This information is current as of April 15, 2017.
3941 IN THIS ISSUE

LETTERS TO THE EDITOR

3943 Comment on “The Anergic State in Sarcoidosis Is Associated with Diminished Dendritic Cell Function”
Christian D. Becker and Alvin S. Teirstein

3943 Response to Comment on “The Anergic State in Sarcoidosis Is Associated with Diminished Dendritic Cell Function”
Stephen J. Oliver

PILLARS OF IMMUNOLOGY

3945 The Unexpected Pleiotropic Activities of RANTES
Jay A. Levy

Thomas J. Schall, Jan Jongstra, Bradley J. Dyer, Jeffrey Jorgensen, Carol Clayberger, Mark M. Davis, and Alan M. Krensky

CUTTING EDGE

3955 Cutting Edge: Ikaros Null Thymocytes Mature into the CD4 Lineage with Reduced TCR Signal: A Study Using CD3ζ Immunoreceptor Tyrosine-Based Activation Motif Transgenic Mice
Julie A. Urban, William Brugmann, and Susan Winandy

3960 Cutting Edge: TLR-Dependent Viral Recognition Along with Type I IFN Positive Feedback Signaling Masks the Requirement of Viral Replication for IFN-α Production in Plasmacytoid Dendritic Cells
Yutaro Kumagai, Himanshu Kumar, Shobei Koyama, Taro Kawai, Osamu Takeuchi, and Shizuo Akira

3965 Cutting Edge: A2B Adenosine Receptor Signaling Provides Potent Protection during Intestinal Ischemia/Reperfusion Injury
Melanie L. Hart, Barbara Jacobi, Jens Schittenhelm, Martina Henn, and Holger K. Eltzschig

On the cover: In pneumococcal pneumonia, pulmonary RAGE expression is up-regulated compared with normal situations as reflected by more intense staining (brown). Like in normal situations, the staining has an endothelial pattern: bronchial epithelial cells are negative. Moreover, neutrophils recruited to an area of confluent pneumonia (aqua/green) hardly express RAGE. van Zoelen, M. A. D., M. Schouten, A. F. de Vos, S. Florquin, J. C. M. Meijers, P. P. Nawroth, A. Bierhaus, and T. van der Poll. 2009. The receptor for advanced glycation end products impairs host defense in pneumococcal pneumonia. J. Immunol. 182: 4349–4356.
3969 Cutting Edge: Acute Lung Allograft Rejection Is Independent of Secondary Lymphoid Organs

3974 Cutting Edge: Dok-1 and Dok-2 Adaptor Molecules Are Regulated by Phosphatidylinositol 5-Phosphate Production in T Cells
Geoffrey Guittard, Audrey Gérard, Sophie Dupuis-Coronas, Hélène Tronchère, Eva Mortier, Cédric Favre, Daniel Olive, Pascale Zimmermann, Bernard Payrastre, and Jacques A. Nune`s

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

3979 CD4-Positive T Lymphocytes Provide a Neuroimmunological Link in the Control of Adult Hippocampal Neurogenesis
Susanne A. Wolf, Barbara Steiner, Akgül Akpinarli, Thomas Kammertoons, Christina Nassenstein, Armin Braun, Thomas Blankenstein, and Gerd Kempermann

3985 Anti-CD25 Antibody-Mediated Depletion of Effector T Cell Populations Enhances Susceptibility of Mice to Acute but Not Chronic Toxoplasma gondii Infection
Kevin N. Couper, Paula A. Lanthier, Georgia Perona-Wright, Lawrence W. Kammer, Wangxue Chen, Stephen T. Smile, Markus Mohrs, and Lawrence L. Johnson

3995 Protective Antigen-Independent CD8 T Cell Memory Is Maintained during γ-Herpesvirus Persistence
Stephanie S. Cash and Emilio Flahio

4005 Recombinant Ov-ASP-1, a Th1-Biased Protein Adjuvant Derived from the Helminth Onchocerca volvulus, Can Directly Bind and Activate Antigen-Presenting Cells
Yuxian He, Sophie J. Barker, Angus J. MacDonald, Yu Yu, Long Cao, Jingjing Li, Ranjit Parhar, Susanne Heck, Susanne Hartmann, Douglas T. Golenbock, Shiho Jiang, Nathan A. Libri, Amanda E. Semper, William M. Rosenberg, and Sara Lustigman

