1661 IN THIS ISSUE

BRIEF REVIEWS
1663 Importance of Cytokines in Murine Allergic Airway Disease and Human Asthma
Fred D. Finkelman, Simon P. Hogan, Gurjit K. Khurana Hershey, Marc E. Rothenberg, and Marsha Wills-Karp

CUTTING EDGE
1675 Cutting Edge: Spontaneous Development of IL-17–Producing γδ T Cells in the Thymus Occurs via a TGF-β1–Dependent Mechanism
Jeong-su Do, Pamela J. Fink, Lily Li, Rosanne Spolski, Janet Robinson, Warren J. Leonard, John J. Letterio, and Booki Min

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION
1681 CD155 Is Involved in Negative Selection and Is Required To Retain Terminally Maturing CD8 T Cells in Thymus
Quan Qiu, Inga Ravens, Sebastian Seth, Anchana Rathinasamy, Michael K. Maier, Ana Davalo-Misslitz, Reinhold Förster, and Gunter Bernhardt

1690 Expansion of FOXP3+ CD8 T Cells with Suppressive Potential in Colorectal Mucosa Following a Pathogenic Simian Immunodeficiency Virus Infection Correlates with Diminished Antiviral T Cell Response and Viral Control
Pragati Nigam, Vijayakumar Velu, Sunil Kannanganat, Lakshmi Chennareddi, Suefen Kwa, Mariam Siddiqui, and Rama Rao Amara

1702 miR-126 Is Downregulated in Cystic Fibrosis Airway Epithelial Cells and Regulates TOM1 Expression

1710 IL-23 Receptor Regulates Unconventional IL-17–Producing T Cells That Control Bacterial Infections
Lorena Riol-Blanco, Vanja Lazarevic, Amit Awasthi, Meike Mitsdoerffer, Brian S. Wilson, Andy Crosford, Ari Waisman, Vijay K. Kuchroo, Laurie H. Glimcher, and Mohamed Oukka

Physiological Numbers of CD4+ T Cells Generate Weak Recall Responses Following Influenza Virus Challenge
Paul G. Thomas, Scott A. Brown, Melissa Y. Morris, Wen Yue, Jenny So, Cory Reynolds, Richard J. Webby, and Peter C. Doherty

A Flt3- and Ras-Dependent Pathway Primes B Cell Development by Inducing a State of IL-7 Responsiveness
Lin-Xi Li, Christine A. Goetz, Casey D. S. Katerndahl, Nobuo Sakaguchi, and Michael A. Farrar

Cyclophosphamide Induces Dynamic Alterations in the Host Microenvironments Resulting in a Flt3 Ligand-Dependent Expansion of Dendritic Cells

Unique Epitopes on CemX in IgE–B Cell Receptors Are Potentially Applicable for Targeting IgE-Committed B Cells
Jiun-Bo Chen, Phelidas C. Wu, Alfjur Fu-Hsin Hung, Chia-Yu Chu, Tien-Fang Tsai, Hui-Ming Yu, Hwan-You Chang, and Tie Wen Chang

Targeting MHC Class I Monomers to Dendritic Cells Inhibits the Indirect Pathway of Allorecognition and the Production of IgG Alloantibodies Leading to Long-Term Allograft Survival
Yakup Tanriver, Kalacheley Ramaauthy, R. Pat Bucy, Giovanna Lombardi, and Robert Lechler

Tolerogenic Dendritic Cells Generated with Different Immunosuppressive Cytokines Induce Antigen-Specific Anergy and Regulatory Properties in Memory CD4+ T Cells
Honorio Torres-Aguilar, Sergio R. Aguilar-Ruiz, Gabriela González-Pérez, Rosario Munguía, Sandra Bajaña, Marco A. Meraz-Ríos, and Carmen Sánchez-Torres

IL-6 Promotes NK Cell Production of IL-17 during Toxoplasmosis
Sara T. Passos, Jonathan S. Silver, Aisling C. O’Hara, David Sehy, Jason S. Stumhofer, and Christopher A. Hunter

Critical Role of the IFN-Stimulated Gene Factor 3 Complex in TLR-Mediated IL-27p28 Gene Expression Revealing a Two-Step Activation Process
Céline Molle, Michel Goldman, and Stanislas Goriely

IL-24 Transgenic Mice: In Vivo Evidence of Overlapping Functions for IL-20, IL-22, and IL-24 in the Epidermis
Miao He and Peng Liang

Myelin Basic Protein Priming Reduces the Expression of Foxp3 in T Cells via Nitric Oxide
Saurav Brahmacnari and Kalipada Pahan

