This information is current as of April 30, 2017.
IN THIS ISSUE

PILLARS OF IMMUNOLOGY

6391 The First Structures of T Cell Receptors Bound to Peptide–MHC
Kai W. Wucherpfennig

David N. Garboczi, Partho Ghosh, Ursula Utz, Qing R. Fan, William E. Biddison, and Don C. Wiley

K. Christopher Garcia, Massimo Degano, Robyn L. Stanfield, Anders Brunmark, Michael R. Jackson, Per A. Peterson, Luc Teyton, and Ian A. Wilson

BRIEF REVIEWS

6413 The Role of the Transcription Factor CREB in Immune Function
Andy Y. Wen, Kathleen M. Sakamoto, and Lloyd S. Miller

CUTTING EDGE

6421 Cutting Edge: Adaptive Versus Innate Receptor Signals Selectively Control the Pool Sizes of Murine IFN-γ– or IL-17–Producing γδ T Cells upon Infection
Julie C. Ribot, Miguel Chaves-Ferreira, Francisco d'Orey, Mélanie Wenker, Natacha Gonçalves-Sousa, Jérémie Decalf, João P. Simas, Adrian C. Hayday, and Bruno Silva-Santos

6426 Cutting Edge: Mechanisms of IL-2–Dependent Maintenance of Functional Regulatory T Cells

Characterization of Lymphocyte Subsets in Patients with Common Variable Immunodeficiency Reveals Subsets of Naive Human B Cells Marked by CD24 Expression
Marcela Vlková, Eva Frončková, Veronika Kanderová, Alží Janda, Sárka Ružičková, Jiří Litzman, Anna Šedivá, and Tomáš Kalina

EBV Latent Membrane Protein 1 Is a Negative Regulator of TLR9
Ibekal Fatallah, Peggy Parroche, Henri Graffat, Claudia Zannetti, Hanna Johansson, Jiping Yue, Evelyn Manet, Masimo Tommasino, Bakary S. Sylla, and Uzma A. Hasan

Drug Antigenicity, Immunogenicity, and Costimulatory Signaling: Evidence for Formation of a Functional Antigen through Immune Cell Metabolism
Ayman Elsheikh, Sidonie N. Lavergeye, J. Luis Castrejon, John Farrell, Haiyi Wang, Jean Satibah, Werner J. Picbher, B. Kevin Park, and Dean J. Naishbitt

STAT1-Activating Cytokines Limit Th17 Responses through Both T-bet–Dependent and –Independent Mechanisms
Alejandro V. Villarino, Eugenio Gallo, and Abul K. Abbas

Eotaxin-3/CC Chemokine Ligand 26 Is a Functional Ligand for CX3CR1
Takahara Nakayama, Yoshiko Watanabe, Naoki Oiso, Tonomori Higuchi, Akiko Shigeta, Nobuyuki Mizuguchi, Fuminori Katou, Kenji Hashimoto, Akira Kawada, and Osamu Yoshiie

CITA Enhances HIV-1 Attachment to CD4+ T Cells Leading to Enhanced Infection and Cell Depletion

Inhibition of Terminal Differentiation of B Cells Mediated by CD27 and CD40 Involves Signaling through JNK
Suchismita Satpathy, Gautam N. Shenoy, Sheetal Kau, Tushar Vaidya, Vineta Bal, Satyajit Rath, and Anna George

CD8+ T Cell Responses against TAP-Inhibited Cells Are Readily Detected in the Human Population
Margit H. Lampen, Mariëtte C. Verweij, Bianca Querido, Sjoerd H. van der Burg, Emmanuel J. H. J. Wiertz, and Thorbald van Hall

Unexpected Role for the B Cell-Specific Src Family Kinase B Lymphoid Kinase in the Development of IL-17–Producing γδ T Cells
Renee M. Laird, Karen Laky, and Sandra M. Hayes

TCR Revision Generates Functional CD4+ T Cells
J. Scott Hale, Maramawit Wubeshet, and Pamela J. Fink

Cyclooxygenase-2 Enhances Antimicrobial Peptide Expression and Killing of Staphylococcus aureus
Jamie J. Bernard and Richard L. Gallo

Reduced Functional Avidity Promotes Central and Effector Memory CD4 T Cell Responses to Tumor-Associated Antigens
Stefano Caserta, Joanna Kaczewska, Anna Mondino, and Rose Zamoyka

