IN THIS ISSUE

BRIEF REVIEWS

7781 Signal Regulatory Proteins in the Immune System
Ellen M. van Beek, Fiona Cochrane, A. Neil Barclay, and Timo K. van den Berg

7788 A Nomenclature for Signal Regulatory Protein Family Members
Timo K. van den Berg, Ellen M. van Beek, Hans-Jörg Bühring, Marco Colonna, Michinari Hamaguchi, Chris J. Howard, Masato Kasuga, Yuan Liu, Takashi Matzaki, Benjamin G. Neel, Charles A. Parkos, Shin-ichiro Sano, Agnès Vignery, Eric Vivier, Mark Wright, Rainer Zawatzky, and A. Neil Barclay

CUTTING EDGE

7791 Cutting Edge: Lectin-Like Transcript 1 Is a Ligand for the CD161 Receptor
Hatice Aldemir, Virginie Prod’homme, Marie-Jeanne Dumaerrie, Christelle Retiere, Gwenola Poupon, Julie Cazareth, Franck Bibl, and Veronique M. Braud

7796 Cutting Edge: Lectin-Like Transcript-1 Is a Ligand for the Inhibitory Human NKR-P1A Receptor
David B. Roen, Jayaram Bettadapura, Mohammed Alsharifi, Porunelloor A. Mathew, Hilary S. Warren, and Lewis L. Lanier

7800 Cutting Edge: FADD Is Not Required for Antigen Receptor-Mediated NF-κB Activation
Adrian F. Arechiga, Bryan D. Bell, Jennifer C. Solomon, Isaac H. Chu, Claire L. Dubois, Brian E. Hall, Thaddeus C. George, David M. Coder, and Craig M. Walsh

7805 Cutting Edge: FoxJ1 Protects against Autoimmunity and Inhibits Thymocyte Egress
Subhashini Srivatsan and Stanford L. Peng

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

7811 The Scaffolding Protein CG-NAP/AKAP450 Is a Critical Integrating Component of the LFA-1-Induced Signaling Complex in Migratory T Cells
Basma Salah El Din El Homasany, Yuri Volkov, Mikiko Takahashi, Yoshitaka Ono, Guy Keryer, Annie Delouvée, Eileen Looby, Aideen Long, and Dermot Kelleher
Silencing Human NKG2D, DAP10, and DAP12 Reduces Cytotoxicity of Activated CD8+ T Cells and NK Cells
Mobin Karimi, Thai M. Cao, Jeanette A. Baker, Michael R. Verderis, Luis Soares, and Robert S. Negrin

CD80 Cytoplasmic Domain Controls Localization of CD28, CTLA-4, and Protein Kinase Cθ in the Immunological Synapse
Su-Yi Tseng, Mengling Liu, and Michael L. Dustin

Identification of T Cell-Restricted Genes, and Signatures for Different T Cell Responses, Using a Comprehensive Collection of Microarray Datasets
Tatyana Chanova, Rebecca Newton, Sue M. Liu, Lilach Weininger, Timothy R. Young, Diego G. Silvea, Francesco Bertoni, Andrea Rinaldi, Stephanie Chappaz, Federica Sallusto, Michael S. Rolph, and Charles R. Mackay

Ligation of CD28 by Its Natural Ligand CD86 in the Absence of TCR Stimulation Induces Lipid Raft Polarization in Human CD4 T Cells
Birgit Kovacs, Richard V. Parry, Zhengyu Ma, Emily Fan, Debra K. Shivers, Benjamin A. Freiberg, Anna K. Thomas, Robert Rutherford, Catherine A. Rumbley, James L. Riley, and Terri H. Finkel

Targeting LFA-1 and CD154 Suppresses the In Vivo Activation and Development of Cytolytic (CD8-Independent) CD8+ T Cells
Keri E. Lunsford, Mitchel A. Koester, Anna M. Eiring, Phillip H. Horne, Donghong Gao, and Ginny L. Bumgardner

