IN THIS ISSUE

PILLARS OF IMMUNOLOGY

4005 Allophenic Mice: A Pillar Awaiting Its Superstructure
Jeffrey L. Platt

Beatrice Mintz and Willys K. Silvers

BRIEF REVIEWS

4011 NK Cells and Cancer
Loris Zamai, Cristina Ponti, Prisco Mirandola, Giuliana Gobbi, Stefano Papa, Laura Galeotti, Lucio Cocco, and Marco Vitale

CUTTING EDGE

4017 Cutting Edge: Immature Human Dendritic Cells Express Latency-Associated Peptide and Inhibit T Cell Activation in a TGF-β-Dependent Manner
Roopali Gandhi, David E. Anderson, and Howard L. Weiner

4022 Cutting Edge: IL-2 Is Essential for TGF-β-Mediated Induction of Foxp3+ T Regulatory Cells
Todd S. Davidson, Richard J. DiPaolo, John Andersson, and Ethan M. Shevach

4027 Cutting Edge: Limiting Amounts of IL-7 Do Not Control Contraction of CD4+ T Cell Responses
Pulak Tripathi, Thomas C. Mitchell, Fred Finkelman, and David A. Hildeman

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

4033 The T Cell Costimulator TL1A Is Induced by FcγR Signaling in Human Monocytes and Dendritic Cells
John L. Prehn, Lisa S. Thomas, Carol J. Landers, Qi T. Yu, Kathrin S. Michelsen, and Stephan R. Targan

4039 15-Deoxy-Δ12,14-Prostaglandin J2 Negatively Regulates rankl Gene Expression in Activated T Lymphocytes: Role of NF-κB and Early Growth Response Transcription Factors
Cinzia Fionda, Filomena Nappi, Mario Piccoli, Luigi Frati, Angela Santoni, and Marco Cippitelli

4051 Follicular Lymphoma Intratumoral CD4+CD25+GITR+ Regulatory T Cells Potently Suppress CD3/CD28-Costimulated Autologous and Allogeneic CD8+CD25− and CD4+CD25− T Cells
Shannon P. Hilchey, Asit De, Lisa M. Rimsza, Richard B. Bankert, and Steven H. Bernstein


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.
4062 Function of the IL-2R for Thymic and Peripheral CD4^+CD25^+ Foxp3^+ T Regulatory Cells
   Allison L. Bayer, Aixin Yu, and Thomas R. Malek

4072 Natural and Synthetic TLR7 Ligands Inhibit CpG-A- and CpG-C-Oligodeoxynucleotide-Induced IFN-α
   Production
   Beate Berghöfer, Gabriela Haley, Ture Frommer, Gregor Bein, and Holger Hackstein

4080 Functional Plasticity in Memory T Helper Cell Responses
   Connie M. Kastewczyk, Hao Shen, and Edward J. Pearce

4089 Infiltration of a Mesothelioma by IFN-γ-Producing Cells and Tumor Rejection after Depletion of
   Regulatory T Cells
   Geordie Rudge, Simon P. Barrett, Bernadette Scott, and Ian R. van Driel

4097 Prostaglandin E, Induces the Expression of IL-1α in Colon Cancer Cells
   Jinyi Shao and Hongmiao Sheng

4104 Different Kinetics of Blimp-1 Induction in B Cell Subsets Revealed by Reporter Gene
   Kirsten A. Fairfax, Lynn M. Corcoran, Clare Pridans, Nicholas D. Huntington, Axel Kallies, Stephen L. Nutt,
   and David M. Tarlinton

4112 Four Functionally Distinct Populations of Human Effector-Memory CD8^+ T Lymphocytes
   Pedro Romero, Alfred Zippelius, Isabel Kurth, Mikael J. Pittet, Cedric Touvery, Emanuela M. Iancu, Patricia Corbey, 
   Estelle Devevre, Daniel E. Speiser, and Nathalie Rufer

4120 The Constitutive Tyrosine Phosphorylation of CD3ζ Results from TCR-MHC Interactions That Are
   Independent of Thymic Selection
   Amy M. Becker, Laura M. DeFord-Watts, Christop Wuelfing, and Nicolai S. C. van Oers

