomington, IN. USA 2Intermune Inc., Brisbane, CA and 3Indiana University School of Medicine, Indianapolis, IN
Sunday, October 24 Continued

2:00 - 4:00 pm  WORKSHOP 11: Noteworthy, Papers 263-269  Tropical A-C
Chairs: Patricia Fitzgerald-Bocarsly, UMDNJ-New Jersey Medical School, Newark, New Jersey and Sidney Pestka, University of Medicine and Dentistry of New Jersey, Piscataway, New Jersey

2:00 pm  FUNCTIONAL GENOMICS AND THE MOLECULAR EVOLUTION OF VIRUS-HOST-INTERACTIONS AND THE CYTOKINE RESPONSE, Paper 263
Michael G. Katze
University of Washington, Seattle, WA

2:20 pm  EVOLUTION OF THE CLASS 2 CYTOKINE RECEPTORS AND THEIR LIGANDS FROM INTERFERON RECEPTORS AND INTERFERON: A GENOMIC AND PHYLOGENETIC ANALYSIS, Paper 264
Christopher D. Krause and Sidney Pestka
Robert Wood Johnson Medical School - University of Medicine and Dentistry of New Jersey, Piscataway, NJ

2:35 pm  TYROSINE 974 WITHIN THE LIF-R CHAIN OF THE GP130/LIF-R HETERODIMERIC RECEPTOR COMPLEX MEDIATES INHIBITION OF LIF-TYPE CYTOKINES, Paper 265
Ute Lehmann, Thomas Clahsen, Radoslaw M. Sobota, Peter C. Heinrich and Fred Schaper
RWTH Aachen, Germany

2:50 pm  TYROSINE 441 OF IFNGR1 IS REQUIRED FOR SOCS-1-MEDIATED ATTENUATION OF STAT1 ACTIVATION IN RESPONSE TO INTERFERON-γ, Paper 266
Yulan Qing1, Ana Costa-Pereira2, Diane Watling2, and George R. Stark1
1Lerner Research Institute, Cleveland Clinic Foundation, Cleveland, OH and 2Cancer Research UK London Research Institute, Lincoln's Inn Laboratories, London, UK

3:05 pm  DIFFERENTIAL ACTIVITY OF ALPHA AND BETA INTERFERON IN THE REGULATION OF OSTEOCLASTOGENESIS, Paper 267
Luiz F. Coelho1, Franck Mennechet1, Anne Blangy2, and Gilles Uzé1
1CNRS UMR 5124, Montpellier, France. 2CNRS FRE 2593. Montpellier, France

3:20 pm  HUMAN PLASMACYTOID DENDRITIC CELLS: UNIQUE SENTINELS OF THE INNATE IMMUNE RESPONSE, Paper 268
Patricia Fitzgerald-Bocarsly, Sheela Amrute, Stacey Olshalsky, Jihong Dai and Gunjan Gupta
UMDNJ-New Jersey Medical School and Graduate School of Biomedical Sciences, Newark, NJ

3:35 pm  DIFFERENCES IN SIGNALING PATHWAYS BY INTERLEUKIN-1β AND INTERLEUKIN-18, Paper 269
Jae-Kwon Lee, Soo-Hyun Kim, Eli C. Lewis, Tania Azam, Leonid L. Reznikov and Charles A. Dinarello, University of Colorado Health Sciences Center, Denver, CO
WORKSHOP 12: Cancer Biology, Papers 270-276
Las Olas
Chairs: Paula Pitha-Rowe, Johns Hopkins University School of Medicine, Baltimore, Maryland and Ernest Borden, Cleveland Clinic Foundation, Cleveland, Ohio

INTERFERON ANTIVIRAL AND ANTITUMOR RESPONSES MEDIATED BY THE 2-5A/RNase L PATHWAY, Paper 270
Robert H. Silverman
The Cleveland Clinic Foundation, Cleveland, Ohio

