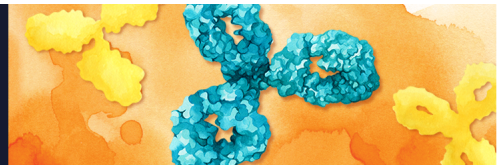


NEW *InVivoSIM*<sup>™</sup>  
Biosimilar Antibodies  
For Research Use Only

DISCOVER BioCell



 *The Journal of*  
**Immunology**

177 (7)

*J Immunol* 2006; 177:4233-4932; ;  
<http://www.jimmunol.org/content/177/7>

This information is current as  
of May 8, 2021.

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.





# IMMUNOLOGY

THE JOURNAL OF

## TABLE OF CONTENTS

### 4233 IN THIS ISSUE

---

#### PILLARS OF IMMUNOLOGY

---

4235 Antibody Wars: Extreme Diversity  
*Patricia J. Gearhart*

4237 Pillars Article: Origin of Antibody Variation. *Nature* 1966. 211: 242–243.  
*Sydney Brenner and César Milstein*

#### BRIEF REVIEWS

---

4239 The Inflammatory Caspases: Key Players in the Host Response to Pathogenic Invasion and Sepsis  
*Amal Nadiri, Melissa K. Wolinski, and Maya Saleh*

#### CUTTING EDGE

---

4247 Cutting Edge: IL-7-Independent Regulation of IL-7 Receptor  $\alpha$  Expression and Memory CD8 T Cell Development  
*Kimberly D. Klonowski, Kristina J. Williams, Amanda L. Marzo, and Leo Lefrançois*

4252 Cutting Edge: ASC Mediates the Induction of Multiple Cytokines by *Porphyromonas gingivalis* via Caspase-1-Dependent and -Independent Pathways  
*Debra J. Taxman, Jinghua Zhang, Catherine Champagne, Daniel T. Bergstralb, Heather A. Iocca, John D. Lich, and Jenny Pan-Yun Ting*

4257 Cutting Edge: Paracrine, but Not Autocrine, IL-2 Signaling Is Sustained during Early Antiviral CD4 T Cell Response  
*Meixiao Long and Adam J. Adler*

4262 Cutting Edge: T Cell Requirement for CD28 Costimulation Is Due to Negative Regulation of TCR Signals by PTEN  
*Jodi L. Buckler, Patrick T. Walsh, Paige M. Porrett, Yongwon Choi, and Laurence A. Turka*

4267 Cutting Edge: IL-1 $\beta$  Mediates the Proangiogenic Activity of Osteopontin-Activated Human Monocytes  
*Antonella Naldini, Daria Leali, Annalisa Pucci, Emilia Morena, Fabio Carraro, Beatrice Nico, Domenico Ribatti, and Marco Presta*

On the cover: Upon tight T cell/APC couple formation, a deep T cell invagination forms at the center of the cellular interface with APC cell membrane still attached. It is enriched in receptor/ligand couples, most prominently CD2/CD48. CD48GFP fluorescence from the APC reaching into the T cell invagination is shown (1 min steps). Singleton, K., N. Parvaze, K. R. Dama, K. S. Chen, P. Jennings, B. Puritic, M. D. Sjaastad, C. Gilpin, M. M. Davis, and C. Wülfing. 2006. A large T cell invagination with CD2 enrichment resets receptor engagement in the immunological synapse. *J. Immunol.* 177: 4402–4413.

*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. 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>). Periodicals postage paid at Bethesda, MD 20814-3998, and at additional mailing offices. Country of origin U.S.A. Printed on acid-free recyclable paper. Postmaster: Send address changes to *The Journal of Immunology*, Subscription Department, Room L-2407A, 9650 Rockville Pike, Bethesda, MD 20814-3998. Copyright © 2006 by The American Association of Immunologists, Inc.

