This information is current as of April 6, 2017.
767 IN THIS ISSUE

BRIEF REVIEWS
769 CD1d Ligands: The Good, the Bad, and the Ugly
Randy R. Brutkiewicz

CUTTING EDGE
777 Cutting Edge: Latecomer CD8 T Cells Are Imprinted with a Unique Differentiation Program
Warren N. D’Souza and Stephen M. Hedrick
782 Cutting Edge: Human β Defensin 3—A Novel Antagonist of the HIV-1 Coreceptor CXCR4
Zhimin Feng, George R. Dubyak, Michael M. Lederman, and Aaron Weinberg

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION
787 Disruption of Cyclin D3 Blocks Proliferation of Normal B-1a Cells, but Loss of Cyclin D3 Is Compensated by Cyclin D2 in Cyclin D3-Deficient Mice
Jennifer M. Mataraza, Joseph R. Tunang, Maria R. Gumina, Sean M. Gurdak, Thomas L. Rothstein, and Thomas C. Chiles
796 Clustering of Pre-B Cell Integrins Induces Galectin-1-Dependent Pre-B Cell Receptor Relocalization and Activation
Benjamin Rossi, Marion Espeli, Claudine Schiff, and Laurent Gauthier
804 Thymic Alterations in EphA4-Deficient Mice
Juan J. Muñoz, David Alfaro, Javier García-Cea, Luis M. Alonso-C, Eva Jiménez, and Agustín Zapata
814 Inhibition of Th2-Mediated Allergic Airway Inflammatory Disease by CD137 Costimulation
Yonglian Sun, Sarah E. Blink, Wenthua Liu, Youjin Lee, Bohao Chen, Julian Solway, Joel Weinstock, Leping Chen, and Yang-Xin Fu
822 Mechanism of IFN-β-Mediated Inhibition of IL-8 Gene Expression in Astroglia Cells
Susan Nozell, Travis Laver, Kiran Patel, and Etty N. Benveniste

On the cover: Cleavage sites on factor VIII (FVIII) for FVIII-hydrolyzing IgG from patients with hemophilia A depicted on the five-domain model for FVIII available on the HAMSTeRS website (http://europium.csc.mrc.ac.uk) courtesy of Dr. Geoffrey Kemball-Cook. The A1, A2, A3, C1, and C2 domains of FVIII are shown in orange, green, blue, yellow, and white, respectively. Residues surrounding cleavage sites on FVIII for IgG from three patients are indicated as red spheres.

831 Stimulation History Dictates Memory CD8 T Cell Phenotype: Implications for Prime-Boost Vaccination
David Masopust, Sang-Jun Ha, Vaiva Vezys, and Rafi Ahmed

840 Regulation of Trafficking Receptor Expression in Human Forkhead Box P3+ Regulatory T Cells
Hyung W. Lim, Hal E. Broomeyer, and Chang H. Kim

852 Electron Transport Complex I Is Required for CD8+ T Cell Function
John S. Yi, Beth C. Holbrook, Ryan D. Michalek, Nathan G. Laniewski, and Jason M. Grayson

863 Targeted Lymphoid Homing of Dendritic Cells Is Required for Prolongation of Allograft Survival
Kym R. Garrod, Catherine K. Chang, Feng-Chun Liu, Todd V. Brennan, Robert D. Foster, and Sang-Mo Kang

869 Divergent Generation of Heterogeneous Memory CD4 T Cells
Vaishali R. Moulton, Nicholas D. Buhaer, David B. Leeer, Deepa S. Pathe, and Donna L. Farber

877 Involvement of CD166 in the Activation of Human γδ T Cells by Tumor Cells Sensitized with Nonpeptide Antigens
Yu Kato, Yoshimasa Tanaka, Mikihito Hayashi, Katsuya Okawa, and Nagahiro Minato

885 Small Interfering RNA-Mediated Knockdown of Notch Ligands in Primary CD4+ T Cells and Dendritic Cells Enhances Cytokine Production
Yvette Stallwood, Emmanuel Briend, Katrina M. Ray, George A. Ward, Beverley J. Smith, Emma Nye, Brian R. Champion, and Graham J. McKenzie

