This information is current as of June 11, 2022.
IN THIS ISSUE

465 Migration May Matter in MS See articles p. 555 and 564
Fibroblasts Modulate Macrophages See article p. 597
T Cells Taxi with Autotaxin See article p. 617
CD70 Modulates MCMV Responses See article p. 871
ERAPs Enhance Epitopes See article p. 901
Editing Ets1 Expression See article p. 909

LETTERS TO THE EDITOR

467 Comment on “Tim-3 Directly Enhances CD8 T Cell Responses to Acute Listeria monocytogenes Infection”
Vijay K. Kuchroo, Ana C. Anderson, and Gordon J. Freeman

467 Response to Comment on “Tim-3 Directly Enhances CD8 T Cell Responses to Acute Listeria monocytogenes Infection”
Jacob V. Gorman and John D. Colgan

BRIEF REVIEWS

469 Influenza-Specific Antibody-Dependent Cellular Cytotoxicity: Toward a Universal Influenza Vaccine
Sinthujan Jegaskanda, Patrick C. Reading, and Stephen J. Kent

ALLERGY AND OTHER HYPERSENSITIVITIES

477 Elevated Levels of Mast Cells Are Involved in Pruritus Associated with Polycythemia Vera in JAK2V617F Transgenic Mice
Xi Jin, Wanke Zhao, Annet Kirabo, Sung O. Park, Wanting T. Ho, Peter P. Sayeski, and Zhizhuang J. Zhao

485 The Wnt/β-Catenin Pathway Attenuates Experimental Allergic Airway Disease

GM-CSF–Licensed CD11b+ Lung Dendritic Cells orchestrate Th2 Immunity to *Blomia tropicalis*
Qian Zhou, Adrian W. S. Ho, Andreas Schlitzer, Yafang Tang, Kenneth H. S. Wong, Fiona H. S. Wong, Yen Leong Chua, Veronique Angeli, Alessandra Mortellaro, Florent Ginhoux, and David M. Kemeny

High Proportion of CD5+ B Cells in Infants Predicts Development of Allergic Disease
Anna-Carin Lundell, Susanne Johansen, Inggegerd Adlerberth, Agnes E. Wold, Bill Hesselmar, and Anna Rudin

### ANTIGEN RECOGNITION AND RESPONSES

Real-Time Detection of CTL Function Reveals Distinct Patterns of Caspase Activation Mediated by Fas versus Granzyme B

B Cells Regulate CD4+ T Cell Responses to Papain following B Cell Receptor–Independent Papain Uptake
Daniel F. Dwyer, Matthew C. Woodruff, Michael C. Carroll, K. Frank Austen, and Michael F. Gurish

### AUTOIMMUNITY

IL-17 Promotes Murine Lupus
Gil Amariño, Elaine V. Lourenço, Fu-Dong Shi, and Antonio La Cava

Inhibition of PI3Kδ Reduces Kidney Infiltration by Macrophages and Ameliorates Systemic Lupus in the Mouse
Abel Suárez-Fueyo, Joë M. Rojas, Ariel E. Cariaga, Esther García, Bart H. Steiner, Domingo F. Barber, Kamal D. Puri, and Ana C. Carrera

Cytokine-Regulated Neutrophil Recruitment Is Required for Brain but Not Spinal Cord Inflammation during Experimental Autoimmune Encephalomyelitis
Sarah B. Simmons, Denny Liggitt, and Joan M. Goverman

Site-Specific Chemokine Expression Regulates Central Nervous System Inflammation and Determines Clinical Phenotype in Autoimmune Encephalomyelitis
Joshua S. Stoolman, Patrick C. Duncker, Amanda K. Huber, and Benjamin M. Segal

TCR Affinity and Tolerance Mechanisms Converge to Shape T Cell Diabetogenic Potential
Maria Bettini, Lori Blanchfield, Ashley Castellau, Qianxia Zhang, Maki Nakayama, Matthew P. Smeltzer, Hui Zhang, Kristin A. Hoggquist, Brian D. Evavold, and Dario A. A. Vignali

