IN THIS ISSUE

PILLARS OF IMMUNOLOGY

1127 Plugging the Leaky Pre-B Cell Receptor
Mary Ellen Conley and Peter D. Burrows

Daisuke Kitamura, Akira Kudo, Stefan Schaal, Werner Müller, Fritz Melchers, and Klaus Rajewsky

CUTTING EDGE

1139 Cutting Edge: Bortezomib-Treated Tumors Sensitized to NK Cell Apoptosis Paradoxically Acquire Resistance to Antigen-Specific T Cells
Andreas Lundqvist, Su Su, Sheila Rao, and Richard Childs

1143 Cutting Edge: Basophils Are Transiently Recruited into the Draining Lymph Nodes during Helminth Infection via IL-3, but Infection-Induced Th2 Immunity Can Develop without Basophil Lymph Node Recruitment or IL-3
Sohee Kim, Melanie Prout, Hayley Ramsbaw, Angel F. Lopez, Graham LeGros, and Booki Min

1148 Cutting Edge: Nucleotide-Binding Oligomerization Domain 1-Dependent Responses Account for Murine Resistance against Trypanosoma cruzi Infection

1153 Cutting Edge: HLA-DM–Mediated Peptide Exchange Functions Normally on MHC Class II–Peptide Complexes That Have Been Weakened by Elimination of a Conserved Hydrogen Bond
Andrea Ferrante and Jack Gorski

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

1159 Human Plasmacytoid Dendritic Cells Support Th17 Cell Effector Function in Response to TLR7 Ligation
Chun-Feng Yu, Wen-Ming Peng, Johannes Oldenburg, Jochen Hoch, Thomas Bieber, Andreas Limmer, Gunther Hartmann, Winfried Barchet, Anna Maria Eis-Hubinger, and Natalija Novak

1168 Cell Type-Specific Recognition of Human Metapneumoviruses (HMPVs) by Retinoic Acid-Inducible Gene I (RIG-I) and TLR7 and Viral Interference of RIG-I Ligand Recognition by HMPV-B1 Phosphoprotein
Nadege Goutagny, Zhaozhao Jiang, Jane Tian, Peggy Parroche, Jeanne Schickli, Brian G. Monks, Nancy Ulbrandt, Hong Ji, Peter A. Kiener, Anthony J. Coyle, and Katherine A. Fitzgerald

1180 SHP-1 Deficient Mast Cells Are Hyperresponsive to Stimulation and Critical in Initiating Allergic Inflammation in the Lung
Li Zhang, Sun Young Oh, Xiaoling Wu, Min Hee Oh, Fan Wu, John T. Schroeder, Clifford M. Takemoto, Tao Zheng, and Zhou Zhu

1191 Constitutive Activation of Wnt Signaling Favors Generation of Memory CD8 T Cells
Dong-Mei Zhao, Shuyang Yu, Xinyuan Zhou, Jodie S. Haring, Werner Held, Vladimir P. Badovinac, John T. Harry, and Hai-Hui Xue

1200 Lactic Acid and Acidification Inhibit TNF Secretion and Glycolysis of Human Monocytes
Katrin Dietl, Kathrin Renner, Katja Dettmer, Birgit Timischl, Karin Eberhart, Christoph Dorn, Claus Hellerbrand, Michael Kastenberger, Leoni A. Kunz-Schughart, Peter J. Oeser, Reinhard Andresen, Eva Gottfried, and Marina P. Kreutz

1210 A Recombinant Bispecific Single-Chain Fragment Variable Specific for HLA Class II and FcαRI (CD89) Recruits Polymorphonuclear Neutrophils for Efficient Lysis of Malignant B Lymphoid Cells
Yvonne Guettinger, Karin Barbin, Matthias Pepp, Juerg Brueeke, Michael Dechant, Heike Horner, Doreen Thierschmidt, Thomas Valerius, Roland Repp, Georg H. Fey, and Bernhard Stockmeyer

