4703 IN THIS ISSUE

LETTERS TO THE EDITOR

4705 AAIR: Antibody Antigen Information Resource
Zhiqun Tang, Lianyi Han, Bin Xie, Choong Yong Ung, Li Jiang, Zhiwei Cao, and Yuzong Chen

4705 Comment on “Cutting Edge: Induction of B7-H4 on APCs through IL-10: Novel Suppressive Mode for Regulatory T Cells”
Noweeda Mirza and Dmitry Gabrilovich

4706 Response to Comment on “Cutting Edge: Induction of B7-H4 on APCs through IL-10: Novel Suppressive Mode for Regulatory T Cells”
Ilona Kryczek and Weiping Zou

4707 Comment on “A Novel Role of Hypoxia-Inducible Factor in Cobalt Chloride- and Hypoxia-Mediated Expression of IL-8 Chemokine in Human Endothelial Cells”
Jozef Dulak, Agnieszka Loboda, Agnieszka Jazwa, and Alicja Jozkowicz

4707 Response to Comment on “A Novel Role of Hypoxia-Inducible Factor in Cobalt Chloride- and Hypoxia-Mediated Expression of IL-8 Chemokine in Human Endothelial Cells”
Vikram Rajgopal, Caryn Gonsalves, and Vijay K. Kalra

4708 Comment on “Aberrant Regulation of Synovial T Cell Activation by Soluble Costimulatory Molecules in Rheumatoid Arthritis”
Christian Nielsen, Torben Barington, Søren Hansen, and Søren T. Lillevang

4709 Response to Comment on “Aberrant Regulation of Synovial T Cell Activation by Soluble Costimulatory Molecules in Rheumatoid Arthritis”
Bing Wan, Hong Nie, Ailian Liu, and Jingwu Z. Zhang

BRIEF REVIEWS

4711 Drosophila Hemopoiesis and Cellular Immunity
Michael J. Williams

CUTTING EDGE

4717 Cutting Edge: Tlr5−/− Mice Are More Susceptible to Escherichia coli Urinary Tract Infection
Erica Andersen-Nissen, Thomas R. Hawn, Kelly D. Smith, Alex Nachman, Aaron E. Lampano, Satoshi Uematsu, Shizuo Akira, and Alan Aderem

Cutting Edge: Antigen Is Not Required for the Activation and Maintenance of Virus-Specific Memory CD8$^+$ T Cells in the Lung Airways
Jacob E. Kohlmeier, Shannon C. Miller, and David L. Woodland

Cutting Edge: B Cell Receptor (BCR) Cross-Talk: The IL-4-Induced Alternate Pathway for BCR Signaling Operates in Parallel with the Classical Pathway, Is Sensitive to Rottlerin, and Depends on Lyn
Benchang Guo, Derek Blair, Thomas C. Chiles, Clifford A. Lowell, and Thomas L. Rothstein

Cutting Edge: Recombinant Listeria monocytogenes Expressing a Single Immune-Dominant Peptide Confers Protective Immunity to Herpes Simplex Virus-1 Infection
Mark T. Orr, Nural N. Orgun, Christopher B. Wilson, and Sing Sing Way

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

IL-7 Is Essential for the Development and the Persistence of Chronic Colitis
Teruji Totsuka, Takanori Kanai, Yasuhiro Nemoto, Shin Makita, Ryuichi Okamoto, Kiichiro Tsuchiya, and Mamoru Watanabe

Dissociation of Experimental Allergic Encephalomyelitis Protective Effect and Allergic Side Reactions in Tolerization with Neuroantigen
Felix S. Lichtenegger, Stefanie Kuersten, Susan Faas, Bernhard O. Boehm, Magdalena Tary-Lehmann, and Paul V. Lehmann

Regulation of Oxidative Stress Responses by Ataxia-Telangiectasia Mutated Is Required for T Cell Proliferation
Jesamyn Bagley, Gyanesh Singh, and John Iacomini

NK Cell Maturation and Peripheral Homeostasis Is Associated with KLRG1 Up-Regulation