THE GRIMS: A NEW INTERFACE BETWEEN CELL DEATH REGULATION AND INTERFERON/RETINOID INDUCED GROWTH INHIBITION, Paper 271
Dhan V. Kalvakolanu, Jiadi Hu, Sanjit K. Roy and Abhijit Raha
University of Maryland School of Medicine, Baltimore, MD

EFFECTS OF HOST AND TUMOR CELL-DERIVED IL-1α AND IL-1β ON TUMOR INVASIVENESS, Paper 272
R.N. Apte¹, Y. Krelin¹, S. Dotan¹, E. Reich¹, M. Elkabets¹, R.M. White¹, C.A. Dinarello², and E. Voronov².
¹Ben-Gurion University of the Negev, Beer-Sheva, Israel and ²University of Colorado, Health Sciences Center, Denver, CO

IL-12 INHIBITS AKT ACTIVITY AND INDUCES BID TRANSLOCATION IN CONJUNCTION WITH COMPLETE REGRESSION OF ORTHOTOPIC MURINE NEUROBLASTOMA TUMORS, Paper 273
Tahira Khan¹, Julie A. Hixon¹, Jimmy K. Stauffer¹, Erin Lincoln², Timothy Back², and Jon M. Wigginton ¹
¹Pediatric Oncology Branch, NCI-CCR, and ²IRSP, SAIC-Frederick, Frederick, MD

SPECIFIC INHIBITION OF SOLUBLE IL-6 RECEPTOR RESPONSES BY AN SOLUBLE GP130-FC FUSION PROTEIN: A THERAPEUTIC STRATEGY FOR CHRONIC INFLAMMATION AND CANCER, Page 274
Stefan Rose-John, Nicholas Topley, Simon Jones, Marcus Neurath
Christian-Albrechts-Universität, Kiel, Germany, University of Mainz, Germany, and University of Wales College of Medicine, Cardiff University, Cardiff, United Kingdom

ISICR YOUNG INVESTIGATOR AWARD: Albert S. Mellick

MOLECULAR PROFILING OF JAK/STAT SIGNALLING IN COLON CANCER BIOPSIES AND CELL LINES SUGGESTS DISTINCT MECHANISMS FOR GENE ACTIVATION, Paper 275
Albert S. Mellick¹, Karin Franzén², Samuel J. Cutler¹, Pauline Low¹, Christopher J. Day¹, James D. Doecke¹, Lyn R. Griffiths¹, Peter Söderkvist², and Stephen J. Ralph ¹
¹Griffith University, Gold Coast Campus, Australia and ²Linköping University, Linköping, Sweden

IL-12 EXPRESSED FROM DNA OR IN GENE-MODIFIED STEM CELLS AS ANTI-CANCER THERAPEUTIC IN ANIMALS AND HUMANS, Paper 276
Karin Moelling, Lina Elzaouk, and Jovan Pavlovic
Institute of Medical Virology, University of Zurich, Switzerland
RECEPTOR MECHANISMS, Papers 277-283

IDENTIFICATION OF THREE BINDING SITES IN LEPTIN, AND DESIGN OF A LEPTIN ANTAGONIST, Paper 277
Frank Peelman¹, Lennart Zabeau¹, Hannes Iserentant¹, Katrien Van Beneden², Dirk Elewaut³ and Jan Tavernier³
¹Flanders Interuniversity Institute for Biotechnology University, Ghent, Belgium
²Faculty of Medicine and Health Sciences, Ghent University, Ghent, Belgium

TRANSIENT AND KINETICALLY CONTROLLED TYPE I INTERFERON RECEPTOR ASSEMBLING, Paper 278
Martynas Gavutis, Suman Lata, Peter Lamken and Jacob Piehler
Institute of Biochemistry, Goethe-University, Frankfurt/Main, Germany

ENHANCEMENT OF HAEMATOPOIETIC CELL FUNCTION BY MUTATION OF TYROSINE 577 IN THE COMMON BETA CHAIN OF THE GM-CSF/IL-3/IL-5 RECEPTORS, Paper 279
Hayley S. Ramshaw¹, Frank Stomski¹, Mark Guthridge¹, Lisa Ooms², Christina Mitchell², and Angel F. Lopez³.
¹Hanson Institute, I.M.V.S., Adelaide, S.A. Australia
²Monash University, Victoria, Australia

