IN THIS ISSUE

BRIEF REVIEWS

1975 Unique Human Tumor Antigens: Immunobiology and Use in Clinical Trials
Giorgio Parmiani, Annamaria De Filippo, Luisa Novellino, and Chiara Castelli

CUTTING EDGE

1981 Cutting Edge: The PI3K p110δ Is Required for Down-Regulation of RAG Expression in Immature B Cells
Miriam Llorian, Zania Stamataki, Suwan Hill, Martin Turner, and Inga-Lill Mårtensson

1986 Cutting Edge: Loss of TLR2, TLR4, and TLR5 on Langerhans Cells Abolishes Bacterial Recognition
Angelica M.G. van der Aar, Regien M. R. Sylva-Steenland, Jan D. Bos, Martien L. Kapenberg, Esther C. de Jong, and Marcel B. M. Teunissen

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

1991 Non-T Cell Activation Linker (NTAL) Negatively Regulates TREM-1/DAP12-Induced Inflammatory Cytokine Production in Myeloid Cells
Anja S. Tesarz, Sandra Weiler, Kai Zanzinger, Paul Angelisová, Václav Horejsi, and Adelheid Cerwenka

2000 Distinct Differentiation Potential of Blood Monocyte Subsets in the Lung
Limor Landsman, Chen Varol, and Steffen Jung

2008 Selective Thymus Settling Regulated by Cytokine and Chemokine Receptors
Benjamin A. Schwarz, Artivathakan Sambandam, Ivan Maillard, Benjamin C. Harman, Paul E. Love, and Avinash Bhandoola

2018 IL-2 Is Essential for TGF-β to Convert Naive CD4+CD25− Cells to CD25+Foxp3+ Regulatory T Cells and for Expansion of These Cells
Song Guo Zheng, Juhua Wang, Pu Wang, J. Dixon Gray, and David A. Horwitz

2028 Imatinib Mesylate Inhibits Antigen-Specific Memory CD8 T Cell Responses In Vivo
Parisa Sinai, Rance E. Berg, J. Marshall Haynie, Merrill J. Egorin, Robert L. Ittia, Jr., and James Forman

On the cover: Whole mount immunostainings of the intestines of wild-type and traf2−/− mice with anti-VCAM-1 (upper panels) or anti-CXCL13 (lower panels) antibody. Accumulation of VCAM-1 positive stromal cells and expression of CXCL13 (brown spots) in Peyer’s patch anlagen were severely impaired in traf1−/− mice (right panels) compared to wild-type mice (left panels). Piao, J.-H., H. Yoshida, W.-C. Yeh, T. Doi, X. Xue, H. Yagita, K. Okumura, and H. Nakano. 2007. TNF receptor-associated factor 2-dependent canonical pathway is crucial for the development of Peyer’s patches. J. Immunol. 178: 2272–2277.
Identification of pH-Regulated Antigen 1 Released from Candida albicans as the Major Ligand for Leukocyte Integrin αMβ2
Dmitry A. Soloviev, William A. Fonzi, Rafael Sentandreu, Elzbieta Pluskota, Christopher B. Forsyth, Satya Yadav, and Edward F. Plow

Differential CD40/CD40L Expression Results in Counteracting Antitumor Immune Responses
Gopal Murugaiyan, Reena Agrawal, Gyan C. Mishra, Debashis Mitra, and Bhaskar Saha

Changes in the Role of the CD45 Protein Tyrosine Phosphatase in Regulating Lck Tyrosine Phosphorylation during Thymic Development
Rustom Falahati and David Leitenberg

Francisella tularensis-Infected Macrophages Release Prostaglandin E2 that Blocks T Cell Proliferation and Promotes a Th2-Like Response
Matthew D. Woolard, Justin E. Wilson, Lucinda L. Hensley, Leigh A. Jania, Thomas H. Kawula, James R. Drake, and Jeffrey A. Frelinger

Stromal Derived Growth Factor-1α: Another Mediator in Neural-Emerging Immune System through Tac1 Expression in Bone Marrow Stromal Cells
Kelly E. Corcoran, Nitixa Patel, and Pranela Rameshwar

Type I IFN-Producing CD4 Vo14i NKT Cells Facilitate Priming of IL-10-Producing CD8 T Cells by Hepatocytes
Christian Wahl, Petra Bochtler, Reinhold Schirmbeck, and Jörg Reimann

