



HIT YOUR TARGET WITH CYTEK  
PAY ONLY FOR WHAT YOU NEED

ONE-LASER, UP TO 9 COLOR  
NL-1000 FLOW CYTOMETRY SYSTEM  
FOR JUST **\$49.5K**

LEARN MORE



**181 (9)**

*J Immunol* 2008; 181:5811-6672; ;  
<http://www.jimmunol.org/content/181/9>

This information is current as  
of October 14, 2019.

**Why *The JI*? Submit online.**

- **Rapid Reviews! 30 days\*** from submission to initial decision
- **No Triage!** Every submission reviewed by practicing scientists
- **Fast Publication!** 4 weeks from acceptance to publication

*\*average*

**Subscription** Information about subscribing to *The Journal of Immunology* is online at:  
<http://jimmunol.org/subscription>

**Permissions** Submit copyright permission requests at:  
<http://www.aai.org/About/Publications/JI/copyright.html>

**Email Alerts** Receive free email-alerts when new articles cite this article. Sign up at:  
<http://jimmunol.org/alerts>

*The Journal of Immunology* is published twice each month by  
The American Association of Immunologists, Inc.,  
1451 Rockville Pike, Suite 650, Rockville, MD 20852  
All rights reserved.  
Print ISSN: 0022-1767 Online ISSN: 1550-6606.



### 5811 IN THIS ISSUE

#### LETTERS TO THE EDITOR

- 5813 Comment on “Chronic Alcohol Consumption Increases the Severity of Murine Influenza Virus Infections”  
*Jiezhong Chen*
- 5813 Response to Comment on “Chronic Alcohol Consumption Increases the Severity of Murine Influenza Virus Infections”  
*David K. Meyerholz, Michelle Edsen-Moore, Jodi McGill, Ruth A. Coleman, Robert T. Cook, and Kevin L. Legge*

#### PILLARS OF IMMUNOLOGY

- 5815 The “Bubble Boy” Paradox: An Answer That Led to a Question  
*Leslie J. Berg*
- 5817 Pillars Article: Interleukin-2 Receptor  $\gamma$  Chain Mutation Results in X-Linked Severe Combined Immunodeficiency in Humans. 1993. *Cell* 73: 147–157.  
*Masayuki Noguchi, Huafang Yi, Howard M. Rosenblatt, Alexandra H. Filipovich, Stephen Adelstein, William S. Modi, O. Wesley McBride, and Warren J. Leonard*

#### BRIEF REVIEWS

- 5829 Macrophages as APC and the Dendritic Cell Myth  
*David A. Hume*

#### CUTTING EDGE

- 5837 Cutting Edge: Local Recall Responses by Memory T Cells Newly Recruited to Peripheral Nonlymphoid Tissues  
*Linda M. Wakim, Thomas Gebhardt, William R. Heath, and Francis R. Carbone*
- 5842 Cutting Edge: IFN- $\gamma$  Enables APC to Promote Memory Th17 and Abate Th1 Cell Development  
*Ilna Kryczek, Shuang Wei, Wenrong Gong, Xiaogong Shu, Wojciech Szeliga, Linhua Vatan, Lieping Chen, Guobin Wang, and Weiping Zou*

On the cover: Expansion of MAdCAM-1<sup>+</sup> marginal reticular cell (MRC) layer at the outermost region immediately underneath the subcapsular sinus of postnatally growing mesenteric lymph node (MLN). Immunofluorescent staining of MAdCAM-1 (orange) and laminin (green) in day 6 mouse MLN. MAdCAM-1 is also highly expressed by blood vessels (inner ring-like structures). Katakai, T., H. Suto, M. Sugai, H. Gonda, A. Togawa, S. Suematsu, Y. Ebisuno, K. Katagiri, T. Kinashi, and A. Shimizu. 2008. Organizer-like reticular stromal cell layer common to adult secondary lymphoid organs. *J. Immunol.* 181: 6189–6200.