IL-21 Induces Differentiation of Human Naive and Memory B Cells into Antibody-Secreting Plasma Cells
Rachel Ettinger, Gary P. Sims, Anna-Marie Fairhurst, Rachel Robbins, Yong Sing da Silva, Rosanne Spolski, Warren J. Leonard, and Peter E. Lipsky

Increased Expression of Genes Linked to FcεRI Signaling and to Cytokine and Chemokine Production in Lyn-Deficient Mast Cells
Valerie Hernandez-Hansen, Julie D. J. Bard, Christy A. Tarleton, Julie A. Wilder, Clifford A. Lowell, Bridget S. Wilson, and Janet M. Oliver

CD18 Is Required for Optimal Development and Function of CD4+CD25+ T Regulatory Cells
Marisa Marski, Sreanthi Kandula, Jerrold R. Turner, and Clara Abraham

Cooperation of Invariant NKT Cells and CD4+CD25+ T Regulatory Cells in the Prevention of Autoimmune Myasthenia
Ruolan Liu, Antonio La Cava, Xue-Feng Bai, Youngheun Jee, Mary Price, Denise I. Campagnolo, Premkumar Christodoss, Timothy L. Vollmer, Luc Van Kaer, and Fu-Dong Shi

CD4+ T Cell Responses Elicited by Different Subsets of Human Skin Migratory Dendritic Cells
Adrian E. Morelli, J. Peter Rubin, Geza Erdos, Olga A. Tkacheva, Alicia R. Mathers, Alan F. Zaborchak, Angus W. Thomson, Louis D. Falo, Jr., and Adriana T. Larregina

Retinoic X Receptor Agonists Increase Bcl2a1 Expression and Decrease Apoptosis of Naive T Lymphocytes
Reuven Rasooly, Gertrud U. Schuster, Jeffrey P. Gregg, Jia-Hao Xiao, Roshantha A. S. Chandraratna, and Charles B. Stephensen

Identification of Specific Proteins and Peptides in Mycobacterium leprae Suitable for the Selective Diagnosis of Leprosy

Long-Term MHC Class II Presentation of the EBV Lytic Protein BHRF1 by EBV Latently Infected B Cells following Capture of BHRF1 Antigen
Elise Landais, Xavier Saulquin, Marc Bonneville, and Elisabeth Houssaint

Protein Tyrosine Phosphatase α Regulates Fyn Activity and Cbp/PAG Phosphorylation in Thymocyte Lipid Rafts
Lola Maksumova, Hua T. Le, Farrhad Muratkhodjaev, Dominique Davidson, Andre Veillette, and Catherine J. Pallan
Quantifying the Contribution of Defective Ribosomal Products to Antigen Production: A Model-Based Computational Analysis
Sascha Bulik, Bjoern Peters, and Hermann-Georg Holzhüter

The Role of Low Molecular Weight Thiols in T Lymphocyte Proliferation and IL-2 Secretion
Tanja Hadzic, Ling Li, Ningli Cheng, Susan A. Walch, Douglas R. Spitz, and C. Michael Knudsen

The Sphingosine 1-Phosphate Receptor Agonist FTY720 Differentially Affects the Sequestration of CD4<sup>+</sup>/CD25<sup>+</sup> T-Regulatory Cells and Enhances Their Functional Activity
Elzbieta Sawicka, Gerald Dubois, Gabor Jarai, Matthew Edwards, Matthew Thomas, Andy Nicholls, Rainer Albert, Catherine Newson, Volker Brinkmann, and Christoph Walker

Stabilized β-Catenin Extends Thymocyte Survival by Up-Regulating Bcl-xL
Huimin Xie, Zhaofeng Huang, Maureen S. Sadim, and Zuoming Sun

The Inhibitory Receptor IRp60 (CD300a) Is Expressed and Functional on Human Mast Cells
Ido Bachelet, Ariel Munitz, Alessandro Moretta, Lorenzo Moretta, and Francesca Levi-Schaffer