Dendritic Cells Support Homeostatic Expansion of Foxp3+ Regulatory T Cells in Foxp3-LuciDTR Mice
Janine Saffner, Kristin Hochsweller, Marie-Cristine Kühnle, Xingrui Li, Richard A. Kroczek, Natalia Garbi, and Günter J. Hämmerling

Dynamic Equilibrium of B7-1 Dimers and Monomers Differentially Affects Immunological Synapse Formation and T Cell Activation in Response to TCR/CD28 Stimulation
Sumeena Bhatia, Kristine Sun, Steven C. Almo, Stanley G. Nathenson, and Richard J. Hodes

Ca2+ Release from the Endoplasmic Reticulum of NY-ESO-1–Specific T Cells Is Modulated by the Affinity of TCR and by the Use of the CD8 Coreceptor
Ji-Li Chen, Anthony J. Morgan, Guillaume Stewart-Jones, Dawn Shepherd, Giovanna Bossi, Linda Wooldridge, Sarah L. Hutchinson, Andrew K. Sewell, Gillian M. Griffiths, P. Anton van der Merwe, E. Yvonne Jones, Antony Galione, and Vincenzo Cerundolo

TLR9 Regulates TLR7- and MyD88-Dependent Autoantibody Production and Disease in a Murine Model of Lupus
Kevin M. Nickerson, Sean R. Christensen, Jonathan Shupe, Michael Kashgarian, Daniel Kim, Keith Elkon, and Mark J. Shlomchik

Pharmacologic Inhibition of MEK–ERK Signaling Enhances Th17 Differentiation
Andy Hee-Meng Tan and Kong-Peng Lam
IL-12 Suppresses Vascular Endothelial Growth Factor Receptor 3 Expression on Tumor Vessels by Two Distinct IFN-γ-Dependent Mechanisms
Elizabeth W. Sorensen, Scott A. Gerber, John G. Frelinger, and Edith M. Lord

Stress-Induced Glucocorticoids at the Earliest Stages of Herpes Simplex Virus-1 Infection Suppress Subsequent Antiviral Immunity, Implicating Impaired Dendritic Cell Function
Michael D. Effman, John T. Hunzeker, Jennifer C. Mellinger, Robert H. Bonneau, Christopher C. Norbury, and Mary E. Truennmiller

Peroxynitrite-Dependent Killing of Cancer Cells and Presentation of Released Tumor Antigens by Activated Dendritic Cells
Jennifer Fraszczak, Malika Trad, Nona Janikashvili, Dominique Cathelin, Daniela Lakomy, Virginie Granci, Alexandre Morizot, Sylvain Audia, Olivier Micheau, Laurent Lagrost, Emmanuel Katsanis, Eric Solary, Nicolas Larmionier, and Bernard Bonnotte

Natural Expression of the CD19 Antigen Impacts the Long-Term Engraftment but Not Antitumor Activity of CD19-Specific Engineered T Cells

The Direction of Plasma Membrane Exchange between Lymphocytes and Accessory Cells by Trogocytosis Is Influenced by the Nature of the Accessory Cell
Sandrine Daubeuf, Margaret A. Lindorfer, Ronald P. Taylor, Etienne Joly, and Denis Hudrisier

Mechanisms of Spatial and Temporal Development of Autoimmune Vitiligo in Tyrosinase-Specific TCR Transgenic Mice
Randal K. Gregg, Lisa Nichols, Yiming Chen, Bao Lu, and Victor H. Engelhard

MOLECULAR AND STRUCTURAL IMMUNOLOGY
T Cell/Transmembrane, Ig, and Mucin-3 Allelic Variants Differentially Recognize Phosphatidylinerine and Mediate Phagocytosis of Apoptotic Cells
Rosemarie H. DeKruyff, Xia Bu, Angela Ballesteros, César Santiago, Yee-Ling E. Chim, Hyun-Hee Lee, Piia Karisola, Muriel Pichavant, Gerardo G. Kaplan, Dale T. Umetsu, Gordon J. Freeman, and José M. Casanasovas

Curvature of Synthetic and Natural Surfaces Is an Important Target Feature in Classical Pathway Complement Activation
Martin Bjørggård Pedersen, Xingfei Zhou, Eshon Kjær Unmack Larsen, Uffe Skov Sørensen, Jørgen Kjems, Jens Vinge Nygaard, Jens Randel Nyengaard, Rikke Louise Meyer, Thomas Boesen, and Thomas Vorup-Jensen

