IN THIS ISSUE

4467 Joining Forces To Fight Asthma See article p. 4560
Triggering T Cells in Trachoma See article p. 4648
Egging on Pathology with CD209a See article p. 4655
Memory Stem Cells Succumb to SIV See article p. 4666
MDSCs Modulate TB See article p. 4718
Seeking Specific Functions for SARM See article p. 4821
Clamping onto Complement See article p. 4844

BRIEF REVIEWS

4469 ICAM-1: Isoforms and Phenotypes
Theresa N. Ramos, Daniel C. Bullard, and Scott R. Barnum

4475 Check MAIT
Laurent Gapin

CUTTING EDGE

4483 Cutting Edge: The Transcription Factor Bob1 Counteracts B Cell Activation and Regulates miR-146a in B Cells
John M. Lindner, Hiroyuki Kayo, Sebastian Hedlund, Yoko Fukuda, Taro Fukao, and Peter J. Nielsen

4487 Cutting Edge: Salivary Gland NK Cells Develop Independently of Nfil3 in Steady-State
Victor S. Cortez, Anja Fuchs, Marina Cella, Susan Gilfillan, and Marco Colonna

4492 Cutting Edge: NKG2C hi CD57 + NK Cells Respond Specifically to Acute Infection with Cytomegalovirus and Not Epstein–Barr Virus
Deborah W. Hendricks, Henry H. Balfour, Jr., Samantha K. Dunmire, David O. Schmeling, Kristin A. Hogquist, and Lewis L. Lanier

ALLERGY AND OTHER HYPERSENSITIVITIES

4497 The Very Low Density Lipoprotein Receptor Attenuates House Dust Mite–Induced Airway Inflammation by Suppressing Dendritic Cell–Mediated Adaptive Immune Responses
Karin Fredriksson, Amarjit Mishra, Jonathan K. Lam, Elizabeth M. Mushaben, Rosemarie A. Cuento, Katharine S. Meyer, Xianglan Yao, Karen J. Keeran, Gayle Z. Nugent, Xuan Qu, Zu-Xi Yu, Yanqin Yang, Nalini Raghavachari, Pradeep K. Dagur, J. Philip McCoy, and Stewart J. Levine

ANTIGEN RECOGNITION AND RESPONSES

4510 Existence of Conventional Dendritic Cells in Gallus gallus Revealed by Comparative Gene Expression Profiling
Thien-Phong Vu Manh, Hélène Marty, Pierre Sibille, Yves Le Vern, Bernd Kaspers, Marc Dalod, Isabelle Schwartz-Cornil, and Pascale Quéré

4518 Heterogeneous Functional Effects of Concomitant B Cell Receptor and TLR Stimulation in Chronic Lymphocytic Leukemia with Mutated versus Unmutated Ig Genes
Maria Chatzouli, Stavroula Noutsia, Nikos Papadimitriou, Elisavet Chatzomatisidou, Achilles Anagnostopoulou, Panagoula Kollia, Paolu Ghia, Marta Musio, Kostas Stamatopoulos, and Chrysovali Belessi

AUTOIMMUNITY

4525 Opposing Impact of B Cell–Intrinsic TLR7 and TLR9 Signals on Autoantibody Repertoire and Systemic Inflammation
Shaun W. Jackson, Nicole E. Scharping, Nikita S. Kolhatkar, Socheath Khim, Marc A. Schwartz, Quan-Zhen Li, Kelly L. Hudkins, Charles E. Alpers, Denny Liggitt, and David J. Rawlings

4533 Disease Association and Arthritogenic Potential of Circulating Antibodies against the α1,4-Polygalacturonic Acid Moiety
Hui Dai, Hong-Liang Dong, Fang-Yuan Gong, Shu-Liang Sun, Xiang-Yuan Liu, Zhan-Guo Li, Si-Dong Xiong, and Xiao-Ming Gao

4541 Tissue-Resident Exhausted Effector Memory CD8+ T Cells Accumulate in the Retina during Chronic Experimental Autoimmune Uveoretinitis
Joanne Boldison, Colin J. Chu, David A. Copland, Philippe J. P. Lait, Tarnjit K. Khera, Andrew D. Dick, and Lindsay B. Nicholson

CLINICAL AND HUMAN IMMUNOLOGY

4551 Naturally Occurring Human Phosphorylcholine Antibodies Are Predominantly Products of Affinity-Matured B Cells in the Adult
Roland Fiskesund, Johanna Steen, Khaled Amara, Fiona Murray, Agnieszka Szewzajda, Anquan Liu, Iyadh Douagi, Vivianne Malmström, and Johan Frostegård