The Cytotoxicity Receptor CRACC (CS-1) Recruits EAT-2 and Activates the PI3K and Phospholipase Cγ Signaling Pathways in Human NK Cells
Ilaria Tassi and Marco Colonna

IL-2 Regulates Perforin and Granzyme Gene Expression in CD8<sup>+</sup> T Cells Independently of Its Effects on Survival and Proliferation
Michelle L. Janas, Penny Groves, Norbert Kienzle, and Anne Kelso

Complement Component C3d-Antigen Complexes Can Either Augment or Inhibit B Lymphocyte Activation and Humoral Immunity in Mice Depending on the Degree of CD21/CD19 Complex Engagement
Youngkyun Lee, Karen M. Haas, Dennis O. Gor, Xuedong Ding, David R. Karp, Neil S. Greenspan, Jonathan C. Poe, and Thomas F. Tedder

Fas Ligand Induces Cell-Autonomous IL-23 Production in Dendritic Cells, a Mechanism for Fas Ligand-Induced IL-17 Production
Hiroyoshi Kidoya, Masayuki Umemura, Takaya Kawabe, Goro Matsuzaki, Ayano Yahagi, Ryu Imamura, and Takashi Suda

Disparate Regulation and Function of the Class A Scavenger Receptors SR-AI/II and MARCO
Szczepan Józefowski, Mohamed Arredouani, Timothy Sulahian, and Lester Kobzik

CD43 Functions as a Ligand for E-Selectin on Activated T Cells
Masanori Matsumoto, Kazuyuki Atarashi, Eiji Umemoto, Yuko Furukawa, Akiko Shigeta, Masayuki Miyasaka, and Takako Hirata

Human CD4<sup>+</sup> T Cells Express TLR5 and Its Ligand Flagellin Enhances the Suppressive Capacity and Expression of FOXP3 in CD4<sup>+</sup>CD25<sup>+</sup> T Regulatory Cells
Natasha K. Crellin, Rosa V. Garcia, Omeed Hadisfar, Sarah E. Allan, Theodore S. Steiner, and Megan K. Levings

Erythromycin Differentially Inhibits Lipopolysaccharide- or Poly(I:C)-Induced but Not Peptidoglycan-Induced Activation of Human Monocyte-Derived Dendritic Cells
Motoko Yasutomi, Yusei Ohshima, Nemuko Omata, Akiko Yamada, Hiromichi Iwasaki, Yoshimasa Urasaki, and Mitsufumi Mayumi

Disruption of Lipid Rafts Stimulates Phospholipase D Activity in Human Lymphocytes: Implication in the Regulation of Immune Function
Olivier Diaz, Saida Miharek-Azzam, Annal Benzaria, Madeleine Dubois, Michel Lagarde, Georges Némoz, and Annie-France Prigent
Identification of Immunodominant Epitopes of α-Gliadin in HLA-DQ8 Transgenic Mice following Oral Immunization
Stefania Senger, Francesco Maurano, Maria F. Mazzero, Marcello Gaita, Olga Fierro, Chella S. David, Riccardo Troncone, Salvatore Auricchio, Rosa A. Siciliano, and Mauro Rossi

A Role for TLRs in the Regulation of Immune Cell Migration by First Trimester Trophoblast Cells
Vikki M. Abrahams, Irene Visinoni, Paulomi B. Aldo, Seth Guller, Roberto Romero, and Gil Mor

Molecular and Structural Immunology

Somatic Hypermutation and Junctional Diversification at Ig Heavy Chain Loci in the Nurse Shark
Karolina Malecek, Julie Brandman, Jennie E. Brooksby, Yoko Ohba, Martin F. Flajnik, and Ellen Hsu

Specific IgE Determination to Epitope Peptides of α-5 Gliadin and High Molecular Weight Glutenin Subunit Is a Useful Tool for Diagnosis of Wheat-Dependent Exercise-Induced Anaphylaxis
Hiroaki Matsuo, Kunie Kobno, Hiroyuki Niibara, and Eislin Morita

