IN THIS ISSUE
835 Lyn-king Autoimmunity to B Cells See article p. 919
Brain B Cells Make MS Mischief See article p. 929
Enhancing Pro–B Cell Activity See article p. 1064
Fishing for New B Cell Populations See article p. 1257
T Cell Transfer Targets Tumors See article p. 1286
Bridging the NK Cell Synapse Gap See article p. 1313

PILLARS OF IMMUNOLOGY
837 Celebrating Diversity in Memory T Cells
Susan M. Kaech

Federica Sallusto, Danielle Lenig, Reinhold Förster, Martin Lipp, and Antonio Lanzavecchia

David Masopust, Vaiva Vezys, Amanda L. Marzo, and Leo Lefrançois

BRIEF REVIEWS
851 The Autotaxin–LPA Axis Emerges as a Novel Regulator of Lymphocyte Homing and Inflammation
Sara Knowlden and Steve N. Georas

ALLERGY AND OTHER HYPERSENSITIVITIES
859 EGFR Signaling Blunts Allergen-Induced IL-6 Production and Th17 Responses in the Skin and Attenuates Development and Relapse of Atopic Dermatitis
Zhonghua Zhang, Chang Xiao, Aaron M. Gibson, Stacey A. Bass, and Gurjit K. Khurana Hershey

ANTIGEN RECOGNITION AND RESPONSES

867 Integrating B Cell Lineage Information into Statistical Tests for Detecting Selection in Ig Sequences
Mohamed Uduman, Mark J. Shlomchik, Francois Vigneault, George M. Church, and Steven H. Kleinstein

AUTOIMMUNITY

875 Requirement for MyD88 Signaling in B Cells and Dendritic Cells for Germinal Center Anti-Nuclear Antibody Production in Lyn-Deficient Mice
Zhaolin Hua, Andrew J. Gross, Chrystelle Lamagna, Natalia Ramos-Hernández, Patrizia Scapini, Ming Ji, Haitao Shao, Clifford A. Lowell, Baidong Hou, and Anthony L. DeFranco

886 CCR1 Inhibition Ameliorates the Progression of Lupus Nephritis in NZB/W Mice
Alexandre Bignon, Françoise Gaudin, Patrice Hémon, Hugo Tharinger, Katia Mayol, Thierry Walzer, Pius Loetscher, Michel Peuchmaur, Dominique Berrebi, and Karl Balabanian

897 Follicular B Cells in Thyroids of Mice with Spontaneous Autoimmune Thyroiditis Contribute to Disease Pathogenesis and Are Targets of Anti-CD20 Antibody Therapy
So-Hee Hong and Helen Braley-Mullen

CLINICAL AND HUMAN IMMUNOLOGY

906 Neutrophil-Mediated IFN Activation in the Bone Marrow Alters B Cell Development in Human and Murine Systemic Lupus Erythematosus
Arumugam Palanichamy, Jason W. Bauer, Srilakshmi Yalavarthi, Nida Meedhu, Jennifer Barnard, Teresa Owen, Christopher Cistone, Anna Bird, Alfred Rubinovich, Sarah Nevarez, Jason S. Knight, Russell Dedrick, Alexandre Rosenberg, Chungwen Wei, Javier Rangel-Moreno, Jane Liesveld, Inaki Sanz, Emily Baechler, Mariana J. Kaplan, and Jennifer H. Anolik

919 B Cell–Specific Loss of Lyn Kinase Leads to Autoimmunity
Chrystelle Lamagna, Yongmei Hu, Anthony L. DeFranco, and Clifford A. Lowell

929 B Cells Promote Induction of Experimental Autoimmune Encephalomyelitis by Facilitating Reactivation of T Cells in the Central Nervous System
Emily R. Pierson, Ingunn M. Stromnes, and Joan M. Goverman
IMMUNE REGULATION

985 Bach2 Regulates Homeostasis of Foxp3+ Regulatory T Cells and Protects against Fatal Lung Disease in Mice
Eui Ho Kim, David J. Gasper, Song Hee Lee, Erin Hemmila Plüsch, John Svaren, and M. Suresh

