

- 4666 NF- $\kappa$ B-Inducing Kinase Is Involved in the Activation of the CD28 Responsive Element through Phosphorylation of c-Rel and Regulation of Its Transactivating Activity  
*Carmen Sánchez-Valdepeñas, Angel G. Martín, Parameswaran Ramakrishnan, David Wallach, and Manuel Fresno*
- 4675 Nitric Oxide Protects Macrophages from Hydrogen Peroxide-Induced Apoptosis by Inducing the Formation of Catalase  
*Yasubiro Yoshioka, Tatsuya Kitao, Takashi Kishino, Akiko Yamamuro, and Sadaaki Maeda*
- 4682 Direct Stimulation of T Cells by Type I IFN Enhances the CD8<sup>+</sup> T Cell Response during Cross-Priming  
*Agnes Le Bon, Vanessa Durand, Elisabeth Kamphuis, Clare Thompson, Silvia Bulfone-Paus, Cornelia Rossmann, Ulrich Kalinke, and David F. Tough*
- 4690 Phospholipase C $\gamma$ 2 Dosage Is Critical for B Cell Development in the Absence of Adaptor Protein BLNK  
*Shengli Xu, Jianxin Huo, Weng-Keong Chew, Masaki Hikida, Tomohiro Kurosaki, and Kong-Peng Lam*
- 4699 Motif Inference Reveals Optimal CTL Epitopes Presented by HLA Class I Alleles Highly Prevalent in Southern Africa  
*Isobella Honeyborne, Almas Rathod, Rico Buchli, Dhanwanthie Ramduth, Eshia Moodley, Prinisha Rathnavalu, Senica Chetty, Cheryl Day, Christian Brander, William Hildebrand, Bruce D. Walker, Photini Kiepiela, and Philip J. R. Goulder*
- 4706 Identification of Memory B Cells Using a Novel Transgenic Mouse Model  
*Craig P. Chappell and Joshy Jacob*
- 4716 IFN- $\gamma$  Acts on T Cells to Induce NK Cell Mobilization and Accumulation in Target Organs  
*Ori Wald, Ido D. Weiss, Hanna Wald, Hadas Shoham, Yochay Bar-Shavit, Katia Beider, Eithan Galun, Lola Weiss, Liat Flaishon, Idit Shachar, Arnon Nagler, Bao Lu, Craig Gerard, Ji-Liang Gao, Eyal Mishani, Joshua Farber, and Amnon Peled*
- 4730 Adaptive Islet-Specific Regulatory CD4 T Cells Control Autoimmune Diabetes and Mediate the Disappearance of Pathogenic Th1 Cells In Vivo  
*Sarah E. Weber, Judith Harbertson, Elana Godebu, Guthrie A. Mros, Ryan C. Padrick, Bryan D. Carson, Steven F. Ziegler, and Linda M. Bradley*
- 4740 Early Growth Response Gene 1 Provides Negative Feedback to Inhibit Entry of Progenitor Cells into the Thymus  
*Frederick J. Schnell, Allison L. Zoller, Seema R. Patel, Ifor R. Williams, and Gilbert J. Kersh*
- 4748 Control of Autoimmune Myocarditis and Multiorgan Inflammation by Glucocorticoid-Induced TNF Receptor Family-Related Protein<sup>high</sup>, Foxp3-Expressing CD25<sup>+</sup> and CD25<sup>-</sup> Regulatory T Cells  
*Masahiro Ono, Jun Shimizu, Yoshiki Miyachi, and Shimon Sakaguchi*
- 4757 Immunosenitization of Tumor Cells to Dendritic Cell-Activated Immune Responses with the Proteasome Inhibitor Bortezomib (PS-341, Velcade)  
*Lana Y. Schumacher, Dan D. Vo, Hermes J. Garban, Begoña Comin-Anduix, Sharla K. Owens, Vivian B. Dissette, John A. Glaspy, William H. McBride, Benjamin Bonavida, James S. Economou, and Antoni Ribas*
- 4766 Identification of Novel Th2-Associated Genes in T Memory Responses to Allergens  
*Anthony Bosco, Kathy L. McKenna, Catherine J. Devitt, Martin J. Firth, Peter D. Sly, and Patrick G. Holt*
- 4778 Engagement of CD28 Outside of the Immunological Synapse Results in Up-Regulation of IL-2 mRNA Stability but Not IL-2 Transcription  
*Mariano Sanchez-Lockhart and Jim Miller*
- 4785 Selective Regulation of IL-10 Signaling and Function by Zymosan  
*Zhimei Du, Erin Kelly, Ingrid Mecklenbräuker, Lucila Agle, Carmen Herrero, Paul Paik, and Lionel B. Ivashkiv*
- 4793 Coordination of NF- $\kappa$ B and NFAT Antagonism by the Forkhead Transcription Factor Foxd1  
*Ling Lin and Stanford L. Peng*
- 4804 IFN- $\gamma$  Enhances Production of Nitric Oxide from Macrophages via a Mechanism That Depends on Nucleotide Oligomerization Domain-2  
*Sabine Töttemeyer, Mark Sheppard, Adrian Lloyd, David Roper, Christopher Dowson, David Underhill, Peter Murray, Duncan Maskell, and Clare Bryant*