An Essential Role for IL-18 in CD8$^+$ T Cell-Mediated Suppression of IgE Responses
Maria Salagianni, Wong Kok Loon, Matthew J. Thomas, Alistair Noble, and David M. Kemeny

IL-10 Induces IL-10 in Primary Human Monocyte-Derived Macrophages via the Transcription Factor Stat3
Karl J. Staples, Timothy Smallie, Lynn M. Williams, Andy Foey, Bernie Burke, Brian M. J. Foxwell, and Loems Ziegler-Heitbrock

Profound Enhancement of the IL-12/IL-18 Pathway of IFN-γ Secretion in Human CD8$^+$ Memory T Cell Subsets via IL-15
Ronald B. Smeltz

Spontaneous Autoreactive Memory B Cell Formation Driven by a High Frequency of Autoreactive CD4$^+$ T Cells
Heath M. Guay, Joseph Larkin, III, Cristina Cozzo Picca, Laura Panarey, and Andrew J. Caton

Dendritic Cells from Lupus-Prone Mice Are Defective in Repressing Immunoglobulin Secretion
Mileka R. Gilbert, Diane G. Carnathan, Patricia C. Cogwell, Li Lin, Albert S. Baldwin, Jr., and Barbara J. Vilen

The A Subunit of Type IIb Enterotoxin (LT-IIb) Suppresses the Proinflammatory Potential of the B Subunit and Its Ability to Recruit and Interact with TLR2
Shuang Liang, Min Wang, Kathy Triantafilou, Martha Triantafilou, Hebah F. Nawar, Michael W. Russell, Terry D. Connell, and George Hajishengallis

Differential Expression and Function of Phosphodiesterase 4 (PDE4) Subtypes in Human Primary CD4$^+$ T Cells: Predominant Role of PDE4D
Daniel Peter, S. L. Catherine Jin, Marco Conti, Armin Hatzelmann, and Christof Zitt

IFN-α-Induced Signal Transduction, Gene Expression, and Antitumor Activity of Immune Effector Cells Are Negatively Regulated by Suppressor of Cytokine Signaling Proteins
Jason M. Zimmerer, Gregory B. Lesinski, Sri Vidya Kondadasula, Volodymyr I. Karpa, Amy Lehman, Abhik Ray-Chaudhury, Brian Becknell, and William E. Carson III
Glycoprotein 120 Binding to CXCR4 Causes p38-Dependent Primary T Cell Death That Is Facilitated by, but Does Not Require Cell-Associated CD4
Sergey A. Trushin, Alicia Algeciras-Schimnich, Stacey R. Vlahakis, Gary D. Bren, Sarah Warren, David J. Schnepple, and Andrew D. Badley

Aggregated Ursolic Acid, a Natural Triterpenoid, Induces IL-1β Release from Murine Peritoneal Macrophages: Role of CD36
Yasutaka Ikeda, Akira Murakami, Yoshinori Fujimura, Hirofumi Tachibana, Koji Yamada, Daisaku Masuda, Ken-ichi Hirano, Shizuya Yamashita, and Hajime Ohigashi

T Cell Repertoire Diversity Is Required for Relapses in Myelin Oligodendrocyte Glycoprotein-Induced Experimental Autoimmune Encephalomyelitis
Nicolas Fazilleau, Cécile Delarasse, Iris Motta, Simon Fillatreau, Marie-Lise Gougeon, Philippe Kourilsky, Danielle Pham-Dinh, and Jean M. Kanellopoulos

β1-Adrenergic Receptors on Immune Cells Impair Innate Defenses against Listeria
Rebecca T. Emeny, Donghong Gao, and David A. Lawrence

Type 1 Sphingosine 1-Phosphate G Protein-Coupled Receptor (S1P1) Mediation of Enhanced IL-4 Generation by CD4 T Cells from S1P1 Transgenic Mice
Wengang Wang, Mei-Chuan Huang, and Edward J. Goetzl

