

BULK ANTIBODIES

for *in vivo*

RESEARCH

α -PD-1

α -PD-L1

α -4-1BB

α -CTLA4

α -LAG3

Discover More

BioCell



The Journal of
Immunology

178 (12)

J Immunol 2007; 178:7499-8221; ;

<http://www.jimmunol.org/content/178/12>

This information is current as
of December 14, 2018.

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

7499 IN THIS ISSUE

LETTERS TO THE EDITOR

- 7501 Comment on “A Novel Pathway that Regulates Inflammatory Disease in the Respiratory Tract”
Chris L. Van Hove, Tania Maes, Guy F. Joos, and Kurt G. Tournoy
- 7501 Response to Comment on “A Novel Pathway That Regulates Inflammatory Disease in the Respiratory Tract”
Naiqian Niu and Lauren Cohn

BRIEF REVIEWS

- 7503 The Innate Immune System in Allograft Rejection and Tolerance
David F. LaRosa, Adeeb H. Rahman, and Laurence A. Turka

CUTTING EDGE

- 7511 Cutting Edge: Transitional T3 B Cells Do Not Give Rise to Mature B Cells, Have Undergone Selection, and Are Reduced in Murine Lupus
Brittany N. Teague, Yujun Pan, Philip A. Mudd, Britt Nakken, Qingzhao Zhang, Peter Szodoray, Xana Kim-Howard, Patrick C. Wilson, and A. Darise Farris
- 7516 Cutting Edge: Essential Role of Hypoxia Inducible Factor-1 α in Development of Lipopolysaccharide-Induced Sepsis
Carole Peyssonmaux, Pilar Cejudo-Martin, Andrew Doedens, Annelies S. Zinkernagel, Randall S. Johnson, and Victor Nizet
- 7520 Cutting Edge: A Common Polymorphism Impairs Cell Surface Trafficking and Functional Responses of TLR1 but Protects against Leprosy
Christopher M. Johnson, Elizabeth A. Lyle, Katherine O. Omueti, Vitaly A. Stepensky, Olcay Yegin, Erkan Alpsoy, Lutz Hamann, Ralf Schumann, and Richard I. Tapping
- 7525 Cutting Edge: Human Th17 Cells Are Identified as Bearing CCR2⁺CCR5⁻ Phenotype
Wakiro Sato, Toshimasa Aranami, and Takashi Yamamura

On the cover: Th17 cells infiltrate the kidneys of mice with lupus nephritis. Immunohistochemistry shows perivascular, interstitial, and glomerular infiltration of Th17 cells in control lupus mice. This inflammatory cell infiltration is prevented by low-dose tolerance therapy with nucleosomal histone peptide H4 (71–94). Kang, H.-K., M. Liu, and S. K. Datta. 2007. Low-dose peptide tolerance therapy of lupus generates plasmacytoid dendritic cells that cause expansion of autoantigen-specific regulatory T cells and contraction of inflammatory Th17 cells. *J. Immunol.* 178: 7849–7858.

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-3407A, 9650 Rockville Pike, Bethesda, MD 20814-3998. Copyright © 2007 by The American Association of Immunologists, Inc.