ROLE OF THE SOLUBLE INTERFERON RECEPTOR sIFNAR2 IN MODIFYING INTERFERON RESPONSES IN VIVO, Paper 280
Shamith A. Samarajiva, Matthew P. Hardy, Catherine M. Owczarek and Paul J. Hertzog
Monash Institute of Reproduction and Development, Monash University, Clayton, Victoria, Australia

POTENTIAL ROLE OF MEMBRANE-ASSOCIATED IL-15 AS A CO-STIMULATORY MOLECULE FOR CD8 T CELLS, Paper 281
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Metabolism Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD

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INTERLEUKIN-19 AND INTERLUKIN-20 GENE EXPRESSION IS INCREASED IN LESIONAL PSORIATIC SKIN COMPARED TO NON-LESIONAL SKIN, Paper 355
Kristian Otkjaer1, Knud Kragballe1, Anne Funding1, Peder Nørby2, Erik Hasselager2, Jes T. Clausen2, and Lars Iversen2.
1University of Aarhus, Aarhus, Denmark and 2Novo Nordisk A/S, Bagsvaerd, Denmark

APOPTOSIS INDUCED BY PROTEASOME INHIBITORS IN B-CLL CELLS IS ASSOCIATED WITH DOWNREGULATION OF CD23 AND INACTIVATION OF NOTCH2, Paper 356
Markus Düchler2, Josef D. Schwarzmeier1,2, Medhat Shehata2, Martin Hilgarth1, and Rainer Hubmann2.
1University of Vienna, Clinic of Internal Medicine I., Dept. Hematology, Waehringer Vienna, Austria, 2Ludwig Boltzmann Institute for Cytokine Research, University of Vienna, Vienna, Austria.

STAT 2 IS A PIVOTAL PLAYER IN MEDIATING TYPE I INTERFERONS INDUCED APOPTOSIS, Paper 357
Ana L. Romero, and Ana M. Gamero
National Cancer Institute. Laboratory of Experimental Immunology, Frederick, MD

TNF-ALPHA INDUCED SWITCH IN INTRACELLULAR LDH ISOTYPE FOLLOWING APOPTOSIS INDUCTION IN PBL OF NHL PATIENTS, Paper 358
Jurisic V1, Bumbasirevic V2, Djuricic B3, Konjevic G4, Spuzic I4.
1School of Medicine University of Kragujevac, 2Institute of Histology, 3Biochemistry and 4Institute of Oncology & Radiology, University of Belgrade, Serbia, Yugoslavia
6:00 - 7:30 pm  **CONCURRENT SYMPOSIA**

6:00 - 7:30 pm  **SYMPOSIUM 4: Apoptosis, Papers 359-360**  
**Flamingo A-D**  
Chair: **Nancy Ruddle**, Yale University School of Medicine, New Haven, Connecticut

6:00 pm  **APOPTOSIS, TRAIL, AND THE IMMUNE RESPONSE**  
Douglas Green  
Ottawa Regional Cancer Centre  
Ottawa, Canada

6:30 pm  **TARGETING INTERFERON DEFECTS WITH VESICULAR STOMATITIS VIRUS**  
Paper 359  
Ottawa Regional Cancer Center, Ottawa, Canada and McGill University, Montreal, Canada

7:00 pm  **CYTOKINE REGULATION OF CASPASE-8 APOPTOTIC AND NON-APOPTOTIC FUNCTIONS**, Paper 360  
Tae-Bong Kang¹, Tehila Ben-Moshe¹, Eugene E. Varfolomeev¹, Jin Chul Kim¹, Andrei Kovalenko¹, Yael Pewzner-Jung¹, Nir Yogev¹, Anna Jurewicz², Ari Waisman³, Ori Brenner⁴, Rebecca Haffner⁵, Erika Gustafsson⁴, Parameswaran Ramakrishnan¹, Tsvee Lapidot⁴ and David Wallach¹  
¹The Weizmann Institute of Science, Rehovot, Israel, ²Medical University of Lodz, Lodz, Poland, ³Institute for Genetics, University of Cologne, Cologne, Germany and ⁴Lund University Hospital, Lund, Sweden