- 4271 Cutting Edge: Rho Activation and Actin Polarization Are Dependent on Plexin-A1 in Dendritic Cells  
*So-Young Eun, Brian P. O'Connor, Athena W. Wong, Hendrick W. van Deventer, Debra J. Taxman, William Reed, Ping Li, Janice S. Blum, Karen P. McKinnon, and Jenny P.-Y. Ting*
- 4276 Cutting Edge: Uniqueness of Lymphoid Chemokine Requirement for the Initiation and Maturation of Nasopharynx-Associated Lymphoid Tissue Organogenesis  
*Satoshi Fukuyama, Takahiro Nagatake, Dong-Young Kim, Kaoru Takamura, Eun Jeong Park, Tsuneyasu Kaisho, Norimitsu Tanaka, Yuichi Kurono, and Hiroshi Kiyono*

## CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

---

- 4281 Preferential Involvement of Tim-3 in the Regulation of Hepatic CD8<sup>+</sup> T Cells in Murine Acute Graft-versus-Host Disease  
*Tsunekazu Oikawa, Yosuke Kamimura, Hisaya Akiba, Hideo Yagita, Ko Okumura, Hiroki Takahashi, Mikio Zeniya, Hisao Tajiri, and Miyuki Azuma*
- 4288 Combination of Vaccination and Chimeric Receptor Expressing T Cells Provides Improved Active Therapy of Tumors  
*Hui-Rong Jiang, David E. Gilham, Kate Mulryan, Natalia Kirillova, Robert E. Hawkins, and Peter L. Stern*
- 4299 Dual Ligand Stimulation of RAW 264.7 Cells Uncovers Feedback Mechanisms That Regulate TLR-Mediated Gene Expression  
*Xiaocui Zhu, Mi Sook Chang, Robert C. Hsueh, Ron Tausig, Kelly D. Smith, Melvin I. Simon, and Sangdun Choi*
- 4311 T Cell, Ig Domain, Mucin Domain-2 Gene-Deficient Mice Reveal a Novel Mechanism for the Regulation of Th2 Immune Responses and Airway Inflammation  
*Paul D. Rennert, Takaharu Ichimura, Irene D. Sizing, Veronique Bailly, Zhifang Li, Rachel Rennard, Patricia McCoon, Lourdes Pablo, Steven Miklasz, Leticia Tarilonte, and Joseph V. Bonventre*
- 4322 Transient Receptor Potential Vanilloid Subtype 1 Mediates Microglial Cell Death In Vivo and In Vitro via Ca<sup>2+</sup>-Mediated Mitochondrial Damage and Cytochrome *c* Release  
*Sang R. Kim, Seung U. Kim, Uhtaek Oh, and Byung K. Jin*
- 4330 Three Memory Subsets of Human CD8<sup>+</sup> T Cells Differently Expressing Three Cytolytic Effector Molecules  
*Hiroshi Takata and Masafumi Takiguchi*
- 4341 The Human CD77<sup>-</sup> B Cell Population Represents a Heterogeneous Subset of Cells Comprising Centroblasts, Centrocytes, and Plasmablasts, Prompting Phenotypical Revision  
*Carl-Magnus Högerkorp and Carl A. K. Borrebaeck*
- 4350 Cigarette Smoke-Induced Pulmonary Inflammation and Emphysema Are Attenuated in CCR6-Deficient Mice  
*Ken R. Bracke, An I. D'hulst, Tania Maes, Katrien B. Moerloose, Ingel K. Demedts, Serge Lebecque, Guy F. Joos, and Guy G. Brusselle*
- 4360 Identification and Characterization of the Precursors Committed to Osteoclasts Induced by TNF-Related Activation-Induced Cytokine/Receptor Activator of NF- $\kappa$ B Ligand  
*Ayako Mochizuki, Masamichi Takami, Tadabaru Kawawa, Reina Suzumoto, Takahisa Sasaki, Akihiko Shiba, Hiroaki Tsukasaki, Baohong Zhao, Rika Yasuhara, Tetsuo Suzawa, Yoichi Miyamoto, Yongwon Choi, and Ryutaro Kamijo*
- 4369 Inhibitory Role of IFN- $\gamma$ -Inducible Lysosomal Thiol Reductase in T Cell Activation  
*Igor Barjaktarević, Ayman Rahman, Sasa Radoja, Branka Bogunović, Alison Vollmer, Stanislav Vukmanović, and Maja Marić*
- 4376 Blockade of CTLA-4 on CD4<sup>+</sup>CD25<sup>+</sup> Regulatory T Cells Abrogates Their Function In Vivo  
*Simon Read, Rebecca Greenwald, Ana Izcue, Nicholas Robinson, Didier Mandelbrot, Loise Francisco, Arlene H. Sharpe, and Fiona Powrie*
- 4384 Induction of Autoimmunity by Expansion of Autoreactive CD4<sup>+</sup>CD62L<sup>low</sup> Cells In Vivo  
*Bastian Amend, Hong Doster, Christian Lange, Evelyn Dubois, Hubert Kalbacher, Arthur Melms, and Felix Bischof*
- 4391 The Effects of Age, Thymectomy, and HIV Infection on  $\alpha$  and  $\beta$  TCR Excision Circles in Naive T Cells  
*Carline van den Dool and Rob J. de Boer*