Human Peripheral Blood T Regulatory Cells (Tregs), Functionally Primed CCR4 Tregs and Unprimed CCR4 Tregs, Regulate Effector T Cells Using FasL
Dolgor Baatar, Purevdorj Olkhanud, Ken-ichi Hirano, Ronald Gress, and Arya Biragyn

Stat3 and Stat4 Direct Development of IL-17-Secreting Th Cells
Reuben Kapur, David E. Levy, Geoffrey S. Kansas, and Mark H. Kaplan

Interdependency of MHC Class II/Self-Peptide and CD1d/Self-Glycolipid Presentation by TNF-Matured Dendritic Cells for Protection from Autoimmunity
Carsten Wiethe, Matthias Schiemann, Dirk Busch, Lothar Haeberle, Manfred Kopf, Gerold Schuler, and Manfred B. Lutz

TLR2-Mediated Survival of Staphylococcus aureus in Macrophages: A Novel Bacterial Strategy against Host Innate Immunity
Ikuko Watanabe, Manami Ichiki, Akiko Shiratsuchi, and Yoshinobu Nakanishi

Schnurri-2 Controls Memory Th1 and Th2 Cell Numbers In Vivo
Motoko Y. Kimura, Chiaki Iwamura, Akane Suzuki, Takako Miki, Akihiro Hasegawa, Kaoru Sugaya, Masakatsu Yamashita, Shunsuke Ishii, and Yoshinobu Nakanishi

Intestinal Lamina Propria Retaining CD4 CD25 Regulatory T Cells Is A Suppressive Site of Intestinal Inflammation
Shin Makita, Takanori Kanai, Yasuhiro Nemoto, Teruji Totsuka, Ryuichi Okamoto, Kiihiro Tsuchiya, Masafumi Yamamoto, Hiroshi Kiyono, and Mamoru Watanabe

CD56brightCD16− Killer Ig-Like Receptor− NK Cells Display Longer Telomeres and Acquire Features of CD56dim NK Cells upon Activation
Chiara Romagnani, Kerstin Juelke, Michela Falco, Barbara Morandi, Antonella D’Agostino, Roberta Costa, Giovanni Ratto, Giuseppe Forti, Paolo Carrega, Gabrielle Lui, Romana Conte, Till Strowig, Alessandro Moretta, Christian Miez, Andrea Thiel, Lorenzo Moretta, and Guido Ferlazzo

A Unique Thymic Fibroblast Population Revealed by the Monoclonal Antibody MTS-15

Dermal Fibroblasts Induce Maturation of Dendritic Cells
Anja Saalbach, Claudia Klein, Jonathan Sleeman, Ulrich Sack, Friederike Kauer, Carl Gebhardt, Marco Averbeck, Ulf Anderg, and Jan C. Simon

Mannose Receptor Expression and Function Define a New Population of Murine Dendritic Cells
Emma J. McKenzie, Philip R. Taylor, Richard J. Stillion, Andrew D. Lucas, James Harris, Siamon Gordon, and Luisa Martinez-Pomares
Quantitative Network Signal Combinations Downstream of TCR Activation Can Predict IL-2 Production Response

Melissa L. Kemp, Lucia Wille, Christina L. Lewis, Lindsay B. Nicholson, and Douglas A. Lauffenburger

Increased Hyperoxia-Induced Mortality and Acute Lung Injury in IL-13 Null Mice

Vineet Bhandari, Rayman Choo-Wing, Robert J. Homer, and Jack A. Elias

Protective Role of Macrophages in Noninflammatory Lung Injury Caused by Selective Ablation of Alveolar Epithelial Type II Cells

Yasunobu Miyake, Hitomi Kaise, Kyo-ichi Isomo, Haruhiko Koseki, Kenji Kohno, and Masato Tanaka

Germinal Center Helper T Cells Are Dual Functional Regulatory Cells with Suppressive Activity to Conventional CD4+ T Cells