1218 Commensal Microbiota and CD8+ T Cells Shape the Formation of Invariant NKT Cells
Bo Wei, Gerhard Wingender, Daijue Fuijwara, Diana YuHui Chen, Michael McPherson, Sarah Brewer, James Borneman, Mitchell Kronenberg, and Jonathan Braun

1227 B Cells Delay Neutrophil Migration toward the Site of Stimulus: Tardiness Critical for Effective Bacillus Calmette-Guérin Vaccination against Tuberculosis Infection in Mice
Tatiana K. Kondratieva, Elvira I. Rubakova, Irina A. Linge, Vladimir V. Eustifer, Konstantin B. Majorov, and Alexander S. Apt

1235 Early Recycling Compartment Trafficking of CD1a Is Essential for Its Intersection and Presentation of Lipid Antigens
Manuela Cernadas, Marco Cavallari, Gerald Watts, Lucia Mori, Gennaro De Libero, and Michael B. Brenner

1242 Invariant NKT Cells in Hyperplastic Skin Induce a Local Immune Suppressive Environment by IFN-γ Production

1251 Progenitor Cell Origin Plays a Role in Fate Choices of Mature B Cells
Valentina Fossati, Ritu Kumar, and Hans-Willem Snoeck

1261 Recruitment and Differentiation of Conventional Dendritic Cell Precursors in Tumors
Jun Xiao, Jun Zhao, Erin Winter, and Mark S. Cattral

1268 Development of Promyelocytic Zinc Finger and ThPOK-Expressing Innate γδ T Cells Is Controlled by Strength of TCR Signaling and Id3
Eric S. Alonzo, Rachel A. Gottschalk, Jay Das, Takeki Egauma, Robin M. Hobbs, Pier Paolo Pandolfi, Pablo Pereira, Kim E. Nichols, Gary A. Koretzky, Martha S. Jordan, and Derek B. Sant’Angelo

1280 TLR4-Mediated Podosome Loss Discriminates Gram-Negative from Gram-Positive Bacteria in Their Capacity to Induce Dendritic Cell Migration and Maturation
Suzanne F. G. van Helden, Koen van den Dries, Machtedl M. Oud, Reinier A. P. Raymakers, Mihai G. Netea, Frank N. van Leeuwen, and Carl G. Figdor

1292 Loss of CD34 Leads To Exacerbated Autoimmune Arthritis through Increased Vascular Permeability
Marie-Renee Blanchet, Matthew Gold, Steven Malby, Jami Bennett, Bjorn Petri, Paul Kubes, David M. Lee, and Kelly M. McNagny
Human Embryonic Stem Cells Suppress T Cell Responses via Arginase I-Dependent Mechanism
Nurit Yachimovich-Cohen, Sharona Even-Ram, Yoel Shufaro, Jacob Rachmilewitz, and Benjamin Reubinoff

Phylogenetic and Functional Analysis Identifies Ets-1 as a Novel Regulator of the Th2 Cytokine Gene Locus
Jannine M. Strempel, Roland Grenningloh, I-Cheng Ho, and Donata Vercelli

T Cell–Dendritic Cell Interaction Dynamics during the Induction of Respiratory Tolerance and Immunity
Nada Bašočević, Tim Werbs, Ana Davulcu-Mislitz, and Reinhold Förster

Formation of a Mast Cell Synapse: FcεRI Membrane Dynamics upon Binding Mobile or Immobilized Ligands on Surfaces
Amanda Carroll-Portillo, Kathrin Spendier, Janet Pfeiffer, Gary Griffiths, Haitao Li, Keith A. Lidke, Janet M. Oliver, Diane S. Lidke, James L. Thomas, Bridget S. Wilson, and Jerilyn A. Timlin