### CLINICAL AND HUMAN IMMUNOLOGY

Rituximab Efficiently Depletes Increased CD20-Expressing T Cells in Multiple Sclerosis Patients

Humanized Mice as a Model for Aberrant Responses in Human T Cell Immunotherapy

### IMMUNE REGULATION

Adventitial Fibroblasts Induce a Distinct Proinflammatory/Profibrotic Macrophage Phenotype in Pulmonary Hypertension

Human NKG2E Is Expressed and Forms an Intracytoplasmic Complex with CD94 and DAP12
Gerasim A. Orbelyan, Fangming Tang, Benjamin Sally, Jason Solus, Bertrand Meresse, Cezary Ciszewski, Jean-Christophe Grenier, Luis B. Barreiro, Lewis L. Lantier, and Bana Jabri
Autotaxin Produced by Stromal Cells Promotes LFA-1–Independent and Rho-Dependent Interstitial T Cell Motility in the Lymph Node Paracortex
Tomoya Katakai, Naoyuki Kondo, Yoshihiro Ueda, and Tatsuo Kinashi

Targeting of TLRs Inhibits CD4+ Regulatory T Cell Function and Activates Lymphocytes in Human Peripheral Blood Mononuclear Cells
Kui Shin Voo, Laura Bover, Megan Lundell Harline, Jinheng Weng, Naoshi Sugimoto, and Yong-Jun Liu

gp49B-Mediated Negative Regulation of Antibody Production by Memory and Marginal Zone B Cells
Sator Fukao, Kei Haniuda, Takuya Nojima, Toshiyuki Takai, and Daihuke Kitamura

Human Th2 but Not Th9 Cells Release IL-31 in a STAT6/NF-κB–Dependent Way
Elisabeth Maier, Dagmar Werner, Albert Duschl, Barbara Bohle, and Jutta Horejs-Hoeck

Regulatory T Cells Restrain CD4+ T Cells from Causing Unregulated Immune Activation and Hypersensitivity to Lipopolysaccharide Challenge
Emeka B. Okeke, Ifeoma Okwor, and Jude E. Uzonna

IMMUNE SYSTEM DEVELOPMENT

Id1 Expression Promotes T Regulatory Cell Differentiation by Facilitating TCR Costimulation
Chen Liu, Hong-Cheng Wang, Sen Yu, Rong Jin, Hui Tang, Yuan-Feng Liu, Qing Ge, Xiao-Hong Sun, and Yu Zhang

Innate PLZF+CD4+αβ T Cells Develop and Expand in the Absence of Itk

Development of Innate CD4+ and CD8+ T Cells in Itk-Deficient Mice Is Regulated by Distinct Pathways
Amanda L. Prince, Zachary Kraus, Shannon A. Carty, Caleb Ng, Catherine C. Yin, Martha S. Jordan, Pamela L. Schwartzberg, and Leslie J. Berg

Themis2 Is Not Required for B Cell Development, Activation, and Antibody Responses
Harald Hartweger, Edina Schweighoffer, Sophia Davidson, Matthew J. Peirce, Andrea Wach, and Victor L. J. Tybulewicz

IMMUNOTHERAPY AND VACCINES

Metabolic Engineering of Salmonella Vaccine Bacteria To Boost Human Vγ2Vδ2 T Cell Immunity
Grefachew Werkalemahu, Hong Wang, Kiz-Joo Puan, Mohanad H. Nada, Tomobisa Kuzuyama, Bradley D. Jones, Chenggang Jin, and Craig T. Morita

CD40 Ligand Preferentially Modulates Immune Response and Enhances Protection against Influenza Virus
Anwar M. Hashem, Caroline Gravel, Ze Chen, Yinglei Yi, Monika Tacchi, Bozana Jaentschke, Xingliang Fan, Changgui Li, Mihael Rosu-Myles, Alexander Pereboev, Runtao He, Junzhi Wang, and Xuguang Li