- 4811 Differential T Cell-Mediated Regulation of CD23 (FcεRII) in B Cells and Follicular Dendritic Cells  
*Selvakumar Sukumar, Daniel H. Conrad, Andras K. Szakal, and John G. Tew*
- 4818 Wip1 Phosphatase-Deficient Mice Exhibit Defective T Cell Maturation Due To Sustained p53 Activation  
*Marco L. Schito, Oleg N. Demidov, Shin'ichi Saito, Jonathan D. Ashwell, and Ettore Appella*
- 4826 In Vivo Recognition of Ovalbumin Expressed by Transgenic *Leishmania* Is Determined by Its Subcellular Localization  
*Sara Prickett, Peter M. Gray, Sara L. Colpitts, Phillip Scott, Paul M. Kaye, and Deborah F. Smith*

## MOLECULAR AND STRUCTURAL IMMUNOLOGY

---

- 4834 STAT5-Mediated Signals Sustain a TCR-Initiated Gene Expression Program toward Differentiation of CD8 T Cell Effectors  
*Grégory Verdeil, Denis Puthier, Catherine Nguyen, Anne-Marie Schmitt-Verhulst, and Nathalie Auphan-Anezin*
- 4843 SUMOylation Interferes with CCAAT/Enhancer-Binding Protein  $\beta$ -Mediated *c-myc* Repression, but Not IL-4 Activation in T Cells  
*Friederike Berberich-Siebelt, Ingolf Berberich, Mindaugas Andrulis, Brigitte Santner-Nanan, Mithilesh K. Jha, Stefan Klein-Hessling, Anneliese Schimpl, and Edgar Serfling*
- 4852 Nuclear Magnetic Resonance Structure-Based Epitope Mapping and Modulation of Dust Mite Group 13 Allergen as a Hypoallergen  
*Siew Leong Chan, Seow Theng Ong, Su Yin Ong, Fook Tim Chew, and Yu Keung Mok*
- 4861 Cloning and Characterization of Mannose-Binding Lectin from Lamprey (Agnathans)  
*Momoe Takahashi, Daisuke Iwaki, Akiko Matsushita, Munehiro Nakata, Misao Matsushita, Yuichi Endo, and Teizo Fujita*
- 4869 Expression of Endoplasmic Reticulum Aminopeptidases in EBV-B Cell Lines from Healthy Donors and in Leukemia/Lymphoma, Carcinoma, and Melanoma Cell Lines  
*Doriana Fruci, Silvia Ferracuti, Maria Zaira Limongi, Veronica Cunsolo, Ezio Giorda, Rocco Fraioli, Leonardo Sibilio, Oliver Carroll, Akira Hattori, Peter M. van Ender, and Patrizio Giacomini*
- 4880 Transcriptional Regulation of CD4 Gene Expression by T Cell Factor-1/ $\beta$ -Catenin Pathway  
*Zhaofeng Huang, Huimin Xie, Vassilio Ioannidis, Werner Held, Hans Clevers, Maureen S. Sadim, and Zuoming Sun*

## IMMUNOGENETICS

---

- 4888 The Bovine CD1 Family Contains Group 1 CD1 Proteins, but No Functional CD1d  
*Ildiko Van Rhijn, Ad P. Koets, Jin Seon Im, Diewertje Piebes, Faye Reddington, Gurdyal S. Besra, Steven A. Porcelli, Willem van Eden, and Victor P. M. G. Rutten*

