This information is current as of July 27, 2017.
2609 **LETTERS TO THE EDITOR**

**Comment on “Local CD11c\(^+\) MHC Class II\(^-\) Precursors Generate Lung Dendritic Cells during Respiratory Viral Infection, but Are Depleted in the Process”**
Christophe von Garnier, Deborah Strickland, and Philip Stumbles

**Response to Comment on “Local CD11c\(^+\) MHC Class II\(^-\) Precursors Generate Lung Dendritic Cells during Respiratory Viral Infection, but Are Depleted in the Process”**
Hongwei Wang and Jürgen Schwarze

2610 **Comment on “Not Lipoteichoic Acid but Lipoproteins Appear to Be the Dominant Immunobiologically Active Compounds in *Staphylococcus aureus*”**
Sonja von Aulock, Thomas Hartung, and Corinna Hermann

**Response to Comment on “Not Lipoteichoic Acid but Lipoproteins Appear to Be the Dominant Immunobiologically Active Compounds in *Staphylococcus aureus*”**
Masahito Hashimoto, Maiko Furuyashiki, and Yasuo Suda

2612 **Comment on “Differential Usage of Cellular Niches by Cytomegalovirus versus EBV- and Influenza Virus-Specific CD8\(^+\) T Cells”**
Angelika Schwanninger, Birgit Weinberger, and Beatriz Grubeck-Loebenstein

**Response to Comment on “Differential Usage of Cellular Niches by Cytomegalovirus versus EBV- and Influenza Virus-Specific CD8\(^+\) T Cells”**
Ester M. M. van Leeuwen, Rene A. W. van Lier, and Ineke J. M. ten Berge

2615 **PILLARS OF IMMUNOLOGY**

**Human Tumor Immunology at the Molecular Divide**
Olivera J. Finn

Pierre van der Bruggen, Cattia Traversari, Patrick Chomez, Christophe Lurquin, Etienne De Plaen, Benoit J. Van den Eynde, Alexander Knuth, and Thierry Boon


*The Journal of Immunology* (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, Inc., 9650 Rockville Pike, Bethesda, MD 20814-3994. Subscription term: New subscriptions and renewals begin January 1 and expire one year later (see http://www.jimmunol.org/subscriptions for prices and details). A special rate is available to members of The American Association of Immunologists, Inc. (see http://www.aai.org/membership). Periodicals postage paid at Bethesda, MD 20814-3998, and at additional mailing offices. Country of origin U.S.A. Printed on acid-free recyclable paper. Postmaster: Send address changes to *The Journal of Immunology*, Subscription Department, Room L-3407A, 9650 Rockville Pike, Bethesda, MD 20814-3998. Copyright © 2007 by The American Association of Immunologists, Inc.
BRIEF REVIEWS

2623 The JAK-STAT Signaling Pathway: Input and Output Integration
Peter J. Murray

CUTTING EDGE

2631 Cutting Edge: TFII-I Controls B Cell Proliferation via Regulating NF-κB
Todd Ashworth and Ananda L. Roy

2636 Cutting Edge: Bim Is Required for Superantigen-Mediated B Cell Death
Carl S. Goodyear, Maripat Corr, Fujimi Sugiyama, David L. Boyle, and Gregg J. Silverman

2641 Cutting Edge: IL-1Receptor-Associated Kinase 4 Structures Reveal Novel Features and Multiple Conformations
Andreas Kuglstatter, Armando G. Villaseñor, David Shaw, Simon W. Lee, Stan Tsing, Lingbao Niu, Kyung W. Song, Jim W. Barnett, and Michelle F. Browner

2646 Cutting Edge: IFN-γ-Producing CD4 T Lymphocytes Mediate Spore-Induced Immunity to Capsulated Bacillus anthracis
Ian Justin Glomski, Jean-Philippe Corre, Michèle Mock, and Pierre Louis Goossens

2651 Cutting Edge: Oseltamivir Decreases T Cell GM1 Expression and Inhibits Clearance of Respiratory Syncytial Virus: Potential Role of Endogenous Sialidase in Antiviral Immunity