*The Journal of Immunology* (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, Inc., 9650 Rockville Pike, Bethesda, MD 20814-3994, Phone: 301-634-7197, Fax: 301-634-7829. Subscription term: New subscriptions and renewals begin January 1 and expire one year later (see <http://www.jimmunol.org/subscriptions> for prices and details). A special rate is available to members of The American Association of Immunologists, Inc. (see <http://www.aai.org/membership>). The American Association of Immunologists, Inc., is not responsible for undeliverable issues. Replacement issues can be obtained, if available, at the regular price of single issues (see [http://www.jimmunol.org/pdf/single\\_issue\\_purchase.pdf](http://www.jimmunol.org/pdf/single_issue_purchase.pdf)). Reprints of individual articles are available only from authors. Periodicals postage paid at Bethesda, MD 20814-3994, and at additional mailing offices. Country of origin U.S.A. Printed on acid-free recyclable paper. Postmaster: Send address changes 60 days in advance to *The Journal of Immunology*, Subscription Department, 9650 Rockville Pike, Bethesda, MD 20814-3994. Copyright © 2008 by The American Association of Immunologists, Inc.

## CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

- 5847 Jakmip1 Is Expressed upon T Cell Differentiation and Has an Inhibitory Function in Cytotoxic T Lymphocytes  
*Valentina Libri, Dörte Schulte, Amber van Stijn, Josiane Ragimbeau, Lars Rogge, and Sandra Pellegrini*
- 5857 NF- $\kappa$ B Modulates Sensitivity to Apoptosis, Proinflammatory and Migratory Potential in Short- versus Long-Term Cultured Human  $\gamma\delta$  Lymphocytes  
*Marina Ferrarini, Fanny Delfanti, Monica Gianolini, Chiara Rizzi, Massimo Alfano, Adriano Lazzarin, and Priscilla Biswas*
- 5865 A Complex Interplay among Virus, Dendritic Cells, T Cells, and Cytokines in Dengue Virus Infections  
*Wanwisa Dejnirattisai, Thaneeya Duangchinda, Chen-Lung Steve Lin, Sirijitt Vasanawathana, Meleri Jones, Michael Jacobs, Prida Malasit, Xiao-ning Xu, Gavin Screaton, and Juthathip Mongkolsapaya*
- 5875 Autoreactive B Cells Discriminate CpG-Rich and CpG-Poor DNA and This Response Is Modulated by IFN- $\alpha$   
*Melissa B. Uccellini, Liliana Busconi, Nathaniel M. Green, Patricia Busto, Sean R. Christensen, Mark J. Shlomchik, Ann Marshak-Rothstein, and Gregory A. Viglianti*
- 5885 E47 Controls the Developmental Integrity and Cell Cycle Quiescence of Multipotential Hematopoietic Progenitors  
*Qi Yang, Lela Kardava, Anthony St. Leger, Kathleen Martincic, Barbara Varnum-Finney, Irwin D. Bernstein, Christine Milcarek, and Lisa Borghesi*
- 5895 Pathogenic Effector T Cell Enrichment Overcomes Regulatory T Cell Control and Generates Autoimmune Gastritis  
*João P. Monteiro, Julia Farache, Ana Carolina Mercadante, Julio A. Mignaco, Martin Bonamino, and Adriana Bonomo*
- 5904 A Quantitative Trait Locus on Chromosome 4 Affects Cycling of Hematopoietic Stem and Progenitor Cells through Regulation of TGF- $\beta$ 2 Responsiveness  
*Serine Avagyan, Ludmila Glouchkova, Juhyun Choi, and Hans-Willem Snoeck*
- 5912 Fas Expression on Antigen-Specific T Cells Has Costimulatory, Helper, and Down-Regulatory Functions In Vivo for Cytotoxic T Cell Responses but Not for T Cell-Dependent B Cell Responses  
*Irina Puliaeva, Roman Puliaev, Andrei Shustov, Mark Haas, and Charles S. Via*
- 5930 SIT and TRIM Determine T Cell Fate in the Thymus  
*Uwe Koelsch, Burkhardt Schraven, and Luca Simeoni*
- 5940 Identification of CD25<sup>+</sup>  $\gamma\delta$  T Cells As Fetal Thymus-Derived Naturally Occurring IL-17 Producers  
*Kensuke Shibata, Hisakata Yamada, Risa Nakamura, Xun Sun, Momoe Isumi, and Yasunobu Yoshikai*
- 5948 IL-23 Promotes Maintenance but Not Commitment to the Th17 Lineage  
*Gretta L. Sritesky, Norman Yeh, and Mark H. Kaplan*
- 5956 Experimental Extracorporeal Photopheresis Inhibits the Sensitization and Effector Phases of Contact Hypersensitivity via Two Mechanisms: Generation of IL-10 and Induction of Regulatory T Cells  
*Akira Maeda, Agatha Schwarz, Ann Bullinger, Akimichi Morita, David Peritt, and Thomas Schwarz*
- 5963 Rho-ROCK-Dependent Ezrin-Radixin-Moesin Phosphorylation Regulates Fas-Mediated Apoptosis in Jurkat Cells  
*Marylise Hébert, Sophie Potin, Michaël Sebbagh, Jacques Bertoglio, Jacqueline Bréard, and Jocelyne Hamelin*
- 5974 Heterospecific CD4 Help to Rescue CD8 T Cell Killers  
*Marie-Ghislaine de Goër de Herve, Anne Cariou, Federico Simonetta, and Yassine Taoufik*
- 5981 An IL-1 Cytokine Member, IL-33, Induces Human Basophil Activation via Its ST2 Receptor  
*Maho Suzukawa, Motoyasu Iikura, Rikiya Koketsu, Hiroyuki Nagase, Chise Tamura, Akiko Komiya, Susumu Nakae, Kouji Matsushima, Ken Ohta, Kazuhiko Yamamoto, and Masao Yamaguchi*
- 5990 OX40 Costimulatory Signals Potentiate the Memory Commitment of Effector CD8<sup>+</sup> T Cells  
*Seyed Fazlollah Mousavi, Pejman Soroosh, Takeshi Takahashi, Yasunobu Yoshikai, Hao Shen, Leo Lefrançois, Jannie Borst, Kazuo Sugamura, and Naoto Ishii*