Cognate CD4+ Help Elicited by Resting Dendritic Cells Does Not Impair the Induction of Peripheral Tolerance in CD8+ T Cells
Raymond J. Stepto, Janine M. Ritchie, Nicholas S. Wilson, Joe A. Villadangos, Andrew M. Lew, and Leonard C. Harrison

CD18 Is Required for Intestinal T Cell Responses at Multiple Immune Checkpoints
Marisa Marski, Alice L. Ye, and Clara Abraham

Regulation of CD8+ T Lymphocyte Effector Function and Macrophage Inflammatory Cytokine Production by Retinoic Acid Receptor γ
Ivan Dzhagalov, Pierre Chambon, and You-Wen He

Peroxisome Proliferator-Activated Receptor γ Control of Dendritic Cell Function Contributes to Development of CD4+ T Cell Anergy

High IFN-γ Production of Individual CD8 T Lymphocytes Is Controlled by CD152 (CTLA-4)
Pushpa Pandiyan, J. Kolja E. Hegel, Manuela Krueger, Dagmar Quandt, and Monika C. Brunner-Weinzierl

NK3-Like NK Cells Are Involved in Protective Effect of Polyinosinic-Polycytidylic Acid on Type 1 Diabetes in Nonobese Diabetic Mice
Rongbin Zhou, Haiiming Wei, and Zhiqang Tian

Selective Use of TRAM in Lipopolysaccharide (LPS) and Lipoteichoic Acid (LTA) Induced NF-κB Activation and Cytokine Production in Primary Human Cells: TRAM Is an Adaptor for LPS and LTA Signaling
Sandra M. Sacre, Anna M. C. Lundberg, Evangelos Andreakos, Corinne Taylor, Marc Feldmann, and Brian M. Foxwell

Natural Regulatory T Cells and De Novo-Induced Regulatory T Cells Contribute Independently to Tumor-Specific Tolerance
Gang Zhou and Hyam I. Levitsky

A Role for Mammalian Target of Rapamycin in Regulating T Cell Activation versus Anergy

Bacterial c-di-GMP Is an Immunostimulatory Molecule
David K. R. Karaolis, Terry K. Means, De Yang, Munehisa Takahasi, Teizo Yoshimura, Eric Muraillé, Dana Philpott, John T. Schroeder, Mamoru Hyodo, Yoshitiro Hayakawa, Brian G. Talbot, Eric Brouillette, and François Malouin
TLR Signaling Fine-Tunes Anti-Influenza B Cell Responses without Regulating Effector T Cell Responses
Alex K. Heer, Abdivapar Shamshiev, Alena Dondua, Satoshi Uematsu, Shizuo Akira, Manfred Kopf, and Benjamin J. Marsland

Mice Are Agammaglobulinemic and Fail to Maintain B220−CD138− Plasma Cells
Koari Kumazaki, Boaz Tirosh, René Maehr, Marianne Boes, Tatsuo Honjo, and Hidde L. Ploegh

Suppression of the Effector Phase of Inflammatory Arthritis by Double-Stranded RNA Is Mediated by Type I IFNs
Anna Yarilina, Edward DiCarlo, and Lionel B. Ivashkiv

Peripheral Tolerance Induction Using Ethylenediamine-Dihydrazide-Fixed APCs Uses both Direct and Indirect Mechanisms of Antigen Presentation for Prevention of Experimental Autoimmune Encephalomyelitis
Danielle M. Turley and Stephen D. Miller

Abrogation of Antibody-Mediated Allograft Rejection by Regulatory CD4 T Cells with Indirect Allospecificity

The Effects of IL-20 Subfamily Cytokines on Reconstituted Human Epidermis Suggest Potential Roles in Cutaneous Innate Defense and Pathogenic Adaptive Immunity in Psoriasis
Susan M. Sa, Patricia A. Valdez, Jianfeng Wu, Kenneth Jung, Fiona Zhong, Linda Hall, Ian Kasman, Jane Winer, Zora Modrusan, Dimitry M. Danilenko, and Wenjun Ouyang