996 STAT5-Induced Lunatic Fringe during Th2 Development Alters Delta-like 4–Mediated Th2 Cytokine Production in Respiratory Syncytial Virus–Exacerbated Airway Allergic Disease
Samanta Mukherjee, Andrew J. Rasky, Phil A. Lundy, Nicolai A. Kittan, Steven L. Kunkel, Ivan P. Maillard, Paul E. Kowalski, Philaretos C. Kousis, Cynthia J. Guidos, and Nicholas W. Lukacs

1004 Myeloid Cells Limit Production of Antibody-Secreting Cells after Immunization in the Lymph Node
David R. Fooksman, Michel C. Nusenzweig, and Michael L. Dustin

1013 Activation of the Epidermal Growth Factor Receptor in Macrophages Regulates Cytokine Production and Experimental Colitis
Ning Lu, Lihong Wang, Hai Long Cao, Liping Liu, Luc Van Kaer, Mary K. Washington, Michael J. Rosen, Philip E. Dubé, Keith T. Wilson, Xiubao Ren, Xishun Hao, D. Brent Polk, and Fang Yan

1024 Premature Terminal Differentiation Protects from Deregulated Lymphocyte Activation by ITK-Syk
Martina P. Bach, Eva Hug, Markku Werner, Julian Holch, Clara Sprisler, Konstanze Pechloff, Katja Zirlik, Robert Zeiser, Christine Dierks, Jürgen Ruland, and Hassan Jumaa

1034 MicroRNA-155 and MicroRNA-21 Promote the Expansion of Functional Myeloid-Derived Suppressor Cells
Limin Li, Jing Zhang, Wenli Diao, Dong Wang, Yao Wei, Chen-Yu Zhang, and Ke Zen

IMMUNE SYSTEM DEVELOPMENT

1044 A Feeder-Free Differentiation System Identifies Autonomously Proliferating B Cell Precursors in Human Bone Marrow
Helene Kraus, Sandra Kaiser, Konrad Aumann, Peter Bönelt, Ulrich Salzer, Dietmar Vestweber, Miriam Erlacher, Mirjam Kanze, Meike Burger, Kathrin Pieper, Heiko Sic, Antonius Rolink, Hermann Eibel, and Marta Rizzi

1055 Id3 and Id2 Act as a Dual Safety Mechanism in Regulating the Development and Population Size of Innate-like γδ T Cells
Baojun Zhang, Yen-Yu Lin, Meifang Dai, and Yuan Zhuang

IMMUNOGENETICS

1064 Targeted Chromatin Profiling Reveals Novel Enhancers in Ig H and Ig L Chain Loci
Alexander V. Predeus, Suhasni Gopalakrishnan, Yue Huang, Jun Tang, Ann J. Feeney, Eugene M. Oltz, and Maxim N. Artyomov

IMMUNOTHERAPY AND VACCINES

1071 Nanoparticle Adjuvant Sensing by TLR7 Enhances CD8+ T Cell–Mediated Protection from Listeria Monocytogenes Infection
Marie-Eve Lebel, Jean-François Daudelin, Karine Chartrand, Esther Tarrab, Ulrich Kalinke, Pierre Savard, Nathalie Labrecque, Denis Leclerc, and Alain Lamarre

INFECTIONOUS DISEASE AND HOST RESPONSE

1079 PD-L1 Limits the Mucosal CD8+ T Cell Response to Chlamydia trachomatis
Sarah C. Fankhauser and Michael N. Starnbach

1091 Identification of B7-H1 as a Novel Mediator of the Innate Immune/Proinflammatory Response as well as a Possible Myeloid Cell Prognostic Biomarker in Sepsis
Xin Huang, Yaping Chen, Chun-Shiang Chung, Zhenglong Yuan, Sean F. Monaghan, Fei Wang, and Alfred Ayala

1100 Antibodies VRC01 and 10E8 Neutralize HIV-1 with High Breadth and Potency Even with Ig-Framework Regions Substantially Reverted to Germline
Ivelin S. Georgiev, Rebecca S. Rudicell, Kevin O. Saunders, Wei Shi, Tatiana Krysov, Krisha McKe, Siy O’Dell, Guo-Yu Chuang, Zhi-Yong Yang, Gilad Ofek, Mark Connors, John R. Mascola, Gary J. Nabel, and Peter D. Kwong
INNATE IMMUNITY AND INFLAMMATION