Differential TRAF3 Utilization by a Variant Human CD40 Receptor with Enhanced Signaling
Anna L. Peters and Gail A. Bishop

Blockade of Programmed Death-1 in Young (New Zealand Black × New Zealand White)F1 Mice Promotes the Activity of Suppressive CD8+ T Cells That Protect from Lupus-Like Disease
Maida Wong, Antonio La Cava, Ram P. Singh, and Bevra H. Hahn
6572 Hoxa9 Regulates Flt3 in Lymphohematopoietic Progenitors
Kimberly Gwin, Elena Frank, Ayoko Bossou, and Kay L. Medina

6584 IL-2 Complex Treatment Can Protect Naive Mice from Bacterial and Viral Infection
Sara E. Hamilton, Jason M. Schenkel, Adovi D. Akue, and Stephen C. Jameson

6591 Superantigen-Induced Proliferation of Human CD4+CD25− T Cells Is Followed by a Switch to a Functional Regulatory Phenotype
Amanda L. Taylor and Martin J. Llewelyn

6599 Lipopolysaccharide-Mediated IL-10 Transcriptional Regulation Requires Sequential Induction of Type I IFNs and IL-27 in Macrophages
Shankar Subramanian Iyer, Amir Ali Ghaffari, and Genhong Cheng

6608 Exosome-Driven Antigen Transfer for MHC Class II Presentation Facilitated by the Receptor Binding Activity of Influenza Hemagglutinin
James S. Testa, Geraud S. Apcher, Joseph D. Comber, and Laurence C. Eisenlohr

6617 Umbilical Cord-Derived Mesenchymal Stromal Cells Modulate Monocyte Function to Suppress T Cell Proliferation
Antony J. Cutler, Vasanti Limbani, John Girdlestone, and Cristina V. Navarrete

6624 NFAT5 Regulates T Lymphocyte Homeostasis and CD24-Dependent T Cell Expansion under Pathologic Hypernatremia
Rosa Berga-Bolaños, Katherine Drews-Elger, Jose Aramburu, and Cristina López-Rodriguez

6636 Diesel Exhaust Particle-Treated Human Bronchial Epithelial Cells Upregulate Jagged-1 and OX40 Ligand in Myeloid Dendritic Cells via Thymic Stromal Lymphopoietin
Bertram Bleck, Doris B. Tie, Terry Gordon, Mohammad R. Ahsan, and Joan Reibman

6646 CCR2 Identifies a Stable Population of Human Effector Memory CD4+ T Cells Equipped for Rapid Recall Response
Hongwei H. Zhang, Kaiimei Song, Ronald L. Rabin, Brenna J. Hill, Stephen P. Perfetto, Mario Roederer, Daniel C. Douek, Richard M. Siegel, and Joshua M. Farber

6644 Lymphocyte Development Requires S-nitrosoglutathione Reductase
Zhiyong Yang, Zhi-En Wang, Paschalis-Thomas Doulias, Wei Wei, Harry Ischiropoulos, Richard M. Locksley, and Limin Liu

6650 The Pim Kinase Pathway Contributes to Survival Signaling in Primed CD8+ T Cells upon CD27 Costimulation
Victor Peperzak, Eltie A. M. Verhaar, Anna M. Keller, Yanling Xiao, and Jannie Borst

6659 The Interactions of Multiple Cytokines Control NK Cell Maturation
Jason Brady, Sebastian Carotta, Rebecca P. L. Thong, Christopher J. Chan, Yoshihiro Hayakawa, Mark J. Smyth, and Stephen L. Nutt

6668 The Chlamydia muridarum-Induced IFN-β Response Is TLR3-Dependent in Murine Oviduct Epithelial Cells
Wilbert A. Derbiguy, Raymond M. Johnson, Katherine S. Toomey, Susan Ofner, and Krupakar Jayaraju

6677 Methyl Gallate Exhibits Potent Antitumor Activities by Inhibiting Tumor Infiltration of CD4+CD25+ Regulatory T Cells
Heekyung Lee, Hyojung Lee, Youngjo Kwon, Jun-Ho Lee, Jinju Kim, Min-Kyu Shin, Sung-Hoon Kim, and Hyunsu Bae