- 4402 A Large T Cell Invagination with CD2 Enrichment Resets Receptor Engagement in the Immunological Synapse  
*Kentner Singleton, Nadia Parvaze, Kavyya R. Dama, Kenneth S. Chen, Paula Jennings, Bozidar Purtic, Michael D. Sjaastad, Christopher Gilpin, Mark M. Davis, and Christoph Wülfing*
- 4414 Host-Derived Langerhans Cells Persist after MHC-Matched Allografting Independent of Donor T Cells and Critically Influence the Alloresponses Mediated by Donor Lymphocyte Infusions  
*Nadira Durakovic, Karl B. Bezak, Mario Skarica, Vedran Radojic, Ephraim J. Fuchs, George F. Murphy, and Leo Luznik*
- 4426 Early Exposure to IL-4 Stabilizes IL-4 mRNA in CD4<sup>+</sup> T Cells via RNA-Binding Protein HuR  
*Timur O. Yarovinsky, Noah S. Butler, Martha M. Monick, and Gary W. Hunninghake*
- 4436 Regulatory Role of  $\gamma\delta$  T Cells in the Recruitment of CD4<sup>+</sup> and CD8<sup>+</sup> T Cells to Lung and Subsequent Pulmonary Fibrosis  
*Philip L. Simonian, Christina L. Roark, Fernando Diaz del Valle, Brent E. Palmer, Ivor S. Douglas, Koichi Ikuta, Willi K. Born, Rebecca L. O'Brien, and Andrew P. Fontenot*
- 4444 Induction of C3 and CCL2 by C3a in Keratinocytes: A Novel Autocrine Amplification Loop of Inflammatory Skin Reactions  
*Rahul Purwar, Miriam Wittmann, Jörg Zwirner, Martin Oppermann, Michael Kracht, Oliver Dittrich-Breiholz, Ralf Gutzmer, and Thomas Werfel*
- 4451 Cell-Autonomous CCL5 Transcription by Memory CD8 T Cells Is Regulated by IL-4  
*Antoine Marçais, Charles-Antoine Coupet, Thierry Walzer, Martine Tomkowiak, Raffaella Ghittoni, and Jacqueline Marvel*
- 4458 Augmented IL-7 Signaling during Viral Infection Drives Greater Expansion of Effector T Cells but Does Not Enhance Memory  
*Joseph C. Sun, Sophie M. Lehar, and Michael J. Bevan*
- 4464 Functional Dichotomy between OX40 and 4-1BB in Modulating Effector CD8 T Cell Responses  
*Seung-Woo Lee, Yunji Park, Aihua Song, Hilde Cheroutre, Byoung S. Kwon, and Michael Croft*
- 4473 CpG DNA Activates Survival in Murine Macrophages through TLR9 and the Phosphatidylinositol 3-Kinase-Akt Pathway  
*David P. Sester, Kristian Brion, Angela Trieu, Helen S. Goodridge, Tara L. Roberts, Jasmyn Dunn, David A. Hume, Katryn J. Stacey, and Matthew J. Sweet*
- 4481 B Cells Drive Early T Cell Autoimmunity In Vivo prior to Dendritic Cell-Mediated Autoantigen Presentation  
*Jun Yan, Bohdan P. Harvey, Renelle J. Gee, Mark J. Shlomchik, and Mark J. Mamula*
- 4488 The Majority of Human Peripheral Blood CD4<sup>+</sup>CD25<sup>high</sup>Foxp3<sup>+</sup> Regulatory T Cells Bear Functional Skin-Homing Receptors  
*Kazuki Hirahara, Luzheng Liu, Rachael A. Clark, Kei-ichi Yamanaka, Robert C. Fuhlbrigge, and Thomas S. Kupper*
- 4495 Ligation of CD80 Is Critical for High-Level CD25 Expression on CD8<sup>+</sup> T Lymphocytes  
*Sharmila Pejawar-Gaddy and Martha A. Alexander-Miller*
- 4503 A Novel Role for Viral-Defective Interfering Particles in Enhancing Dendritic Cell Maturation  
*Jacob S. Yount, Thomas A. Kraus, Curt M. Horvath, Thomas M. Moran, and Carolina B. López*
- 4514 Trauma-Hemorrhage Induces Depressed Splenic Dendritic Cell Functions in Mice  
*Takashi Kawasaki, William J. Hubbard, Mashkoor A. Choudhry, Martin G. Schwacha, Kirby I. Bland, and Irshad H. Chaudry*