2655 Cutting Edge: Differential Inhibition of TLR Signaling Pathways by Cell-Permeable Peptides Representing BB Loops of TLRs
Vladimir Y. Toshchakov, Matthew J. Fenton, and Stefanie N. Vogel

2661 Cutting Edge: Regulatory T Cells Prevent Efficient Clearance of Mycobacterium tuberculosis
Mischo Kursar, Markus Koch, Hans-Willi Mittrücker, Geraldine Nouailles, Kerstin Bonhagen, Thomas Kamradt, and Stefan H. E. Kaufmann

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

2667 Murine Neonatal CD4+ Cells Are Poised for Rapid Th2 Effector-Like Function
Shawn Rose, Mathias Lichtenheld, Monica R. Foote, and Becky Adkins

2679 Apoptotic Cells Induce Tolerance by Generating Helpless CD8+ T Cells That Produce TRAIL
Thomas S. Griffis, Hirota Kazama, Rebecca L. VanOosten, James K. Earle, Jr., John M. Herndon, Douglas R. Green, and Thomas A. Ferguson

2688 NKP46 and NKG2D Recognition of Infected Dendritic Cells Is Necessary for NK Cell Activation in the Human Response to Influenza Infection
Monia Draghi, Achal Pashine, Bharati Sanjanwala, Ketevan Gendzekhadze, Claudia Cantoni, David Cosman, Alessandro Moretta, Nicholas M. Valiante, and Peter Parham

2699 Immunization of Flavivirus West Nile Recombinant Envelope Domain III Protein Induced Specific Immune Response and Protection against West Nile Virus Infection
Jang-Hann J. Chu, Cern-Cher S. Chiang, and Mah-Lee Ng

2706 Invariant NKT Cells Amplify the Innate Immune Response to Lipopolysaccharide
Niranjan A. Nagarajan and Mitchell Kronenberg

2714 PD-1:PD-L1 Interactions Contribute to the Functional Suppression of Virus-Specific CD8+ T Lymphocytes in the Liver
Holly Maier, Masanori Isogawa, Gordon J. Freeman, and Francis V. Chisari

2721 Dendritic Cell Function Can Be Modulated through Cooperative Actions of TLR Ligands and Invariant NKT Cells
Ian F. Hermans, Jonathan D. Silk, Uzi Gileadi, S. Hajar Masri, Dawn Shepherd, Kathryn J. Farrand, Mariolina Salio, and Vincenzo Cerundolo
2730 Epigenetic and Transcriptional Programs Lead to Default IFN-γ Production by γδ T Cells
Liang Chen, Weifeng He, Sean T. Kim, Jian Tao, Yunfei Gao, Hongbo Chi, Andrew M. Intlekofer, Bohdan Harvey, Steven L. Reiner, Zhinan Yin, Richard A. Flavell, and Joe Cragg

2737 Virus-Specific CD8+ T Cells in the Liver: Armed and Ready to Kill
Rachael Keating, Wen Yue, John A. Rutigliano, Jenny So, Elvia Olivas, Paul G. Thomas, and Peter C. Doherty

2746 Gag-Specific CD8+ T Lymphocytes Recognize Infected Cells before AIDS-Virus Integration and Viral Protein Expression

2755 Efficient Activation of Vα14 Invariant NKT Cells by Foreign Lipid Antigen Is Associated with Concurrent Dendritic Cell-Specific Self Recognition
Lu Cheng, Aito Ueno, Suzanne Cho, Jin S. Im, Susanne Golby, Sheng Hou, Steven A. Porcelli, and Yang Yang

2763 Dendritic Cells Infiltrating Human Non-Small Cell Lung Cancer Are Blocked at Immature Stage
Ivan Perrot, Dominique Blanchard, Nathalie Freymond, Sylvie Issac, Benoit Guibert, Yves Pacheco, and Serge Lebecque