6686 CTL Induction of Tumoricidal Nitric Oxide Production by Intratumoral Macrophages Is Critical for Tumor Elimination
Rodolfo D. Vicetti Miguel, Thomas L. Cherpes, Leah J. Watson, and Kyle C. McKenna
Chromosome 1 Open Reading Frame 190 Promotes Activation of NF-κB Canonical Pathway and Resistance of Dendritic Cells to Tumor-Associated Inhibition In Vitro
Zhizhi Jing, Xin Yuan, Jing Zhang, Xin Huang, Zhiquan Zhang, Jingyi Liu, Mianmiao Zhang, Jiangbo Oyang, Yuan Zhang, Zhujun Zhang, and Rongcun Yang

RNA Polymerase II Inhibitors Dissociate Antigenic Peptide Generation from Normal Viral Protein Synthesis: A Role for Nuclear Translation in Defective Ribosomal Product Synthesis?
Brian P. Dolan, Jonathan J. Knowlton, Alexandre David, Jack R. Bennink, and Jonathan W. Yewdell

Enrichment of Foxp3+ CD4 Regulatory T Cells in Migrated T Cells to IL-6– and IL-8–Expressing Tumors through Predominant Induction of CXCR1 by IL-6
Shingo Eikawa, Yoshitaka Ohsue, Kentaro Kitahara, Toshiki Aji, Akiko Uenaka, Mikio Oka, and Eiichi Nakayama

A Critical Role for C5L2 in the Pathogenesis of Experimental Allergic Asthma
Xun Zhang, Isken Schmudder, Yves Laumannier, Manoj K. Pandey, Jennifer R. Clark, Peter König, Norma P. Gerard, Craig Gerard, Marsha Willi-Karp, and Jörg Köhl

Broad Cross-Reactive TCR Repertoires Recognizing Dissimilar Epstein-Barr and Influenza A Virus Epitopes

The Tailless Complex Polypeptide-1 Ring Complex of the Heat Shock Protein 60 Family Facilitates Cross-Priming of CD8 Responses Specific for Chaperoned Peptides
Ralph E. Vatner and Pramod K. Srivastava

In Vivo Analysis of Ifn-γ1 and Ifn-γ2 Signaling in Zebrafish
Dina Aggad, Cornelia Stein, Dirk Sieger, Martine Mazel, Philippe Herbomel, Jean-Pierre Levaud, Georges Lutfalla, and Maria Leptin

TLR-Activated Dendritic Cells Enhance the Response of Aged Naive CD4 T Cells via an IL-6–Dependent Mechanism
Stephen C. Jones, Vinayak Brabmakshatriya, Gail Huston, John Dibble, and Susan L. Swain

Antigen-Specific Th9 Cells Exhibit Uniqueness in Their Kinetics of Cytokine Production and Short Retention at the Inflammatory Site
Cuiyan Tan, Mehak K. Aziz, Jenna D. Lovass, Barbara P. Vistica, Guangpu Shi, Eric F. Wawrousek, and Igal Gery

IL-13Ra2 Has a Protective Role in a Mouse Model of Cutaneous Inflammation
Umausadari Shivaprasad, Manoj R. Warrier, Aaron M. Gibson, Weiguo Chen, Yasuhiro Tabata, Stacey A. Bass, Marc E. Rothenberg, and Gurjit K. Khurana Hershey

T Cell Polarity at the Immunological Synapse Is Required for CD154-Dependent IL-12 Secretion by Dendritic Cells
Marie Tourret, Sarah Guégan, Karine Chemin, Stéphanie Dogniaux, Francesc Miro, Armelle Bohineust, and Claire Hivroz

Re-Examination of CD91 Function in GRP94 (Glycoprotein 96) Surface Binding, Uptake, and Peptide Cross-Presentation
Angela R. Jockheck-Clark, Edith V. Bowers, Mariam B. Totonchy, Julie Neuhauser, Salvatore V. Pizzo, and Christopher V. Nicchitta

Protective Endogenous Cyclic Adenosine 5′-Monophosphate Signaling Triggered by Pemphigus Autoantibodies
Volker Spindler, Franziska Vielmuth, Enno Schmidt, David S. Rubenstein, and Jens Waschke

TIM-4, a Receptor for Phosphatidylycerine, Controls Adaptive Immunity by Regulating the Removal of Antigen-Specific T Cells
6850 Influenza Epitope-Specific CD8+ T Cell Avidity, but Not Cytokine Polyfunctionality, Can Be Determined by TCRβ Clonotype
Jessica M. Moffat, Andreas Handel, Peter C. Doherty, Stephen J. Turner, Paul G. Thomas, and Nicole L. La Gruta