1107 C-Type Lectin Receptors Differentially Induce Th17 Cells and Vaccine Immunity to the Endemic Mycosis of North America
Huafeng Wang, Vanessa LeBert, Chiung Yu Hung, Kevin Galles, Shinobu Saigo, Xin Lin, Garry T. Cole, Bruce S. Klein, and Marcel Wüthrich

1120 Engulfment of Apoptotic Cells by Macrophages: A Role of MicroRNA-21 in the Resolution of Wound Inflammation
Amitava Das, Kasturi Ganesh, Savita Khanna, Chandan K. Sen, and Sashwati Roy

1130 Prostaglandin E2–EP3 Signaling Induces Inflammatory Swelling by Mast Cell Activation
Kazushi Morimoto, Naritoshi Shirata, Yoshitaka Taketomi, Soken Tsukita, Eri Segi-Nishida, Tomaaki Inazumi, Kenji Kabashima, Satoji Tanaka, Makoto Murakami, Shuh Narumiya, and Yukihiko Sugimoto

1138 Unbiased Expression Mapping Identifies a Link between the Complement and Cholinergic Systems in the Rat Central Nervous System

1154 Complement Activation by Ceramide Transporter Proteins
Gerard H. Bode, Mario Lusen, Wim A. Buurman, Robert Verhuis, Peter C. Molenaar, Harry W. M. Steinbusch, Marc H. De Baets, Mohamed R. Daha, and Pilar Martinez-Martinez

1162 An Alternative Splicing Isoform of MITA Antagonizes MITA-Mediated Induction of Type I IFNs
Honghe Chen, Rongjuan Pei, Wandi Zhu, Rui Zeng, Yun Wang, Yanyi Wang, Mengji Lu, and Xinwen Chen

1171 A Novel Mitochondrial MAVS/Caspase-8 Platform Links RNA Virus–Induced Innate Antiviral Signaling to Bax/Bak-Independent Apoptosis
Souhyala El Maadidi, Laura Faletti, Birgit Berg, Christin Wenzl, Katrin Wieland, Zhijian J. Chen, Ulrich Maurer, and Christoph Borner

1184 Phosphatase Wip1 Negatively Regulates Neutrophil Migration and Inflammation
Bo Sun, Xuelian Hu, Guangwei Liu, Bo Ma, Yamei Xu, Tao Yang, Jianfeng Shi, Fan Yang, Hongyan Li, Lianfeng Zhang, and Yong Zhao

1196 Chronic Exposure to Glucocorticoids Shapes Gene Expression and Modulates Innate and Adaptive Activation Pathways in Macrophages with Distinct Changes in Leukocyte Attraction
Martijn D. B. van de Garde, Fernando O. Martinez, Barbro N. Melgert, Machteld N. Hylkema, Rene E. Jonkers, and Jörg Hamann

1209 Cell Death Triggered by Yersinia enterocolitica Identifies Processing of the Proinflammatory Signal Adapter MyD88 as a General Event in the Execution of Apoptosis
Lena Novikova, Nicole Czymmek, Anne Desretzbacher, Friedrich Buck, Kathleen Richter, Alexander N. R. Weber, Martin Aepfelbacher, and Klaus Ruckdeschel

1220 Generation of Multiple Fluid-Phase C3b:Plasma Protein Complexes during Complement Activation: Possible Implications in C3 Glomerulopathies
Mahalakshmi Ramadass, Berhane Ghebrehiwet, Richard J. Smith, and Richard R. Kew

1231 The SOCS3-Independent Expression of IDO2 Supports the Homeostatic Generation of T Regulatory Cells by Human Dendritic Cells
Sara Trabanelli, Davina Ocalekovic, Marilena Ciciarello, Valentina Salvestrini, Mariangela Leccio, Camilla Jandus, Richard Metz, Cecilia Evangelisti, Licia Laury-Kleintop, Pedro Romero, George C. Prendergast, Antonio Curti, and Roberto M. Lemoli