2770 Fetal Immune Responses to Plasmodium falciparum Antigens in a Malaria-Endemic Region of Cameroon
Simon Metenou, Amorsolo L. Suguitan, Jr., Carole Long, Rose G. F. Leke, and Diane Wallace Taylor

2778 CD4+CD25+ T Cell-Dependent Inhibition of Autoimmunity in Transgenic Mice Overexpressing Human Bcl-2 in T Lymphocytes
Javanna González, Esther Tamayo, Inês Santiuiste, Regina Marquina, Luis Buela, Miguel A. González-Gay, Shozo Izui, Marcos López-Hoyos, Jesús Merino, and Ramón Merino

2787 Lack of Effective MUC1 Tumor Antigen-Specific Immunity in MUC1-Transgenic Mice Results from a Th/T Regulatory Cell Imbalance That Can Be Corrected by Adoptive Transfer of Wild-Type Th Cells
Michael S. Turner, Patrice A. Cohen, and Olvera J. Finn

2794 Effect of Both Ultraviolet B Irradiation and Histamine Receptor Function on Allergic Responses to an Inhaled Antigen

2803 Staphylococcus aureus Protein A Triggers T Cell-Independent B Cell Proliferation by Sensitizing B Cells for TLR2 Ligands
Isabelle Bekeredjian-Ding, Seiichi Inamura, Thomas Giese, Hermann Moll, Stefan Endrei, Andreas Sing, Ulrich Zähringer, and Gunther Hartmann

2813 Regulation of Suppressor of Cytokine Signaling 3 (SOCS3) mRNA Stability by TNF-α Involves Activation of the MKK6/p38MAPK/MK2 Cascade
Christian Ebting, Wi S. Lai, Fred Schaper, Erwin D. Brenndörfer, Raphaela-Jessica Matthes, Peter C. Heinrich, Stephan Ludwig, Perry J. Blackshear, Matthias Gaestel, Dieter Häussinger, and Johannes G. Bode

2827 IL-21 Is Produced by NKT Cells and Modulates NKT Cell Activation and Cytokine Production
Jonathan M. Coquet, Konstantinos Kyparissoudis, Daniel G. Pellicci, Gurdyal Besra, Stuart P. Berzins, Mark J. Smyth, and Dale J. Godfrey

2835 IL-2/Neuroantigen Fusion Proteins as Antigen-Specific Tolerogens in Experimental Autoimmune Encephalomyelitis (EAE): Correlation of T Cell-Mediated Antigen Presentation and Tolerance Induction
Mark D. Mannie, Barbara A. Clayton, Elizabeth J. Buskirk, Jarret L. DeVine, Jose J. Hernandez, and Derek J. Abbott

2844 CD40-CD40 Ligand Interaction between Dendritic Cells and CD8+ T Cells Is Needed to Stimulate Maximal T Cell Responses in the Absence of CD4+ T Cell Help
Maria Genevive H. Hernandez, Lianjun Shen, and Kenneth L. Rock

2853 Tumor Cells Loaded with α-Galactosylceramide Induce Innate NKT and NK Cell-Dependent Resistance to Tumor Implantation in Mice
Kanako Shimizu, Akira Goto, Mikiko Fukui, Masaru Taniguchi, and Shin-ichiro Fujii
2862 Involvement of Src and Syk Tyrosine Kinases in HIV-1 Transfer from Dendritic Cells to CD4+ T Lymphocytes  
   Caroline Gilbert, Corinne Barat, Réjean Cantin, and Michel J. Tremblay

2872 IL-21 and BAFF/BLYS Synergize in Stimulating Plasma Cell Differentiation from a Unique Population of Human Splenic Memory B Cells  
   Rachel Ettinger, Gary P. Sims, Rachel Robbins, David Withers, Randy T. Fischer, Amrie C. Grammer, Stefan Kuchen, and Peter E. Lipsky

2883 Tumor Evasion of the Immune System by Converting CD4+CD25+ T Cells into CD4+CD25+ T Regulatory Cells: Role of Tumor-Derived TGF-β  