- 4521 Homeostatic Proliferation as an Isolated Variable Reverses CD8<sup>+</sup> T Cell Anergy and Promotes Tumor Rejection  
*Ian E. Brown, Christian Blank, Justin Kline, Aalok K. Kacha, and Thomas F. Gajewski*
- 4530 STAT1-Independent Cell Type-Specific Regulation of Antiviral APOBEC3G by IFN- $\alpha$   
*Phuong Thi Nguyen Sarkis, Songcheng Ying, Rongzhen Xu, and Xiao-Fang Yu*
- 4541 Intracellular Protein Modification Associated with Altered T Cell Functions in Autoimmunity  
*Mei-Ling Yang, Hester A. Doyle, Renelle J. Gee, Jonathan D. Lowenson, Steven Clarke, Brian R. Lawson, Dana W. Aswad, and Mark J. Mamula*
- 4550 Rac1 Negatively Regulates Lipopolysaccharide-Induced IL-23 p19 Expression in Human Macrophages and Dendritic Cells and NF- $\kappa$ B p65 *trans* Activation Plays a Novel Role  
*Mitsuyoshi Utsugi, Kunio Dobashi, Tamotsu Ishizuka, Tadayoshi Kawata, Takeshi Hisada, Yasuo Shimizu, Akihiro Ono, and Masatomo Mori*
- 4558 CD25<sup>+</sup>CD4<sup>+</sup> Regulatory T Cells and Memory T Cells Prevent Lymphopenia-Induced Proliferation of Naive T Cells in Transient States of Lymphopenia  
*Christine Bourgeois and Brigitta Stockinger*

## MOLECULAR AND STRUCTURAL IMMUNOLOGY

---

- 4567 PKB Rescues Calcineurin/NFAT-Induced Arrest of Rag Expression and Pre-T Cell Differentiation  
*Amiya K. Patra, Thomas Drewes, Swen Engelmann, Sergei Chuvpilo, Hiroyuki Kishi, Thomas Hünig, Edgar Serfling, and Ursula H. Bommhardt*
- 4577 Structural Characterization of Mycobacterial Phosphatidylinositol Mannoside Binding to Mouse CD1d  
*Dirk M. Zajonc, Gary D. Ainge, Gavin F. Painter, Wayne B. Severn, and Ian A. Wilson*
- 4584 Repression of IFN- $\gamma$  Induction of Class II Transactivator: A Role for PRDM1/Blimp-1 in Regulation of Cytokine Signaling  
*Reuben M. Tooze, Sophie Stephenson, and Gina M. Doody*
- 4594 Characterization of a Novel C-Type Lectin, *Bombyx mori* Multibinding Protein, from the *B. mori* Hemolymph: Mechanism of Wide-Range Microorganism Recognition and Role in Immunity  
*Ayako Watanabe, Sousui Miyazawa, Madoka Kitami, Hiroko Tabunoki, Kenjiro Ueda, and Ryoichi Sato*
- 4605 Molecular Mechanisms for Transcriptional Regulation of Human High-Affinity IgE Receptor  $\beta$ -Chain Gene Induced by GM-CSF  
*Kyoko Takahashi, Natsuko Hayashi, Shuichi Kaminogawa, and Chisei Ra*

## IMMUNOGENETICS

---

- 4612 Identification of Susceptibility Loci for Skin Disease in a Murine Psoriasis Model  
*Daniel Kess, Anna-Karin B. Lindqvist, Thorsten Peters, Honglin Wang, Jan Zamek, Roswitha Nischt, Karl W. Broman, Robert Blakytyn, Thomas Krieg, Rikard Holmdahl, and Karin Scharffetter-Kochanek*
- 4620 MHC Class II Molecules Control Murine B Cell Responsiveness to Lipopolysaccharide Stimulation  
*Joana Rodo, Lígia A. Gonçalves, Jocelyne Demengeot, António Coutinho, and Carlos Penha-Gonçalves*

