4049 IN THIS ISSUE

LETTERS TO THE EDITOR

4051 Comment on “Cutting Edge: Depletion of Foxp3 Cells Leads to Induction of Autoimmunity by Specific Ablation of Regulatory T Cells in Genetically Targeted Mice”
Dominik Wolf, Anna Maria Wolf, and Alexandar Tzankov

4051 Comment on “Development of Murine Lupus Involves the Combined Genetic Contribution of the SLAM and FcγR Intervals within the Nba2 Autoimmune Susceptibility Locus”
Divaker Choubey, Ravichandran Panchanathan, Hui Shen, and Xin Duan

4052 Response to Comment on “Development of Murine Lupus Involves the Combined Genetic Contribution of the SLAM and FcγR Intervals within the Nba2 Autoimmune Susceptibility Locus”
Trine N. Jørgensen and Loren D. Erickson

4052 Comment on “CRTAM Confers Late-Stage Activation of CD8+ T Cells to Regulate Retention within Lymph Node”
Sunny Hei Wong, Fredrik O. Vannberg, Alexandra J. Spencer, Louise van der Weyden, Adrian V. S. Hill, and David H. Wyllie

BRIEF REVIEWS

4055 Analysis of γδ T Cell Functions in the Mouse
Willi K. Born, Zhihan Yin, Youn-Soo Hahn, Deming Sun, and Rebecca L. O’Brien

4062 Metabolic Shifts in Immunity and Inflammation
Douglas J. Kominsky, Eric L. Campbell, and Sean P. Colgan

CUTTING EDGE

4069 Cutting Edge: IFN-γ Is a Negative Regulator of IL-23 in Murine Macrophages and Experimental Colitis
Shehzad Z. Sheikh, Katsumi Matsuoka, Taku Kobayashi, Fengling Li, Tara Rubinas, and Scott E. Plevy

4074 Cutting Edge: CD28 and c-Rel–Dependent Pathways Initiate Regulatory T Cell Development
Kien B. Vang, Jianying Yang, Antonio J. Pagán, Lin-Xi Li, Junmei Wang, Jonathan M. Green, Amer A. Beg, and Michael A. Farrar

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

4079 CD8 T Cells Activated in Distinct Lymphoid Organs Differentially Express Adhesion Proteins and Coexpress Multiple Chemokine Receptors
Andrew R. Ferguson and Victor H. Engelhard

4087 Estradiol and G1 Reduce Infarct Size and Improve Immunosuppression after Experimental Stroke
Bing Zhang, Sandhya Subramanian, Suzan Dziennis, Jia Jia, Masayoshi Uchida, Kosaburo Akiyoshi, Elion Migliati, Anne D. Lewis, Arthur A. Vandenbark, Halina Offner, and Patricia D. Hurn

4095 T Cell Ig Domain and Mucin Domain 1 Engagement on Invariant NKT Cells in the Presence of TCR Stimulation Enhances IL-4 Production but Inhibits IFN-γ Production
Hye Sung Kim, Hyun Soo Kim, Chang Woo Lee, and Doo Hyun Chung

4107 Dynamic Regulation of CD8 T Cell Tolerance Induction by Liver Sinusoidal Endothelial Cells

4115 Unexpected Role for the Immunoproteasome Subunit LMP2 in Antiviral Humoral and Innate Immune Responses
Scott E. Hensley, Damien Zanker, Brian P. Dolan, Alexandre David, Heather D. Hickman, Alan C. Embry, Cara N. Skon, Kristie M. Grebe, Thomas A. Griffin, Weisan Chen, Jack R. Bennink, and Jonathan W. Yewdell

4123 Transcriptional Repressor BCL6 Controls Th17 Responses by Controlling Gene Expression in Both T Cells and Macrophages
Arpita Mondal, Deepali Sawant, and Alexander L. Dent

4133 Redistribution of Sphingosine 1-Phosphate by Sphingosine Kinase 2 Contributes to Lymphopenia
Sven-Christian Sensken, Constantin Bode, Manju Nagarajan, Ulrike Peest, Oliver Pabst, and Markus H. Gräler

4143 Peripheral B Cell Tolerance and Function in Transgenic Mice Expressing an IgD Superantigen
Bao Hoa Duong, Takayuki Ota, Djemel Ait-Azzouzene, Miyo Aoki-Ota, José Luis Vela, Christoph Huber, Kevin Walsh, Amanda L. Gavin, and David Nemazee

4159 Chlamydial Respiratory Infection during Allergen Sensitization Drives Neutrophilic Allergic Airways Disease
Jay C. Horvat, Malcolm R. Starkey, Richard Y. Kim, Kenneth W. Beagley, Julie A. Preston, Peter G. Gibson, Paul S. Foster, and Philip M. Hansbro