4560 Functional Effects of TGF-β1 on Mesenchymal Stem Cell Mobilization in Cockroach Allergen–Induced Asthma
Peisong Gao, Yufeng Zhou, Lingling Xian, Changjun Li, Ting Xu, Beverly Plunkett, Shau-Ka Huang, Mei Wan, and Xu Cao

4571 Identification of Multiple Public TCR Repertoires in Chronic Beryllium Disease
Natalie A. Bowerman, Michael T. Falta, Douglas G. Mack, Fabian Wehrmann, Frances Crawford, Margaret M. Mroz, Lisa A. Maier, John W. Kappler, and Andrew P. Fontenot

4581 The Human Immune System Recognizes Neopeptides Derived from Mitochondrial DNA Deletions
Bhargavi Duvvuri, Venkata R. Duvvuri, Chao Wang, Lina Chen, Lisa E. Wagar, Veronica Jamnik, Jianhong Wu, Rae S. M. Yeung, Jörg Grigull, Tania H. Watts, and Gillian E. Wu

4592 Donor Killer Cell Ig-like Receptor B Haplotypes, Recipient HLA-C1, and HLA-C Mismatch Enhance the Clinical Benefit of Unrelated Transplantation for Acute Myelogenous Leukemia
Sarah Cooley, Daniel J. Weisdorf, Lisbeth A. Guethlein, John P. Klein, Tao Wang, Steven G. E. Marsh, Stephen Spellman, Michael D. Haagenson, Roy Saetern, Martha Ladner, Elizabeth Trachtenberg, Peter Parham, and Jeffrey S. Miller

IMMUNE REGULATION

4601 Integrin-Mediated Interactions between B Cells and Follicular Dendritic Cells Influence Germinal Center B Cell Fitness
Xiaoming Wang, Lauren B. Rodda, Oliver Bannard, and Jason G. Cyster
IMMUNE SYSTEM DEVELOPMENT

4610 Differences in Mouse and Human Nonmemory B Cell Pools

4620 A Silencer-Proximal Intronic Region Is Required for Sustained CD4 Expression in Postselection Thymocytes
David M. Henson, Chun Chou, Nagisa Sakurai, and Takeshi Egawa

IMMUNOTHERAPY AND VACCINES

4628 Autoantibodies Induced by Chimeric Cytokine-HIV Envelope Glycoprotein Immunogens
Gozde Isik, Thijs van Montfort, Nancy P. Y. Chung, John P. Moore, and Rogier W. Sanders

4636 Dendritic Cell–Mediated Immune Humanization of Mice: Implications for Allogeneic and Xenogeneic Stem Cell Transplantation
Gustavo Salguero, Amuara Daenthanaanmak, Christian Münz, Ana Raykova, Carlos A. Guzmán, Peggy Riese, Constanca Figueiredo, Florian Länger, Andreas Schneider, Laura Macke, Bala Sai Sundarasuret, Torsten Witte, Arnold Ganser, and Renata Stripecke

4648 CD8+ T Cells Define an Unexpected Role in Live-Attenuated Vaccine Protective Immunity against Chlamydia trachomatis Infection in Macaques
Norma Olivares-Zavala, William M. Whitmire, Lazlo Kari, Gail L. Sturdevant, and Harlan D. Caldwell

INFECTIOUS DISEASE AND HOST RESPONSE

4655 CD209a Expression on Dendritic Cells Is Critical for the Development of Pathogenic Th17 Cell Responses in Murine Schistosomiasis
Holly E. Ponichtera, Mara G. Shainheit, Beiyun C. Liu, Rakrima Raychoedbury, Bridget M. Larkin, Joanne M. Russo, D. Brenda Salantes, Chao-Qiang Lai, Laurence D. Parnell, Tae J. Yun, Cheolho Cheong, Stephen C. Bunnell, Nir Hacohen, and Miguel J. Stadecker

4666 Divergent CD4+ T Memory Stem Cell Dynamics in Pathogenic and Nonpathogenic Simian Immunodeficiency Virus Infections

4674 Characterization of Platelet–Monocyte Complexes in HIV-1–Infected Individuals: Possible Role in HIV-Associated Neuroinflammation
Meera V. Singh, Donna C. Davidson, Joseph W. Jackson, Vir B. Singh, Jharon Silva, Servio H. Ramirez, and Sanjay B. Maggirwar

4685 Functional Avidity and IL-2/Perforin Production Is Linked to the Emergence of Mutations within HLA-B*5701–Restricted Epitopes and HIV-1 Disease Progression
Marcus Buggert, Melissa M. Norström, Marco Salemi, Frederick M. Hecht, and Annika C. Karlsson