Broad Volume Distributions Indicate Nonsynchronized Growth and Suggest Sudden Collapses of Germinal Center B Cell Populations
Nicole Wittenbrink, Tom S. Weber, Anke Klein, Armin A. Weiser, Werner Zuschратter, Michael Sibila, Johannes Schuchhardt, and Michal Or-Guil

Autoimmune Disease in Lyn-Deficient Mice Is Dependent on an Inflammatory Environment Established by IL-6
Evelyn Tsantikos, Sarah A. Oracki, Cathy Quilici, Gary P. Anderson, David M. Tarlinton, and Margaret L. Hibbs

Structural Basis for the Blockage of IL-2 Signaling by Therapeutic Antibody Basiliximab
Jianmu Du, Hui Yang, Dapeng Zhang, Jianchuan Wang, Huaizu Guo, Baozheng Peng, Yajun Guo, and Jianping Ding

TCRβ Feedback Signals Inhibit the Coupling of Recombinationally Accessible Vβ14 Segments with DJβ Complexes
Katherine S. Yang-Iott, Andrea C. Carpenter, Marta A. W. Roach, Natalie Steinel, Brenna L. Brady, Konrad Hochedlinger, Rudolf Jaenisch, and Craig H. Bassing

A Small, Variable, and Irregular Killer Cell Ig-Like Receptor Locus Accompanies the Absence of MHC-C and MHC-G in Gibbons

IL-10 Induction by Bordetella parapertussis Limits a Protective IFN-γ Response
Daniel N. Wolfe, Alexia T. Karanikas, Sara E. Hester, Mary J. Kennett, and Eric T. Harvill

IL-15 Prevents Apoptosis, Reverses Innate and Adaptive Immune Dysfunction, and Improves Survival in Sepsis
Shigeki Isoue, Jacqueline Unsinger, Christopher G. Davis, Jared T. Muenzer, Thomas A. Ferguson, Katherine Chang, Dale F. Osborne, Andrew T. Clark, Craig M. Coopersmith, Jonathan E. McDunn, and Richard S. Hotchkiss

Critical Role of IL-1 Receptor-Associated Kinase-M in Regulating Chemokine-Dependent Deleterious Inflammation in Murine Influenza Pneumonia
Masafumi Seki, Shigeru Kohno, Michael W. Neustad, Xianying Zeng, Urvashi Bhan, Nicholas W. Lukacs, Steven L. Kunkel, and Theodore J. Standiford

Defective Ribosomal Products Are the Major Source of Antigenic Peptides Endogenously Generated from Influenza A Virus Neuraminidase
Brian P. Dolan, Lily Li, Kazuyo Takeda, Jack R. Bennink, and Jonathan W. Yewdell

LL-37 Promotes Rapid Sensing of CpG Oligodeoxynucleotides by B Lymphocytes and Plasmacytoid Dendritic Cells
Plinio Hurtado and Chen Au Peh
Mycolactone Suppresses T Cell Responsiveness by Altering Both Early Signaling and Posttranslational Events
Sheerahed Boulkroun, Laure Guenin-Macé, Maria-Isabel Thouilouze, Marc Monot, Anais Mercks, Gordon Langsley, Georges Bismuth, Vincenzo Di Bartolo, and Caroline Demangel

Critical Protective Role for MCP-1 in Pneumonic Burkholderia mallei Infection
Andrew Goodyear, Abby Jones, Ryan Troyer, Helle Bielefeldt-Ohmann, and Steven Dow

TLR2-Dependent Inflammatory Response to Porphyromonas gingivalis Is MyD88 Independent, whereas MyD88 Is Required To Clear Infection
Elia Burns, Tal Eliyahu, Satoshi Uematsu, Shizuo Akira, and Gabriel Nussbaum

INFLAMMATION

Regulation of FcERI Expression during Murine Basophil Maturation: The Interplay between IgE, Cell Division, and FcERI Synthetic Rate
Asifa K. Zaidi and Donald W. MacGlashan