T Cell Activation-Induced CrkII Binding to the Zap70 Protein Tyrosine Kinase Is Mediated by Lck-Dependent Phosphorylation of Zap70 Tyrosine 315
Sigal Gelkop, Gerald D. Gish, Yael Babichev, Tony Pauson, and Noah Isakov

Sequence Transfers between Variable Regions in a Mouse Antibody Transgene Can Occur by Gene Conversion
Nicole D’Avirro, David Truong, Bo Xu, and Erik Selings

A Role for Phosphatidylinositol 3-Kinase in TCR-Stimulated ERK Activation Leading to Paxillin Phosphorylation and CTL Degranulation
Leslie K. Robertson, Laura R. Mireau, and Hanne L. Ostergaard

Intergenic Transcription Is Not Required in Th2 Cells to Maintain Histone Acetylation and Transcriptional Permissiveness at the Il4-I13 Locus
Aurelie Baguet, Xizhang Sun, Thomas Arroll, Anton Krumm, and Mark Bix

Immunogenetics

Functional Interplay between Intrinsic B and T Cell Defects Leads to Amplification of Autoimmune Disease in New Zealand Black Chromosome 1 Congenic Mice
Yui-Ho Cheung, Nan-Hua Chang, Yong-Chun Cai, Gabriel Bonventi, Ralph MacLeod, and Joan E. Wither

Host Defense

Mice Deficient in LRG-47 Display Enhanced Susceptibility to Trypanosoma cruzi Infection Associated with Defective Hemopoiesis and Intracellular Control of Parasite Growth
Helton C. Santiago, Carl G. Feng, Andre Bafica, Ester Roffe, Rosa M. Arantes, Allen Cheever, Gregory Taylor, Leda Q. Vieira, Julio Aliberti, Ricardo T. Gazzinelli, and Alan Sher

Defective Microarchitecture of the Spleen Marginal Zone and Impaired Response to a Thymus-Independent Type 2 Antigen in Mice Lacking Scavenger Receptors MARCO and SR-A
Yunying Chen, Timo Pikkarainen, Outi Elomaa, Ratja Soininen, Tatsuko Kodama, Georg Knaul, and Karl Tryggvason

Activated Macrophages Infected with Legionella Inhibit T Cells by Means of MyD88-Dependent Production of Prostaglandins
Annie L. Neild, Sunny Shin, and Craig R. Roy

A Requirement for the Vγ1+ Subset of Peripheral γδ T Cells in the Control of the Systemic Growth of Toxoplasma gondii and Infection-Induced Pathology
Charlotte E. Égan, Jane E. Dalton, Elizabeth M. Andrew, Judith E. Smith, Marc-Jan Gubbels, Boris Striepen, and Simon R. Carding

CD11b+/Gr-1+ Immature Myeloid Cells Mediate Suppression of T Cells in Mice Bearing Tumors of IL-1β-Secreting Cells
Xiaoping Song, Yakov Krelin, Tatjana Dvorkin, Olle Bjorkdahl, Shraga Segal, Charles A. Dinarello, Elena Voronov, and Ron N. Apte
Yersinia Outer Protein P Suppresses TGF-β-Activated Kinase-1 Activity to Impair Innate Immune Signaling in Yersinia enterocolitica-Infected Cells
Rudolf Haase, Kathleen Richter, Gudrun Pfaffinger, Gilles Courtois, and Klaus Ruckdeschel

Cytomegalovirus-Specific CD4+ T Cells in Healthy Carriers Are Continuously Driven to Replicative Exhaustion
Jean M. Fletcher, Milica Vukmanovic-Stefic, Padraic J. Dunne, Katie E. Birch, Joanne E. Cook, Sarah E. Jackson, Mike Salmon, Malcolm H. Rustin, and Arne N. Akbar

E2 of Hepatitis C Virus Inhibits Apoptosis
Song Hee Lee, Yoon Ki Kim, Chon Saeng Kim, Su Kyoun Seol, Joonyun Kim, Sungchan Cho, Young Lan Song, Ralf Bartenschlager, and Sung Key Jang