1241 Activin A as a Mediator of NK–Dendritic Cell Functional Interactions
Pascal Seeger, Daniela Botisio, Silvia Parolini, Raffaele Badolato, Angela Gismondi, Angela Santoni, and Silvano Sozzani
Identification of Hypoxia-Inducible Factor HIF-1A as Transcriptional Regulator of the A2B Adenosine Receptor during Acute Lung Injury
Tobias Eckle, Emily M. Kewley, Kelley S. Brodsky, Eenyoung Tak, Stephanie Bonney, Merit Gobel, Devon Anderson, Louise E. Glover, Ann K. Riegel, Sean P. Colgan, and Holger K. Eltzschig

CCRF Is Mainly Expressed in Teleost Gills, Where It Defines an IgD⁺IgM⁻ B Lymphocyte Subset
Rosario Castro, Erin Bronmage, Beatriz Abó, Jaime Pignatelli, Aitor Gonzalez Granja, Alfonso Luque, and Carolina Tafalla

IFN-γ-Mediated Induction of an Apical IL-10 Receptor on Polarized Intestinal Epithelia
Douglas J. Kominsky, Eric L. Campbell, Stefan F. Ehrentraut, Kelly E. Wilson, Caleb J. Kelly, Louise E. Glover, Cobin B. Collins, Amanda J. Bayles, Bejan Saeedi, Eugenia Drobinskitih, Brittelle E. Bowers, Christopher F. MacManus, Werner Müller, Sean P. Colgan, and Dunja Bruder

IL-1β and TLR4 Signaling Are Involved in the Aggravated Murine Acute Graft-versus-Host Disease Caused by Delayed Bortezomib Administration
Yong Liang, Shoubao Ma, Yanning Zhang, Ying Wang, Qiao Cheng, Yan Wu, Yue Jin, Donghui Zheng, Depei Wu, and Haiyan Liu

Adaptively Transferred Immune T Cells Eradicate Established Tumors despite Cancer-Induced Immune Suppression
Ainhoa Arina, Karin Schreiber, David C. Binder, Theodore G. Karrison, Rebecca B. Liu, and Hans Schreiber

Mannan-Binding Protein, a C-Type Serum Lectin, Recognizes Primary Colorectal Carcinomas through Tumor-Associated Lewis Glycans
Motohiro Nonaka, Hirotsugu Inaeda, Shogo Matsumoto, Bruce Yong Ma, Nobuko Kawasaki, Eiji Mekata, Akira Andoh, Yasuharu Saito, Tohru Tani, Yoshibide Fujihama, and Toshisuke Kawasaki

The (1→6)-β-Glucan Moiety Represents a Cross-Reactive Epitope of Infection-Induced Malignancy Surveillance
Hongliang Dong, Hui Dai, Xiaomin Hu, Si-Dong Xiong, and Xiao-Ming Gao

Gap Junction Intercellular Communications Regulate NK Cell Activation and Modulate NK Cytotoxic Capacity

Transmembrane TNF-α Promotes Suppressive Activities of Myeloid-Derived Suppressor Cells via TNFR2
Xin Hu, Baitua Li, Xianyuan Li, Xiaonian Zhao, Lin Wan, Guobing Lin, Min Yu, Jing Wang, Xiaodian Jiang, Wei Feng, Zhihai Qin, Bingjian Yin, and Zhuoya Li

Correction: In Vivo Ablation of Plasmacytoid Dendritic Cells Inhibits Autoimmunity through Expansion of Myeloid-Derived Suppressor Cells
Marianna Ioannou, Themis Alissafi, Louis Boon, Dimitrios Boumpas, and Panayotis Verginis

Correction: Substrate-Induced Protein Stabilization Reveals a Predominant Contribution from Mature Proteins to Peptides Presented on MHC Class I
Jeff D. Colbert, Diego J. Farfán-Arribas, and Kenneth L. Rock

Correction: Crucial Role of Granulocytic Myeloid-Derived Suppressor Cells in the Regulation of Central Nervous System Autoimmune Disease
Marianna Ioannou, Themis Alissafi, Iakovos Lazaridis, George Deraos, John Matsoukas, Achille Gravanis, Vasileios Mastorodemos, Andreas Plaitakis, Arlene Sharpe, Dimitrios Boumpas, and Panayotis Verginis

AUTHOR INDEX