Inhibitory Role of Sphingosine 1-Phosphate Receptor 2 in Macrophage Recruitment during Inflammation
Jason Michaud, Dong-Soon Im, and Timothy Hla

IL-17 Regulates CXCL1 mRNA Stability via an AUUUA/Tristetraprolin-Independent Sequence
Shyamanteer Datta, Michael Novotny, Paul G. Pavicic, Jr., Chenyang Zhao, Tomasz Herjan, Justin Hartuper, and Thomas Hamilton

The Alarmin Cytokine, High Mobility Group Box 1, Is Produced by Viable Cardiomyocytes and Mediates the Lipopolysaccharide-Induced Myocardial Dysfunction via a TLR4/Phosphatidylinositol 3-Kinase γ Pathway
Hu Xu, Zhaoliang Su, Jun Wu, Min Yang, Josef M. Penninger, Claudio M. Martin, Peter R. Kyleys, and Tao Rui

Roles of Sema4D–Plexin-B1 Interactions in the Central Nervous System for Pathogenesis of Experimental Autoimmune Encephalomyelitis
Tatsusada Okuno, Yuji Nakatsuji, Matsuyuki Moriya, Hyoto Takamatsu, Satoshi Nojima, Noriko Takegahara, Toshikiko Tooyufuki, Yukinobu Nakagawa, Sujin Kang, Roland H. Friedel, Saburo Sakoda, Hitoshi Kikutani, and Atsushi Kumanogoh

Diabetes-Induced Oxidative Stress Is Mediated by Ca2+-Independent Phospholipase A2 in Neutrophils
Srinivas Ayilavarapu, Alpdogan Kantarci, Gabrielle Fredman, Oya Turkoglu, Kazuhiro Omori, Hongbeng Liu, Tomoyuki Iwata, Motohiko Yagi, Hatice Hasturk, and Thomas E. Van Dyke

A New Strategy for the Identification of Novel Molecules with Targeted Proresolution of Inflammation Properties
Roberta A. Navarro-Xavier, Justine Newson, Vera Lucia Flor Silveira, Stuart N. Farrow, Derek W. Gilroy, and Jonas Bystrom

IL-33 Induces IL-13–Dependent Cutaneous Fibrosis
Andrew L. Rankin, John B. Mumm, Erin Murphy, Scott Turner, Ni Yu, Terrill K. McLanahan, Patricia A. Bourne, Robert H. Pierce, Rob Kastelein, and Stefan Pflanz

Stromal Interaction Molecules 1 and 2 Are Key Regulators of Autoreactive T Cell Activation in Murine Autoimmune Central Nervous System Inflammation
Michael K. Schubmann, David Stegner, Alejandro Berra-Erro, Stefan Bittner, Attila Braun, Christoph Kleinschmitz, Guido Stoll, Heinz Wiendl, Seen G. Meuth, and Bernhard Nieswandt

Essential Roles of IL-6 Trans-Signaling in Colonic Epithelial Cells, Induced by the IL-6/Soluble–IL-6 Receptor Derived from Lamina Propria Macrophages, on the Development of Colitis-Associated Premalignant Cancer in a Murine Model
Satoshi Matsumoto, Taeko Hara, Keichi Mitsuyaama, Mayuko Yamamoto, Osamu Tsuruta, Michio Sata, Jürgen Scheller, Stefan Rose-John, Sho-ichi Kado, and Toshikiko Takada

IFN-γ Regulates the Requirement for IL-17 in Proteoglycan-Induced Arthritis
Paul D. Doodes, Yanxia Cao, Keith M. Hamel, Yumei Wang, Rachel L. Rodeghero, Katalin Mikesz, Tibor T. Glant, Yoichiro Iwakura, and Alison Finnegan
1560 Mammalian Clock Gene Cryptochrome Regulates Arthritis via Proinflammatory Cytokine TNF-α
Akira Hashiramoto, Takashi Yamane, Ken Tsumiyama, Kohsuke Yoshida, Kaichiro Komai, Hiroyuki Yamada, Fumiyoshi Yamazaki, Masao Doi, Hitoshi Okamura, and Shunichi Shiozawa