## HOST DEFENSE

---

- 4627 Restoration of Natural IgM Production from Liver B Cells by Exogenous IL-18 Improves the Survival of Burn-Injured Mice Infected with *Pseudomonas aeruginosa*  
*Manabu Kinoshita, Nariyoshi Shinomiya, Satoshi Ono, Hironori Tsujimoto, Toshinobu Kawabata, Atsushi Matsumoto, Hoshio Hiraide, and Shubji Seki*
- 4636 Inhibition of IL-2 Induced IL-10 Production as a Principle of Phase-Specific Immunotherapy  
*Manish Bodas, Nitya Jain, Amit Awasthi, Sunil Martin, Raghu Kumar Penke Loka, Dineshkumar Dandekar, Debashis Mitra, and Bhaskar Saha*
- 4644 Fatal Recall Responses Mediated by CD8 T cells during Intracellular Bacterial Challenge Infection  
*Constantine Bitsaktsis and Gary Winslow*

- 4652 Immunologic Homeostasis during Infection: Coexistence of Strong Pulmonary Cell-Mediated Immunity to Secondary *Cryptococcus neoformans* Infection While the Primary Infection Still Persists at Low Levels in the Lungs  
*Dennis M. Lindell, Megan N. Ballinger, Roderick A. McDonald, Galen B. Toews, and Gary B. Huffnagle*
- 4662 IL-17 Production Is Dominated by  $\gamma\delta$  T Cells rather than CD4 T Cells during *Mycobacterium tuberculosis* Infection  
*Euan Lockhart, Angela M. Green, and JoAnne L. Flynn*
- 4670 Murine  $\gamma$ -Herpesvirus 68 Limits Naturally Occurring CD4<sup>+</sup>CD25<sup>+</sup> T Regulatory Cell Activity following Infection  
*Nancy Gasper-Smith, Ian Marriott, and Kenneth L. Bost*
- 4679 Specific Recognition of *Candida albicans* by Macrophages Requires Galectin-3 to Discriminate *Saccharomyces cerevisiae* and Needs Association with TLR2 for Signaling  
*Thierry Jouault, Miryam El Abed-El Behi, Maria Martínez-Esparza, Laetitia Breuilh, Pierre-André Trinel, Mathias Chamaillard, François Trottein, and Daniel Poulain*
- 4688 The Reduced Bactericidal Function of Complement C5-Deficient Murine Macrophages Is Associated with Defects in the Synthesis and Delivery of Reactive Oxygen Radicals to Mycobacterial Phagosomes  
*D. Sundarsingh Daniel, Guixiang Dai, Christopher R. Singh, Devin R. Lindsey, Amanda K. Smith, Subramanian Dhandayuthapani, Robert L. Hunter, Jr., and Chinnaswamy Jagannath*
- 4699 Differential Selection Pressure Exerted on HIV by CTL Targeting Identical Epitopes but Restricted by Distinct HLA Alleles from the Same HLA Supertype  
*Alasdair Leslie, David A. Price, Pamela Mkhize, Karen Bishop, Almas Rathod, Cheryl Day, Hayley Crawford, Isobella Honeyborne, Tedi E. Asher, Graz Luzzi, Anne Edwards, Christine M. Rosseau, James I. Mullins, Gareth Tudor-Williams, Vas Novelli, Christian Brander, Daniel C. Douek, Photini Kiepiela, Bruce D. Walker, and Philip J. R. Goulder*
- 4709 High Vaccine Efficacy against Shigellosis of Recombinant Noninvasive *Shigella* Mutant That Expresses *Yersinia* Invasin  
*Toshihiko Suzuki, Yuko Yoshikawa, Hiroshi Ashida, Hiroki Iwai, Takahito Toyotome, Hidenori Matsui, and Chihiro Sasakawa*
- 4718 Galectin-3 Induces Death of *Candida* Species Expressing Specific  $\beta$ -1,2-Linked Mannans  
*Luciana Kobatsu, Daniel K. Hsu, Armin G. Jegalian, Fu-Tong Liu, and Linda G. Baum*