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

- 7531 TLR Stimulation Modifies BlyS Receptor Expression in Follicular and Marginal Zone B Cells
Laura S. Trembl, Gianluca Carlesso, Kristen L. Hoek, Jason E. Stadanlick, Taku Kambayashi, Richard J. Bram, Michael P. Cancro, and Wasif N. Khan
- 7540 Type I IFN Contributes to NK Cell Homeostasis, Activation, and Antitumor Function
Jeremy B. Swann, Yoshihiro Hayakawa, Nadeen Zerafa, Kathleen C. F. Sheehan, Bernadette Scott, Robert D. Schreiber, Paul Hertzog, and Mark J. Smyth
- 7550 Agonist-Driven Development of CD4⁺CD25⁺Foxp3⁺ Regulatory T Cells Requires a Second Signal Mediated by Stat6
Vanesa Sanchez-Guajardo, Corinne Tanchot, John T. O'Malley, Mark H. Kaplan, Sylvie Garcia, and Antonio A. Freitas
- 7557 Rates of Processing Determine the Immunogenicity of Immunoproteasome-Generated Epitopes
Parampal Deol, Dietmar M. W. Zaiss, John J. Monaco, and Alice J. A. M. Sijts
- 7563 Persistent Depots of Influenza Antigen Fail To Induce a Cytotoxic CD8 T Cell Response
Dawn M. Jelley-Gibbs, John P. Dibble, Deborah M. Brown, Tara M. Strutt, K. Kai McKinstry, and Susan L. Swain
- 7571 Systemic Administration of IL-23 Induces Potent Antitumor Immunity Primarily Mediated through Th1-Type Response in Association with the Endogenously Expressed IL-12
Teruo Kaiga, Marimo Sato, Hide Kaneda, Yoichiro Iwakura, Tadatoshi Takayama, and Hideaki Tahara
- 7581 A Novel Role of Complement Factor C1q in Augmenting the Presentation of Antigen Captured in Immune Complexes to CD8⁺ T Lymphocytes
Nadine van Montfoort, Judith M. H. de Jong, Danita H. Schuurhuis, Ellen I. H. van der Voort, Marcel G. M. Camps, Tom W. J. Huizinga, Cees van Kooten, Mohamed R. Daba, J. Sjeff Verbeek, Ferry Ossendorp, and René E. M. Toes
- 7587 Uptake of Human Papillomavirus Virus-Like Particles by Dendritic Cells Is Mediated by Fcγ Receptors and Contributes to Acquisition of T Cell Immunity
Diane M. Da Silva, Steven C. Fausch, J. Sjeff Verbeek, and W. Martin Kast
- 7598 Impaired Accumulation of Antigen-Specific CD8 Lymphocytes in Chemokine CCL25-Deficient Intestinal Epithelium and Lamina Propria
Marc-André Wurbel, Marie Malissen, Delphine Guy-Grand, Bernard Malissen, and James J. Campbell
- 7607 IL-27 Synthesis Induced by TLR Ligation Critically Depends on IFN Regulatory Factor 3
Céline Molle, Muriel Nguyen, Véronique Flamand, Joelle Renneson, François Trottein, Dominique De Wit, Fabienne Willems, Michel Goldman, and Stanislas Goriely
- 7616 Disregulated Influenza A Virus-Specific CD8⁺ T Cell Homeostasis in the Absence of IFN-γ Signaling
Stephen J. Turner, Elvia Olivas, Astrid Gutierrez, Gabriela Diaz, and Peter C. Doherty
- 7623 Immunomodulatory Mediators from Pollen Enhance the Migratory Capacity of Dendritic Cells and License Them for Th2 Attraction
Valentina Mariani, Stefanie Gilles, Thilo Jakob, Martina Thiel, Martin J. Mueller, Johannes Ring, Heidrun Behrendt, and Claudia Traidl-Hoffmann
- 7632 Krüppel-Like Factor 2 Controls T Cell Trafficking by Activating L-Selectin (CD62L) and Sphingosine-1-Phosphate Receptor 1 Transcription
Ailin Bai, Hui Hu, Mandy Yeung, and Jianzhu Chen
- 7640 IL-21 Promotes Differentiation of Naive CD8 T Cells to a Unique Effector Phenotype
Kerry A. Casey and Matthew F. Mescher
- 7649 CD8⁺ T Cell-Mediated Suppression of Autoimmunity in a Murine Lupus Model of Peptide-Induced Immune Tolerance Depends on Foxp3 Expression
Ram Pyare Singh, Antonio La Cava, Maida Wong, Fanny Ebling, and Bevra H. Hahn
- 7658 Single-Stranded RNA Derived from HIV-1 Serves as a Potent Activator of NK Cells
Galit Alter, Todd J. Suscovich, Nickolas Teigen, Angela Meier, Hendrik Streeck, Christian Brander, and Marcus Altfeld
- 7667 A Kinetic and Dynamic Analysis of Foxp3 Induced in T Cells by TGF-β
Ramesh K. Selvaraj and Terrence L. Geiger