Ekaterina Marinova, Shuhua Han, and Biao Zheng

Severe Defect in Thymic Development in an Insertional Mutant Mouse Model

Erika Assarsson, Benedict J. Chambers, Kari Høgard, Emma Bertma, Carin Lundmark, Ludmila Fedorova, Stefan Imreh, Alf Grandlen, Susanna Cardell, Björn Rozell, and Hans-Gustaf Ljunggren

β-Catenin Regulates Positive Selection of Thymocytes but Not Lineage Commitment

Qing Yu and Jyoti Misra Sen

Autoantigen-B Cell Antigen Receptor Interactions That Regulate Expression of B Cell Antigen Receptor Loci

Xiaohe Liu, Lawrence J. Wysocki, and Tim Manser

A Critical Role for p53 in the Control of NF-κB-Dependent Gene Expression in TLR4-Stimulated Dendritic Cells Exposed to Genistein

Nathalie Dijsselbloem, Stanislas Gorily, Valentina Albarani, Sarah Gerlo, Sarah Francoz, Jean-Christophe Marine, Michel Goldman, Guy Haegeman, and Wim Vandenberghe

Both the Suppressor of Cytokine Signaling 1 (SOCS-1) Kinase Inhibitory Region and SOCS-1 Mimetic Bind to JAK2 Autophosphorylation Site: Implications for the Development of a SOCS-1 Antagonist


Description and Mapping of the Resistance of DBA/2 Mice to TNF-Induced Lethal Shock

Ben Wielockx, Jan Staels, Leen Puime`ge, Ineke Vanlaere, Maarten Van Roy, Philippe van Lint, Frans Van Roy, and Claude Libert

Genome-Wide Network Analysis Reveals the Global Properties of IFN-β Immediate Transcriptional Effects in Humans


IL-28 Elicits Antitumor Responses against Murine Fibrosarcoma

Muneo Numasaki, Masatoshi Tagawa, Fumi Iwata, Takashi Suzuki, Akira Nakamura, Masahiro Okada, Yoichiro Iwakura, Setsuya Aiba, and Mutsuo Yamaya

A Novel Mode of Action for a Microbial-Derived Immunotoxin: The Cytolethal Distending Toxin Subunit B Exhibits Phosphatidylinositol 3,4,5-Triphosphate Phosphatase Activity

Bruce J. Shenker, Mensur Dlakic, Lisa P. Walker, Dave Besack, Eileen Jaffe, Ed LaBelle, and Kathleen Boeze-Battaglia

Increasing the Recruitment of Neutrophils to the Site of Infection Dramatically Attenuates Borrelia burgdorferi Infectivity

Qilong Xu, Sunita V. Seemanapalli, Kathryn E. Reif, Charles R. Brown, and Fang Ting Liang
Mannose-Binding Lectin A-Deficient Mice Have Abrogated Antigen-Specific IgM Responses and Increased Susceptibility to a Nematode Infection
Tim Carter, Michiko Sumiya, Kerri Reilly, Rubina Ahmed, Peter Sobiesczuk, John A. Summerfield, and Rachel A. Lawrence

MyD88 Is Required for the Formation of Long-Term Humoral Immunity to Virus Infection
Heath M. Guay, Tatjana A. Andreyeva, Robert L. Garcea, Raymond M. Welsh, and Eva Szomolanyi-Tsuda

Impaired Host Defense in Mice Lacking ONZIN
Julie G. Ledford, Martina Kovarova, and Beverly H. Koller

Thiocyanate Transport in Resting and IL-4-Stimulated Human Bronchial Epithelial Cells: Role of Pendrin and Anion Channels
Nicoletta Pedemonte, Emanuela Caci, Elvira Sondo, Antonella Caputo, Kerry Rhoden, Ulrich Pfeffer, Michele Di Candia, Roberto Bandettini, Roberto Ravazzolo, Olga Zegarra-Moran, and Luis J. V. Galietta

Toxoplasma gondii Dysregulates IFN-γ-Inducible Gene Expression in Human Fibroblasts: Insights from a Genome-Wide Transcriptional Profiling
Seon-Kyeong Kim, Ashley E. Fouts, and John C. Boothroyd