Mutational Analyses Reveal that the Staphylococcal Immune Evasion Molecule Sbi and Complement Receptor 2 (CR2) Share Overlapping Contact Residues on C3d: Implications for the Controversy Regarding the CR2/C3d Cocrystal Structure
David E. Isenman, Elisa Leung, Julia D. Mackay, Stefan Bagby, and Jean M. H. van den Elsen

Influence of Electrostatics on the Complement Regulatory Functions of Kaposica, the Complement Inhibitor of Kaposi’s Sarcoma-Associated Herpesvirus
Kalyani Pyaram, Chris A. Kieslich, Viveka Nand Yadav, Dimitrios Morikis, and Arvind Sahu

Importance of Neonatal FcR in Regulating the Serum Half-Life of Therapeutic Proteins Containing the Fc Domain of Human IgG1: A Comparative Study of the Affinity of Monoclonal Antibodies and Fc-Fusion Proteins to Human Neonatal FcR
Takuo Suzuki, Akiko Ishii-Watabe, Minoru Tada, Tetsu Kobayashi, Toshiie Kanayasu-Toyoda, Toru Kawanishi, and Teruhide Yamaguchi

IMMUNOGENETICS
Antigen-Induced Oligomerization of the B Cell Receptor Is an Early Target of FcγRIIB Inhibition
Wanli Liu, Hae Won Sohn, Pavel Tolar, Tokias Meckel, and Susan K. Pierce
HOST DEFENSE

1990 The Nucleotide-Binding Oligomerization Domain-Like Receptor NLRC5 Is Involved in IFN-Dependent Antiviral Immune Responses
Sven Kuenzel, Andreas Till, Michael Winkler, Robert Häsl, Simone Lipinski, Sascha Jung, Joachim Größinger, Helmut Fickenscher, Stefan Schreiber, and Philip Rosenstiel

2001 Dysregulated Macrophage-Inflammatory Protein-2 Expression Drives Illness in Bacterial Superinfection of Influenza
Caleb C. J. Zavitz, Carla M. T. Bauer, Gordon J. Gaschler, Katie M. Fraser, Robert M. Strieter, Cory M. Hogaboam, and Martin R. Stampfli

2014 Influenza Virus-Specific Immunological Memory Is Enhanced by Repeated Social Defeat

2026 Enteric Flora Expands Gut Lamina Propria CX3CR1+ Dendritic Cells Supporting Inflammatory Immune Responses under Normal and Inflammatory Conditions
Jan Hendrik Nies and Guido Adler

2038 Mycobacterium bovis Bacillus Calmette-Guérin Vaccination Mobilizes Innate Myeloid-Derived Suppressor Cells Restraining In Vivo T Cell Priming via IL-1R-Dependent Nitric Oxide Production
Angelo Martino, Edgar Badell, Valérie Abadie, Viviane Balloy, Michel Chignard, Michel-Yves Mistou, Béhazine Combadière, Christophe Combadière, and Nathalie Winter

2048 Influenza Infection Leads to Increased Susceptibility to Subsequent Bacterial Superinfection by Impairing NK Cell Responses in the Lung

2057 HIV Protective KIR3DL1 and HLA-B Genotypes Influence NK Cell Function Following Stimulation with HLA-Devoid Cells
Salix Boulet, Rajun Song, Philomena Kamya, Julie Bruneau, Naglaa H. Shoukry, Christos M. Tsoukas, and Nicole F. Bernard

2065 The Innate Immune Response to Uropathogenic Escherichia coli Involves IL-17A in a Murine Model of Urinary Tract Infection
Kelsey E. Sivick, Matthew A. Schaller, Sara N. Smith, and Harry L. T. Mobley

2076 Th17 Cells Are the Dominant T Cell Subtype Primed by Shigella flexneri Mediating Protective Immunity
Gernot Selige, Joao G. Magalhães, Christoph Konradi, Jörg H. Fritz, Wilmara Salgado-Pabon, Gérard Eberl, Antonio Bandeira, James P. Di Santo, Phillippe J. Sansonetti, and Armelle Phalipon

2086 Costimulator B7-DC Attenuates Strong Th2 Responses Induced by Nippostrongylus brasiliensis
Kenji Ishiwata, Naohiro Watanabe, Miao Guo, Kei Tomihara, Michael J. Braunlik, Hideo Yagita, Drew Pardoll, Lieping Chen, and Tahirbo Shin

2095 Invariant NKT Cells Preferentially Modulate the Function of CD8α+ Dendritic Cell Subset in Inducing Type 1 Immunity against Infection
Antony George Joyee, Jude Uzonna, and Xi Yang

INFLAMMATION

2107 A CD1d-Dependent Antagonist Inhibits the Activation of Invariant NKT Cells and Prevents Development of Allergen-Induced Airway Hyperreactivity