- 7678 Down-Regulation of E-Cadherin in Human Bronchial Epithelial Cells Leads to Epidermal Growth Factor Receptor-Dependent Th2 Cell-Promoting Activity
Irene H. Heijink, P. Marcel Kies, Henk F. Kauffman, Dirkje S. Postma, Antoon J. M. van Oosterhout, and Edo Vellenga
- 7686 Acute Alcohol Exposure Exerts Anti-Inflammatory Effects by Inhibiting IκB Kinase Activity and p65 Phosphorylation in Human Monocytes
Pranoti Mandrekar, Valentina Jeliaskova, Donna Catalano, and Gyongyi Szabo
- 7694 OX40-Mediated Differentiation to Effector Function Requires IL-2 Receptor Signaling but Not CD28, CD40, IL-12Rβ2, or T-bet
Cortny A. Williams, Susan E. Murray, Andrew D. Weinberg, and David C. Parker
- 7703 Tumor-Reactive CD4⁺ T Cell Responses to the Melanoma-Associated Chondroitin Sulphate Proteoglycan in Melanoma Patients and Healthy Individuals in the Absence of Autoimmunity
Cornelia Erfurt, Zhaojun Sun, Ina Haendle, Beatrice Schuler-Thurner, Carlo Heirman, Kris Thielemans, Pierre van der Bruggen, Gerold Schuler, and Erwin S. Schultz
- 7710 The Loss of Telomerase Activity in Highly Differentiated CD8⁺CD28⁻CD27⁻ T Cells Is Associated with Decreased Akt (Ser⁴⁷³) Phosphorylation
Fiona J. Plunkett, Ornella Franzese, Helene M. Finney, Jean M. Fletcher, Lavina L. Belaramani, Mike Salmon, Inderjeet Dokal, David Webster, Alastair D. G. Lawson, and Arne N. Akbar
- 7720 CD4⁺ T Cells from Simian Immunodeficiency Virus Disease-Resistant Sooty Mangabeys Produce More IL-2 Than Cells from Disease-Susceptible Species: Involvement of p300 and CREB at the Proximal IL-2 Promoter in IL-2 Up-Regulation
Pavel Bostik, Erika S. Noble, Susan T. Stephenson, Francois Villinger, and Aftab A. Ansari
- 7730 Phenotypic and Functional Effects of Heat Shock Protein 90 Inhibition on Dendritic Cell
Joeun Bae, Constantine Mitsiades, Yu-Tzu Tai, Robert Bertheau, Masood Shammas, Ramesh Babu Batchu, Cheng Li, Lawrence Catley, Rao Prabhala, Kenneth C. Anderson, and Nikhil C. Munshi
- 7738 Transcriptional Targeting of B Cells for Induction of Peripheral CD8 T Cell Tolerance
Melanie Werner-Klein, Christiane Dresch, Peggy Marconi, and Thomas Brocker
- 7747 Requirements for T Lymphocyte Migration in Explanted Lymph Nodes
Julie H. Huang, L. Isabel Cárdenas-Navia, Charles C. Caldwell, Troy J. Plumb, Caius G. Radu, Paulo N. Rocha, Tuere Wilder, Jonathan S. Bromberg, Bruce N. Cronstein, Michail Sitkovsky, Mark W. Dewhirst, and Michael L. Dustin
- 7756 Availability of a Diversely Avid CD8⁺ T Cell Repertoire Specific for the Subdominant HLA-A2-Restricted HIV-1 Gag p24₁₉₋₂₇ Epitope
Keri L. Schaubert, David A. Price, Nicole Frahm, Jinzhu Li, Hwee L. Ng, Aviva Joseph, Elyse Paul, Biswanath Majumder, Velpandi Ayyavoo, Emma Gostick, Sharon Adams, Francesco M. Marincola, Andrew K. Sewell, Marcus Altfeld, Jason M. Brechley, Daniel C. Douek, Otto O. Yang, Christian Brander, Harris Goldstein, and June Kan-Mitchell
- 7767 Negative Regulation of TCR Signaling by NF-κB2/p100
Diana Legarda-Addison and Adrian T. Ting
- 7779 TLR Agonists Selectively Promote Terminal Plasma Cell Differentiation of B Cell Subsets Specialized in Thymus-Independent Responses
Laurent Genestier, Morgan Taillardet, Paul Mondiere, Hanane Gheit, Chantal Bella, and Thierry Defrance
- 7787 Small Rho GTPases Mediate Tumor-Induced Inhibition of Endocytic Activity of Dendritic Cells
Irina L. Tourkova, Galina V. Shurin, Sheng Wei, and Michael R. Shurin
- 7794 Exposure of Myeloid Dendritic Cells to Exogenous or Endogenous IL-10 during Maturation Determines Their Longevity
W. L. William Chang, Nicole Baumgarth, Meghan K. Eberhardt, C. Y. Daniel Lee, Colin A. Baron, Jeff P. Gregg, and Peter A. Barry
- 7805 Immunomodulatory Effects of Viral TLR Ligands on Experimental Asthma Depend on the Additive Effects of IL-12 and IL-10
Serdar Sel, Michael Wegmann, Sarper Sel, Stefan Bauer, Holger Garn, Gottfried Alber, and Harald Renz