- 6002 TCR Complex-Activated CD8 Adhesion Function by Human T Cells  
*Jay C. Varghese and Kevin P. Kane*
- 6010 Estimation of the Size of the Alloreactive NK Cell Repertoire: Studies in Individuals Homozygous for the Group A *KIR* Haplotype  
*Cyril Fauriat, Sandra Andersson, Andreas T. Björklund, Mattias Carlsten, Marie Schaffer, Niklas K. Björkström, Bettina C. Baumann, Jakob Michaëlsson, Hans-Gustaf Ljunggren, and Karl-Johan Malmberg*
- 6020 Calcitonin Gene-Related Peptide Biases Langerhans Cells toward Th2-Type Immunity  
*Wanhong Ding, Lori L. Stohl, John A. Wagner, and Richard D. Granstein*
- 6027 Intracloonal Competition Inhibits the Formation of High-Affinity Antibody-Secreting Cells  
*Thuc-vy L. Le, Tea Hyun Kim, and David D. Chaplin*
- 6038 Nasal Anti-CD3 Antibody Ameliorates Lupus by Inducing an IL-10-Secreting CD4<sup>+</sup>CD25<sup>-</sup>LAP<sup>+</sup> Regulatory T Cell and Is Associated with Down-Regulation of IL-17<sup>+</sup>CD4<sup>+</sup>ICOS<sup>+</sup>CXCR5<sup>+</sup> Follicular Helper T Cells  
*Henry Yim Wu, Francisco J. Quintana, and Howard L. Weiner*
- 6051 IL-24 Induces Apoptosis of Chronic Lymphocytic Leukemia B Cells Engaged into the Cell Cycle through Dephosphorylation of STAT3 and Stabilization of p53 Expression  
*Alexander Sainz-Perez, Hélène Gary-Gouy, Françoise Gaudin, Ghayath Maarof, Anne Marfaing-Koka, Thierry de Revel, and Ali Dalloul*
- 6061 Soluble Frizzled-Related Protein 1 Is Estrogen Inducible in Bone Marrow Stromal Cells and Suppresses the Earliest Events in Lymphopoiesis  
*Takafumi Yokota, Kenji Oritani, Karla P. Garrett, Taku Kouro, Makoto Nishida, Isao Takahashi, Michiko Ichii, Yusuke Satoh, Paul W. Kincade, and Yuzuru Kanakura*
- 6073 Anterior Pituitary Progenitor Cells Express Costimulatory Molecule 4Ig-B7-H3  
*Yasuihiro Nagai, Hisashi Aso, Hideki Ogasawara, Sachi Tanaka, Yoshikazu Taketa, Kouichi Watanabe, Shyuichi Ohwada, Michael T. Rose, Haruki Kitazawa, and Takahiro Yamaguchi*
- 6082 Selective Regulation of TCR Signaling Pathways by the CD45 Protein Tyrosine Phosphatase during Thymocyte Development  
*Rustom Falahati and David Leitenberg*
- 6092 Central Tolerance Regulates B Cells Reactive with Goodpasture Antigen  $\alpha 3(\text{IV})\text{NC1}$  Collagen  
*Ying Zhang, Susan C. Su, Douglas B. Hecox, Graham F. Brady, Katherine M. Mackin, Amy G. Clark, and Mary H. Foster*
- 6101 An Epithelial Progenitor Pool Regulates Thymus Growth  
*William E. Jenkinson, Andrea Bacon, Andrea J. White, Graham Anderson, and Eric J. Jenkinson*
- 6109 Expression of CD86 on Human Islet Endothelial Cells Facilitates T Cell Adhesion and Migration  
*Biliana Lozanoska-Ochser, Nigel J. Klein, Guo C. Huang, Raymond A. Alvarez, and Mark Peakman*
- 6117 IL-17-Producing Alveolar Macrophages Mediate Allergic Lung Inflammation Related to Asthma  
*Chuanwang Song, Liqiong Luo, Zhang Lei, Bo Li, Zhihui Liang, Guanghui Liu, Dong Li, Guimei Zhang, Bo Huang, and Zuo-Hua Feng*
- 6125 Selective Expression Rather than Specific Function of Txk and Itk Regulate Th1 and Th2 Responses  
*Nisebita Sahu, Ana M. Venegas, Dragana Jankovic, Wayne Mitzner, Julio Gomez-Rodriguez, Jennifer L. Cannons, Connie Sommers, Paul Love, Alan Sher, Pamela L. Schwartzberg, and Avery August*
- 6132 Critical Role of TLR9 in Acute Graft-versus-Host Disease  
*Claudia Calcaterra, Lucia Sföndrini, Anna Rossini, Michele Sommariva, Cristiano Rumio, Sylvie Ménard, and Andrea Balsari*
- 6140 Unique Receptor Repertoire in Mouse Uterine NK cells  
*Hakim Yadi, Shannon Burke, Zofia Madeja, Myriam Hemberger, Ashley Moffett, and Francesco Colucci*
- 6148 Immunosurveillance of Lung Melanoma Metastasis in EBI-3-Deficient Mice Mediated by CD8<sup>+</sup> T Cells  
*Kerstin A. Sauer, Joachim H. Maxeiner, Roman Karwot, Petra Scholtes, Hans A. Lehr, Mark Birkenbach, Richard S. Blumberg, and Susetta Finotto*