6:00 - 7:30 pm  **SYMPOSIUM 5: Hematopoiesis and Stem Cells**  
**Tropical A-C**  
Chair: **Matthew J. Fenton**, University of Maryland School of Medicine, Baltimore, MD

6:00 pm  **PURIFICATION AND EX VIVO EXPANSION OF HEMATOPOIETIC STEM CELLS**  
Harvey Lodish  
Whitehead Institute of Biomedical Research, Cambridge, MA

6:30 pm  **HYPOXIC REGULATION OF CYTOKINE PRODUCTION DURING DEVELOPMENT AND DISEASE**, Paper 361  
M. Celeste Simon  
University of Pennsylvania Cancer Center, Philadelphia, PA

7:00 pm  **TRANSCRIPTION FACTORS AND CYTOKINE RECEPTOR REGULATION: ROLE IN HEMATOPOIESIS AND LEUKEMIA**  
Daniel Tenen  
Harvard Institutes of Medicine, Boston, MA
Sunday, October 24 Continued

6:00 - 7:30 pm SYMPOSIUM 6: Tumor Immunity Las Olas Room
Dhan Kavlivakolanu, University of Maryland School of Medicine, Baltimore, MD

6:00 pm MOLECULAR AND CELL BIOLOGY OF CANCER IMMUNOEDITING
Robert Schreiber
Washington University, St. Louis, MO

6:30 pm CYTOKINE PROFILING IN CANCER PATIENTS
Monica Panelli
National Institutes of Health, Bethesda, MD

7:00 pm IL-12 FAMILY CYTOKINE GENE THERAPY OF CANCER
Walter Storkus
University of Pittsburgh School of Medicine, Pittsburgh, PA

8:00 - 11:00 pm BANQUET AND ENTERTAINMENT San Geronimo Ballroom

MONDAY, OCTOBER 25, 2004

8:00am - 8:45 am REGULATION OF INFLAMMATION AND IMMUNITY BY CYTOKINES, Paper 362
San Geronimo Ballroom
Richard Flavell
Yale University School of Medicine, New Haven, CT

9:00am - 10:30 am CONCURRENT WORKSHOPS

9:00 - 10:30 am WORKSHOP 13: New Cytokines, Papers 363-367 Flamingo A-D
Chairs: Warren Leonard, National Institute of Health, Bethesda, Maryland and Fabio Cominelli, University of Virginia, Charlottesville, Virginia

9:00 am The Biology of IL-21
Warren Leonard
National Institutes of Health, Bethesda, MD

9:15 am IDENTIFICATION OF THE IL-17 RECEPTOR-RELATED MOLECULE, IL-17RC AS A RECEPTOR FOR IL-17A AND IL-17F , Paper 363
Rolf Kuestner, Cameron Brandt, Zeren Gao, Craig Ostrander, Susan Bort, David Taft, Janine Bilsborough, Katherine Lewis, Steve Jaspers, Stacey Dillon, Patsy Lewis, Stavros Topouzis, Mark Rixon, Chung Chan, Margaret Moore, Brian Reardon, Tom Bukowski, Betsy Moore, Jim West, Julia Parrish-Novak, and Steven D. Levin
ZymoGenetics Inc., Seattle, Washington

9:30 am CHARACTERIZATION OF THE MOUSE INTERFERON-I ANTIVIRAL SYSTEM
Paper 364
Anita Lewis-Antes1, Nital K. Shah1, Shubha Anantha1, Vitaliy V. Baurin1, Wei Li1, Sergey V. Smirnov1, Faruk Sheikh2, Raymond P. Donnelly2 and Sergei V. Kotenko1
1UMDNJ - New Jersey Medical School, Newark, NJ and Food and Drug Administration, Bethesda, MD
ICS YOUNG INVESTIGATOR AWARD: George Bamias, 3rd Place