4017 Inhibition of cAMP Degradation Improves Regulatory T Cell-Mediated Suppression

4025 Histoplasma capsulatum Cell Wall β-Glucan Induces Lipid Body Formation through CD18, TLR2, and Dectin-1 Receptors: Correlation with Leukotriene B4 Generation and Role in HIV-1 Infection
Carlos Artério Sorgi, Adriana Secatto, Caroline Fontanari, Walter Miguel Turato, Caroline Belangér, Alexandra Ivo de Medeiros, Simone Kashima, Sylvie Marleau, Dimas Tadeu Covas, Patrícia Torres Bozza, and Lúcia Helena Faccioli

4036 Cross-Linking of GM1 Ganglioside by Galectin-1 Mediates Regulatory T Cell Activity Involving TRPC5 Channel Activation: Possible Role in Suppressing Experimental Autoimmune Encephalomyelitis
Jianfeng Wang, Zi-Hua Lu, Han-Joachim Gabius, Christine Rohowsky-Kochan, Robert W. Ledeen, and Gusheng Wu

4046 Autophagy Is Essential for Mitochondrial Clearance in Mature T Lymphocytes
Heather H. Pua, Jian Guo, Masaaki Komatsu, and You-Wen He

4056 Human Benign Prostatic Hyperplasia Stromal Cells As Inducers and Targets of Chronic Immuno-Mediated Inflammation
Giuseppe Penna, Benedetta Fabbri, Susana Amuchastegui, Chiara Cosetti, Francesca Aquilano, Gilles Laverny, Mauro Gacci, Clara Crescioli, Mario Maggi, and Luciano Adorini

4065 Reduced c-myc Expression Levels Limit Follicular Mature B Cell Cycling in Response to TLR Signals
Almut Meyer-Bahlburg, Ashok D. Bandaranayake, Sarah F. Andrews, and David J. Rawlings

4076 ICOS Controls Effector Function but Not Trafficking Receptor Expression of Kidney-Infiltrating Effector T Cells in Murine Lupus
Jared M. Odegard, Leah D. DiPlacido, Lark Greenwald, Michael Kashgarian, Dwight H. Kono, Chen Dong, Richard A. Flavell, and Joe Craft

4085 Vascular Endothelial Growth Factor C Facilitates Immune Tolerance and Endovascular Activity of Human Uterine NK Cells at the Maternal-Fetal Interface
PTPN22 Deficiency Cooperates with the CD45 E613R Allele to Break Tolerance on a Non-Autoimmune Background
Julie Zikherman, Michelle Hermiston, David Steiner, Kiminori Hasegawa, Andrew Chan, and Arthur Weiss

4-1BB Functions As a Survival Factor in Dendritic Cells
Beom K. Choi, Young H. Kim, Patrick M. Kuwon, Sang C. Lee, Sang W. Kang, Moon S. Kim, Myoung J. Lee, and Byoung S. Kuwon

Identification and Characterization of a Human CD5⁺ Pre-Naive B Cell Population
Jisoo Lee, Stefan Kuchen, Randy Fischer, Soohee Chang, and Peter E. Lipsky

Novel Subset of CD8α⁺ Dendritic Cells Localized in the Marginal Zone Is Responsible for Tolerance to Cell-Associated Antigens
Chun-Hong Qiu, Yasunobu Miyake, Hitomi Kaise, Hiroshi Kitamura, Osamu Ohara, and Masato Tanaka

Nitration of α-Synuclein-Induced Alterations in Microglial Immunity Are Regulated by CD4⁺ T Cell Subsets
Ashley D. Reynolds, David K. Stone, R. Lee Moyle, and Howard E. Gendelman

CLEC-2 Is a Phagocytic Activation Receptor Expressed on Murine Peripheral Blood Neutrophils
Ann M. Kerrigan, Kevin M. Demehly, Diego Mourão-Sá, Inês Faro-Trindade, Janet A. Willment, Philip R. Taylor, Johannes A. Eble, Caetano Reis e Sousa, and Gordon D. Brown