896 Suppression of Antitumor Immunity by IL-10 and TGF-β-Producing T Cells Infiltrating the Growing Tumor: Influence of Tumor Environment on the Induction of CD8+ and CD8+ Regulatory T Cells
Andrew G. Jarnecki, Joanne Lysaght, Stephen Todryk, and Kingston H. G. Mills

905 Impaired Generation of CD8+ Thymocytes in Ets-1-Deficient Mice
James L. Clements, Shinu A. John, and Lee Ann Garrett-Sinha

913 Influence of Mucosal Adjuvants on Antigen Passage and CD4+ T Cell Activation during the Primary Response to Airborne Allergen
Matthew E. Wikstrom, Eva Batanero, Miranda Smith, Jennifer A. Thomas, Christophe von Garnier, Patrick G. Houl, and Philip A. Stumbles

925 Antigen-Experienced T Cells Limit the Priming of Naive T Cells during Infection with Leishmania major
Peter M. Gray, Steven L. Reiner, Deborah F. Smith, Paul M. Kaye, and Phillip Scott

934 Novel Function of IFN-γ: Negative Regulation of Dendritic Cell Migration and T Cell Priming
Xiaodong Wu, Wanqiu Hou, Shubhui Sun, Enguang Bi, Yuan Wang, Mude Shi, Jingwu Zang, Chen Dong, and Bing Sun

944 Rapamycin-Mediated Enrichment of T Cells with Regulatory Activity in Stimulated CD4+ T Cell Cultures Is Not Due to the Selective Expansion of Naturally Occurring Regulatory T Cells but to the Induction of Regulatory Functions in Conventional CD4+ T Cells
Danila Valmori, Valeria Tosello, Naira E. Souleimanian, Emmanuelle Godefrey, Luigi Scotto, Yu Wang, and Maha Ayyoub

950 Protein Kinase Cδ Is Essential to Maintain CIITA Gene Expression in B Cells
Myung-Ja Kwon, Jae-Won Soh, and Cheong-Hee Chang

957 Pathogenic Consequences in Semen Quality of an Autoimmune Response against the Prostate Gland: From Animal Models to Human Disease
Ruben D. Motrich, Mariana Maccioni, Andres A. Ponce, Gerardo A. Gatti, Juan P. Mackern Oberti, and Virginia E. Rivero

968 Functional Specialization of Memory Th Cells Revealed by Expression of Integrin CD49b
George Kassiotis, David Gray, Ziba Kiasfard, Jörg Zwirner, and Brigitta Stockinger

976 Generation of T Cell Help through a MHC Class I-Restricted TCR
Helmut W. H. G. Kessels, Koen Schepers, Marly D. van den Boom, David J. Topham, and Ton N. M. Schumacher

983 Role of Immunoproteasomes in Cross-Presentation
Michael J. Palmovski, Uzi Gileadi, Mariolina Salio, Awen Gallimore, Maggie Millrain, Edward James, Caroline Adney, Diane Scott, Julian Dyson, Elizabeth Simpson, and Vincenzo Cerundolo
Molecular and Structural Immunology

108 Germinal Center Function in the Spleen during Simian HIV Infection in Rhesus Monkeys
   David H. Margolin, Erika H. Saunders, Benjamin Bronfin, Nicole de Rooa, Michael K. Axthelm, Olgia G. Goloubeva, Sara Eapen, Rebecca S. Gelman, and Norman L. Letvin

110 Paucity of V-D-J Rearrangements and V_{11} Replacement Events in Lupus Prone and Nonautoimmune TdT^{+/–} and TdT^{+/-} Mice
   Lisa C. Watson, Chantelle S. Moffatt-Blue, R. Zachary McDonald, Elizabeth Kompfner, Djemel Air-Azzouzene, David Nemazee, Argyrios N. Theofilopoulos, Dwight H. Kono, and Ann J. Feeney
1129 Modulation of the Effector Functions of a Human IgG1 through Engineering of Its Hinge Region
William F. Dall’Acqua, Kimberly E. Cook, Melissa M. Damschroder, Robert M. Woods, and Herren Wu