- 7814 Protein Kinase C δ Regulates Antigen Receptor-Induced Lytic Granule Polarization in Mouse CD8⁺ CTL
Jennifer S. Y. Ma, Ngozi Monu, David T. Shen, Ingrid Mecklenbräuker, Nadežda Radoja, Tarik F. Haydar, Michael Leitges, Alan B. Frey, Stanislav Vukmanović, and Saša Radoja
- 7822 Expression of the Voltage-Gated Sodium Channel NaV1.5 in the Macrophage Late Endosome Regulates Endosomal Acidification
Michael D. Carrithers, Sulayman Dib-Hajj, Lisette M. Carrithers, Gouzel Tokmoulina, Marc Pypaert, Elizabeth A. Jonas, and Stephen G. Waxman
- 7833 Identification and Characterization of Novel Bone Marrow Myeloid DEC205⁺Gr-1⁺ Cell Subsets That Differentially Express Chemokine and TLRs
Roberta J. Lamb, Renold J. Capocasale, Karen E. Duffly, Robert T. Sarisky, and M. Lamine Mbow
- 7840 IgG Opsonization of HIV Impedes Provirus Formation in and Infection of Dendritic Cells and Subsequent Long-Term Transfer to T Cells
Doris Wilflingseder, Zoltan Banki, Eduardo Garcia, Monika Pruenster, Gerald Pfister, Brigitte Muellauer, Damjan S. Nikolic, Christoph Gassner, Christoph G. Ammann, Manfred P. Dierich, Vincent Piquet, and Heribert Stoiber
- 7849 Low-Dose Peptide Tolerance Therapy of Lupus Generates Plasmacytoid Dendritic Cells That Cause Expansion of Autoantigen-Specific Regulatory T Cells and Contraction of Inflammatory Th17 Cells
Hee-Kap Kang, Michael Liu, and Syamal K. Datta
- 7859 Follicular Dendritic Cell Secreted Protein (FDC-SP) Regulates Germinal Center and Antibody Responses
Monther Al-Alwan, Qiujiang Du, Sen Hou, Baher Nashed, Yijun Fan, Xi Yang, and Aaron J. Marshall
- 7868 Novel Suppressive Function of Transitional 2 B Cells in Experimental Arthritis
Jamie G. Evans, Karina A. Chavez-Rueda, Ayad Eddaoudi, Almut Meyer-Bahlburg, David J. Rawlings, Michael R. Ehrenstein, and Claudia Mauri
- 7879 Coexpression of IL-5 and Eotaxin-2 in Mice Creates an Eosinophil-Dependent Model of Respiratory Inflammation with Characteristics of Severe Asthma
Sergei I. Ochkur, Elizabeth A. Jacobsen, Cheryl A. Protheroe, Travis L. Biechele, Ralph S. Pero, Michael P. McGarry, Huiying Wang, Katie R. O'Neill, Dana C. Colbert, Thomas V. Colby, Huahao Shen, Michael R. Blackburn, Charles C. Irvin, James J. Lee, and Nancy A. Lee
- 7890 A Quantitative Analysis of the Variables Affecting the Repertoire of T Cell Specificities Recognized after Vaccinia Virus Infection
Erika Assarsson, John Sidney, Carla Oseroff, Valerie Pasquetto, Huynh-Hoa Bui, Nicole Frahm, Christian Brander, Bjoern Peters, Howard Grey, and Alessandro Sette
- 7902 C5a-Blockade Improves Burn-Induced Cardiac Dysfunction
Laszlo M. Hoesel, Andreas D. Niederbichler, Julia Schaefer, Kyros R. Ipaktchi, Hongwei Gao, Daniel Rittirsch, Matthew J. Pianko, Peter M. Vogt, J. Vidya Sarma, Grace L. Su, Saman Arbabi, Margaret V. Westfall, Stewart C. Wang, Mark R. Hemmila, and Peter A. Ward