- 6158 Cross-Linking of B7-H1 on EBV-Transformed B Cells Induces Apoptosis through Reactive Oxygen Species Production, JNK Signaling Activation, and fasL Expression  
*Yeong Seok Kim, Ga Bin Park, Hyun-Kyung Lee, Hyunkeun Song, In-Hak Choi, Wang Jae Lee, and Dae Young Hur*
- 6170 Human NK Cells Kill Resting but Not Activated Microglia via NKG2D- and NKP46-Mediated Recognition  
*Anna Lünemann, Jan D. Lünemann, Susanne Roberts, Brady Messmer, Rosa Barreira da Silva, Cedric S. Raine, and Christian Münz*
- 6178 CX<sub>3</sub>CR1<sup>+</sup>c-kit<sup>+</sup> Bone Marrow Cells Give Rise to CD103<sup>+</sup> and CD103<sup>-</sup> Dendritic Cells with Distinct Functional Properties  
*Maria-Luisa del Rio, Jose-Ignacio Rodriguez-Barbosa, Jasmin Bölter, Matthias Ballmaier, Oliver Dittrich-Breiholz, Michael Kracht, Steffen Jung, and Reinhold Förster*
- 6189 Organizer-Like Reticular Stromal Cell Layer Common to Adult Secondary Lymphoid Organs  
*Tomoya Katakai, Hidenori Suto, Manabu Sugai, Hiroyuki Gonda, Atsushi Togawa, Sachiko Suematsu, Yukihiko Ebisuno, Koko Katagiri, Tatsuo Kinashi, and Akira Shimizu*
- 6201 *Mycobacterium bovis* Bacille Calmette-Guérin Infection in the CNS Suppresses Experimental Autoimmune Encephalomyelitis and Th17 Responses in an IFN- $\gamma$ -Independent Manner  
*JangEun Lee, Emily K. Reinke, Alla L. Zozulya, Matyas Sandor, and Zsuzsanna Fabry*