6857 MHC Class I and TCR Avidity Control the CD8 T Cell Response to IL-15/IL-15Rα Complex
Thomas A. Stoklasek, Sara L. Colpitts, Henry M. Smilowitz, and Leo Lefrançois

MOLECULAR AND STRUCTURAL IMMUNOLOGY

6866 The Crucial Role of GATA-1 in CCR3 Gene Transcription: Modulated Balance by Multiple GATA Elements in the CCR3 Regulatory Region
Byung Soo Kim, Tae Gi Uhnh, Seol Kyoung Lee, Sin-Hwa Lee, Jin Hyun Kang, Choon-Sik Park, and Il Yap Chung

6876 Fc-Glycosylation Influences Fcγ Receptor Binding and Cell-Mediated Anti-HIV Activity of Monoclonal Antibody 2G12
Donald N. Forthal, Johannes S. Gach, Gary Landucci, Jakub Jez, Richard Strasser, Renate Kunert, and Herta Steinkellner

IMMUNOGENETICS

6883 IL-22RA2 Associates with Multiple Sclerosis and Macrophage Effector Mechanisms in Experimental Neuroinflammation
Annenaw D. Beyeen, Milena Z. Adzemovic, Johan Öckinger, Perinilla Stridh, Kristina Becanovic, Hannes Laaksonen, Hans Lassmann, Robert A. Harris, Jan Hillert, Lars Alfredson, Elisabeth G. Celius, Hanne F. Harbo, Ingrid Kockum, Maja Jagodic, and Tomas Olson

HOST DEFENSE

6891 Hyaluronan Fragments Contribute to the Ozone-Primed Immune Response to Lipopolysaccharide
Zhenguowei Li, Erin N. Potts, Claude A. Piantadosi, W. Michael Foster, and John W. Hollingsworth

6899 Secreted M-Ficolin Anchors onto Monocyte Transmembrane G Protein-Coupled Receptor 43 and Cross Talks with Plasma C-Reactive Protein to Mediate Immune Signaling and Regulate Host Defense
Jing Zhang, Lifeng Yang, Zhiwei Ang, Sia Lee Young, Thi Thu Thuy Tran, Ganesh Srinivasan Anand, Nguan Soo Tan, Bao Ho, and Jeak Ling Ding

6911 Chlamydia-Specific CD4 T Cell Clones Control Chlamydia muridarum Replication in Epithelial Cells by Nitric Oxide-Dependent and -Independent Mechanisms
Krupakar Jayaratnu, Micah Kerr, Susan Offer, and Raymond M. Johnson

6921 Critical Role of IL-25 in Nematode Infection-Induced Alterations in Intestinal Function
Aiping Zhao, Joseph F. Urban, Jr., Rex Sun, Jennifer Stiltz, Motoko Morimoto, Luigi Notari, Kathleen B. Madden, Zhonghan Yang, Viktordiya Grinchuk, Thirumalai R. Ramalingam, Thomas A. Wynn, and Terez Shea-Donohue

6930 Early Enhanced Local Neutrophil Recruitment in Peritonitis-Induced Sepsis Improves Bacterial Clearance and Survival
Florin L. Cricutiu, Elizabeth R. Schuller, and Daniel G. Remick

6939 IgG1 Is Pathogenic in Leishmania mexicana Infection
Nansheng Chu, Bolaji N. Thomas, Supriya R. Patel, and Laurence U. Buxbaum

INFLAMMATION

6947 IL-17 Regulates Adipogenesis, Glucose Homeostasis, and Obesity

6960 Ceramide and Ceramide 1-Phosphate Are Negative Regulators of TNF-α Production Induced by Lipopolysaccharide
Szczepan Józefowski, Maciej Czerkies, Anna Łukasik, Alicja Bielawska, Jacek Bielawski, Katarzyna Kwiatkowska, and Andrzej Sobota
6974 Phosphoryl Moieties of Lipid A from Neisseria meningitidis and N. gonorrhoeae Lipooligosaccharides Play an Important Role in Activation of Both MyD88- and TRIF-Dependent TLR4–MD-2 Signaling Pathways
Mingfeng Liu, Constance M. John, and Gary A. Jarvis