4129 Peroxisome Proliferator-Activated Receptor γ (PPARγ) and Immunoregulation: Enhancement of
   Regulatory T Cells through PPARγ-Dependent and -Independent Mechanisms
   Elizabeth A. Wohlfert, Frank C. Nichols, Erin Nevius, and Robert B. Clark

4136 Incomplete Depletion and Rapid Regeneration of Foxp3^+ Regulatory T Cells Following Anti-CD25
   Treatment in Malaria-Infected Mice
   Kevin N. Couper, Daniel G. Blount, J. Brian de Souza, Isabelle Suffia, Yasmine Belkaid, and Eleanor M. Riley

4147 The Blood Contains Multiple Distinct Progenitor Populations with Clonogenic B and T Lineage
   Potential
   Oliver Umland, William N. Mwangi, Bradley M. Anderson, Juliette C. Walker, and Howard T. Petrie

4153 Gadd45α Regulates p38-Dependent Dendritic Cell Cytokine Production and Th1 Differentiation
   Ludmila Jirmanova, Dragana Jankovic, Albert J. Fornace, Jr., and Jonathan D. Ashwell

4159 Minor Antigen H60-Mediated Aplastic Anemia Is Ameliorated by Immunosuppression and the Infusion
   of Regulatory T Cells
   Jichun Chen, Felicia M. Ellison, Michael A. Eckhaus, Aleah L. Smith, Keyvan Keyvanfar, Rodrigo T. Calado,
   and Neal S. Young

4169 Delivery of Antigen to CD40 Induces Protective Immune Responses against Tumors
   Karoline W. Schjetne, Agnete B. Fredriksen, and Bjarne Bogen

4177 FcεRI Aggregation Promotes Survival of Connective Tissue-Like Mast Cells but Not Mucosal-Like
   Mast Cells
   Maria Ekoff, Andreas Strasser, and Gunnar Nilsson

4184 Human Dendritic Cells Acquire a Semimature Phenotype and Lymph Node Homing Potential through
   Interaction with CD4^+CD25^+ Regulatory T Cells
   Jagadeesh Bayry, Frederic Triebel, Srinivas Kaveri, and David F. Tough

4194 Cytokine-Mediated Disruption of Lymphocyte Trafficking, Hemopoiesis, and Induction of
   Lymphopenia, Anemia, and Thrombocytopenia in Anti-CD137-Treated Mice
   Liguo Niu, Simona Strabotin, Becker Heuer, Bonyue Zhang, Yuanyuan Zhang, David Archer, Trent Spencer, 
   Direk Dillehay, Byoung Kwon, Lieping Chen, Anthony T. Vella, and Robert S. Mittler
4214 Non-Cell Autonomous Expression of TNF-α-Converting Enzyme ADAM17 Is Required for Normal Lymphocyte Development
Nianyu Li, Kelli Boyd, Peter J. Dempsey, and Dario A. A. Vignali

4222 Regulation of Carcinogenesis by IL-5 and CCL11: A Potential Role for Eosinophils in Tumor Immune Surveillance
Ljubov Simson, Julia I. Ellyard, Lindsay A. Dent, Klaus I. Matthei, Marc E. Roshen, Paul S. Foster, Mark J. Smyth, and Christopher R. Parish

4230 Mouse TCRαβ⁺ CD8αα Intraepithelial Lymphocytes Express Genes That Down-Regulate Their Antigen Reactivity and Suppress Immune Responses

4240 Activation of Adenosine 2A Receptors Attenuates Allograft Rejection and Alloantigen Recognition
Charles P. Sevigny, Li Li, Alaa S. Awad, Liping Huang, Marcia McDuffie, Joel Linden, Peter I. Lobo, and Mark D. Okusa

4250 Paired Ig-Like Receptors Bind to Bacteria and Shape TLR-Mediated Cytokine Production
Masafumi Nakayama, Timothy W. Petersen, Bin Li, Toshio Kitamura, Toshiyuki Takai, and Alan Aderem