MOLECULAR AND STRUCTURAL IMMUNOLOGY

- 7911 RNA Interference Elucidates the Role of Focal Adhesion Kinase in HLA Class I-Mediated Focal Adhesion Complex Formation and Proliferation in Human Endothelial Cells
Yi-Ping Jin, Yael Korin, Xiaohai Zhang, Peter T. Jindra, Enrique Rozengurt, and Elaine F. Reed
- 7923 Paratope Plasticity in Diverse Modes Facilitates Molecular Mimicry in Antibody Response
Lavanya Krishnan, Suwendu Lomash, Beena Patricia Jeevan Raj, Kanwal J. Kaur, and Dinakar M. Salunke
- 7932 A Transporter Associated with Antigen-Processing Independent Vacuolar Pathway for the MHC Class I-Mediated Presentation of Endogenous Transmembrane Proteins
Neeraj Tiwari, Natalio Garbi, Thomas Reinheckel, Gerhard Moldenbauer, Günter J. Hämmerling, and Frank Momburg

IMMUNOGENETICS

- 7943 Episodes of Natural Selection Shaped the Interactions of IgA-Fc with Fc α RI and Bacterial Decoy Proteins
Laurent Abi-Rached, Kristel Dorighi, Paul J. Norman, Makoto Yawata, and Peter Parham

- 7955 Early Diversification of the TNF Superfamily in Teleosts: Genomic Characterization and Expression Analysis
Gavin W. Glenney and Gregory D. Wiens

HOST DEFENSE

- 7974 IL-10 Regulates Movement of Intestinally Derived CD4⁺ T Cells to the Liver
Susan K. Bliss, Stuart P. Bliss, Daniel P. Beiting, Ana Alcaraz, and Judith A. Appleton
- 7984 Dendritic Cells Derived from Murine Colonic Mucosa Have Unique Functional and Phenotypic Characteristics
Shunsuke Takenaka, Ekaterina Safroneeva, Zhou Xing, and Jack Gauldie
- 7994 Lung Dendritic Cells Rapidly Mediate Anthrax Spore Entry through the Pulmonary Route
Aurélie Cleret, Anne Quesnel-Hellmann, Alexandra Vallon-Eberhard, Bernard Verrier, Steffen Jung, Dominique Vidal, Jacques Mathieu, and Jean-Nicolas Tournier
- 8002 Depletion of CD8⁺ Cells in Sooty Mangabey Monkeys Naturally Infected with Simian Immunodeficiency Virus Reveals Limited Role for Immune Control of Virus Replication in a Natural Host Species
Ashley P. Barry, Guido Silvestri, Jeffrey T. Safrit, Beth Sumpter, Natalia Kozyr, Harold M. McClure, Silvija I. Staprans, and Mark B. Feinberg
- 8013 Macrophage-Inflammatory Protein-3 α Mediates Epidermal Growth Factor Receptor Transactivation and ERK1/2 MAPK Signaling in Caco-2 Colonic Epithelial Cells via Metalloproteinase-Dependent Release of Amphiregulin
Sarah Keates, Xinbing Han, Ciarán P. Kelly, and Andrew C. Keates
- 8022 The Nod-Like Receptor Family Member Naip5/Birc1e Restricts *Legionella pneumophila* Growth Independently of Caspase-1 Activation
Mohamed Lamkanfi, Amal Amer, Thirumala-Devi Kanneganti, Raúl Muñoz-Planillo, Grace Chen, Peter Vandenabeele, Anne Fortier, Philippe Gros, and Gabriel Núñez
- 8028 IL-10 Underlies Distinct Susceptibility of BALB/c and C57BL/6 Mice to *Mycobacterium avium* Infection and Influences Efficacy of Antibiotic Therapy
Susana Roque, Claudia Nobrega, Rui Appelberg, and Margarida Correia-Neves
- 8036 Leukotriene B₄ Triggers the In Vitro and In Vivo Release of Potent Antimicrobial Agents
Louis Flamand, Michel J. Tremblay, and Pierre Borgeat
- 8046 Human Neutrophil Defensins Increase Neutrophil Uptake of Influenza A Virus and Bacteria and Modify Virus-Induced Respiratory Burst Responses
Tesfaldet Teclé, Mitchell R. White, Don Gantz, Erika C. Crouch, and Kevan L. Hartshorn