Intestinal T Cell Responses to Gluten Peptides Are Largely Heterogeneous: Implications for a Peptide-Based Therapy in Celiac Disease
Alessandra Camarca, Robert P. Anderson, Gianfranco Mamone, Olga Fierro, Angelo Facchiano, Susan Costantini, Delia Zanzi, John Sidney, Salvatore Auricchio, Alessandro Sette, Riccardo Troncone, and Carmen Gianfrani

The Cyclic AMP Response Element Modulator α Suppresses CD86 Expression and APC Function
Martina Ahlmann, Georg Varga, Karsten Sturm, Ralph Lippe, Konrad Benedykh, Donnchadh Vienneau, Thomas Scholzen, Jan Ehrchen, Frank U. Müller, Matthias Seidl, Marek Matus, George C. Tsokos, Johannes Roth, and Klaus Tenbrock

Functional Killer Ig-Like Receptors on Human Memory CD4⁺ T Cells Specific for Cytomegalovirus
Jeroen van Bergen, Engelina M. C. Kooy-Winkelaar, Henrike van Dongen, Floris A. van Gaalen, Allan Thompson, Tom W. J. Huizinga, Mariet C. W. Feltkamp, René E. M. Toes, and Frits Koning

Ncf1 Provides a Reactive Oxygen Species-Independent Negative Feedback Regulation of TLR9-Induced IL-12p70 in Murine Dendritic Cells
Cornelia Richter, Martina Herrero San Juan, Jutta Will, Ralf P. Brandes, Ulrich Kalinke, Shizuo Akira, Josef M. Pfilschiffer, Malin Hulaquists, Rikard Holundahl, and Heinfried H. Radeke

Signal Transduction Inhibition of APCs Diminishes Th17 and Th1 Responses in Experimental Autoimmune Encephalomyelitis
Mario Skarica, Tianhong Wang, Erin McCadden, David Kardian, Peter A. Calabresi, Donald Small, and Katharine A. Whartenby

Characterization of an Immediate Splenic Precursor of CD8⁺ Dendritic Cells Capable of Inducing Antiviral T Cell Responses
Sammy Bedoui, Sandro Prato, Justine Mintern, Thomas Gebhardt, Yifan Zhan, Andrew M. Lew, William R. Heath, José A. Villadangos, and Elodie Segura

TLR2/MyD88-Dependent and -Independent Activation of Mast Cell IgE Responses by the Skin Commensal Yeast Malassezia sympodialis
Christine Selander, Camilla Engblom, Gunnar Nilsson, Annika Scheynius, and Carolina Lundius Andersson

Central Role of Tumor-Associated CD8⁺ T Effector/Memory Cells in Restoring Systemic Antitumor Immunity
Mehmet O. Kilinc, Tiao Gu, Jamie L. Harden, Lauren P. Virtuoso, and Nejat K. Egilmez

B Cell Proliferation, Somatic Hypermutation, Class Switch Recombination, and Autoantibody Production in Ectopic Lymphoid Tissue in Murine Lupus
Dina C. Nacionales, Jason S. Weinstein, Xiao-jie Yan, Emilia Albesiano, Pui Y. Lee, Kindra M. Kelly-Scumpia, Robert Lyons, Minoru Satoh, Nicholas Chiorazzi, and Westley H. Reeves
Modulation of T Lymphocyte Replicative Senescence via TNF-α Inhibition: Role of Caspase-3

Stanley T. Parish, Jennifer E. Wu, and Rita B. Effros

Recall Responses by Helpless Memory CD8⁺ T Cells Are Restricted by the Up-Regulation of PD-1

Shinichiro Fuse, Ching-Yi Tsai, Michael J. Molloy, S. Rameezza Allie, Wei jun Zhang, Hideo Yagita, and Edward J. Usherwood

IL-7 Dependence in Human B Lymphopoiesis Increases during Progression of Ontogeny from Cord Blood to Bone Marrow


Uneven Colonization of the Lymphoid Periphery by T Cells That Undergo Early TCR Rearrangements

Deborah W. Hendricks and Pamela J. Fink

MOLECULAR AND STRUCTURAL IMMUNOLOGY

Recall Responses by Helpless Memory CD8⁺ T Cells Are Restricted by the Up-Regulation of PD-1

Shinichiro Fuse, Ching-Yi Tsai, Michael J. Molloy, S. Rameezza Allie, Wei jun Zhang, Hideo Yagita, and Edward J. Usherwood