2893 Induced SHIP Deficiency Expands Myeloid Regulatory Cells and Abrogates Graft-versus-Host Disease  
   Kim H. T. Paraizo, Tomar Ghansah, Amy Costello, Robert W. Engelman, and William G. Kerr

2901 Augmentation of Signaling through BCR Containing IgE But not that Containing IgA Due to Lack of CD22-Mediated Signal Regulation  
   Motohiko Sato, Takahiro Adachi, and Takeshi Tsukada

2908 Modulation of CD103 Expression on Human Colon Carcinoma-Specific CTL  

2916 Increased Positive Selection of B1 Cells and Reduced B Cell Tolerance to Intracellular Antigens in c1q-Deficient Mice  
   Helen Perry, Paul K. Potter, Tanya L. Croxford, Anastasia Nijnik, Michael R. Ehrenstein, Mark J. Walport, Marina Botto, and Richard J. Cornell

2923 Mcl-1 Depletion in Apoptosis Elicited by Ionizing Radiation in Peritoneal Resident Macrophages of C3H Mice  
   Yoshihisa Kuhota, Keiji Kinoshita, Katsutoshi Sueomi, Akira Fujimori, and Sentaro Takahashi

2932 CD4+ and CD8+ T Cell Survival Is Regulated Differentially by Protein Kinase Cθ, c-Rel, and Protein Kinase B  
   Samuel D. Saibil, Russell G. Jones, Elissa K. Deenick, Nicole Liadis, Mitchell G. Vainberg, Heather Baerg, James R. Woodgett, Steve Gerondakis, and Pamela S. Ohashi

2940 Peroxisome Proliferator-Activated Receptor γ Is Required for Regulatory CD4+ T Cell-Mediated Protection against Colitis  
   Raquel Hontecillas and Josep Bassaganya-Riera

2950 Fitness of Cell-Mediated Immunity Independent of Repertoire Diversity  
   Mouhammad AbuAttieh, Michelle Rebrinovich, Peter J. Wettstein, Zvezdana Vuk-Pavlovic, Andrew H. Limper, Jeffrey L. Platt, and Marilia Cascalho

2961 Regulatory T Cells Dynamically Control the Primary Immune Response to Foreign Antigen  
   Dipica Haribhai, Wen Lin, Lance M. Rolland, Nga Truong, Calvin B. Williams, and Talal A. Chatila

2973 CC Chemokine Receptor 7 Contributes to Gi-Dependent T Cell Motility in the Lymph Node  
   Takaharu Okada and Jason G. Cyster

2979 Targeting of Antigen to Dendritic Cells with Poly(γ-Glutamic Acid) Nanoparticles Induces Antigen-Specific Humoral and Cellular Immunity  
   Tomofumi Uno, Xin Wang, Katsuaki Sato, Misako Haraguchi, Takami Akagi, Mitsuru Akashi, and Masanori Baba

2987 Requirement for a Complex of Wiskott-Aldrich Syndrome Protein (WASP) with WASP Interacting Protein in Podosome Formation in Macrophages  
   Shigeru Tsukada

2996 Anti-Nuclear Antibody Production and Autoimmunity in Transgenic Mice that Overexpress the Transcription Factor Bright  
   Malini Shankar, Jamee C. Nixon, Shannon Maier, Jennifer Workman, A. Darise Farris, and Carol F. Webb
Aire-Dependent Alterations in Medullary Thymic Epithelium Indicate a Role for Aire in Thymic Epithelial Differentiation
Geoffrey O. Gillard, James Dooley, Matthew Erickson, Leena Peltonen, and Andrew G. Farr

MOLECULAR AND STRUCTURAL IMMUNOLOGY

Conformational Changes in Mannan-Binding Lectin Bound to Ligand Surfaces
Mingdong Dong, Sailong Xu, Cristiano L. P. Oliveira, Jan S. Pedersen, Steffen Thiel, Flemming Besenbacher, and Thomas Vorup-Jensen