INFLAMMATION

- 8053 Expression and Regulation of the Metalloproteinase ADAM-8 during Human Neutrophil Pathophysiological Activation and Its Catalytic Activity on L-Selectin Shedding
Maria Gómez-Gaviro, María Domínguez-Luis, Javier Canchado, Jero Calafat, Hans Janssen, Enrique Lara-Pezzi, Anne Fourie, Antonio Tugores, Agustín Valenzuela-Fernández, Faustino Mollinedo, Francisco Sánchez-Madrid, and Federico Díaz-González
- 8064 Regulated Shedding of Transmembrane Chemokines by the Disintegrin and Metalloproteinase 10 Facilitates Detachment of Adherent Leukocytes
Christian Hundhausen, Alexander Schulte, Beate Schulz, Michael G. Andrzejewski, Nicole Schwarz, Philipp von Hundelshausen, Ulrike Winter, Krzysztof Paliga, Karina Reiss, Paul Saftig, Christian Weber, and Andreas Ludwig
- 8073 Long-Term Commitment to Inflammation-Seeking Homing in CD4⁺ Effector Cells
Silke Jennrich, Boris A. Ratsch, Alf Hamann, and Uta Syrbe

- 8081 Histamine 4 Receptor Activation Induces Recruitment of FoxP3⁺ T Cells and Inhibits Allergic Asthma in a Murine Model
Ross K. Morgan, Brian McAllister, Lillian Cross, Daniel S. Green, Hardy Kornfeld, David M. Center, and William W. Cruikshank
- 8090 CD8⁺ T Cells Are Required for Inflammation and Destruction in Cigarette Smoke-Induced Emphysema in Mice
Toshitaka Maeno, A. McGarry Houghton, Pablo A. Quintero, Sandra Grumelli, Caroline A. Owen, and Steven D. Shapiro
- 8097 Monocyte Chemoattractant Protein-1 Production by Intestinal Myofibroblasts in Response to Staphylococcal Enterotoxin A: Relevance to Staphylococcal Enterotoxigenic Disease
Irina V. Pinchuk, Ellen J. Beswick, Jamal I. Saada, Giovanni Suarez, John Winston, Randy C. Miffilin, John F. Di Mari, Don W. Powell, and Victor E. Reyes
- 8107 STAT1 Activation Causes Translocation of Bax to the Endoplasmic Reticulum during the Resolution of Airway Mucous Cell Hyperplasia by IFN- γ
Barbara A. Stout, Karla Melendez, JeanClare Seagrave, Michael J. Holtzman, Bridget Wilson, Jialing Xiang, and Yohannes Tesfaigzi
- 8117 TNF- α Inhibits Macrophage Clearance of Apoptotic Cells via Cytosolic Phospholipase A₂ and Oxidant-Dependent Mechanisms
Kathleen McPhillips, William J. Janssen, Moumita Ghosh, Aideen Byrne, Shyra Gardai, Linda Remigio, Donna L. Bratton, Jihee L. Kang, and Peter Henson
- 8127 Identification of Ectonucleotidases CD39 and CD73 in Innate Protection during Acute Lung Injury
Tobias Eckle, Lars Füllbier, Manfred Wehrmann, Joseph Khoury, Michel Mittelbronn, Juan Ibla, Peter Rosenberger, and Holger K. Eltzschig
- 8138 The Proinflammatory Effect of Prostaglandin E₂ in Experimental Inflammatory Bowel Disease Is Mediated through the IL-23 \rightarrow IL-17 Axis