Recall Responses by Helpless Memory CD8⁺ T Cells Are Restricted by the Up-Regulation of PD-1

Shinichiro Fuse, Ching-Yi Tsai, Michael J. Molloy, S. Rameezza Allie, Wei jun Zhang, Hideo Yagita, and Edward J. Usherwood

IL-7 Dependence in Human B Lymphopoiesis Increases during Progression of Ontogeny from Cord Blood to Bone Marrow


Uneven Colonization of the Lymphoid Periphery by T Cells That Undergo Early TCR Rearrangements

Deborah W. Hendricks and Pamela J. Fink

MOLECULAR AND STRUCTURAL IMMUNOLOGY

Human IgG4 Binds to IgG4 and Conformationally Altered IgG1 via Fc-Fc Interactions

Theo Rispens, Pleuni Ooievaar-De Heer, Ellen Vermeulen, Janine Schuurman, Marijn van der Neut Kolfchoten, and Rob C. Aalberse

IMMUNOGENETICS

A Novel Peptide Mimotope Identified As a Potential Immunosuppressive Vaccine for Organ Transplantation

Kuei-Chen Chiang, Yayoi Shimada, Toshiaki Nakano, Chia-Yun Lai, Li-Wen Hsu, Shigeru Goto, Naoya Ohnori, Kenji Mori, Takamitsu Miyagi, Seiji Kawamoto, Kazuhisa Ono, Chao-Long Chen, Takeshi Goto, and Shuji Sato

HOST DEFENSE

Vitamin D-Directed Rheostatic Regulation of Monocyte Antibacterial Responses

John S. Adams, Songyang Ren, Philip T. Liu, Rene F. Chun, Venu Lageshetty, Adrian F. Gombart, Niels Borregaard, Robert L. Modlin, and Martin Hewison

TLR-Induced Local Metabolism of Vitamin D₃ Plays an Important Role in the Diversification of Adaptive Immune Responses

Elena Yu Enisoutina, Diana Bareyev, and Raymond A. Daynes

Early NK Cell-Derived IFN-γ Is Essential to Host Defense in Neutropenic Invasive Aspergillosis

Stacy J. Park, Molly A. Hughes, Marie Burdick, Robert M. Strieter, and Borna Mehrad

Combined Effect of Antiretroviral Therapy and Blockade of IDO in SIV-Infected Rhesus Macaques

Adriano Boasso, Monica Vaccari, Dietmar Fucho, Andrew W. Hardy, Wen-Po Tsai, Elzbieta Tryniszewska, Gene M. Shearer, and Genevëffia Franchini

Clathrin- and Dynamin-Dependent Endocytic Pathway Regulates Muramyl Dipeptide Internalization and NOD2 Activation

Noemi Marina-Garcia, Luigi Franchi, Yun-Gi Kim, Yonjun Hu, David E. Smith, Geert-Jan Booms, and Gabriel Núñez

Immunologic and Therapeutic Synergy of IL-27 and IL-2: Enhancement of T Cell Sensitization, Tumor-Specific CTL Reactivity and Complete Regression of Disseminated Neuroblastoma Metastases in the Liver and Bone Marrow


Interactions between Human NK Cells and Macrophages in Response to Salmonella Infection

Nicolas Lapaque, Thierry Walzer, Stéphane Méresse, Eric Vivier, and John Trousdale

The Receptor for Advanced Glycation End Products Impairs Host Defense in Pneumococcal Pneumonia

Mareike A. D. van Zoelen, Marcel Schouten, Alex F. de Vos, Sandrine Floquin, Joost C. M. Meijers, Peter P. Nawroth, Angelika Bierhaus, and Tom van der Poll
Airway and Lung Pathology Due to Mucosal Surface Dehydration in β-Epithelial Na\(^+\) Channel-Overexpressing Mice: Role of TNF-α and IL-4Rα Signaling, Influence of Neonatal Development, and Limited Efficacy of Glucocorticoid Treatment

**INFLAMMATION**

Complement Factor H, a Marker of Self Protects against Experimental Autoimmune Encephalomyelitis
Mark R. Griffis, Jim W. Neal, Marc Fontaine, Trina Das, and Philippe Gasque