## INFLAMMATION

---

- 4727 Activation of the Lectin Pathway by Natural IgM in a Model of Ischemia/Reperfusion Injury  
*Ming Zhang, Kazue Takahashi, Elisabeth M. Alicot, Thomas Vorup-Jensen, Benedikt Kessler, Steffen Thiel, Jens Christian Jensenius, R. Alan B. Ezekowitz, Francis D. Moore, and Michael C. Carroll*
- 4735 TLR3 Ligation Activates an Antiviral Response in Human Fetal Astrocytes: A Role for Viperin/cig5  
*Mark A. Riviuccio, Hyeon-Sook Sub, Yongmei Zhao, Meng-Liang Zhao, Keh Chuang Chin, Sunhee C. Lee, and Celia F. Brosnan*
- 4742 The Monoclonal Antibody CHO-131 Identifies a Subset of Cutaneous Lymphocyte-Associated Antigen T Cells Enriched in P-Selectin-Binding Cells  
*Zhenya Ni, James J. Campbell, Gloria Niehans, and Bruce Walcheck*
- 4749 Basal Rather Than Induced Heme Oxygenase-1 Levels Are Crucial in the Antioxidant Cytoprotection  
*Sei-ichiro Tsuchihashi, Masha Livhits, Yuan Zhai, Ronald W. Busuttill, Jesus A. Araujo, and Jerzy W. Kupiec-Weglinski*
- 4758 Follistatin-Like Protein-1 Is a Novel Proinflammatory Molecule  
*Takako Miyamae, Anthony D. Marinov, Dawn Sowders, David C. Wilson, Jason Devlin, Robert Boudreau, Paul Robbins, and Raphael Hirsch*
- 4763 TCR  $\zeta$  Down-Regulation under Chronic Inflammation Is Mediated by Myeloid Suppressor Cells Differentially Distributed between Various Lymphatic Organs  
*Analia V. Ezernitchi, Ilan Vaknin, Leonor Cohen-Daniel, Ofer Levy, Efrat Manaster, Amal Halabi, Eli Pikarsky, Lior Shapira, and Michal Baniyash*

- 4773 Renal Collecting Duct Epithelial Cells React to Pyelonephritis-Associated *Escherichia coli* by Activating Distinct TLR4-Dependent and -Independent Inflammatory Pathways  
*Cécilia Chassin, Jean-Michel Goujon, Sylvie Darce, Laurence du Merle, Marcelle Bens, Françoise Cluzeaud, Catherine Werts, Eric Ogier-Denis, Chantal Le Bouguéneq, Dominique Buzoni-Gatel, and Alain Vandewalle*
- 4785 Cyclooxygenase-1 Overexpression Decreases Basal Airway Responsiveness but Not Allergic Inflammation  
*Jeffrey W. Card, Michelle A. Carey, J. Alyce Bradbury, Joan P. Graves, Fred B. Lib, Michael P. Moorman, Daniel L. Morgan, Laura M. DeGraff, Yun Zhao, Julie F. Foley, and Darryl C. Zeldin*
- 4794 A Novel C5a Receptor-Tissue Factor Cross-Talk in Neutrophils Links Innate Immunity to Coagulation Pathways  
*Konstantinos Ritis, Michael Doumas, Dimitrios Mastellos, Anastasia Micheli, Stavros Giaglis, Paola Magotti, Stavros Rafail, Georgios Kartalis, Paschalis Sideras, and John D. Lambris*
- 4803 Complement-Dependent Control of Teratoma Formation by Embryonic Stem Cells  
*Cody A. Koch, Corinne E. Jordan, and Jeffrey L. Platt*
- 4810 A Role for Inflammatory Mediators in the Induction of Immunoregulatory B Cells  
*Yumi Matsumura, Scott N. Byrne, Dat X. Nghiem, Yasuko Miyahara, and Stephen E. Ullrich*
- 4818 Regulation of IL-1 and TNF Receptor Expression and Function by Endogenous Macrophage Migration Inhibitory Factor  
*Myew-Ling Tob, Daniel Aeberli, Derek Lacey, Yuan Yang, Leilani L. Santos, Michael Clarkson, Laveena Sharma, Colin Clyne, and Eric F. Morand*
- 4826 A Microbial TLR2 Agonist Imparts Macrophage-Activating Ability to Apolipoprotein A-1  
*Akira Hasebe, Nathan D. Pennock, Hong-Hua Mu, Fok V. Chan, Michael L. Taylor, and Barry C. Cole*
- 4833 Exposure of the Promonocytic Cell Line THP-1 to *Escherichia coli* Induces IFN- $\gamma$ -Inducible Lysosomal Thiol Reductase Expression by Inflammatory Cytokines  
*Rebecca L. Lackman and Peter Cresswell*
- 4841 Collaborative Action of NF- $\kappa$ B and p38 MAPK Is Involved in CpG DNA-Induced IFN- $\alpha$  and Chemokine Production in Human Plasmacytoid Dendritic Cells  
*Youko Osawa, Sumiko Iho, Rumiko Takauji, Hisakazu Takatsuka, Saburo Yamamoto, Takayuki Takahashi, Satomi Horiguchi, Yoshimasa Urasaki, Takasumi Matsuki, and Shigeharu Fujieda*
- 4853 Caveolin-1 Regulates NF- $\kappa$ B Activation and Lung Inflammatory Response to Sepsis Induced by Lipopolysaccharide  
*Sean Garrean, Xiao-Pei Gao, Victor Brovkovych, Jun Shimizu, You-Yang Zhao, Stephen M. Vogel, and Asrar B. Malik*
- 4861 Eosinophil-Derived Cationic Proteins Activate the Synthesis of Remodeling Factors by Airway Epithelial Cells  
*Sophie Pégorier, Lori A. Wagner, Gerald J. Gleich, and Marina Pretolani*
- 4870 Novel Approach to Inhibit Asthma-Mediated Lung Inflammation Using Anti-CD147 Intervention  
*William M. Gwin, Jesse M. Damsker, Rustom Falahati, Ifeanyi Okwumabua, Ann Kelly-Welch, Achshab D. Keegan, Christophe Vanpouille, James J. Lee, Lindsay A. Dent, David Leitenberg, Michael I. Bukrinsky, and Stephanie L. Constant*
- 4880 Native High-Density Lipoprotein Augments Monocyte Responses to Lipopolysaccharide (LPS) by Suppressing the Inhibitory Activity of LPS-Binding Protein  
*Patricia A. Thompson and Richard L. Kitchens*