4260 Suppression of Memory CD8 T Cell Generation and Function by Tryptophan Catabolism
Zhiwei Liu, Huhua Dai, Ni Wan, Tao Wang, Suzanne Bertera, Massimo Truc, and Zhenhua Dai

4276 Limited Peripheral T Cell Anergy Predisposes to Retinal Autoimmunity

4284 TGF-β Suppresses IFN-γ-STAT1-Dependent Gene Transcription by Enhancing STAT1-PIAS1 Interactions in Epithelia but Not Monocytes/Macrophages
Colin Reardon and Derek M. McKay

4296 Activation of Enteroendocrine Cells via TLRs Induces Hormone, Chemokine, and Defensin Secretion
Marco Palazzo, Andrea Balari, Anna Rosini, Silvia Selleri, Claudia Calcattera, Silvia Gariboldi, Laura Zanobbio, Francesca Arnaoldi, Yuri F. Shirai, Graziano Serra, and Cristiano Rumino

4304 Distinct Cytokine-Driven Responses of Activated Blood γδ T Cells: Insights into Unconventional T Cell Pleiotropy
David Vermijlen, Peter Ellis, Cordelia Langford, Anne Klein, Rosel Engel, Katharina Willimann, Hassan Jomaa, Adrian C. Hayday, and Matthias Eberl

4315 Enhanced NFATc1 Nuclear Occupancy Causes T Cell Activation Independent of CD28 Costimulation
 Minggui Pan, Monte M. Winslow, Lei Chen, Ann Kuo, Dean Felsher, and Gerald R. Crabtree

4322 Analysis of 6912 Unselected Somatic Hypermutations in Human VDJ Rearrangements Reveals Lack of Strand Specificity and Correlation between Phase II Substitution Rates and Distance to the Nearest 3’ Activation-Induced Cytidine Deaminase Target
Line Ohm-Laursen and Torben Barington

4335 CCL23 Expression Is Induced by IL-4 in a STAT6-Dependent Fashion
Hermann Nauko, Anke Müller, Nathalie Harrer, Claudia Günter, Jose M. Carballido, and Maximilian Woitschläger

4342 Human TIM-1 Associates with the TCR Complex and Up-Regulates T Cell Activation Signals
Lauri L. Biin, Martin L. Scott, and Paul D. Rennert
Extracellular Isoforms of CD6 Generated by Alternative Splicing Regulate Targeting of CD6 to the Immunological Synapse

Peroxisome Proliferator-Activated Receptor-α Activation Inhibits Langerhans Cell Function
Sandrine Dubrac, Patrizia Stoitzner, Daniela Pirkebner, Andreas Elentner, Kristina Schoonn, Johan Auwerx, Sem Saeland, Paul Hengster, Peter Fritsch, Nikolaus Romani, and Matthias Schmuth

Bcl10 Controls TCR- and FcγR-Induced Actin Polymerization
Daniel Rueda, Olivier Gaide, Liza Ho, Elodie Lewkowicz, Florence Nierergang, Stephan Hailfinger, Fabien Reboul, Montserrat Guzzardi, Béatrice Conne, Marcus Thelen, Jérôme Delon, Uta Ferch, Tak W. Mak, Jürgen Ruland, Jürg Schwaller, and Margot Thome

Identification of the Zebrafish IFN Receptor: Implications for the Origin of the Vertebrate IFN System
Jean-Pierre Levrard, Pierre Boudriot, Ingrid Colin, Abdouren Benmansour, Nadine Peyrieras, Philippe Herbonel, and Georges Lutfalla

The B66 Locus of BXSB Mice Is Sufficient for High-Level Expression of gp70 and the Production of gp70 Immune Complexes

Human KIR2DL5 Is an Inhibitory Receptor Expressed on the Surface of NK and T Lymphocyte Subsets
Ernesto Estefanía, Raquel Flores, Natalia Gómez-Lozano, Helena Aguilar, Miguel López-Botet, and Carlos Viches