## MOLECULAR AND STRUCTURAL IMMUNOLOGY

- 6213 Engineering Antibody Heavy Chain CDR3 to Create a Phage Display Fab Library Rich in Antibodies That Bind Charged Carbohydrates  
*Sonia Schoonbroodt, Mieke Steukers, Malini Viswanathan, Nicolas Frans, Marie Timmermans, Anita Wehnert, Minh Nguyen, Robert Charles Ladner, and René M. Hoet*
- 6222 Transcription Factor Gfi1 Restricts B Cell-Mediated Autoimmunity  
*Chozhavendan Rathinam, Hans Lassmann, Michael Mengel, and Christoph Klein*
- 6230 Automated Identification of Complementarity Determining Regions (CDRs) Reveals Peculiar Characteristics of CDRs and B Cell Epitopes  
*Yanay Ofran, Avner Schlessinger, and Burkhard Rost*
- 6236 n-3 Polyunsaturated Fatty Acids Suppress the Localization and Activation of Signaling Proteins at the Immunological Synapse in Murine CD4<sup>+</sup> T Cells by Affecting Lipid Raft Formation  
*Wooki Kim, Yang-Yi Fan, Rola Barhoumi, Roger Smith, David N. McMurray, and Robert S. Chapkin*
- 6244 Loss of Protein Kinase C $\theta$ , Bcl10, or Malt1 Selectively Impairs Proliferation and NF- $\kappa$ B Activation in the CD4<sup>+</sup> T Cell Subset  
*Lara M. Kingeter and Brian C. Schaefer*
- 6255 Distinct CDR3 Conformations in TCRs Determine the Level of Cross-Reactivity for Diverse Antigens, but Not the Docking Orientation  
*Lindsay L. Jones, Leremy A. Colf, Jennifer D. Stone, K. Christopher Garcia, and David M. Kranz*
- 6265 Ikaros Regulates Notch Target Gene Expression in Developing Thymocytes  
*Sheila Chari and Susan Winandy*
- 6275 Endoplasmic Reticulum Aminopeptidase Associated with Antigen Processing Regulates Quality of Processed Peptides Presented by MHC Class I Molecules  
*Takayuki Kanaseki and Nilabh Shastri*

## IMMUNOGENETICS

- 6283 Impact of Protective IL-2 Allelic Variants on CD4<sup>+</sup>Foxp3<sup>+</sup> Regulatory T Cell Function In Situ and Resistance to Autoimmune Diabetes in NOD Mice  
*Evrudiki Sgouroudis, Alexandre Albanese, and Ciriaco A. Piccirillo*
- 6293 Polymorphic Sites Away from the Bw4 Epitope That Affect Interaction of Bw4<sup>+</sup> HLA-B with KIR3DL1  
*Bharati Sanjanwala, Monia Draghi, Paul J. Norman, Lisbeth A. Guethlein, and Peter Parham*



- 6301 Complete Characterization of Killer Ig-Like Receptor (KIR) Haplotypes in Mauritian *Cynomolgus* Macaques: Novel Insights into Nonhuman Primate KIR Gene Content and Organization  
*Benjamin N. Bimber, Anna J. Moreland, Roger W. Wiseman, Austin L. Hughes, and David H. O'Connor*