The Role of Endoplasmic Reticulum-Associated Aminopeptidase 1 in Immunity to Infection and in Cross-Presentation
Elke Firat, Loredana Saveanu, Peter Aichele, Peter Steinheli, Jisen Huai, Simone Gaedieke, Ahmed Nielsen, Gilles Besin, Benoit Kanzler, Peter van Endert, and Gabriele Niedermann

Epitope-Dependent Effect of Anti-Murine TIM-1 Monoclonal Antibodies on T Cell Activity and Lung Immune Responses
Irene D. Sizing, Véronique Bailly, Patricia McCoon, Wenjie Chang, Sambasiva Rao, Lourdes Pablo, Rachel Rennard, Meghan Walsh, Zhifang Li, Mohammad Zafari, Max Dobles, Leticia Tarlente, Steven Miklasz, Gerard Mageau, Kevin Godbout, Martin L. Scott, and Paul D. Rennert

Dendritic Cells Sensitize TCRs through Self-MHC-Mediated Src Family Kinase Activation
Paul Meraner, Vaclav Horejsi, Alois Wolpl, Gottfried F. Fischer, Georg Stingl, and Dieter Maurer

TNF Receptor-Associated Factor 2-Dependent Canonical Pathway Is Crucial for the Development of Peyer’s Patches
Jiang-Hu Piao, Hisahiro Yoshida, Wen-Chen Yeh, Takahiro Doi, Xin Xue, Hideo Yagita, Ko Okumura, and Hiroyasu Nakano

CXC Chemokine Ligand 9/Monokine Induced by IFN-γ Production by Tumor Cells Is Critical for T Cell-Mediated Suppression of Cutaneous Tumors
Anton V. Gorbachev, Hirohito Kohayashi, Daisuke Kudo, Charles S. Tannenbaum, James H. Finke, Suyu Shu, Joshua M. Farber, and Robert L. Fairchild

Fas Receptor Clustering and Involvement of the Death Receptor Pathway in Rituximab-Mediated Apoptosis with Concomitant Sensitization of Lymphoma B Cells to Fas-Induced Apoptosis
Alja J. Stel, Bram ten Cate, Susan Jacobs, Jan Willem Kok, Diana C. J. Spiering, Monica Dondorff, Wijnand Helfrich, Hanneke C. Klein-Nellemans, Lou F. M. H. de Leij, Sebo Withoff, and Bart Jan Kroesen

p21CIP1/WAF1 Controls Proliferation of Activated/Memory T Cells and Affects Homeostasis and Memory T Cell Responses
Cristina F. Arias, André Ballesteros-Tato, Maria Isabel Garcia, Juan Martin-Caballero, Juana M. Flores, Carlos Martinez-A, and Dimitrios Balomenos

A Novel Postpriming Regulatory Check Point of Effector/Memory T Cells Dictated through Antigen Density Threshold-Dependent Anergy
Kfir Oved, Omer Ziv, Jasmine Jacob-Hirsch, Roy Noy, Hila Novak, Oryan Makler, Denkberg Galit, Sinik Keren, Dina Segal, Chen Gefen-Dor, Ninette Amariglio, Gideon Rechavi, and Yoram Reiter
Phenotypic and Functional Analysis of Immune CD8⁺ T Cell Responses Induced by a Single Injection of a HIV DNA Vaccine in Mice
Geraldine Arrode, Ramakrishna Hegde, Arunmani Mani, Yuhuai Jin, Yahia Chebloune, and Opendra Narayan

Requirement for Phosphoinositide 3-Kinase p110δ Signaling in B Cell Antigen Receptor-Mediated Antigen Presentation
Monther M. Al-Alwan, Klaus Okkenhaug, Bart Vanhaesebroeck, Joel S. Hayflick, and Aaron J. Marshall

The N Terminus of the Non-T Cell Activation Linker (NTAL) Confers Inhibitory Effects on Pre-B Cell Differentiation
Sebastian Herzog and Hasan Jumaa

The Arthritis Severity Quantitative Trait Loci Cia4 and Cia6 Regulate Neutrophil Migration into Inflammatory Sites and Levels of TNF-α and Nitric Oxide
Tereina Laragione, Nuriza C. Yarlett, Max Brenner, Adriana Mello, Barbara Sherry, Edmund J. Miller, Christine N. Metz, and Péríco S. Gulko