9:45 am TL1A, A NOVEL TNF-LIKE CYTOKINE, CO-STIMULATES TCR- OR IL-12/IL-18-INDUCED IFN-γ SECRETION BY MURINE LYMPHOCYTES, Paper 365
Giorgos Bamias¹, Charles T. Martin III¹, Margarita Mishina¹, and Fabio Cominelli¹
¹University of Virginia, Charlottesville, VA

10:00 am EFFECT OF INTERFERON-TAU ON EXPERIMENTAL ALLERGIC ENCEPHALOMIELITIS IN MICE HAS NO DIRECT CORRELATION WITH ITS ANTIVIRAL ACTIVITY, Paper 366
Andrei P. Alexenko, Craig L. Franklin, Habib Zaghouani and R. Michael Roberts
University of Missouri, Columbia, MO

10:15 am IL-27 ENHANCES TUMOR-SPECIFIC T CELL REACTIVITY AND MEDIATES CD8+ T-CELL DEPENDENT REGRESSION OF ORTHOTOPIC PRIMARY AND/OR METASTATIC MURINE NEUROBLASTOMA TUMORS, Paper 367
Rosalba Salcedo¹, Cynthia Hahn¹, Jimmy Stauffer¹, Erin Lincoln¹, Julie Hixon¹, Kimberly Shafer-Weaver¹, Anatoli Malyguine², Robert Kastelein³, and Jon M. Wigginton¹. ¹Pediatric Oncology Branch, NCI-CCR, ²IRSP and ³LCMI, SAIC-Frederick, Frederick, MD, and ⁴DNAX Research Institute, Palo Alto, CA

9:00 -10:30 am WORKSHOP 14: Genomics, Proteomics and New Tropical A-C Technologies, Papers 368-372
Chairs: Amanda Proudfoot, Serono, Geneva, Switzerland and Manuel Vega, Nautilis Biotech SA, Evry, France

9:00 am To be Announced

9:15 am GENOMIC AND PROTEOMIC ANALYSES OF RHEUMATOID ARTHRITIS TISSUES IDENTIFY BIOMARKERS OF DISEASE, Paper 368
Sarah E. Ward², Thomas Burian², Igor Jurisica³, Andrew Emili⁴, and Katherine Siminovitch⁵ and Eleanor N. Fish¹,²
¹Department of Immunology, University of Toronto, ²Toronto General Research Institute, University Health Network, Toronto, Ontario, Canada, ³Ontario Cancer Institute, University Health Network, Toronto, Ontario, Canada, ⁴Banting and Best Department of Medical Research, University of Toronto, Toronto, Ontario, Canada, ⁵Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Ontario, Canada

9:30 am NOVEL HAPLOTYPES IN THE IL-6 PROMOTER AND DISEASE ASSOCIATION, Paper 369
Mark S Fife, Emma M Ogilvie, Daniel Kelberman, Jane Samuel and Patricie Woo
University College London, United Kingdom

9:45 am DIFFERENTIAL GENE EXPRESSION INDUCED BY ENGINEERED IFN-αS USING DNA MICROARRAY, Paper 370
Rengu Hu¹, Amy Xiaooyen Yang², Raj K.Puri³, Hana Schmeisser¹ and Kathryn Zoon¹
¹National Cancer Institute, National Institute of Health, Bethesda MD and ²CBER, Food and Drug Administration, Bethesda, MD
10:00 am  GENOME-WIDE ANALYSIS OF MOLECULAR CHANGES IN INTERLEUKIN-12-INDUCED CONTROL OF MAMMARY CARCINOMA VIA INTERFERON- γ-INDEPENDENT MECHANISMS, Paper 371
Xiaoyan Shi, Shanjin Cao, Maki Mitsuhashi, Zhaoying Xiang and Xiaojing Ma
Weill Medical College of Cornell University, New York, NY