## HOST DEFENSE

---

- 4894 TLR3 Can Directly Trigger Apoptosis in Human Cancer Cells  
*Bruno Salaun, Isabelle Coste, Marie-Clotilde Risoan, Serge J. Lebecque, and Toufic Renno*
- 4902 Novel Immunostimulatory Agent Based on CpG Oligodeoxynucleotide Linked to the Nontoxic B Subunit of Cholera Toxin  
*Jenni Adamsson, Marianne Lindblad, Annika Lundqvist, Denise Kelly, Jan Holmgren, and Ali M. Harandi*
- 4914 The LFA-1 Adhesion Molecule Is Required for Protective Immunity during Pulmonary *Mycobacterium tuberculosis* Infection  
*Shamik Ghosh, Alissa A. Chackerian, Christina M. Parker, Christie M. Ballantyne, and Samuel M. Behar*
- 4923 Targeted Immunomodulation of the NF- $\kappa$ B Pathway in Airway Epithelium Impacts Host Defense against *Pseudomonas aeruginosa*  
*Ruxana T. Sadikot, Heng Zeng, Myungsoo Joo, M. Brett Everhart, Taylor P. Sherrill, Bo Li, Dong-sheng Cheng, Fiona E. Yull, John W. Christman, and Timothy S. Blackwell*
- 4931 Enhanced Macrophage Activity in Granulomatous Lesions of Immune Mice Challenged with *Mycobacterium tuberculosis*  
*Diane Ordway, Marisa Harton, Marcela Henao-Tamayo, Rose Montoya, Ian M. Orme, and Mercedes Gonzalez-Juarrero*

- 4940 CpG Oligodeoxynucleotides Protect Newborn Mice from a Lethal Challenge with the Neurotropic Tacaribe Arenavirus  
*João A. Pedras-Vasconcelos, David Goucher, Montserrat Puig, Leonardo H. Tonelli, Vivian Wang, Shuichi Ito, and Daniela Vertheby*
- 4950 Inducible Activation of TLR4 Confers Resistance to Hyperoxia-Induced Pulmonary Apoptosis  
*Salman T. Qureshi, Xuchen Zhang, Erika Aberg, Nicolas Boussette, Adel Giaid, Peiyong Shan, Ruslan M. Medzhitov, and Patty J. Lee*

## INFLAMMATION

---

- 4959 STAT1 in Peripheral Tissue Differentially Regulates Homing of Antigen-Specific Th1 and Th2 Cells  
*Zamaneh Mikbak, Carolyn M. Fleming, Benjamin D. Medoff, Seddon Y. Thomas, Andrew M. Tager, Gabriele S. Campanella, and Andrew D. Luster*
- 4968 Role of CCR5 in the Pathogenesis of IL-13-Induced Inflammation and Remodeling  
*Bing Ma, Wei Liu, Robert J. Homer, Patty J. Lee, Anthony J. Coyle, Jose M. Lora, Chun Geun Lee, and Jack A. Elias*
- 4979 ASC Directs NF- $\kappa$ B Activation by Regulating Receptor Interacting Protein-2 (RIP2) Caspase-1 Interactions  
*Anasuya Sarkar, Michelle Duncan, Judy Hart, Erin Hertlein, Denis C. Guttridge, and Mark D. Wewers*
- 4987 Effect of D-Alanylation of (Lipo)Teichoic Acids of *Staphylococcus aureus* on Host Secretory Phospholipase A<sub>2</sub> Action before and after Phagocytosis by Human Neutrophils  
*Catherine L. Hunt, William M. Nauseef, and Jerrold P. Weiss*
- 4995 Duration and Intensity of NF- $\kappa$ B Activity Determine the Severity of Endotoxin-Induced Acute Lung Injury  
*M. Brett Everhart, Wei Han, Taylor P. Sherrill, Melissa Arutiunov, Vasily V. Polosukhin, James R. Burke, Ruxana T. Sadikot, John W. Christman, Fiona E. Yull, and Timothy S. Blackwell*
- 5006 In Vitro Activation of CD8 Interphotoreceptor Retinoid-Binding Protein-Specific T Cells Requires not only Antigenic Stimulation but also Exogenous Growth Factors  
*Yong Peng, Hui Shao, Yan Ke, Ping Zhang, Jim Xiang, Henry J. Kaplan, and Deming Sun*
- 5015 Histone Hyperacetylation Is Associated with Amelioration of Experimental Colitis in Mice  
*Rainer Glauben, Arvind Batra, Inka Fedke, Martin Zeitz, Hans A. Lehr, Flavio Leoni, Paolo Mascagni, Giamila Fantuzzi, Charles A. Dinarello, and Britta Siegmund*
- 5023 Ovarian Cancer Cells Polarize Macrophages Toward A Tumor-Associated Phenotype  
*Thorsten Hagemann, Julia Wilson, Frances Burke, Hagen Kulbe, Ninfeng Fiona Li, Annette Plüddemann, Kellie Charles, Siamon Gordon, and Frances R. Balkwill*
- 5033 IFN- $\gamma$  Primes RAW264 Macrophages and Human Monocytes for Enhanced Oxidant Production in Response to CpG DNA via Metabolic Signaling: Roles of TLR9 and Myeloperoxidase Trafficking  
*Yoshiyuki Adachi, Andrei L. Kindzelskii, Aaron R. Petty, Ji-Biao Huang, Nobuyo Maeda, Satoshi Yotsumoto, Yasuaki Aratani, Naohito Ohno, and Howard R. Petty*
- 5041 Contrasting Roles for Domain 4 of VCAM-1 in the Regulation of Cell Adhesion and Soluble VCAM-1 Binding to Integrin  $\alpha_4\beta_1$   
*Darren G. Woodside, Ronda M. Kram, Jason S. Mitchell, Tracie Belsom, Matthew J. Billard, Bradley W. McIntyre, and Peter Vanderslice*
- 5050 Substance P Stimulates Cyclooxygenase-2 and Prostaglandin E<sub>2</sub> Expression through JAK-STAT Activation in Human Colonic Epithelial Cells  
*Hon-Wai Koon, Dezheng Zhao, Yanai Zhan, Sang Hoon Rhee, Mary P. Moyer, and Charalabos Pothoulakis*