## HOST DEFENSE

- 6309 An Indispensable Role for the Chemokine Receptor CCR10 in IgA Antibody-Secreting Cell Accumulation  
*Olivier Morteau, Craig Gerard, Bao Lu, Sorina Ghiran, Miriam Rits, Yuko Fujiwara, Yuetching Law, Kathryn Distelhorst, Elizabeth M. Nielsen, Erica D. Hill, Raymond Kwan, Nicole H. Lazarus, Eugene C. Butcher, and Eric Wilson*
- 6316 A Novel Role of CD30L/CD30 Signaling by T-T Cell Interaction in Th1 Response against Mycobacterial Infection  
*Ce Tang, Hisakata Yamada, Kensuke Shibata, Hiromi Muta, Worawidh Wajjwalku, Eckhard R. Podack, and Yasunobu Yoshikai*
- 6328 Immune Evasion of *Enterococcus faecalis* by an Extracellular Gelatinase That Cleaves C3 and iC3b  
*Shin Yong Park, Yong Pyo Shin, Chong Han Kim, Ho Jin Park, Yeon Sun Seong, Byung Sam Kim, Sook Jae Seo, and In Hee Lee*
- 6337 Prior Immunization with Severe Acute Respiratory Syndrome (SARS)-Associated Coronavirus (SARS-CoV) Nucleocapsid Protein Causes Severe Pneumonia in Mice Infected with SARS-CoV  
*Fumihiko Yasui, Chieko Kai, Masahiro Kitabatake, Shingo Inoue, Misako Yoneda, Shoji Yokochi, Ryoichi Kase, Satoshi Sekiguchi, Kouichi Morita, Tsunekazu Hishima, Hidenori Suzuki, Katsuo Karamatsu, Yasuhiro Yasutomi, Hisatoshi Shida, Minoru Kidokoro, Kyosuke Mizuno, Kouji Matsushima, and Michinori Kohara*
- 6349 Tuberculosis Triggers a Tissue-Dependent Program of Differentiation and Acquisition of Effector Functions by Circulating Monocytes  
*Markus Sköld and Samuel M. Behar*
- 6361 Design, Expression, and Processing of Epitomized Hepatitis C Virus-Encoded CTL Epitopes  
*Daniel Yerly, David Heckerman, Todd Allen, Todd J. Suscovich, Nebojsa Jojic, Carl Kadie, Werner J. Pichler, Andreas Cerny, and Christian Brander*
- 6371 Long-Term Immunity against Actual Poxviral HLA Ligands as Identified by Differential Stable Isotope Labeling  
*Verena S. Meyer, Wolfgang Kastenmuller, Georg Gasteiger, Mirita Franz-Wachtel, Tobias Lamkemeyer, Hans-Georg Rammensee, Stefan Stevanovic, Dagmar Sigurdardottir, and Ingo Drexler*
- 6384 CCL3-CCR5 Axis Regulates Intratumoral Accumulation of Leukocytes and Fibroblasts and Promotes Angiogenesis in Murine Lung Metastasis Process  
*Yu Wu, Ying-Yi Li, Kouji Matsushima, Tomohisa Baba, and Naofumi Mukaida*
- 6394 *Ly49b*-Deficient C57BL/6 Mice: A New Mouse Cytomegalovirus-Susceptible Model Remains Resistant to Unrelated Pathogens Controlled by the NK Gene Complex  
*Nassima Fodil-Cornu, Seung-Hwan Lee, Simon Belanger, Andrew P. Makrigiannis, Christine A. Biron, R. Mark Buller, and Silvia M. Vidal*
- 6406 Cannabinoids Inhibit HIV-1 Gp120-Mediated Insults in Brain Microvascular Endothelial Cells  
*Tzong-Shi Lu, Hava Karsenty Avraham, Seyba Seng, Souvenir D. Tachado, Henry Koziel, Alexandros Makriganis, and Shalom Avraham*
- 6417 Prolonged Microglial Cell Activation and Lymphocyte Infiltration following Experimental Herpes Encephalitis  
*Cristina P. Marques, Maxim C.-J. Cheeran, Joseph M. Palmquist, Shuxian Hu, Stina L. Urban, and James R. Lokensgard*
- 6427 Receptor-Interacting Protein Homotypic Interaction Motif-Dependent Control of NF- $\kappa$ B Activation via the DNA-Dependent Activator of IFN Regulatory Factors  
*William J. Kaiser, Jason W. Upton, and Edward S. Mocarski*
- 6435 Hepatitis C Virus Immune Escape via Exploitation of a Hole in the T Cell Repertoire  
*Matthias Wöfl, Alleluiah Rutebemberwa, Timothy Mosbrugger, Qing Mao, Hong-mei Li, Dale Netski, Stuart C. Ray, Drew Pardoll, John Sidney, Alessandro Sette, Todd Allen, Thomas Kuntzen, Daniel G. Kavanagh, Jürgen Kuball, Philip D. Greenberg, and Andrea L. Cox*

6447 MyD88 Signaling Is Not Essential for Induction of Antigen-Specific B Cell Responses but Is Indispensable for Protection against *Streptococcus pneumoniae* Infection following Oral Vaccination with Attenuated *Salmonella* Expressing PspA Antigen  
*Sung-Moo Park, Hyun-Jeong Ko, Doo-Hee Shim, Jin-Young Yang, Yong-Ho Park, Roy Curtiss III, and Mi-Na Kweon*

6456 Expansion of Foxp3<sup>+</sup> Regulatory T Cells in Mice Infected with the Filarial Parasite *Brugia malayi*  
*Henry J. McSorley, Yvonne M. Harcus, Janice Murray, Matthew D. Taylor, and Rick M. Maizels*

6467 The Level of Hepatitis B Virus Replication Is Not Affected by Protein ISG15 Modification but Is Reduced by Inhibition of UBP43 (USP18) Expression  
*Jung-Hwan Kim, Jiann-Kae Luo, and Dong-Er Zhang*