2116 Mast Cells, Histamine, and IL-6 Regulate the Selective Influx of Dendritic Cell Subsets into an Inflamed Lymph Node
Wojciech Dawicki, Dunia W. Jawdat, Nong Xu, and Jean S. Marshall
2124 Immunoregulatory Properties of Mouse Limbal Stem Cells
Vladimir Holan, Kateřina Pokorna, Jana Procházková, Magdalena Krulová, and Alena Zajicová

2130 Loss of CD4+ T Cell IL-6R Expression during Inflammation Underlines a Role for IL-6 Trans Signaling in the Local Maintenance of Th17 Cells
Gareth W. Jones, Rachel M. McLoughlin, Victoria J. Hammond, Clare R. Parker, John D. Williams, Raj Malhotra, Jürgen Scheller, Anwen S. Williams, Stefan Rose-John, Nicholas Topley, and Simon A. Jones

2140 NCX 4040, a Nitric Oxide-Donating Aspirin, Exerts Anti-Inflammatory Effects through Inhibition of IkB-α Degradation in Human Monocytes
Emanuela Ricciotti, Melania Dovizio, Luigia Di Francesco, Paola Anzellotti, Tania Salvatore, Andrea Di Francesco, Maria G. Scuilli, Giuseppa Pistritto, Angela Monopoli, and Paola Patrignani

2148 Ro60-Associated Single-Stranded RNA Links Inflammation with Fetal Cardiac Fibrosis via Ligation of TLRs: A Novel Pathway to Autoimmune-Associated Heart Block
Robert M. Clancy, David Alvaez, Elena Konisarova, Franck J. Barrat, Jordan Swartz, and Jill P. Buyon

CLINICAL IMMUNOLOGY

2156 TCR Mimic Monoclonal Antibody Targets a Specific Peptide/HLA Class I Complex and Significantly Impedes Tumor Growth In Vivo Using Breast Cancer Models
Bhavna Verma, Francisca A. Needling, Shannon Casetline, Ginger Fabrizio, Sherly Largo, J. Andrew Duke, Piotr Tabaczewski, and Jon A. Weidanz

2166 A Novel Active Mouse Model for Bullous Pemphigoid Targeting Humanized Pathogenic Antigen
Hideyuki Ujiie, Akira Shibaki, Wataru Nishie, Daisuke Sawamura, Gang Wang, Yasuki Tateishi, Qiang Li, Reine Moriuichi, Hongjiang Qiao, Hideki Nakamura, Masashi Akiyama, and Hiroshi Shimizu

2175 Reversal of Established Lupus Nephritis and Prolonged Survival of New Zealand Black × New Zealand White Mice Treated with the Topoisomerase I Inhibitor Irinotecan
Manuela Frese-Schaper, Jakob Zbaeren, Mathias Gugger, Marc Monestier, and Steffen Frese

2183 Urine Proteome Scans Uncover Total Urinary Protease, Prostaglandin D Synthase, Serum Amyloid P, and Superoxide Dismutase as Potential Markers of Lupus Nephritis
Tianfu Wu, Yuyang Fu, Deirdre Brekken, Mei Yan, Xin J. Zhou, Kamala Vanarsa, Nina Deljavan, Chul Ahn, Chaim Putterman, and Chandra Mohan

2194 Birch Pollen Immunotherapy Leads to Differential Induction of Regulatory T Cells and Delayed Helper T Cell Immune Deviation
Christian Möbs, Caroline Sletsch, Harald Löffler, Thilo Jakob, Michael Herlt, and Wolfgang Pfützner

2204 Evidence for Molecular Mimicry between Human T Cell Epitopes in Rotavirus and Pancreatic Islet Autoantigens
Margo C. Honeyman, Natalie L. Stone, Ben A. Falk, Gerald Nepom, and Leonard C. Harrison

2211 Characterization of IL-17A–Producing Cells in Celiac Disease Mucosa
Ivan Monteleone, Massimiliano Sarra, Giovanna Del Vecchio Blanco, Omero Alessandro Paoluzzi, Eleonora Franzè, Daniele Fina, Alessia Fabrizi, Thomas T. MacDonald, Francesco Pallone, and Giovanni Monteleone

2219 Concentration-Dependent Noncysteinyl Leukotriene Type 1 Receptor-Mediated Inhibitory Activity of Leukotriene Receptor Antagonists
Grzegorz Woszczek, Li-Yuan Chen, Sara Alsaaey, Sabrudeya Nagineni, and James H. Shelhamer

2226 AUTHOR INDEX