NK Dendritic Cells Are Innate Immune Responders to Listeria monocytogenes Infection
George Plitas, Umer I. Chaudhry, T. Peter Kingham, Jesse R. Raab, and Ronald P. DeMatteo

Peptide Mimics of the Group B Meningococcal Capsule Induce Bactericidal and Protective Antibodies after Immunization
Carla Lo Passo, Angela Romeo, Idia Pernice, Paolo Donato, Angelina Midiri, Giuseppe Mancuso, Milena Arigo, Carmelo Biondo, Roberta Galbo, Salvatore Papaergi, Franco Felici, Giuseppe Teti, and Concetta Beninati

The Role of Antibody Polyspecificity and Lipid Reactivity in Binding of Broadly Neutralizing Anti-HIV-1 Envelope Human Monoclonal Antibodies 2F5 and 4E10 to Glycoprotein 41 Membrane Proximal Envelope Epitopes

TLR Ligand-Dependent Activation of Naive CD4 T Cells by Plasmacytoid Dendritic Cells Is Impaired in Hepatitis C Virus Infection
Nicole L. Yonkers, Benigno Rodriguez, Kimberly A. Milkovich, Robert Auaa, Michael M. Lederman, Peter S. Heeger, and Donald D. Anthony

Francisella tularensis Induces IL-23 Production in Human Monocytes

T Cell Recognition Patterns of Immunodominant Cytomegalovirus Antigens in Primary and Persistent Infection
Naem Khan, Donna Best, Rachel Bruton, Laxman Nayak, Alan B. Rickinson, and Paul A. H. Mus

Resident Vδ T Cells Control Early Infiltration of Neutrophils after Escherichia coli Infection via IL-17 Production
Kenjiro Shibata, Hisakata Yamada, Hiromitsu Hara, Kenji Kishihara, and Yasunobu Yoshikai
The Human Cytomegalovirus MHC Class I Homolog UL18 Inhibits LIR-1⁺ NK Cells

Tyk2 Signaling in Host Environment Plays an Important Role in Contraction of Antigen-Specific CD8⁺ T Cells following a Microbial Infection
Wei Li, Hisakata Yamada, Toshiki Yajima, Ryusuke Nakagawa, Kazuya Shimoda, Keichi Nakayama, and Yasunobu Yodohi

Factor H Binding and Function in Sialylated Pathogenic Neisseriae is Influenced by Gonococcal, but Not Meningococcal, Porin
Guillermo Madico, Jutamas Ngampasutadol, Sunita Gulati, Ulrich Vogel, Peter A. Rice, and Sanjay Ram

IL-12 and Type-I IFN Synergize for IFN-γ Production by CD4 T Cells, Whereas Neither Are Required for IFN-γ Production by CD8 T Cells after Listeria monocytogenes Infection
Sing Sing Way, Colin Havenar-Daughton, Ganesh A. Kolumann, Nural N. Orgun, and Kaja Murais-Krishna

Collagen Distribution and Expression of Collagen-Binding α1(VLA-1) and α3β1 (VLA-2) Integrins on CD4 and CD8 T Cells during Influenza Infection

Evidence for Evolving Toll-IL-1 Receptor-Containing Adaptor Molecule Function in Vertebrates
Con Sullivan, John H. Postlethwait, Christopher R. Lage, Paul J. Millard, and Carol H. Kim

MyD88-Dependent Signals Are Essential for the Host Immune Response in Experimental Brain Abscess
Tammy Kielian, Nirmal K. Phulwani, Nilsa Elen, Mohna Md. Syed, Anessa C. Haney, Kelly McCastlain, and Jennifer Johnson

Active Suppression of the Pulmonary Immune Response by Francisella tularensis Schu4
Catharine M. Bosio, Helle Biedfeldt-Olmann, and John T. Belisle

Recognition of Double-Stranded RNA by TLR3 Induces Severe Small Intestinal Injury in Mice
Rongbin Zhou, Haiming Wei, Rui Sun, and Zhigang Tian

Infection with a Helminth Parasite Prevents Experimental Colitis via a Macrophage-Mediated Mechanism