Genomic Organization of the Chicken CD8 Locus Reveals a Novel Family of Immunoreceptor Genes
Hung-Jiu Liaw, Wei-Ru Chen, Yu-Chia Huang, Chung-Wei Tai, King-Chan Chang, and Chia-Lam Kuo

Reporter Gene Insertions Reveal a Strictly B Lymphoid-Specific Expression Pattern of Pax5 in Support of Its B Cell Identity Function
Martin Fusa and Meinrad Busslinger

Early Growth Response Transcriptional Regulators Are dispensable for Macrophage Differentiation
John H. Carter and Warren G. Tourtellotte

Transmembrane Mutations to FcγRIIA Alter Its Association with Lipid Rafts: Implications for Receptor Signaling
Erick García-García, Eric J. Brown, and Carlos Rosales

17ß-Estradiol Induces IL-1α Gene Expression in Rheumatoid Fibroblast-Like Synovial Cells through Estrogen Receptor α (ERα) and Augmentation of Transcriptional Activity of Sp1 by Dissociating Histone Deacetylase 2 from ERα
Yuka Itoh, Hideyoshi Hayashi, Keiji Miyazawa, Soichi Kojima, Tohru Akahoshi, and Kikuo Onozaki

NF-AT-Mediated Expression of TGF-β1 in Tolerant T Cells
Naoko Nakano, Hiroayuki Hoshikawa, Masako Kohyama, and Nobumichi Hozumi

IMMUNOGENETICS

HLA Transgenic Mice Provide Evidence for a Direct and Dominant Role of HLA Class II Variation in Modulating the Severity of Streptococcal Sepsis
Mohammed M. Nooh, Nagala El-Gengehi, Rita Kansal, Chella S. David, and Malak Korb

Fragmentation of Two Quantitative Trait Loci Controlling Collagen-Induced Arthritis Reveals a New Set of Interacting Subloci
Emma Ahlqvist, Robert Bockermann, and Rikard Holmåhl

HOST DEFENSE

Hidden Epitopes Emerge in Secondary Influenza Virus-Specific CD8⁺ T Cell Responses
Paul G. Thomas, Scott A. Brown, Rachael Keating, Wen Yue, Melissa Y. Morris, Jenny So, Richard J. Webby, and Peter C. Doherty

A Novel Antibody-Dependent Cellular Cytotoxicity Mechanism Involved in Defense against Malaria Requires Costimulation of Monocytes FcγRII and FcγRIII

Dectin-1 Stimulation by Candida albicans Yeast or Zymosan Triggers NFAT Activation in Macrophages and Dendritic Cells
Helen S. Goodridge, Randi M. Simmons, and David M. Underhill

Human Peptidoglycan Recognition Proteins Require Zinc to Kill Both Gram-Positive and Gram-Negative Bacteria and Are Synergistic with Antibacterial Peptides
Minhui Wang, Li-Hui Liu, Shiyong Wang, Xinna Li, Xiaofeng Lu, Dipika Gupta, and Roman Dziarski

Type I IFN Signaling Is Crucial for Host Resistance against Different Species of Pathogenic Bacteria
Giuseppe Mancuso, Angelina Midiri, Carmelo Biondo, Concetta Beninati, Sebastiana Zummo, Roberta Galbo, Francesco Tomasello, Maria Gambuzza, Giancarlo Macri, Alessia Ruggeri, Tomas Leanderson, and Giuseppe Teti
Differential Recognition of TLR-Dependent Microbial Ligands in Human Bronchial Epithelial Cells
Anja K. Mayer, Mario Muehmer, Jörg Mages, Katja Gueinzius, Christian Heu, Klaus Heeg, Robert Bals, Roland Lang, and Alexander H. Dalpke

The Type I IFN Response to Infection with Mycobacterium tuberculosis Requires ESX-1-Mediated Secretion and Contributes to Pathogenesis
Sarah A. Stanley, James E. Johndrow, Paolo Manzanillo, and Jeffery S. Cox