1566 Regulation of Lentivirus Neurovirulence by Lipopolysaccharide Conditioning: Suppression of CXCL10 in the Brain by IL-10
Ferdinand Maingat, Serena Viappiani, Yu Zhu, Pornpun Vivithanaporn, Kristofor K. Elledt, Janet Holden, Claudia Silva, and Christopher Power

1575 Matrix Metalloproteinase-8 Inactivates Macrophage Inflammatory Protein-1α To Reduce Acute Lung Inflammation and Injury in Mice
Pablo A. Quintero, Martin D. Knolle, Luisa F. Cala, Yuehong Zhuang, and Caroline A. Owen

CLINICAL IMMUNOLOGY

1589 Promoting Immune Responses by LIGHT in the Face of Abundant Regulatory T Cell Inhibition
Yugang Wang, Mingzhao Zhu, Ping Yu, and Yang-Xin Fu

1596 T Cells Are Required for the Production of Blister-Inducing Autoantibodies in Experimental Epidermolysis Bullosa Acquisita
Ana Gabriela Situ, Alina Sesaran, Sidonia Mihai, Mircea T. Chiriac, Detlef Zillich, Per Hultman, Werner Solbach, and Cassian Situ

1604 Peripheral Blood CCR4+CCR6+ and CXCR3+CCR6+ CD4+ T Cells Are Highly Permissive to HIV-1 Infection
Annie Gosselin, Patricia Monteiro, Nicolas Chomont, Felipe Diaz-Grieffo, Elias A. Said, Simone Fonseca, Vanessa Wacche, Mohamed El-Far, Mohamed-Rachid Boulasel, Jean-Pierre Routy, Rafick-Pierre Sekaly, and Petronela Ancuta

1617 A Single TCRα-Chain with Dominant Peptide Recognition in the AllorestRICTED HER2/neu-Specific T Cell Repertoire
Xiaoling Liang, Luise U. Weigand, Ingrid G. Schuster, Elfriede Eppinger, Judith C. van der Griendt, Andrea Schub, Matthias Leisgang, Daniel Sommermeyer, Florian Anderl, Yanyan Han, Joachim Ellwart, Andreas Maasmann, Dirk H. Busch, Wolfgang Uckert, Christian Peichel, and Angela M. Krackhardt

1630 Tumor Microenvironments Direct the Recruitment and Expansion of Human Th17 Cells
Xinming Su, Jian Ye, Eddy C. Hsueh, Yanping Zhang, Daniel F. Hofi, and Guangyong Peng

1642 IL-8 Dictates Glycosaminoglycan Binding and Stability of IL-18 in Cystic Fibrosis

CORRECTIONS

1653 Correction: Interplay between Chromatin Remodeling and Epigenetic Changes during Lineage-Specific Commitment to Granzyme B Expression
Torsten Juelich, Elissa Sutcliffe, Alice Denton, Yuqing He, Peter C. Doherty, Christopher Parish, Steven J. Turner, David Tremethick, and Sudha Rao

1654 Correction: IL-4Rα, a New Member that Associates with Syk Kinase: Implication in IL-4-Induced Human Neutrophil Functions
Jamila Ennaciri and Denis Girard

1655 Correction: Siglec-E is Up-Regulated and Phosphorylated Following Lipopolysaccharide Stimulation in Order to Limit TLR-Driven Cytokine Production

1656 Correction: Mesenchymal Stem Cells Derived from Human Gingiva Are Capable of Immunomodulatory Functions and Ameliorate Inflammation-Related Tissue Destruction in Experimental Colitis
Qunzhou Zhang, Shihong Shi, Yi Liu, Jettie Uyane, Yufang Shi, Songtao Shi, and Anh D. Le

1657 AUTHOR INDEX