## CLINICAL IMMUNOLOGY

---

- 5060 A Severe Form of Human Combined Immunodeficiency Due to Mutations in DNA Ligase IV  
*Anselm Enders, Paul Fisch, Klaus Schwarz, Ulrich Duffner, Ulrich Pannicke, Elisabeth Nikolopoulos, Anke Peters, Marzenna Orlowska-Volk, Detlev Schindler, Wilhelm Friedrich, Barbara Selle, Charlotte Niemeyer, and Stephan Ehl*

- 5069 Allergen-Specific MHC Class II Tetramer<sup>+</sup> Cells Are Detectable in Allergic, but Not in Nonallergic, Individuals  
*Claudia Macaubas, Jan Wahlstrom, Ana Paula Galvão da Silva, Thomas G. Forsthuber, Grete Sønderstrup, William W. Kwok, Rosemarie H. DeKruyff, and Dale T. Umetsu*
- 5078 Human Complete Stat-1 Deficiency Is Associated with Defective Type I and II IFN Responses In Vitro but Immunity to Some Low Virulence Viruses In Vivo  
*Ariane Chapgier, Robert F. Wynn, Emmanuelle Jouanguy, Orchidée Filipe-Santos, Shenyang Zhang, Jacqueline Feinberg, Kay Hawkins, Jean-Laurent Casanova, and Peter D. Arkwright*
- 5084 Monoclonal Pathogenic Antibodies to the Thyroid-Stimulating Hormone Receptor in Graves' Disease with Potent Thyroid-Stimulating Activity but Differential Blocking Activity Activate Multiple Signaling Pathways  
*Jacqueline A. Gilbert, Andrew G. Gianoukakis, Siamak Salehi, Jane Moorhead, Prakash V. Rao, M. Zareen Khan, Alan M. McGregor, Terry J. Smith, and J. Paul Banga*
- 5093 Identification of Novel Subdominant Epitopes on the Carcinoembryonic Antigen Recognized by CD4<sup>+</sup> T Cells of Lung Cancer Patients  
*Mariacristina Crosti, Renato Longhi, Giuseppe Consogno, Giulio Melloni, Piero Zannini, and Maria Pia Protti*
- 5100 CDR3 Spectratyping Analysis of the TCR Repertoire in Myasthenia Gravis  
*Yoh Matsumoto, Hidenori Matsuo, Hiroshi Sakuma, Il-Kwon Park, Yukiko Tsukada, Kuniko Kobayama, Takayuki Kondo, Satoshi Kotorii, and Noritoshi Shibuya*
- 5108 BCR/ABL Oncogene Directly Controls MHC Class I Chain-Related Molecule A Expression in Chronic Myelogenous Leukemia  
*Nicolas Boissel, Delphine Rea, Vannary Tieng, Nicolas Dulphy, Manuel Brun, Jean-Michel Cayuela, Philippe Rousselot, Ryad Tamouza, Philippe Le Bouteiller, François-Xavier Mahon, Alexander Steinle, Dominique Charron, Hervé Dombret, and Antoine Toubert*
- 5117 Author Index
- 5121 AAI Membership Application
- 5122 AAI Trainee Membership Application