## INFLAMMATION

6473 Functional Dichotomy of Dendritic Cells following Interaction with *Leishmania braziliensis*: Infected Cells Produce High Levels of TNF- $\alpha$ , whereas Bystander Dendritic Cells Are Activated to Promote T Cell Responses  
*Lucas P. Carvalho, Edward J. Pearce, and Phillip Scott*

6481 Signaling through MyD88 Regulates Leukocyte Recruitment after Brain Injury  
*Alicia A. Babcock, Henrik Toft-Hansen, and Trevor Owens*

6491 Zinc Signals Are Essential for Lipopolysaccharide-Induced Signal Transduction in Monocytes  
*Hajo Haase, Julia L. Ober-Blöbaum, Gabriela Engelhardt, Silke Hebel, Antje Heit, Holger Heine, and Lothar Rink*

6503 IL-4-Induced Selective Clearance of Oligomeric  $\beta$ -Amyloid Peptide<sub>1-42</sub> by Rat Primary Type 2 Microglia  
*Eisuke Shimizu, Kohichi Kawahara, Makoto Kajizono, Makoto Sawada, and Hitoshi Nakayama*

6514 12/15-Lipoxygenase Regulates the Inflammatory Response to Bacterial Products In Vivo  
*Vincent Dioszeghy, Marcela Rosas, Benjamin H. Maskrey, Chantal Colmont, Nicholas Topley, Pavlos Chaitidis, Hartmut Kühn, Simon A. Jones, Philip R. Taylor, and Valerie B. O'Donnell*

6525 Human Plasmacytoid Dendritic Cells Interact with gp96 via CD91 and Regulate Inflammatory Responses  
*AnnaMaria De Filippo, Robert J. Binder, Chiara Camisaschi, Valeria Beretta, Flavio Arienti, Antonello Villa, Pamela Della Mina, Giorgio Parmiani, Licia Rivoltini, and Chiara Castelli*

6536 Differential Regulation of Chemokines by IL-17 in Colonic Epithelial Cells  
*Jimmy W. Lee, Ping Wang, Michael G. Kattah, Sawsan Youssef, Lawrence Steinman, Kathryn DeFea, and Daniel S. Straus*

6546 CCR5 Deficiency Aggravates Crescentic Glomerulonephritis in Mice  
*Jan-Eric Turner, Hans-Joachim Paust, Oliver M. Steinmetz, Anett Peters, Catherine Meyer-Schwesinger, Felix Heymann, Udo Helmchen, Susanne Febr, Richard Horuk, Ulrich Wenzel, Christian Kurts, Hans-Willi Mittrücker, Rolf A. K. Stahl, and Ulf Panzer*

6557 Reversal of Thymic Stromal Lymphopoietin-Induced Airway Inflammation through Inhibition of Th2 Responses  
*Baohua Zhou, Mark B. Headley, Theingi Aye, Joel Tocker, Michael R. Comeau, and Steven F. Ziegler*

6563 Activation of an Immunoregulatory and Antiviral Gene Expression Program in Poly(I:C)-Transfected Human Neutrophils  
*Nicola Tamassia, Vincent Le Moigne, Marzia Rossato, Marta Donini, Stephen McCartney, Federica Calzetti, Marco Colonna, Flavia Bazzoni, and Marco A. Cassatella*

6574 Analysis of CD97 Expression and Manipulation: Antibody Treatment but Not Gene Targeting Curtails Granulocyte Migration  
*Henrike Veninga, Susann Becker, Robert M. Hoek, Manja Wobus, Elke Wandel, Jos van der Kaa, Martin van der Valk, Alex F. de Vos, Hannelore Haase, Bronwyn Owens, Tom van der Poll, René A. W. van Lier, J. Sjef Verbeek, Gabriela Aust, and Jörg Hamann*

6584 Up-Regulation of Vascular Endothelial Growth Factor-D Expression in Clear Cell Renal Cell Carcinoma by CD74: A Critical Role in Cancer Cell Tumorigenesis  
*Yu-Huei Liu, Chang-Yueh Lin, Wei-Chou Lin, Sai-Wen Tang, Ming-Kuen Lai, and Jung-Yaw Lin*