6985 Hepatitis C Virus Inhibits DNA Damage Repair through Reactive Oxygen and Nitrogen Species and by Interfering with the ATM-NBS1/Mre11/Rad50 DNA Repair Pathway in Monocytes and Hepatocytes
Keigo Machida, George McNamara, Kevin T.-H. Cheng, Jeffrey Huang, Chun-Hsiang Wang, Lucio Comai, Jing-Hsiung James Ou, and Michael C. M. Lai

6999 Platelets Contribute to Allograft Rejection through Glutamate Receptor Signaling
AnneMarie F. Swain, David J. Field, Karen Fox-Talbot, William M. Baldwin, III, and Craig N. Morrell

7007 Targeted Complement Inhibitors Protect against Posttransplant Cardiac Ischemia and Reperfusion Injury and Reveal an Important Role for the Alternative Pathway of Complement Activation
Carl Atkinson, Sungjing He, Keeley Morris, Fei Qiao, Sarah Casey, Martin Goddard, and Stephen Tomlinson

7014 Induction of Cardiac Angiogenesis Requires Killer Cell Lectin-Like Receptor 1 and α4β7 Integrin Expression by NK Cells
Manaf Bouchentouf, Kathy-Ann Forner, Jessica Cuerquis, Véronique Michaud, Jiamin Zheng, Pierre Paradis, Ernesto L. Schiff, and Jacques Galipeau

7026 Neutrophil Migration across Intestinal Epithelium: Evidence for a Role of CD44 in Regulating Detachment of Migrating Cells from the Luminal Surface
Jennifer C. Brazil, Winston Y. Lee, Keli N. Kolegraff, Asma Nusrat, Charles A. Parkos, and Nancy A. Louis

7037 Galectin-3 Exerts Cytokine-Like Regulatory Actions through the JAK–STAT Pathway
Sae-Bom Jeon, Hee Jung Yoon, Chi Young Chang, Han Seok Koh, Seong-Ho Jeon, and Eun Jung Park

7047 Suppression of TNF-α and IL-1 Signaling Identifies a Mechanism of Homeostatic Regulation of Macrophages by IL-27
George D. Kalliolias, Rachael A. Gordon, and Lionel B. Ivashkiv

7057 LFA-1 and Mac-1 Define Characteristically Different Intraluminal Crawling and Emigration Patterns for Monocytes and Neutrophils In Situ
Ronen Sumagin, Hen Prizant, Elena Lomakina, Richard E. Waugh, and Ingrid H. Sarelius

7067 A Critical Role for Mast Cells and Mast Cell-Derived IL-6 in TLR2-Mediated Inhibition of Tumor Growth
Sharon A. Oldford, Ian D. Haidl, Mackenzie A. Howatt, Carlos A. Leiva, Brent Johnston, and Jean S. Marshall

7077 Differential Regulation of Caspase-1 Activation via NLRP3/NLRC4 Inflammasomes Mediated by Aerolysin and Type III Secretion System during Aeromonas veronii Infection
Andrea J. McCoy, Yukiko Koizumi, Naomi Higa, and Toshihiko Suzuki

CLINICAL IMMUNOLOGY

7085 GM-CSF Is an Essential Regulator of T Cell Activation Competence in Uterine Dendritic Cells during Early Pregnancy in Mice
Lachlan M. Moldenhauer, Sarah N. Keenihan, John D. Hayball, and Sarah A. Robertson

7097 Robust Vaccine-Elicited Cellular Immune Responses in Breast Milk following Systemic Simian Immunodeficiency Virus DNA Prime and Live Virus Vector Boost Vaccination of Lactating Rhesus Monkeys
Human Papillomavirus 16-Associated Cervical Intraepithelial Neoplasia in Humans Excludes CD8 T Cells from Dysplastic Epithelium

Cornelia L. Trimble, Rachael A. Clark, Christopher Thoburn, Nicole C. Hanson, Jodie Tassello, Denise Frosina, Ferdynand Kos, Jessica Teague, Ying Jiang, Nicole C. Barat, and Achim A. Jungbluth

Elevated Levels of Soluble TNF Receptors 1 and 2 Correlate with *Plasmodium falciparum* Parasitemia in Pregnant Women: Potential Markers for Malaria-Associated Inflammation

Audrey Davidson Thévenon, James A. Zhou, Rosette Megnekou, Simon Ako, Rose G. F. Leke, and Diane Wallace Taylor

AUTHOR INDEX