## CLINICAL IMMUNOLOGY

---

- 4888 Essential Role for IL-10 in Resistance to Lipopolysaccharide-Induced Preterm Labor in Mice  
*Sarah A. Robertson, Rebecca J. Skinner, and Alison S. Care*
- 4897 Functional Reversion of Antigen-Specific CD8<sup>+</sup> T Cells from Patients with Hodgkin Lymphoma following In Vitro Stimulation with Recombinant Polypeptide  
*Corey Smith, Leanne Cooper, Melinda Burgess, Michael Rist, Natasha Webb, Eleanore Lambley, Judy Tellam, Paula Marlton, John F. Seymour, Maher Gandhi, and Rajiv Khanna*

- 4907 An Unconventional Antigen Translated by a Novel Internal Ribosome Entry Site Elicits Antitumor Humoral Immune Reactions  
*Zeyu Xiong, Enli Liu, Yan Yan, Richard T. Silver, Fan Yang, Irene H. Chen, Yangyang Chen, Srdan Verstovsek, Hong Wang, Josef Prchal, and Xiao-Feng Yang*
- 4917 An Anti-IL-12p40 Antibody Down-Regulates Type 1 Cytokines, Chemokines, and IL-12/IL-23 in Psoriasis  
*Eiko Toichi, Gisela Torres, Thomas S. McCormick, Timothy Chang, Mary Ann Mascelli, Catharine L. Kauffman, Nancy Aria, Alice B. Gottlieb, Daniel E. Everitt, Bart Frederick, Charles E. Pendley, and Kevin D. Cooper*
- 4927 ICOS Deficiency Is Associated with a Severe Reduction of CXCR5<sup>+</sup>CD4 Germinal Center Th Cells  
*Lukas Bossaller, Jan Burger, Ruth Draeger, Bodo Grimbacher, Rolf Knoth, Alessandro Plebani, Anne Durandy, Ulrich Baumann, Michael Schlesier, Andrew A. Welcher, Hans Hartmut Peter, and Klaus Warnatz*
- 4933 Author Index
- 4937 AAI Membership Application
- 4938 AAI Trainee Membership Application