4170 Attenuation of PI3K/Akt-Mediated Tumorigenic Signals through PTEN Activation by DNA Vaccine-Induced Anti-ErbB2 Antibodies
Alexandra Porzia, Stefania Lanzardo, Arianna Citti, Federica Cavallo, Guido Forni, Angela Santoni, Ricciarda Galandrini, and Rosella Paolini

4178 Lck Mediates Th2 Differentiation through Effects on T-bet and GATA-3
Kyeorda L. Kemp, Steven D. Levin, Paul J. Bryce, and Paul L. Stein

4185 Relative Over-Reactivity of Human versus Chimpanzee Lymphocytes: Implications for the Human Diseases Associated with Immune Activation
Paula C. Soto, Lance L. Stein, Nancy Hurtado-Ziola, Stephen M. Hedrick, and Ajit Varki

4196 Toxin-Coupled MHC Class I Tetramers Can Specifically Ablate Autoreactive CD8+ T Cells and Delay Diabetes in Nonobese Diabetic Mice
Benjamin G. Vincent, Ellen F. Young, Adam S. Buntzman, Rosemary Stevens, Thomas B. Kepler, Roland M. Tisch, Jeffrey A. Frelinger, and Paul R. Hess
Characterization of Synergistic Induction of CX3CL1/Fractalkine by TNF-α and IFN-γ in Vascular Endothelial Cells: An Essential Role for TNF-α in Post-Transcriptional Regulation of CX3CL1
Tomoh Matsumiya, Ken Ota, Tadaatsu Inaizumi, Hidemi Yoshida, Hiroto Kimura, and Kei Satoh

Adoptive Transfer of Tumor-Specific Tc17 Effector T Cells Controls the Growth of B16 Melanoma in Mice

Disrupting the Intermolecular Self-Association of Itk Enhances T Cell Signaling
Lie Min, Wenfang Wu, Raji E. Joseph, D. Bruce Fulton, Leslie Berg, and Amy H. Andreadi

An Autoimmune Response to Odorant Binding Protein 1a Is Associated with Dry Eye in the Aire-Deficient Mouse
Jason J. DeVos, Norbert P. LeClair, Yafei Hou, Navdeep K. Grewal, Kelley P. Johannes, Wen Lu, Ting Yang, Craig Meagher, Lawrence Fong, Erich C. Strauss, and Mark S. Anderson

CD11c hi Dendritic Cells Regulate the Re-establishment of Vascular Quiescence and Stabilization after Immune Stimulation of Lymph Nodes
Te-Chen Tzeng, Susin Choyou, Sha Tian, Brian Webster, April C. Carpenter, Victor H. Guaitiquil, and Theresa T. Lu

Differential IL-17 Production and Mannan Recognition Contribute to Fungal Pathogenicity and Commensalism
Lisa Rizzetto, Mirela Kuka, Carlotta De Filippo, Alessandra Cambi, Mihai G. Netea, Luca Beltrame, Giorgio Napolitani, Maria Gabriella Torcia, Ugo D’Oro, and Duccio Cavalieri

Immunotherapy Can Reject Intracranial Tumor Cells without Damaging the Brain despite Sharing the Target Antigen
Byram W. Bridle, Jian Li, Shucui Jiang, Ruby Chang, Brian D. Lichty, Jonathan L. Bramson, and Yonghong Wan

Human Plasmacytoid Dendritic Cells Phagocytose, Process, and Present Exogenous Particulate Antigen
Jurjen Tel, Annechien J. A. Lambeck, Luis J. Cruz, Paul J. Tacken, I. Jolanda M. de Vries, and Carl G. Figdor

Mathematical Modeling of Chimeric TCR Triggering Predicts the Magnitude of Target Lysis and Its Impairment by TCR Downmodulation
Scott E. James, Philip D. Greenberg, Michael C. Jensen, Yukang Lin, Jinjuan Wang, Lihua E. Budde, Brian G. Till, Andrew A. Rabbitschef, Stephen J. Forman, and Oliver W. Press

Role of SMAD and Non-SMAD Signals in the Development of Th17 and Regulatory T Cells
Ling Lu, Julie Wang, Feng Zhang, Yang Chai, David Brand, Xuehao Wang, David A. Horwitz, Wei Shi, and Song Guo Zheng

IL-17RC Is Required for IL-17A– and IL-17F–Dependent Signaling and the Pathogenesis of Experimental Autoimmune Encephalomyelitis
Yan Hu, Naruhsia Ota, Ivan Peng, Canio J. Refino, Dimitry M. Danilenko, Patrick Caplazi, and Wenjun Ouyang

Different Proliferative Potential and Migratory Characteristics of Human CD4+ Regulatory T Cells That Express either CD45RA or CD45RO
Nicola J. Booth, Arthur J. McQuaid, Toni Sobande, Steve Kisane, Elaine Agius, Sarah E. Jackson, Mike Salmon, Francesco Falciani, Kwuee Yong, Malcolm H. Rustin, Arne N. Akbar, and Milica Vukmanovic-Stejic