10:15 am  IMPROVEMENT OF BIOPHARMACEUTICALS BY RATIONAL PROTEIN EVOLUTION
Paper 372
T. Guyon, G. Borrelly, R Gantier and Drittanti
Nautilis Biotech SA, Evry, France

9:00 - 10:30 am  WORKSHOP 15: Infectious Diseases, Papers 373-378
Las Olas Room
Chairs: Bryan R.G Williams, Cleveland Clinic Foundation, Cleveland, Ohio and Douglas Golenbock, University of Massachusetts Medical Center, Worcester, Massachusetts

9:00 am  CYTOKINES AND REGULATOR T CELLS IN MURINE AIDS, Paper 373
Manfred W. Beilharz" and Andrea Paun'
1University of Western Australia, Perth, WA, Australia

9:15 am  IFN-α1 TRANSGENE ANTAGONIZES VAGINAL HSV-2 INFECTION THROUGH THE PKR PATHWAY and CD8α-EXPRESSING CELLS, Paper 374
1The University of Oklahoma Health Sciences Center, Oklahoma City, OK and 2The Cleveland Clinic Foundation, Cleveland, OH

9:30 am  REGULATION OF AN INTRACELLULAR ANTIVIRAL RESPONSE PATHWAY BY THE HEPATITIS C VIRUS NS3/4A PROTEASE, Paper 375
1University of Texas, Southwestern Medical Center, Dallas, TX, 2University of Texas Medical Branch, Galveston, TX, 3Tokyo Metropolitan Institute of Medical Science, Tokyo Metropolitan Organization for Medical Research, Tokyo, Japan

9:45 am  INHIBITION OF INTERFERON SIGNALING BY DENGUE VIRUS, Paper 376
Jorge L. Muñoz-Jordán", Maudry Laurent-Rolle", Joseph Ashour", and Adolfo García-Sastre"  
1Centers for Disease Control and Prevention, San Juan, Puerto Rico and 2Mount Sinai School of Medicine, New York, NY

10:00 am  INHIBITION OF INTERFERON ALPHA-STIMULATED GENE EXPRESSION BY M. TUBERCULOSIS, Paper 377
1Public Health Research Institute, Newark, NJ and 2New York University School of Medicine, New York, NY
SHELDON WOLFF PRIZE: Ceri Fielding

10:15 am  **HUMAN HERPESVIRUS 8-ENCODED VIRAL INTERLEUKIN 6 SUPPRESSES THE INDUCTION OF CXCL8 BY INTERLEUKIN 1 β AND NEUTROPHIL RECRUITMENT**

Paper 378
Ceri A. Fielding¹, Rachel M. McLoughlin¹, Chantal Colmont², Dean A. Harris², Stefan Rose-John³, Nick Topley¹ and Simon A. Jones¹
¹Cardiff University, Cardiff, Wales, UK, ²University of Wales College of Medicine, Cardiff, Wales, UK, ³Christian-Albrechts-Universitaet, Kiel, Germany

9:00 - 10:30 am  **WORKSHOP 16: Inflammation, Papers 379 -384**  San Geronimo Ballroom
Chairs: Byoung S. Kwon, University of Ulsan, Ulsan, Korea and Nancy Ruddle, Yale University School of Medicine, New Haven, Connecticut

9:00 am  **TARGETING PI3K SIGNALLING AS A NOVEL THERAPEUTIC STRATEGY FOR RHEUMATOID ARTHRITIS**, Paper 379
Vittoria Ardissone¹, Chiara Ferrandi¹, Elena Ammannati¹, Thomas Ruckle², Matthias Schwarz, Montserrat Camps², Christian Rommel² and Rocco Cirillo¹
¹Experimental Pharmacology Unit RBM/Serono, Turin, Italy ²Serono Pharmacological Research Institute, Geneva, Switzerland