4697 TLR3–Responsive, XCR1+, CD141(BDCA-3)+/CD8α+- Equivalent Dendritic Cells Uncovered in Healthy and Simian Immunodeficiency Virus–Infected Rhesus Macaques
Charles-Antoine Dutertre, Jean-Pierre Jourdain, Magali Rancez, Sonia Amraoui, Even Fossum, Bjarne Bogen, Cindy Sanchez, Anne Coudel-Courteille, Yolande Richard, Marc Dalod, Vincent Feuillet, Rémi Cheynier, and Anne Hosmalin

4709 Phagocytosis of Staphylococcus aureus by Human Neutrophils Prevents Macrophage Efferocytosis and Induces Programmed Necrosis
Mallary C. Greenlee-Wacker, Kevin M. Rigby, Scott D. Kohayashi, Adeline R. Porter, Frank R. DeLeo, and William M. Nauseef

4718 Gr-1dimCD11b+ Immature Myeloid-Derived Suppressor Cells but Not Neutrophils Are Markers of Lethal Tuberculosis Infection in Mice
Release of Cystic Fibrosis Airway Inflammatory Markers from \textit{Pseudomonas aeruginosa}–Stimulated Human Neutrophils Involves NADPH Oxidase-Dependent Extracellular DNA Trap Formation

Dae-goon Yoo, Matthew Winn, Lan Pang, Samuel M. Moskowitz, Harry L. Malech, Thomas L. Leit, and Balázs Rada

Tyk2-Dependent Bystander Activation of Conventional and Nonconventional Th1 Cell Subsets Contributes to Innate Host Defense against \textit{Listeria monocytogenes} Infection

Tomomitsu Hashiguchi, Akiko Oyamada, Koji Sakuraba, Kazuya Shimoda, Keichi I. Nakayama, Yukihide Iwamoto, Yasunobu Yoshikai, and Hisakata Yamada

Inhibition of Langerhans Cell Maturation by Human Papillomavirus Type 16: A Novel Role for the Annexin A2 Heterotetramer in Immune Suppression

Andrew W. Woodham, Adam B. Raff, Laura M. Raff, Diane M. Da Silva, Lisa Yan, Joseph G. Skeate, Michael K. Wong, Yvonne G. Lin, and W. Martin Kast

\textbf{INNATE IMMUNITY AND INFLAMMATION}

Smurf2 Negatively Modulates RIG-I–Dependent Antiviral Response by Targeting VISA/MAVS for Ubiquitination and Degradation

Yu Pan, Rui Li, Jun-Ling Meng, He-Ting Mao, Yu Zhang, and Jun Zhang

Leukotriene B \textsubscript{4} Modulates P2X7 Receptor–Mediated \textit{Leishmania amazonensis} Elimination in Murine Macrophages

Mariana M. Chaves, Camila Marques-da-Silva, Ana Paula T. Monteiro, Cláudio Canetti, and Robson Coutinho-Silva

A Biased Non-G \textsubscript{a}i OXE-R Antagonist Demonstrates That G \textsubscript{a}i Protein Subunit Is Not Directly Involved in Neutrophil, Eosinophil, and Monocyte Activation by 5-Oxo-ETE

Viktoria Konya, Stefanie Blättermann, Katharina Jandl, Wolfgang Platter, Philipp Aaron Ottensbach, Gunther Marsche, Michael Gütschow, Evi Kostenis, and Akos Heinemann

Polyinosinic-Polycytidylic Acid Has Therapeutic Effects against Cerebral Ischemia/Reperfusion Injury through the Downregulation of TLR4 Signaling via TLR3

Peng-Fei Wang, Huang Fang, Jing Chen, Sen Lin, Yong Liu, Xiao-Yi Xiong, Yan-Chun Wang, Ren-Ping Xiong, Feng-Lin Lv, Jian Wang, and Qing-Wu Yang

Human Resistin Promotes Neutrophil Proinflammatory Activation and Neutrophil Extracellular Trap Formation and Increases Severity of Acute Lung Injury

Shaoning Jiang, Dae Won Park, Jean-Marc Tadie, Murielle Gregoire, Jessy Deshane, Jean Francois Pittet, Edward Abraham, and Jaroslaw W. Zmijewski

\textit{Pseudomonas aeruginosa}–Induced Apoptosis in Airway Epithelial Cells Is Mediated by Gap Junctional Communication in a JNK-Dependent Manner

Davide Loa, Thilo Köhler, Jessica Bellec, Tecla Dudev, Sophie Crespin, Marc Bacchetta, Pierre Boulanger, Saw See Hong, Sandrine Morel, Tuan H. Nguyen, Christian van Delden, and Marc Chanson

Protection from Intestinal Inflammation by Bacterial Exopolysaccharides

Sara E. Jones, Mallory L. Paynich, Daniel B. Kearns, and Katherine L. Knight

SARM Regulates CCL5 Production in Macrophages by Promoting the Recruitment of Transcription Factors and RNA Polymerase II to the \textit{Ccl5} Promoter