NK Cells Influence Both Innate and Adaptive Immune Responses after Mucosal Immunization with Antigen and Mucosal Adjuvant
Lindsay J. Hall, Simon Clare, and Gordon Dougan

Protein–DNA Complex Is the Exclusive Malaria Parasite Component That Activates Dendritic Cells and Triggers Innate Immune Responses
Xianzhu Wu, Nagaraj M. Gowda, Sanjeev Kumar, and D. Channe Gowda
MOLECULAR AND STRUCTURAL IMMUNOLOGY

4349 PU.1 Positively Regulates GATA-1 Expression in Mast Cells
Clifford M. Takemoto, Stephanie Brandal, Anil G. Jegga, Youl-Nam Lee, Amir Shablaee, Ye Ying, Rodney DeKoter, and Michael A. McDevitt

Expression of Functional D299G.T399I Polymorphic Variant of TLR4 Depends More on Coexpression of MD-2 Than Does Wild-Type TLR4
Polonca Prohinar, Prasad Rallabhandi, Jerrold P. Weiss, and Theresa L. Gioannini

IMMUNOGENETICS

4368 Adaptive Interactions between HLA and HIV-1: Highly Divergent Selection Imposed by HLA Class I Molecules with Common Supertype Motifs
Mina John, David Heckerman, Ian James, Lawrence P. Park, Jonathan M. Carlzon, Abha Chopra, Silvana Gaudieri, David Nolan, David W. Haas, Sharon A. Riddler, Richard Haubrich, and Simon Mallal

HOST DEFENSE

4378 Redundant and Pathogenic Roles for IL-22 in Mycobacterial, Protozoan, and Helminth Infections
Mark S. Wilson, Carl G. Feng, Daniel L. Barber, Felix Yarovinsky, Allen W. Cheever, Alan Sher, Michael Grigg, Mary Collins, Lynette Fouser, and Thomas A. Wynn

4391 Regulatory T Cells Inhibit T Cell Proliferation and Decrease Demyelination in Mice Chronically Infected with a Coronavirus
Kathryn Trandem, Daniela Anghelina, Jingxian Zhao, and Stanley Perlman

4401 Lysophosphatidylcholine Decreases Neutrophil Bactericidal Activity by Enhancement of Azurophil Granule-Phagosome Fusion via Glycine-GlyRα2/TRPM2/p38 MAPK Signaling
Chang-Won Hong, Taek-Keun Kim, Hwa-Yong Ham, Ju-Suk Nam, Yong Ho Kim, Haifeng Zheng, Bo Pang, Tae-Kuon Min, Jun-Suk Jung, Si-Nae Lee, Hyun-jeong Cho, Er-Jin Kim, In-Hwan Hong, Tae-Cheon Kang, Jongho Lee, Seog Bar Oh, Sung Jun Jung, Sung Joon Kim, and Dong-Keun Song

4414 Essential Role of IL-17A in the Formation of a Mycobacterial Infection-Induced Granuloma in the Lung
Yuko Okamoto Yoshida, Masayuki Umemura, Ayano Yahagi, Rebecca L. O’Brien, Koichi Ikuta, Kenji Kishihara, Hiromitsu Hara, Susumu Nakas, Yoichiro Iwakura, and Goro Matsuzaki

4423 Single-Chain HLA-A2 MHC Trimers That Incorporate an Immundominant Peptide Elicit Protective T Cell Immunity against Lethal West Nile Virus Infection
Sojung Kim, Lijin Li, Curtis P. McMurtrey, William H. Hildebrand, Jon A. Weidanz, William E. Gillanders, Michael S. Diamond, and Ted H. Hansen

4431 Quality of the Transgene-Specific CD8+ T Cell Response Induced by Adenoviral Vector Immunization Is Critically Influenced by Virus Dose and Route of Vaccination
Peter Johannes Holst, Cathrine Ørskov, Allan Randrup Thomsen, and Jan Pravsgaard Christensen

INFLAMMATION

4440 Plasmacytoid Dendritic Cells Enhance Mortality during Lethal Influenza Infections by Eliminating Virus-Specific CD8 T Cells
Ryan A. Langlois and Kevin L. Legge

4447 ADAM17 Activity and Other Mechanisms of Soluble L-selectin Production during Death Receptor-Induced Leukocyte Apoptosis
Yue Wang, Adam C. Zhang, Zhenya Ni, Amy Herrera, and Bruce Walcheck