EDWARD LEONARD PRIZE FOR CHEMOTAXIS/ CHEMOKINE RESEARCH: Rachel McLoughlin

9:15 am  **IL-6 SIGNALLING SPECIFICALLY REGULATES T-CELL TRAFFICKING BUT NOT ACTIVATION STATE DURING ACUTE INFLAMMATION**, Paper 380
Rachel M McLoughlin¹, Clare Parker¹, Brendan Jenkins³, Matthias Ernst³, Nicholas Topley¹ & Simon A Jones²
¹Cardiff University, Cardiff, ²Institute of Nephrology, UWCM, Cardiff, UK and ³Ludwig Institute for Cancer Research, Royal Melbourne Hospital, Melbourne, Australia

9:30 am  **IFN-g CONTROLS COMPLETE FREUND’S ADJUVANT-INDUCED DOWNREGULATION OF FOXP3 EXPRESSION AND REGULATORY T CELL ACTIVITY**, Paper 381
Hilde Kelchtermans¹, Bert De Klerck¹, Tania Mitera¹, Maarten Van Balen¹, Dominique Bullens², Alfons Billiau¹, Georges Leclercq¹, and Patrick Matthys¹
¹Rega Institute for Medical Research, and ²Katholieke Universiteit Leuven (KULeuven), Leuven, Belgium, ³Ghent University Hospital, Ghent, Belgium

9:45 am  **4-1BB-MEDIATED EXPANSION OF CD11C + CD8+ T CELLS AMELIORATES A COLLAGEN-INDUCED RHEUMATOID ARTHRITIS BY IDO-DEPENDENT MECHANISMS**, Paper 382
Su K. Seo¹, Jae H. Choi¹, Young H. Kim¹, Woo J. Kang¹, Hye Y. Park¹, Jae H. Suh², Beom K. Choi¹, Dass S. Vinay³, and Byoung S. Kwon¹
¹University of Ulsan, Ulsan, Korea, ²Ulsan University Hospital, University of Ulsan College of Medicine, and ³LSU Eye Center, Louisiana State University Health Sciences Center, New Orleans, LA
Monday, October 25 Continued

10:00 am  CHARACTERISATION OF HTRA1 AND ITS POTENTIAL ROLE IN ARTHRITIS
Paper 383
Sandra Grau¹, Peter J. Richards¹, Anwen S. Williams⁴, Simon A. Jones¹,
Michael Ehrmann¹
¹Cardiff University, Cardiff, UK, ²UWCM, Cardiff, United Kingdom

ICS YOUNG INVESTIGATOR, 2nd Place

10:15 am  GENE TARGETS OF INTERLEUKIN-17 RECEPTOR SIGNALING: RELATIONSHIP
TO INFLAMMATORY BONE DISEASE, Paper 384
Matt Ruddy¹, Fang Shen¹, Grace Wong¹, Pamela J. Baker², Richard T. Evans¹, and
Sarah L. Gaffen¹
¹University at Buffalo, State University of New York, Buffalo, NY and ²Bates College, Lewiston ME

11:00am - 1:00 pm  PLENARY SESSION 4: Host Defense  San Geronimo Ballroom
Paper 385
Chairs: Nancy Reich, Stony Brook University, Stony Brook, New York and
Bryan R.G. Williams, Cleveland Clinic Foundation, Cleveland, Ohio

11:00 am  THE TLR7, 8 AND 9 FAMILY OF NUCLEOTIDE RECEPTORS
Douglas Golenbock
University of Massachusetts Medical School, Worcester, MA

11:30 am  LINKS BETWEEN INNATE AND ADAPTIVE IMMUNITY DURING ACUTE
INFECTIONS
Christine Biron
Brown University, Providence, RI

12:00 pm  TOLL-LIKE RECEPTOR SIGNALING AND GENE REGULATION, Paper 385
Shizuo Akira, Hiroaki Hemmi, and Masahiro Yamamoto
Research Institute for Microbial Diseases, Osaka University, Osaka, Japan

12:30 pm  ROLE OF A CYTOPLASMIC COMPLEX INVOLVING MyD88, IRAK4, TRAF6 AND
IRF-7 IN TLR9/7-MEDIATED HOST DEFENSE
Tadatsugu Taniguchi
University of Tokyo, Tokyo, Japan

1:00 pm  CLOSING REMARKS