Genetic Dissection of Spontaneous Autoimmunity Driven by 129-Derived Chromosome 1 Loci When Expressed on C57BL/6 Mice
Francesco Carlucci, Josefin Cortes-Hernandez, Liliane Fossati-Jimack, Anne E. Bygrave, Mark J. Walport, Timothy J. Vyse, H. Terence Cook, and Marina Botto

Insect Baculoviruses Strongly Potentiate Adaptive Immune Responses by Inducing Type I IFN
Sandra Herwas-Stubb, Paloma Rueda, Lissette Lopez, and Claude Leclerc

Mucosal HIV-1 Pox Virus Prime-Boost Immunization Induces High-Avidity CD8⁺ T Cells with Regime-Dependent Cytokine/Granzyme B Profiles
Charani Ranasinghe, Stephen J. Turner, Craig McArthur, Duncan B. Sutherland, Jee-Hye Kim, Peter C. Doherty, and Ian A. Ramsay

RICK/RIP2 Mediates Innate Immune Responses Induced through Nod1 and Nod2 but Not TLRs
Jong-Hwan Park, Yun-Gi Kim, Christine McDonald, Thirumala-Devi Kanneganti, Mizuho Hasegawa, Mathilde Body-Malapel, Naohiro Inohara, and Gabriel Núñez

Mucosal Luminal Manipulation of T Cell Geography Switches on Protective Efficacy by Otherwise Ineffective Parenteral Genetic Immunization
Michael Santosuosso, Sarah McCormick, Elizabeth Roediger, Xizhong Zhang, Anna Zganiacz, Brian D. Lichty, and Zhou Xing

Rapid Clonal Expansion and Prolonged Maintenance of Memory CD8⁺ T Cells of the Effector (CD44highCD62Llow) and Central (CD44highCD62Lhigh) Phenotype by an Archaeosome Adjuvant Independent of TLR2
Lakshmi Krishnan, Komal Gurnani, Chantal J. Dicaire, Henk van Faassen, Ahmed Zafer, Carsten J. Kirschning, Subash Sad, and G. Dennis Sprott

Expression of the p60 Autolysin Enhances NK Cell Activation and Is Required for Listeria monocytogenes Expansion in IFN-γ-Responsive Mice
Jessica Humann, Ryan Bjordahl, Karl Andreasen, and Laurel L. Lenz

TLR9 Signaling in B Cells Determines Class Switch Recombination to IgG2a
Andrea Jegerlehner, Patrik Maurer, Juliana Bessa, Heather J. Hinton, Manfred Kapf, and Martin F. Bachmann

Heat Shock Protein 27 Regulates Neutrophil Chemotaxis and Exocytosis through Two Independent Mechanisms
2429 Fas-Associated Death Domain-Containing Protein-Mediated Antiviral Innate Immune Signaling Involves the Regulation of Irf7
Siddharth Balachandran, Thiagarajan Venkataraman, Paul B. Fisher, and Glen N. Barber

2440 PU.1 Redirects Adenovirus to Lysosomes in Alveolar Macrophages, Uncoupling Internalization from Infection
Brenna Carey, Margaret K. Staude, Dana Bonaminio, Johannes C. M. van der Loo, and Bruce C. Trapnell

2448 Evidence for Phagocytosis of Influenza Virus-Infected, Apoptotic Cells by Neutrophils and Macrophages in Mice
Yumi Hashimoto, Takeshi Moki, Takenori Takizawa, Akiko Shiratsuchi, and Yoshinobu Nakanishi

INFLAMMATION

2458 FTY720 Ameliorates Th1-Mediated Colitis in Mice by Directly Affecting the Functional Activity of CD4+ CD25+ Regulatory T Cells
Carolin Daniel, Nico Sartory, Nadine Zahn, Gerd Geisslinger, Heinfried H. Radeke, and Juergen M. Stein

2469 CD44 Is a Negative Regulator of Acute Pulmonary Inflammation and Lipopolysaccharide-TLR Signaling in Mouse Macrophages
Jiurong Liang, Dianhua Jiang, Jason Griffith, Shuang Yu, Juan Fan, Xiaojian Zhao, Richard Bucala, and Paul W. Noble