4455 Overexpression of CXC Chemokine Ligand 14 Exacerbates Collagen-Induced Arthritis
Limo Chen, Linjie Guo, Jun Tian, Hongxia He, Ekaterina Marinova, Puimin Zhang, Biao Zheng, and Shuhua Han
4460 Chronic Cigarette Smoke Exposure Primes NK Cell Activation in a Mouse Model of Chronic Obstructive Pulmonary Disease
Gregory T. Motz, Bryan L. Eppert, Brian W. Wortham, Robyn M. Amos-Knoobs, Jennifer L. Flury, Scott C. Westerkamper, and Michael T. Borchers

4470 Identification of the Cellular Sensor That Stimulates the Inflammatory Response to Sterile Cell Death
Hajime Kono, Dipi Karmarkar, Yoichiro Iwakura, and Kenneth L. Rock

4479 IL-17–Mediated Monocyte Migration Occurs Partially through CC Chemokine Ligand 2/Monocyte Chemotactrant Protein-1 Induction
Shiva Shahrara, Sarah R. Pickens, Arthur M. Mandellin, II, William J. Karpus, Qiuqan Huang, Jay K. Kolls, and Richard M. Pope

4488 Uncoordinated 119 Preferentially Induces Th2 Differentiation and Promotes the Development of Asthma
Magdalena M. Gorska, Nicolas Goplen, Qiaoling Liang, and Rafeul Alam

4497 Inhibitor of NK-κB Kinases α and β Are Both Essential for High Mobility Group Box 1–Mediated Chemotaxis

4510 Polycomb Group Gene Product Ring1B Regulates Th2-Driven Airway Inflammation through the Inhibition of Bim-Mediated Apoptosis of Effector Th2 Cells in the Lung

4521 Ontogeny of Stromal Organizer Cells during Lymph Node Development
Cécile Benítezch, Andrea White, Emma Mader, Karine Serre, Sonia Parnell, Klaus Pfeffer, Carl F. Ware, Graham Anderson, and Jorge H. Caamaño

4531 IL-17 Promotes p38 MAPK-Dependent Endothelial Activation Enhancing Neutrophil Recruitment to Sites of Inflammation
Lucie Roussel, François Houle, Carlos Chan, Yu Yao, Julie Bérubé, Ron Olivenstein, James G. Martin, Jacques Huot, Qutayba Hamidi, Lorenzo Ferri, and Simon Rousseau

4538 Evidence for Unfolded Protein Response Activation in Monocytes from Individuals with α-1 Antitrypsin Deficiency
Tomás P. Carroll, Catherine M. Greene, Catherine A. O’Connor, Áine M. Nolan, Shane J. O’Neill, and Noel G. McElvaney

4547 Access to the Spleen Microenvironment through Lymph Shows Local Cytokine Production, Increased Cell Flux, and Altered Signaling of Immune Cells during Lipopolysaccharide-Induced Acute Inflammation
Elvira Semaeva, Olav Tenstad, Jørn Skavland, Marianne Enger, Per Øle Iversen, Bjørn Tore Gjertsen, and Helge Wiig

CLINICAL IMMUNOLOGY

4557 Cell-Specific Gene Expression in Langerhans Cell Histiocytosis Lesions Reveals a Distinct Profile Compared with Epidermal Langerhans Cells

4568 Chemokine Receptor 4 Plays a Key Role in T Cell Recruitment into the Airways of Asthmatic Patients
Pandurangan Vijayanand, Kesta Durkin, Guido Hartmann, Jaymin Morjaria, Gregory Seumois, Karl J. Staples, David Hall, Christina Besant, Michelle Bartholomew, Peter H. Houshtr, Peter S. Friedmann, and Ratko Djukanović

CORRECTIONS

4575 Correction: A Th1-Recognized Peptide P277, When Tandemly Repeated, Enhances a Th2 Immune Response Toward Effective Vaccines Against Autoimmune Diabetes in Nonobese Diabetic Mice
Liang Jin, Aihua Zhu, Yu Wang, Qingsmei Chen, Qiyan Xiong, Jianping Li, Yunxiao Sun, Taiming Li, Rongque Cao, Jie Wu, and Jingjing Liu
Correction: CC Chemokine Ligand 3 Overcomes the Bacteriocidal and Phagocytic Defect of Macrophages and Hastens Recovery from Experimental Otitis Media in TNF−/− Mice
Anke Leichtle, Michelle Hernandez, Joerg Ebmeyer, Kenshi Yamasaki, Yuping Lai, Katherine Radek, Yun-Hoon Choung, Sara Euteneuer, Kwang Pak, Richard Gallo, Stephen I. Wasserman, and Allen F. Ryan

Correction: C-Type Lectin SIGN-R1 Has a Role in Experimental Colitis and Responsiveness to Lipopolysaccharide
Sean P. Saunders, Jillian L. Barlow, Cuirtriona M. Walsh, Agustin Bellsoi, Philip Smith, Andrew N. J. McKenzie, and Padraic G. Fallon

AUTHOR INDEX