Toll/IL-1 Receptor Domain-Containing Adaptor Inducing IFN-β(TRIF)Mediated Signaling Contributes to Innate Immune Responses in the Lung during Escherichia coli Pneumonia
Samithamby Jayaseelan, Scott K. Young, Michael B. Feisler, Yu-bong Liu, Kenneth C. Malcolm, Masahiro Yamamoto, Shizuo Akira, and G. Scott Worthen

Mycobacterial Lipomannan Induces Granuloma Macrophage Fusion via a TLR2-Dependent, ADAM9- and β1 Integrin-Mediated Pathway
Marie-Pierre Puissegur, Guillaume Lay, Martine Gillieron, Laura Botella, Jérône Nigou, Hedia Marrakchi, Bernard Mari, Jean-Luc Dateyrat, Yann Guerardel, Laurent Kremer, Pascal Barbry, Germain Pazo, and Frédéric Altare

A Role of Toll-IL-1 Receptor Domain-Containing Adaptor-Inducing IFN-β in the Host Response to Pseudomonas aeruginosa Lung Infection in Mice
Melanie R. Power, Bo Li, Masahiro Yamamoto, Shizuo Akira, and Tong-Jun Lin

Efficient Capture of Antibody Neutralized HIV-1 by Cells Expressing DC-SIGN and Transfer to CD4+ T Lymphocytes
Thijs van Montfort, Alexey A. Nabatov, Teunis B. H. Geijtenbeek, Georgios Pollakis, and William A. Paxton

TLR9 Expression and Function Is Abolished by the Cervical Cancer-Associated Human Papillomavirus Type 16
Uzma A. Hasan, Elizabeth Bates, Fumihiko Takeshita, Alexandra Biliato, Rosita Accardi, Veronique Bouward, Mariam Mansour, Isabelle Vincent, Lutz Gissmann, Thomas Ifner, Mario Sideri, Frank Stubenrauch, and Massimo Tommasino

INFLAMMATION

The Contact Allergen Nickel Triggers a Unique Inflammatory and Proangiogenic Gene Expression Pattern via Activation of NF-κB and Hypoxia-Inducible Factor-1α
Dorothee Viemann, Marc Schmidt, Klaus Tenbrock, Sybille Schmid, Verena Müller, Kerstin Klimmek, Stephan Ludwig, Johannes Roth, and Matthias Goebeler

Retinoid-Related Orphan Receptor γ Controls Immunoglobulin Production and Th1/Th2 Cytokine Balance in the Adaptive Immune Response to Allergen
Stephen L. Tilley, Cliona Stapleton, Masa Jaraadat, Darlene Dixon, Xiaoyang Hua, Christopher J. Erikson, Joshua G. McCaskill, Kelly D. Chason, Grace Liao, Leigh Jania, Beverly H. Koller, and Anton M. Jetten

TLR4 Hyperresponsiveness via Cell Surface Expression of Heat Shock Protein gp96 Potentiates Suppressive Function of Regulatory T Cells
Jie Dai, Bei Liu, Soo Min Ngoi, Shoaqi Sun, Anthony T. Vella, and Zihai Li

Functional Synergy between CD40 Ligand and HIV-1 Tat Contributes to Inflammation: Implications in HIV Type 1 Dementia
Ziye Sui, Lynn F. Sniderhan, Giovanni Schifitto, Richard P. Phipps, Harris A. Gelbard, Stephen Dewhurst, and Sanjay B. Maggirwar

TCR Signaling Antagonizes Rapid IP-10-Mediated Transendothelial Migration of Effector Memory CD4+ T Cells
Thomas D. Manes, Stephen L. Shiao, Thomas J. Dengler, and Jordan S. Poher

IL-13 Mediates In Vivo IL-9 Activities on Lung Epithelial Cells but Not on Hematopoietic Cells
Valérie Steenwinckel, Jamila Louahed, Ciriana Orabona, François Huaux, Guy Warnier, Andrew McKenzie, Dominique Lison, Roy Levitt, and Jean-Christophe Renaud