Pure Lipopolysaccharide or Synthetic Lipid A Induces Activation of p21Ras in Primary Macrophages through a Pathway Dependent on Src Family Kinases and PI3K
Muriel D. David, Chris L. Cochrane, Sherie K. Duncan, and John W. Schrader

INFLAMMATION

Helicobacter pylori-Induced Invasion and Angiogenesis of Gastric Cells Is Mediated by Cyclooxygenase-2 Induction through TLR2/TLR9 and Promoter Regulation
Ya-Jen Chang, Ming-Shiang Wu, Jaw-Town Lin, and Ching-Chow Chen

Allergen-Induced Airway Hyperresponsiveness Mediated by Cyclooxygenase Inhibition Is Not Dependent on 5-Lipoxygenase or IL-5, but Is IL-13 Dependent

Adenosine Augments IL-10 Production by Macrophages through an A2b Receptor-Mediated Posttranscriptional Mechanism
Zoltán H. Németh, Carol S. Luta, Balázs Czakó, Edwin A. Deitch, S. Joseph Leibovich, William C. Gause, Masahide Tone, Pál Pacher, E. Sylvester Vizi, and György Haskó

CD8 T Cell-Mediated Lung Damage in Response to the Extracellular Pathogen Pneumocystis Is Dependent on MHC Class I Expression by Radiation-Resistant Lung Cells
Nicole N. Meissner, Frances E. Lund, Soo Han, and Allen Harmsen

IL-18 Induces Monocyte Chemotactic Protein-1 Production in Macrophages through the Phosphatidylinositol 3-Kinase/Akt and MEK/ERK1/2 Pathways
Jae Kwang Yoo, Hyokjoon Kwon, Lee-Young Khil, Li Zhang, Hee-Sook Jun, and Ji-Won Yoon

Differential Regulation of Osteoblast Activity by Th Cell Subsets Mediated by Parathyroid Hormone and IFN-γ
Nathan Young, Natallia Mishkalkevich, Ying Yan, Di Chen, and Wei-ping Zheng

Inflammation-Induced Chondrocyte Hypertrophy Is Driven by Receptor for Advanced Glycation End Products
Denise L. Cecil, Kristen Johnson, John Rediske, Martin Latz, Ann Marie Schmidt, and Robert Berkelaar

Complement-Dependent Apoptosis and Inflammatory Gene Changes in Murine Lupus Cerebritis
Josy J. Alexander, Alexander Jacob, Lihua Bao, R. Loch Macdonald, and Richard J. Quigg

Topical Superantigen Exposure Induces Epidermal Accumulation of CD8+ T Cells, a Mixed Th1/Th2-Type Dermatitis and Vigorous Production of IgE Antibodies in the Murine Model of Atopic Dermatitis
Terhi Savio, Antti Lauerma, Sari Lehtimäki, Michael Gambert, Marja-Leena Majuri, Nanna Fynhquist-Vanni, Marie-Caroline Dieu-Nosjean, Lajos Kemenyi, Henrik Wolff, Bernhard Homey, and Harri Alenius

Aberrant Expression of the Autoantigen Heterogeneous Nuclear Ribonucleoprotein-A2 (RA33) and Spontaneous Formation of Rheumatoid Arthritis-Associated Anti-RA33 Autoantibodies in TNF-α Transgenic Mice
Silvia Hay, Makiyeh Tohidast-Akrad, Silva Haralambous, Beatrice Jahn-Schmid, Karl Skriner, Sylvie Trembleau, Hélène Dumortier, Serafin Pinol-Roma, Kurt Redlich, Georg Schett, Sylviane Muller, George Kollias, Josef Smolen, and Günter Steiner
Mcl-1 Is Essential for the Survival of Synovial Fibroblasts in Rheumatoid Arthritis
Hongtao Liu, Polikseni Eksarko, Vladislav Temkin, G. Kenneth Haines III, Harris Perlman, Alisa E. Koch,
Bayar Thimmapaya, and Richard M. Pope