1139 HS1-Associated Protein X-1 Interacts with Membrane-Bound IgE: Impact on Receptor-Mediated Internalization
Iris Oberndorfer, Doris Schmid, Roland Geisberger, Gertrude Achatz-Strausberger, Reto Cramer, Marinus Lamers, and Gernot Achatz

1146 Roles of the Ig κ Light Chain Intronic and 3′ Enhancers in Igk Somatic Hypermutation
Matthew A. Inlay, Heather H. Gao, Valerie H. Odegard, Tongxiang Lin, David G. Schatz, and Yang Xu

1152 Mitogen-Activated Protein Kinase Pathway Activation by the CD6 Lymphocyte Surface Receptor
Anna Ibáñez, Maria-Rosa Sarrias, Montserrat Farnós, Idibia Gionferrer, Carles Serra-Figués, Jordi Vives, and Francisco Lozano

1160 Sumoylation of Daxx Regulates IFN-Induced Growth Suppression of B Lymphocytes and the Hormone Receptor-Mediated Transactivation
Ryuta Muromoto, Masato Ishida, Kenji Sugiyama, Yaichi Sekine, Kenji Oritani, Kazuya Shimoda, and Tadashi Matsuda

1171 Granzyme M Directly Cleaves Inhibitor of Caspase-Activated DNase (CAD) to Unleash CAD Leading to DNA Fragmentation
Hongxia Lu, Qiang Hou, Tongbiao Zhao, Honglian Zhang, QiXiang Zhang, Lianfeng Wu, and Zues Fan

1179 The Histone Methyltransferase Suv39h1 Increases Class Switch Recombination Specifically to IgA
Sean P. Bradley, Denise A. Kaminski, Antoine H. F. M. Peters, Thomas Jenuwein, and Janet Stavnezer

HOST DEFENSE

1189 Endogenous Tissue-Type Plasminogen Activator Is Protective during Escherichia coli-Induced Abdominal Sepsis in Mice
Rosemarin Rencz, Joris J. T. H. Roelofs, Sandrine Flarquin, Alex F. de Vos, Jennie M. Pater, H. Roger Lijnen, Peter Carmeliet, Cornelis van ’t Veer, and Tom van der Poll

1197 GM1 Binding-Deficient Exotoxin Is a Potent Noninflammatory Broad Spectrum Intradermal Immunoadjuvant
J. Paul Zoeteveij, Diane E. Opferm, Jackie D. Porter, Chen X. Zhang, Olga Y. Frolova, Anita P. Constantinides, Steven R. Fuhrmann, Moustapha El-Amine, Jing-Hui Tian, Larry R. Ellingsworth, and Gregory M. Glenn

1208 Resistance of C57BL/6 Mice to Amoebiasis Is Mediated by Nonhemopoietic Cells but Requires Hemopoietic IL-10 Production
Shinjiro Hamano, Amon Asgharpour, Suzanne E. Stroup, Thomas A. Wynn, Edward H. Leiter, and Eric Houp

1214 Epithelial Cell IkB-Kinase β Has an Important Protective Role in Clostridium difficile Toxin A-Induced Mucosal Injury
Sungwon Chae, Lars Eckmann, Yukiko Miyamoto, Charalabos Papoulaklis, Michael Karin, and Martin F. Kagnoff

1221 Streptococcal M Protein: A Multipotent and Powerful Inducer of Inflammation

1229 NK Cell Responses to Plasmodium Infection and Control of Intrahepatic Parasite Development
Jacques Roland, Valérie Soulard, Christelle Sellier, Anne-Marie Drapier, James P. Di Santo, Pierre-André Casenave, and Sylviane Pied

1240 Wolbachia Endosymbiotic Bacteria of Brugia malayi Mediate Macrophage Tolerance to TLR- and CD40-Specific Stimuli in a MyD88/TLR2-Dependent Manner
Joseph D. Turner, R. Stuart Langley, Kelly E. Johnston, Gill Egerton, Samuel Wanji, and Mark J. Taylor