2476 New Animal Model of Shigellosis in the Guinea Pig: Its Usefulness for Protective Efficacy Studies
Doo-Hee Shim, Tosihiko Suzuki, Sun-Young Chang, Sung-Moo Park, Philippe J. Sansonetti, Chihiro Sasakiwa, and Mi-Na Kwon

2483 Receptor for Advanced Glycation Endproducts Mediates Neutrophil Migration across Intestinal Epithelium
Ke Zen, Celia X.-J. Chen, Yi-Tien Chen, Rosemarie Wilson, and Yuan Liu

2491 Regulation of Th2 Cytokine Genes by p38 MAPK-Mediated Phosphorylation of GATA-3
Kittipong Maneechotiswam, Yao Xin, Kazuhiro Ito, Elen Jazrawi, Kang-Yun Lee, Omar S. Usmani, Peter J. Barnes, and Ian M. Adcock

2499 CD43 Collaborates with P-Selectin Glycoprotein Ligand-1 to Mediate E-Selectin-Dependent T Cell Migration into Inflamed Skin
Masanori Matsumoto, Akiko Shigeta, Yuko Furukawa, Toshiyuki Tanaka, Masayuki Miyasaka, and Takako Hirata

2507 Simvastatin Potentiates TNF-α-Induced Apoptosis through the Down-Regulation of NF-κB-Dependent Antipoptotic Gene Products: Role of IκBα Kinase and TGF-β-Activated Kinase-1
Kwang Seok Ahn, Gautam Sethi, and Bharat B. Aggarwal

2517 Glucocorticoid Conditioning of Myeloid Progenitors Enhances TLR4 Signaling via Negative Regulation of the Phosphatidylinositol 3-Kinase-Akt Pathway
Tian Y. Zhang and Raymond A. Daynes

2527 K-ras Is Critical for Modulating Multiple c-kit-Mediated Cellular Functions in Wild-Type and Nf1+/− Mast Cells
Waled F. Khalfaf, Feng-Chun Yang, Shi Chen, Hilary White, Waylan Besler, David A. Ingram, and D. Wade Clapp

2535 IgE Modulates Neutrophil Survival in Asthma: Role of Mitochondrial Pathway
Arash Shoja Saffar, Martin P. Alphonse, Lianyu Shan, Kent T. HayGlass, F. Estelle R. Simons, and Abdelilah Soussi Gounni

2542 Signaling in Lipopolysaccharide-Induced Stabilization of Formyl Peptide Receptor 1 mRNA in Mouse Peritoneal Macrophages
Palash Mandal and Thomas Hamilton

2549 Selective Activation of Fyn/PI3K and p38 MAPK Regulates IL-4 Production in BMMC under Nontoxic Stress Condition
Barbara Frossi, Juan Rivera, Emilio Hirsch, and Carlo Pucillo
Clinical Immunology

2556 Differential Biological Role of CD3 Chains Revealed by Human Immunodeficiencies
Maria J. Recio, Miguel Angel Moreno-Pelayo, Sara S. Kiliç, Alberto C. Guardo, Ozden Sanal, Luis M. Allende, Verónica Pérez-Flores, Angeles Mencia, Silvia Modamio-Høybjør, Elena Seoane, and José R. Regueiro

2565 A SmD Peptide Induces Better Antibody Responses to Other Proteins within the Small Nuclear Ribonucleoprotein Complex than to SmD Protein via Intermolecular Epitope Spreading
Umesh S. Deshmukh, Harini Bagawant, Davis Sim, Vyankatesh Pidiyar, and Shu Man Fu

2572 Expansion of CD4⁺CD25⁺ and FOXP3⁺ Regulatory T Cells during the Follicular Phase of the Menstrual Cycle: Implications for Human Reproduction
Lourdes Arruvito, Marianela Sanz, Alison H. Banham, and Leonardo Fainboim

2579 Deficient CD4⁺CD25high T Regulatory Cell Function in Patients with Active Systemic Lupus Erythematosus
Xavier Valencia, Cheryl Yarboro, Gabor Illei, and Peter E. Lipsky

2589 IL-23 Is Critical in the Induction but Not in the Effector Phase of Experimental Autoimmune Encephalomyelitis
Paresh Thakker, Michael W. Leach, Wen Kuang, Stephen E. Benoit, John P. Leonard, and Suzana Marusic

2599 Author Index

2603 AAI Membership Application

2604 AAI Trainee Membership Application