Autologous Tumor Vaccine Modified with Recombinant New Castle Disease Virus Expressing IL-7 Promotes Antitumor Immune Response
Lixiang Zhao, Yu Mei, Qing Sun, Linghua Guo, Yan Wu, Xiao Yu, Bo Hu, Xinfan Liu, and Haiyan Liu

Acute and Chronic B Cell Depletion Disrupts CD4+ and CD8+ T Cell Homeostasis and Expansion during Acute Viral Infection in Mice

INFECTIOUS DISEASE AND HOST RESPONSE

Immune Memory–Boosting Dose of Rapamycin Impairs Macrophage Vesicle Acidification and Cauts Glycolysis in Effector CD8 Cells, Impairing Defense against Acute Infections
Emily L. Goldberg, Megan J. Smibey, Lydia K. Lutes, Jennifer L. Uhrlaub, and Janko Nikolich-Zugich
Macrophage Migration Inhibitory Factor Promotes Clearance of Pneumococcal Colonization
Rituparna Das, Meredith I. LaRose, Christopher B. Hergott, Lin Leng, Richard Bucala, and Jeffrey N. Weiser

The Peritrophic Matrix Mediates Differential Infection Outcomes in the Tsetse Fly Gut following Challenge with Commensal, Pathogenic, and Parasitic Microbes
Brian L. Weis, Amy F. Savage, Bridget C. Griffith, Yineng Wu, and Serap Aksoy

Ficolin-2 Inhibits Hepatitis C Virus Infection, whereas Apolipoprotein E3 Mediates Viral Immune Escape
Yinglan Zhao, Yushan Ren, Xaping Zhang, Ping Zhao, Wanyin Tao, Jin Zhong, Qiao Li, and Xiao-Lian Zhang

Early Lymphoid Responses and Germinal Center Formation Correlate with Lower Viral Load Set Points and Better Prognosis of Simian Immunodeficiency Virus Infection
Jung Joo Hong, Praveen K. Amanocha, Kenneth A. Rogers, Cynthia L. Courtney, Colin Havenar-Daughton, Shane Crotty, Aftab A. Ansari, and Francois Villinger

Tryptophan Catabolism Restricts IFN-γ-Expressing Neutrophils and Clostridium difficile Immunopathology
Mohamad El-Zaatari, Yu-Ming Chang, Min Zhang, Matthew Franz, Andrew Shreiner, Andrew J. McDermott, Koenaad F. van der Sluijs, René Lutter, Helmut Grasberger, Nobuhiko Kamada, Vincent B. Young, Gary B. Huffnagle, and John Y. Kao

Adrenocortical Scavenger Receptor Class B Type I Deficiency Exacerbates Endotoxic Shock and Precipitates Sepsis-Induced Mortality in Mice
Sophie Gilibert, Lauriane Galile-Treger, Martine Moreau, Flora Saint-Charles, Sara Costa, Raphaëlle Ballaire, Philippe Couvert, Alain Carrière, Philippe Lesник, and Thierry Huby

INNATE IMMUNITY AND INFLAMMATION

Opposing Roles of Prostaglandin D2 Receptors in Ulcerative Colitis

DOK3 Is Required for IFN-β Production by Enabling TRAF3/TBK1 Complex Formation and IRF3 Activation
Susana Soo-Yeon Kim, Koon-Guan Lee, Ching-Siang Chin, Say-Kong Ng, Natasha Ann Pereira, Shengli Xu, and Kiong-Peng Lam

GM-CSF but Not IL-17 Is Critical for the Development of Severe Interstitial Lung Disease in SKG Mice
Aoi Shiomi, Takashi Utsu, Yuki Ishikawa, Masakazu Shimizu, Koiku Murakami, and Tienno Mimori

PILRα Negatively Regulates Mouse Inflammatory Arthritis
Yonglian Sun, Patrick Caplazi, Juan Zhang, Anita Mazlum, Sarah Kummerfeld, Gabriel Quinones, Kate Senger, Justin Leoch, Ivan Peng, Andrew Sebrell, Wilman Luk, Yanmei Lu, Zhonghua Lin, Kai Barck, Judy Young, Mariela Del Rio, Sophie Lehar, Vidya Aghari, WeiYu Lin, Sanjeev Maruthah, Jason DeVos, Shahram Misaghi, Mercedes Balazs, Tao Sai, Benjamin Haley, Philip E. Hass, Min Xu, Wenjun Ouyang, Flaviu Martin, Wyne P. Lee, and Ali A. Zarrin