## CLINICAL IMMUNOLOGY

- 6595 Carcinoembryonic Antigen-Specific but Not Antiviral CD4<sup>+</sup> T Cell Immunity Is Impaired in Pancreatic Carcinoma Patients  
*Elena Tassi, Francesca Gavazzi, Luca Albarello, Vladimir Senyukov, Renato Longhi, Paolo Dellabona, Claudio Doglioni, Marco Braga, Valerio Di Carlo, and Maria Pia Protti*
- 6604 Immunodominant Epitopes in Herpes Simplex Virus Type 2 Glycoprotein D Are Recognized by CD4 Lymphocytes from Both HSV-1 and HSV-2 Seropositive Subjects  
*Min Kim, Janette Taylor, John Sidney, Zorka Mikloska, Neil Bodsworth, Katerina Lagios, Heather Dunckley, Karen Byth-Wilson, Martine Denis, Robert Finlayson, Rajiv Khanna, Alessandro Sette, and Anthony L. Cunningham*
- 6616 Strategic Nonmyeloablative Conditioning: CD154:CD40 Costimulatory Blockade at Primary Bone Marrow Transplantation Promotes Engraftment for Secondary Bone Marrow Transplantation after Engraftment Failure  
*Hong Xu, Yiming Huang, Paula M. Chilton, Lala-Rukh Hussain, Michael K. Tanner, Jun Yan, and Suzanne T. Ildstad*
- 6625 Characterization of the Antibody Response against NeuGcGM3 Ganglioside Elicited in Non-Small Cell Lung Cancer Patients Immunized with an Anti-Idiotypic Antibody  
*Ana María Hernández, Darién Toledo, Darel Martínez, Tania Griñán, Victor Brito, Amparo Macías, Saily Alfonsó, Teresa Rondón, Eduardo Suárez, Ana María Vázquez, and Rolando Pérez*
- 6635 Activation of Antigen-Specific Cytotoxic T Lymphocytes by  $\beta_2$ -Microglobulin or TAP1 Gene Disruption and the Introduction of Recipient-Matched MHC Class I Gene in Allogeneic Embryonic Stem Cell-Derived Dendritic Cells  
*Yusuke Matsunaga, Daiki Fukuma, Shinya Hirata, Satoshi Fukushima, Miwa Haruta, Tokunori Ikeda, Izumi Negishi, Yasuharu Nishimura, and Satoru Senju*
- 6644 Immunization with a Mimotope of GD2 Ganglioside Induces CD8<sup>+</sup> T Cells That Recognize Cell Adhesion Molecules on Tumor Cells  
*Andrzej Wierzbicki, Margaret Gil, Michael Ciesielski, Robert A. Fenstermaker, Yutaro Kaneko, Hanna Rokita, Joseph T. Lau, and Danuta Kozbor*
- 6654 Bone Marrow-Derived IFN-Producing Killer Dendritic Cells Account for the Tumoricidal Activity of Unpulsed Dendritic Cells  
*Nourredine Himoudi, Stephen Nabarro, Jo Buddle, Ayad Eddaoudi, Adrian J. Thrasher, and John Anderson*
- 6664 Crucial Role of Aspartic Acid at Position 265 in the CH2 Domain for Murine IgG2a and IgG2b Fc-Associated Effector Functions  
*Lucie Baudino, Yasuro Shinohara, Falk Nimmerjahn, Jun-Ichi Furukawa, Munehiro Nakata, Eduardo Martínez-Soria, Franz Petry, Jeffery V. Ravetch, Shin-Ichiro Nishimura, and Shozo Izui*

## LETTERS OF RETRACTION

- 6670 Retraction: Dual Effect of AMD3100, a CXCR4 Antagonist, on Bleomycin-Induced Lung Inflammation  
*Masaki Watanabe, Yuko Shirahama, Hideo Mitsuyama, Ken-ichi Oonakahara, Satoshi Noma, Ikkou Higashimoto, Mitsuhiro Osame, and Kimiyoshi Arimura*
- 6671 Retraction: Suppression of Discoidin Domain Receptor 1 by RNA Interference Attenuates Lung Inflammation  
*Masaki Watanabe, Yuko Shirahama, Ryuki Hirano, Hideo Mitsuyama, Ikkou Higashimoto, Mitsuhiro Osame, and Kimiyoshi Arimura*
- 6672 Retraction: Activation of Discoidin Domain Receptor 1 on CD14-Positive Bronchoalveolar Lavage Fluid Cells Induces Chemokine Production in Idiopathic Fibrosis  
*Masaki Watanabe, Yuko Shirahama, Ken-ichi Oonakahara, Ikkou Higashimoto, Mitsuhiro Osame, and Kimiyoshi Arimura*

- 6673 AUTHOR INDEX