Oligoadenylate Synthetase/Protein Kinase R Pathways and αβ TCR+ T Cells Are Required for Adenovirus Vector: IFN-γ Inhibition of Herpes Simplex Virus-1 in Cornea
Bobbie Ann Austin, William P. Halford, Bryan R. G. Williams, and Daniel J. J. Carr

Role of MyD88 in Route-Dependent Susceptibility to Vesicular Stomatitis Virus Infection

MyD88-Dependent Activation of B220+CD11b+LY-6C+ Dendritic Cells during Brucella melitensis Infection
Richard Copin, Patrick De Baetselier, Yves Carlier, Jean-Jacques Letesson, and Eric Muraille

Disparity in IL-12 Release in Dendritic Cells and Macrophages in Response to Mycobacterium tuberculosis Is Due to Use of Distinct TLRs
Luca Pompei, Sihyung Jang, Beata Zamlynny, Sharada Ravikumar, Amanda McBride, Somia Perdow Hickman, and Padmini Salgame

TLR3 Is Essential for the Induction of Protective Immunity against Punta Toro Virus Infection by the Double-Stranded RNA (dsRNA), Poly(I:C12U), but Not Poly(I:C): Differential Recognition of Synthetic dsRNA Molecules

Role of the Indigenous Microbiota in Maintaining the Virus-Specific CD8 Memory T Cells in the Lung of Mice Infected with Murine Cytomegalovirus
Kazuo Tanaka, Sadaaki Sawamura, Tadayuki Satoh, Kiyoshi Kobayashi, and Satoshi Noda

Dynamic Relationship between IFN-γ and IL-2 Profile of Mycobacterium tuberculosis-Specific T Cells and Antigen Load
Kerry A. Millington, John A. Innes, Sarah Hackforth, Timothy S. C. Hinks, Jonathan J. Deeks, Davinder P. S. Dosanjh, Valerie Guyot-Revol, Rubamalaar Gunatheesan, Paul Klenerman, and Ajit Lalvani

CD8+ T Cell Dysfunction and Increase in Murine Gammaherpesvirus Latent Viral Burden in the Absence of 4-1BB Ligand
Shinichiro Fuse, Sarah Bellfy, Hideo Yagita, and Edward J. Usherwood

INFLAMMATION

Mold Allergen, Pen c 13, Induces IL-8 Expression in Human Airway Epithelial Cells by Activating Protease-Activated Receptor 1 and 2
Li-Li Chiu, Diahn-Warng Perng, Chia-Hsien Yu, Song-Nan Su, and Lu-Ping Chow
Granulocyte-Macrophage Colony-Stimulating Factor (CSF) and Macrophage CSF-Dependent Macrophage Phenotypes Display Differences in Cytokine Profiles and Transcription Factor Activities: Implications for CSF Blockade in Inflammation
Andres J. Fleetwood, Toby Lawrence, John A. Hamilton, and Andrew D. Cook

Free Cholesterol Alters Lipid Raft Structure and Function Regulating Neutrophil Ca²⁺ Entry and Respiratory Burst: Correlations with Calcium Channel Raft Trafficking
Kolekha B. Kannan, Dimitrios Barlos, and Carl J. Hauser

IFN-γ Induces Cysteinyl Leukotriene Receptor 2 Expression and Enhances the Responsiveness of Human Endothelial Cells to Cysteinyl Leukotrienes
Grzegorz Woszczak, Li-Yuan Chen, Sahrudaya Nagesh, Sara Alaasy, Arina Harry, Carolea Logan, Rafal Pawlczak, and James H. Shelhamer

Aluminum Hydroxide Adjuvants Activate Caspase-1 and Induce IL-1β and IL-18 Release
Hanfen Li, Suba Nookala, and Fabio Re

Inflammatory Reactive Oxygen Species-Mediated Hemopoietic Suppression in Fancc-Deficient Mice
Daniel P. Sejas, Reena Rani, Yuhui Qiu, Xiaolong Zhang, Sara R. Fagerlie, Hirohisa Nakano, David A. Williams, and Qishen Pang