1250 Lymph Node Resident Rather Than Skin-Derived Dendritic Cells Initiate Specific T Cell Responses after Leishmania major Infection
Giandomenica Iezzi, Anja Fröhlich, Bettina Ernst, Franziska Ampenberger, Sem Saeland, Nicolas Gläichenhau, and Manfred Köpf
INFLAMMATION

1257 *Chlamydia* Heat Shock Protein 60 Induces Trophoblast Apoptosis through TLR4  
Ozlem Equils, Daning Lu, Mary Gatter, Steve S. Witkin, Cristina Bertolotto, Moshe Arditl, James A. McGregor,  
Charles F. Simmons, and Calvin J. Hobel

1264 Signaling via Platelet-Activating Factor Receptors Accounts for the Impairment of Neutrophil Migration in Polymicrobial Sepsis  
Susana E. Moreno, José C. Alves-Filho, Fabricio Rios-Santos, João S. Silva, Sérgio H. Ferreira, Fernando Q. Cunha, and Mauro M. Teixeira

1272 Hyaluronan Fragments Act as an Endogenous Danger Signal by Engaging TLR2  
Kara A. Scheibner, Michael A. Lutz, Sada Boodoo, Matthew J. Fenton, Jonathan D. Powell, and Maureen R. Horton

1282 Dynamic and Transient Remodeling of the Macrophage IL-10 Promoter during Transcription  
Xia Zhang, Justin P. Edwards, and David M. Mosser

1289 Human Monocytes Recognize Porcine Endothelium via the Interaction of Galectin 3 and α-GAL  
Rongyu Jin, Allen Greenwald, Mark D. Peterson, and Thomas K. Waddell

1296 Zinc Is Required for FcεRI-Mediated Mast Cell Activation  
Koki Kabu, Satoru Yamasaki, Daiukite Kamimura, Yukitaka Ito, Aiko Hasegawa, Emi Sato, Hidemitsu Kitamura,  
Keigo Nishida, and Toshio Hirano

1306 Divergent Signaling Pathways in Phagocytic Cells during Sepsis  
Ren-Feng Guo, Nieli C. Riedemann, Lei Sun, Hongwei Gao, Kevin X. Shi, Jayne S. Reuben, Vidya J. Sarma,  
Firas S. Zetoune, and Peter A. Ward

1314 TNF-α-Independent IL-8 Expression: Alterations in Bacterial Challenge Dose Cause Differential Human Monocytic Cytokine Response  
Julia B. Patrone, Samuel E. Bish, and Daniel C. Stein

1323 Interleukin-13 Enhances Cyclooxygenase-2 Expression in Activated Rat Brain Microglia: Implications for Death of Activated Microglia  

1330 Activation of Ca2+-Dependent Signaling by TLR2  
Jarin Chun and Alice Prince

CLINICAL IMMUNOLOGY

1338 A Novel Approach to Characterize Clonality and Differentiation of Human Melanoma-Specific T Cell Responses: Spontaneous Priming and Efficient Boosting by Vaccination  
Daniel E. Speiser, Petra Baumgaertner, Catherine Barbey, Verena Rubio-Goday, Alexandre Moulin, Patricia Corthesy,  
Estelle Devreux, Pierre-Yves Dietrich, Donata Rimoldi, Danielle Liénard, Jean-Charles Cerottini, Pedro Romero,  
and Nathalie Rufer

1349 Role of TLR9 in Anti-Nucleosome and Anti-DNA Antibody Production in lpr Mutation-Induced Murine Lupus  
Aurélia Lartigue, Philippe Courville, Isabelle Auquit, Arnaud François, Christophe Arnould, François Tron,  
Daniele Gilbert, and Philippe Musette

1355 Catalytic IgG from Patients with Hemophilia A Inactivate Therapeutic Factor VIII  
Sébastien Lacroux-Desmazes, Bharath Wootla, Suryasarathi Daguapt, Sandrine Delignat, Jagadeesh Bayry, Joseph Reinbold,  
Johan Hoebeke, Evgenii Saenko, Michel D. Kazatchkine, Alain Fréboulet, Olivier Christophe, Valakunja Nagaraja,  
and Srini V. Kaveri

1364 Author Index

1367 AAI Membership Application

1368 AAI Trainee Membership Application