Claudia Gürtler, Michael Carry, Jay Kearney, Stefan A. Schatzgen, Aihao Ding, Katherine A. Fitzgerald, and Andrew G. Bowie

Maturation of Innate Responses to Mycobacteria over the First Nine Months of Life

Muki S. Shey, Elisa Nemes, Wendy Whatney, Marwou de Kock, Hadn Africa, Charlene Barnard, Michele van Rooyen, Lynnett Stone, Catherine Riou, Tobias Kollmann, Thomas R. Hawn, Thomas J. Scriba, and Willem A. Hanekom

A Humanized Antibody That Regulates the Alternative Pathway Convertase: Potential for Therapy of Renal Disease Associated with Nephritic Factors

Danielle Paixão-Cavalcante, Eva Torreira, Margaret A. Lindorfer, Santiago Rodriguez de Cordoba, B. Paul Morgan, Ronald P. Taylor, Oscar Llorca, and Claire L. Harris
The Nuclear Receptor Nr4a1 Mediates Anti-Inflammatory Effects of Apoptotic Cells
Natacha Ipseiz, Stefan Uderhardt, Carina Scholtyssek, Martin Steffen, Gernot Schabbauer, Aline Bozec, Georg Schett, and Gerhard Krönke

SHP2 Phosphatase Promotes Mast Cell Chemotaxis toward Stem Cell Factor via Enhancing Activation of the Lyn/Vav/Rac Signaling Axis
Namit Sharma, Stephanie Everingham, Baskar Ramdas, Reuben Kapur, and Andrew W. B. Craig

MOLECULAR AND STRUCTURAL IMMUNOLOGY

Conversion of Der p 23, a New Major House Dust Mite Allergen, into a Hypoallergenic Vaccine
Srinita Banerjee, Milena Weber, Katharina Blatt, Ines Swoboda, Margit Focke-Tejkl, Peter Valent, Rudolf Valenta, and Susanne Vrta

STAT3, STAT4, NFATc1, and CTCF Regulate PD-1 through Multiple Novel Regulatory Regions in Murine T Cells
James W. Austin, Peiyuan Lu, Parimal Majumder, Rafi Ahmed, and Jeremy M. Boss

ATM Increases Activation-Induced Cytidine Deaminase Activity at Downstream S Regions during Class-Switch Recombination
Lyne Khair, Jeroen E. J. Guikema, Erin K. Linehan, Anna J. Ucher, Niek G. J. Leus, Colin Ogilvie, Zhenkun Lou, Carol E. Schrader, and Janet Stavnezer

Aneurysmal Lesions of Patients with Abdominal Aortic Aneurysm Contain Clonally Expanded T Cells

Bromodomain and Extraterminal Proteins Suppress NF-E2–Related Factor 2–Mediated Antioxidant Gene Expression
Charalambos Michaeloudes, Nicolas Mercado, Colin Clarke, Pankaj K. Bhavvar, Ian M. Adcock, Peter J. Barnes, and Kian Fan Chung

TUMOR IMMUNOLOGY

B7h Triggering Inhibits the Migration of Tumor Cell Lines
Chiara Dianzani, Rnalba Minelli, Casimiro Luca Gigliotti, Sergio Occhipinti, Mirella Giovarelli, Laura Conti, Elena Boggio, Yogesh Shivakumar, Gianluca Baldanzi, Valeria Malacarne, Elisabetta Orilieri, Giuseppe Cappellano, Roberto Fantozzi, Daniele Sblattero, Junji Yagi, Fi Maria Rojo, Annalisa Chiocchetti, and Umberto Dianzani

CORRECTIONS

Correction: Interaction of Mesenchymal Stem Cells with Fibroblast-like Synoviocytes via Cadherin-11 Promotes Angiogenesis by Enhanced Secretion of Placental Growth Factor
Su-Jung Park, Ki-Jo Kim, Wan-Uk Kim, and Chun-Soo Cho

Correction: Cathepsin K Is Involved in Development of Psoriasis-like Skin Lesions through TLR-Dependent Th17 Activation
Toshitake Hirai, Takashi Kanda, Kenji Sato, Mikiro Takatishi, Kimiko Nakajima, Mayuko Yamamoto, Reiko Kamijima, John DiGiovanni, and Shigetoshi Sano

Correction: AID Binds Cooperatively with UNG and Msh2-Msh6 to Ig Switch Regions Dependent upon the AID C Terminus
Sanjay Ranjit, Lyne Khair, Erin K. Linehan, Anna J. Ucher, Mritnayak Chakrabarti, Carol E. Schrader, and Janet Stavnezer

Correction: Oxidized Lipids Block Antigen Cross-Presentation by Dendritic Cells in Cancer

AUTHOR INDEX