Activation of Microglia by Amyloid β Requires P2X7, Receptor Expression
Juana M. Sana, Paola Chioccio, Davide Ferrari, Marilena Colaianni, Marco Idzko, Simonetta Falzoni, Renato Fellin, Luigia Trabace, and Francesco Di Virgilio

Bacterial DNA Activates Endothelial Cells and Promotes Neutrophil Adherence through TLR9 Signaling
Dris El Kebir, Levente József, Wanling Pan, Lili Wang, and János G. Filep

Isoforms of Vitamin E Have Opposing Immunoregulatory Functions during Inflammation by Regulating Leukocyte Recruitment
Sergei Berdnikov, Iliam Abdala-Valencia, Christine McCary, Michelle Sonand, Rokeisha Cole, Alex Garcia, Paul Bryce, and Joan M. Cook-Mills

Mechanism of the Salutary Effects of Estrogen on Kupffer Cell Phagocytic Capacity following Trauma-Hemorrhage: Pivotal Role of Akt Activation

**CLINICAL IMMUNOLOGY**

M2 Macrophages Phagocytose Rituximab-Opsonized Leukemic Targets More Efficiently than M1 Cells In Vitro
Marzia Leidi, Elisa Gotti, Luca Bologna, Elena Miranda, Monica Rimoldi, Antonio Sica, Massimo Roncalli, Giuseppe A. Palumbo, Martino Introna, and José Golay

The Presence of a Matrix-Derived Neutrophil Chemoattractant in Bronchiolitis Obliterans Syndrome after Lung Transplantation
Matthew T. Hardison, F. Shawn Galin, Christopher E. Calderon, Uros V. Djejkic, Suzanne B. Parker, Keith M. Wille, Patricia L. Jackson, Robert A. Oster, K. Randall Young, J. Edwin Blalock, and Amit Gaggar

Advanced Intercross Line Mapping Suggests That Nef1 (Ean6) Regulates Severity in an Animal Model of Guillain-Barré Syndrome
Alexander Huberle, Amennai Daniel Beyeen, Johan Ockinger, Miriam Ayuban, Maja Jagodic, Katrien L. de Graaf, Nicolas Fisolo, Monica Marta, Peter Olsfjon, Malin Hultqvist, Rikard Holmdahl, Tomas Olson, and Robert Weisset

Subtle Affinity-Enhancing Mutations in a Myelin Oligodendrocyte Glycoprotein-Specific TCR Alter Specificity and Generate New Self-Reactivity
Akshata Udyavar, Rajibekhar Alli, Phuong Nguyen, Lesley Baker, and Terrence L. Geiger

CXCR4/CXCL12 Hyperexpression Plays a Pivotal Role in the Pathogenesis of Lupus
Andrew Wang, Anna-Marie Fairhurst, Katalin Tus, Sreejaya Subramanian, Yang Liu, Fangming Lin, Peter Igarashi, Xin J. Zhou, Frederic Batteux, Donald Wong, Edward K. Wakeland, and Chandra Mohan

Circulating Monocytes in HIV-1-Infected Viremic Subjects Exhibit an Antiapoptosis Gene Signature and Virus- and Host-Mediated Apoptosis Resistance
Malavika S. Giri, Michael Nebozyn, Andrea Raymond, Bethsabah Gekonge, Aidan Hancock, Shenoa Creer, Calen Nicols, Malik Yousef, Andrea S. Foulkes, Karam Mounzer, Jane Shull, Guido Silvestri, Jay Kostman, Ronald G. Collman, Louise Showe, and Luis J. Montaner

TLR3 Ligand Induces NF-κB Activation and Various Fates of Multiple Myeloma Cells Depending on IFN-α Production
David Chiron, Catherine Pellat-Deceunynck, Martine Amiot, Régis Bataille, and Gaëtan Jego
Transcriptional Modulation of the Immune Response by Peroxisome Proliferator-Activated Receptor-α Agonists in Autoimmune Disease

Anne R. Gocke, Rehana Z. Hussain, Yuhong Yang, Haiyan Peng, Jeffrey Weiner, Li-Hong Ben, Paul D. Drew, Olaf Stuve, Amy E. Lovett-Racke, and Michael K. Racke

CORRECTIONS

AUTHOR INDEX