Allele- and Locus-Specific Recognition of Class I MHC Molecules by the Immunomodulatory E3-19K Protein from Adenovirus
Hong Liu, Jie Fu, and Marlene Bouvier

IFN Mimetic as a Therapeutic for Lethal Vaccinia Virus Infection: Possible Effects on Innate and Adaptive Immune Responses
Chulbul M. Ahmed, James P. Martin, and Howard M. Johnson

INFLAMMATION

Histamine Release from the Basophils of Control and Asthmatic Subjects and a Comparison of Gene Expression between “Releaser” and “Nonreleaser” Basophils
Lama A. Youssef, Mark Schuyler, Laura Gilmarrin, Gavin Pickett, Julie D. J. Bard, Christy A. Tarleton, Teresa Archibeque, Clifford Qualls, Bridget S. Wilson, and Janet M. Oliver

Annexin-1 and Peptide Derivatives Are Released by Apoptotic Cells and Stimulate Phagocytosis of Apoptotic Neutrophils by Macrophages
Michael Scannell, Michelle B. Flanagan, Andreas deStefani, Kieran J. Wynne, Gerard Cagney, Catherine Godson, and Paola Maderna

Loss of SLP-76 Expression within Myeloid Cells Confers Resistance to Neutrophil-Mediated Tissue Damage while Maintaining Effective Bacterial Killing
Regina A. Clemens, Laurie E. Lenox, Taku Kambayashi, Natalie Bezeman, Jonathan S. Maltzman, Kim E. Nichols, and Gary A. Koretsky
Oncostatin M Secreted by Skin Infiltrating T Lymphocytes Is a Potent Keratinocyte Activator Involved in Skin Inflammation

The Chemokine Binding Protein M3 Prevents Diabetes Induced by Multiple Low Doses of Streptozotocin
Andrea P. Martin, Jennifer M. Alexander-Brett, Claudia Canasto-Chibuque, Alexandre Garin, Jonathan S. Bromberg, David H. Fremont, and Sergio A. Lira

TGF-β1-Mediated Control of Central Nervous System Inflammation and Autoimmunity through the Inhibitory Receptor CD26
Vera Preller, Annegret Gerber, Sabine Wrenger, Mauro Togni, Didier Marguet, Janine Tadje, Uwe Lendeckel, Christoph Röcken, Jürgen Faust, Klaus Neubert, Burkhard Schraven, Roland Martin, Siegfried Ansorge, Stefan Brocke, and Dirk Reinhold

IL-1β Causes an Increase in Intestinal Epithelial Tight Junction Permeability
Rana M. Al-Sadi and Thomas Y. Ma

CLINICAL IMMUNOLOGY

T Cell Activation by Antibody-Like Immunoreceptors: The Position of the Binding Epitope within the Target Molecule Determines the Efficiency of Activation of Redirected T Cells
Andreas A. Hombach, Verena Schildgen, Claudia Heuser, Ricardo Finnern, David E. Gilham, and Hinrich Abken

Grass Pollen Immunotherapy Induces an Allergen-Specific IgA2 Antibody Response Associated with Mucosal TGF-β Expression

Augmentation of NZB Autoimmune Phenotypes by the Sle1c Murine Lupus Susceptibility Interval
Brendan M. Giles, Svetlana N. Tchepeleva, Julie J. Kachinski, Katherine Ruff, Byron P. Croker, Laurence Morel, and Susan A. Boackle

Intratumoral Injection of α-gal Glycolipids Induces Xenograft-Like Destruction and Conversion of Lesions into Endogenous Vaccines
Uri Galili, Kim Wigglesworth, and Usama M. Abdel-Motal

Prothymosin α Lacking the Nuclear Localization Signal as an Effective Gene Therapeutic Strategy in Collagen-Induced Arthritis
Ai-Li Shiau, Shih-Yao Chen, Meng-Ya Chang, Chih-Hau Su, Shih-Ye Chung, Yi-Te Yo, Chrong-reen Wang, and Chao-Liang Wu

Author Index

AAI Membership Application

AAI Trainee Membership Application