Dual Function of CD70 in Viral Infection: Modulator of Early Cytokine Responses and Activator of Adaptive Responses
Atef Allam, Melissa Swiecki, William Vermi, Jonathan D. Ashwell, and Marco Colonna

Cellular Stress Amplifies TLR3/4-Induced CXCL1/2 Gene Transcription in Mononuclear Phagocytes via RIPK1
Chenyang Zhao, Paul G. Pavicic, Jr., Shyamasee Datta, Dongeu Sun, Michael Novotny, and Thomas A. Hamilton

MOLECULAR AND STRUCTURAL IMMUNOLOGY

Investigation of Soluble and Transmembrane CTLA-4 Isoforms in Serum and Microvesicles
Laura Esposito, Kara M. D. Hunter, Jan Clark, Daniel B. Rainbow, Helen Stevens, Jennifer Denisha, Simon Duley, Sarah Dawson, Gillian Coleman, Sarah Nutland, Guyneth L. Bell, Carla Moran, Martin Pekalski, John A. Todd, and Linda S. Wicker
ERAP1–ERAP2 Dimerization Increases Peptide-Trimming Efficiency
Irini Evnouchidou, Mirjana Weimershaus, Loredana Saveanu, and Peter van Endert

A Balance between B Cell Receptor and Inhibitory Receptor Signaling Controls Plasma Cell Differentiation by Maintaining Optimal Ets1 Levels
Wei Luo, Jessica Mayeux, Toni Gutierrez, Lisa Russell, Andrew Getahun, Jennifer Müller, Thomas Tedder, Jane Parnes, Robert Rickert, Lars Nitschke, John Cambier, Anne B. Satterthwaite, and Lee Ann Garrett-Sinha

Molecular Determinants of Agonist and Antagonist Signaling through the IL-36 Receptor
Sebastian Günther and Eric J. Sundberg

Apurinic/Apyrimidinic Endonuclease 2 Regulates the Expansion of Germinal Centers by Protecting against Activation-Induced Cytidine Deaminase–Independent DNA Damage in B Cells
Jeroen E. J. Guikema, Erin K. Linehan, Nada Esa, Daisuke Tsuchimoto, Yusaku Nakabeppu, Robert T. Woodland, and Carol E. Schrader

MUCOSAL IMMUNOLOGY
Human NK Cells Licensed by Killer Ig Receptor Genes Have an Altered Cytokine Program That Modifies CD4+ T Cell Function
Lin Lin, Chao Ma, Bo Wei, Najib Aziz, Raja Rajalingam, Susy Yusung, Henry A. Erlich, Elizabeth A. Trachtenberg, Stephan R. Targan, Dermot P. B. McGovern, James R. Heath, and Jonathan Braun

TUMOR IMMUNOLOGY
Reactive Oxygen Species– and DNA Damage Response–Dependent NK Cell Activating Ligand Upregulation Occurs at Transcriptional Levels and Requires the Transcriptional Factor E2F1
Alessandra Soriani, Maria Luisa Iannitto, Biancamaria Ricci, Cinzia Fionda, Giulia Malgarini, Stefania Morrone, Giovanna Peruzzi, Maria Rosaria Ricciardi, Maria Teresa Petrucci, Marco Cippitelli, and Angela Santoni

NOVEL IMMUNOLOGICAL METHODS
Targeted Delivery of α-Galactosylceramide to CD8α+ Dendritic Cells Optimizes Type I NKT Cell–Based Antitumor Responses
Elodie Macho-Fernandez, Luis Javier Cruz, Reem Ghinnagou, Josette Fontaine, Emilie Bialecki, Benoît Frisch, François Trottein, and Christelle Faveeuw

AUTHOR INDEX