Saliva from Lutzomyia longipalpis Induces CC Chemokine Ligand 2/Monocyte Chemoattractant Protein-1
Expression and Macrophage Recruitment
Clarisa R. Teixeira, Maria Jânia Teixeira, Regis B. B. Gomes, Claire S. Santos, Bruno B. Andrade,
Imbroinise Raffiâle-Neto, João S. Silva, Angelo Guglielmotti, José C. Miranda, Aldina Barral, Cláudia Brodskyn,
and Manoel Barral-Neto

CLINICAL IMMUNOLOGY

Reduced Allergenic Potency of VR9-1, a Mutant of the Major Shrimp Allergen Pen a 1 (Tropomyosin)
Gerald Reese, Julia Viebranz, Susan M. Leong-Kee, Matthew Plante, Iris Lauer, Stefanie Randow,
Mar San-Miguel Moncin, Rosalia Ayuso, Samuel B. Lehrer, and Stefan Vieth

CD8+ T Cell-Mediated HLA-A0201-Restricted Cytotoxicity to Transaldolase Peptide 168–176 in Patients with Multiple Sclerosis
Brian Niland, Katalin Banki, William E. Biddison, and Andras Perl

Differential Expression of Alternatively Spliced Transcripts of HLA-G in Human Preimplantation Embryos and Inner Cell Masses
Yuan Q. Yao, David H. Barlow, and Ian L. Sargent

Cloning the Arterial IgA Antibody Response during Acute Kawasaki Disease
Anne H. Rowley, Stanford T. Shulman, Francesca L. Garcia, Judith A. Giazzon-Cottrill, Masaru Miura, Hannah L. Lee,
and Susan C. Baker

Global Natural Regulatory T Cell Depletion in Active Systemic Lupus Erythematosus
Makoto Miyara, Zahir Amoura, Christophe Parizot, Cécile Badoual, Karim Dorgham, Salim Trad, Dominique Nochy,
Patrice Debré, Jean-Charles Piette, and Guy Gorochov

CXCL10 DNA Vaccination Prevents Spontaneous Diabetes through Enhanced β Cell Proliferation in NOD Mice
Toshikatsu Shigihara, Akira Shimada, Yoichi Oikawa, Hiroyuki Yoneyama, Yasuhiko Kanazawa, Yoshiaki Okubo,
Kouji Matsushima, Eiji Yamato, Jun-ichi Miyazaki, Akira Kasuga, Takao Saruta, and Shoaku Narumi

Immunization with Short Peptides from the 60 kDa Ro Antigen Recapitulates the Serological and Pathological Findings as well as the Salivary Gland Dysfunction of Sjögren’s Syndrome
R. Hal Scofield, Sima Asfa, David Obeo, Roland Jonson, and Biji T. Kurien

Functional and Phenotypic Characterization of CD57+CD4+ T Cells and Their Association with HIV-1-Induced T Cell Dysfunction
Brent E. Palmer, Naomi Blyveis, Andrew P. Fontenot, and Cara C. Wilson

Expression and Activity of NOX5 in the Circulating Malignant B Cells of Hairy Cell Leukemia
Aura S. Kamiguti, Lena Serrander, Ke Lin, Robert J. Harris, John C. Cawley, David J. Allsup, Joseph R. Slupsky,
Karl-Heinz Krause, and Mirko Zuzel

Immunodominance of Poxviral-Specific CTL in a Human Trial of Recombinant-Modified Vaccinia Ankara
Caroline L. Smith, Fareed Mirza, Valeride Pasquetti, David C. Tscharke, Michael J. Palmowski, P. Rod Dunbar,
Alejandro Sette, Adrian L. Harris, and Vincenzo Cerundolo

Letter of Retraction

Corrections

Author Index

Ad Hoc Reviewers

Author Index to Volume 175

Subject Index to Volume 175

AAI Membership Application

AAI Trainee Membership Application