Amir F. Sheibanie, Jui-Hung Yen, Tanzilya Khayrullina, Frances Emig, Ming Zhang, Ronald Tuma, and Doina Ganea
- 8148 Pulmonary Stromal-Derived Factor-1 Expression and Effect on Neutrophil Recruitment during Acute Lung Injury
Joseph M. Petty, Viranuj Sueblinvong, Christopher C. Lenox, Christine C. Jones, Gregory P. Cosgrove, Carlyne D. Cool, Pradeep R. Rai, Kevin K. Brown, Daniel J. Weiss, Matthew E. Poynter, and Benjamin T. Suratt
- 8158 Fibronectin- and Vitronectin-Induced Microglial Activation and Matrix Metalloproteinase-9 Expression Is Mediated by Integrins $\alpha_5\beta_1$ and $\alpha_v\beta_5$
Richard Milner, Stephen J. Crocker, Stephanie Hung, Xiaoyun Wang, Ricardo F. Frausto, and Gregory J. del Zoppo
- 8168 Shiga Toxin Produced by Enterohemorrhagic *Escherichia coli* Inhibits PI3K/NF- κ B Signaling Pathway in Globotriaosylceramide-3-Negative Human Intestinal Epithelial Cells
Alain P. Gobert, Marjolaine Vareille, Anne-Lise Glasser, Thomas Hindré, Thibaut de Sablet, and Christine Martin
- 8175 IFN- γ -Induced Chemokines Synergize with Pertussis Toxin to Promote T Cell Entry to the Central Nervous System
Jason M. Millward, Maria Caruso, Iain L. Campbell, Jack Gauldie, and Trevor Owens
- 8183 A Previously Unrecognized Protein-Protein Interaction between TWEAK and CD163: Potential Biological Implications
Laura C. Bover, Marina Cardó-Vila, Akihiko Kuniyasu, Jessica Sun, Roberto Rangel, Motohiro Takeya, Bharat B. Aggarwal, Wadiah Arap, and Renata Pasqualini

CLINICAL IMMUNOLOGY

- 8195 Characterization of Reciprocal *Lmb1-4* Interval MRL-*Fas*^{lpr} and C57BL/6-*Fas*^{lpr} Congenic Mice Reveals Significant Effects from *Lmb3*
Marie-Laure Santiago-Raber, M. Katarina Haraldsson, Argrios N. Theofilopoulos, and Dwight H. Kono

- 8203 Regulation of *DMBT1* via NOD2 and TLR4 in Intestinal Epithelial Cells Modulates Bacterial Recognition and Invasion
Philip Rosenstiel, Christian Sina, Caroline End, Marcus Renner, Stefan Lyer, Andreas Till, Stephan Hellmig, Susanna Nikolaus, Ulrich R. Fölsch, Burkhard Helmke, Frank Autschbach, Peter Schirmacher, Petra Kioschis, Mathias Hafner, Annemarie Poustka, Jan Mollenhauer, and Stefan Schreiber
- 8212 Loss of Discrete Memory B Cell Subsets Is Associated with Impaired Immunization Responses in HIV-1 Infection and May Be a Risk Factor for Invasive Pneumococcal Disease
Melanie Hart, Alan Steel, Sally A. Clark, Graeme Moyle, Mark Nelson, Don C. Henderson, Robert Wilson, Frances Gotch, Brian Gazzard, and Peter Kelleher
- 8221 Corrections
- 8229 Author Index
- 8232 Author Index to Volume 178
- 8257 Subject Index to Volume 178
- 8289 AAI Membership Application
- 8290 AAI Trainee Membership Application