Scar-Associated Macrophages Are a Major Source of Hepatic Matrix Metalloproteinase-13 and Facilitate the Resolution of Murine Hepatic Fibrosis
Jonathan A. Fallowsfield, Masashi Mizo, Timothy J. Kendall, Christothea M. Constandinou, R. Christopher Benyon, Jeremy S. Duffield, and John P. Iredale

Inhibition of CCL1-CCR8 Interaction Prevents Aggregation of Macrophages and Development of Peritoneal Adhesions
Akihisa Hashimoto, Yuki I. Kawamura, Masato Yasuhara, Noriko Toyama-Sorimichi, Kenji Yamamoto, Akihira Tsuchikawa, Sergio A. Lira, and Taeko Dohi

Chemokine Receptor CCR2 but Not CCR5 or CCR6 Mediates the Increase in Pulmonary Dendritic Cells during Allergic Airway Inflammation

Knockout of Mkp-1 Enhances the Host Inflammatory Responses to Gram-Positive Bacteria
Xianxi Wang, Xiaomei Meng, Joshua R. Kuhman, Leif D. Nelin, Kathleen K. Nicol, B. Keith English, and Yuen Liu

Coexposure to Environmental Tobacco Smoke Increases Levels of Allergen-Induced Airway Remodeling in Mice
Myung Goo Min, Dae Jin Song, Marina Miller, Jae Youn Cho, Shauna McElwain, Paul Ferguson, and David H. Broide

**CLINICAL IMMUNOLOGY**

The Lymphocytic Infiltration in Calcific Aortic Stenosis Predominantly Consists of Clonally Expanded T Cells

Potential Role for IL-7 in Fas-Mediated T Cell Apoptosis During HIV Infection
Caroline Fluhr, Angelo De Milito, Terry J. Fry, Nancy Vivar, Liv Eidsmo, Ann Atlas, Cristina Federici, Paola Matarrese, Mariantonia Logozzi, Eva Rajnavolgyi, Crystal L. Mackall, Stefano Fais, Francesca Chiodi, and Bence Rethi

Some Plasmin-Induced Antibodies Bind to Cardiolipin, Display Lupus Anticoagulant Activity and Induce Fetal Loss in Mice
Xiao-Xiang Chen, Yue-Ying Gu, Shu-Jie Li, Jie Qian, Kwan-Ki Hwang, Pusen P. Chen, Shun-Le Chen, and Cheng-De Yang

Overexpression of Activation-Induced Cytidine Deaminase in B Cells Is Associated with Production of Highly Pathogenic Autoantibodies
Hui-Chen Hu, Yulei Wu, PingYi Yang, Qi Wu, Godwin Job, Jian Chen, John Wang, Mary Ann V. Accavitti-Loper, William E. Grizzle, Robert H. Carter, and John D. Mountz
Inhibition of Transmethylation Down-Regulates CD4 T Cell Activation and Curtails Development of Autoimmunity in a Model System
Brian R. Lawson, Yulia Manenkova, Jasimuddin Ahamed, Xiaoru Chen, Jian-Ping Zou, Roberto Baccala, Argyrios N. Theofilopoulos, and Chong Yuan

Airway Exposure Levels of Lipopolysaccharide Determine Type 1 versus Type 2 Experimental Asthma

Circulating Immune Complexes (IC) and IC-Induced Levels of GM-CSF Are Increased in Sudanese Patients with Acute Visceral Leishmania donovani Infection Undergoing Sodium Stibogluconate Treatment: Implications for Disease Pathogenesis
Amir Ibrahim Elshafie, Erik Åhlin, Linda Mathsson, Gehad ElGhazali, and Johan Rönnelid

Amelioration of Experimental Autoimmune Myasthenia Gravis in Rats by Neonatal FcR Blockade
Liming Liu, Ana Maria Garcia, Helen Santoro, Yixia Zhang, Kevin McDonnell, Jennifer Dumont, and Alan Bitonti

Corrections

Author Index

AAI Membership Application

AAI Trainee Membership Application