IN THIS ISSUE

PILLARS OF IMMUNOLOGY

1227 A Golden Anniversary: Recognition That Rheumatoid Arthritis Sera Contain Autoantibodies Specific for Determinants on Native IgG Molecules
Robert Winchester

Edward C. Franklin, Halsted R. Holman, Hans J. Müller-Eberhard, and Henry G. Kunkel

BRIEF REVIEWS

1243 TLR4, Ethanol, and Lipid Rafts: A New Mechanism of Ethanol Action with Implications for Other Receptor-Mediated Effects
Gyongyi Szabo, Angela Dolganiuc, Qun Dai, and Stephen B. Pruett

CUTTING EDGE

1251 Cutting Edge: A Regulatory T Cell-Dependent Novel Function of CD25 (IL-2Rα) Controlling Memory CD8+ T Cell Homeostasis
Rahul Sharma, Lingjie Zheng, Umesh S. Deshmukh, Wael N. Jarjour, Sun-Sang J. Sung, Shu Man Fu, and Shyr-Te Ju

1256 Cutting Edge: Monarch-1 Suppresses Non-Canonical NF-κB Activation and p52-Dependent Chemokine Expression in Monocytes
John D. Lich, Kristi L. Williams, Chris B. Moore, Janelle C. Arthur, Beckley K. Davis, Debra J. Taxman, and Jenny P-Y. Ting

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

1261 Activating Ly-49 Receptors Regulate LFA-1-Mediated Adhesion by NK Cells
Mohammed S. Osman, Deborah N. Burshtyn, and Kevin P. Kane

1268 Tolerization of Tumor-Specific T Cells Despite Efficient Initial Priming in a Primary Murine Model of Prostate Cancer
Michael J. Anderson, Kimberly Shafer-Weaver, Norman M. Greenberg, and Arthur A. Hurwitz

On the cover: Laser-induced choroidal neovascularization (CNV) in Cd59a−/− mice. Confocal micrograph of the neovascular complex shows the new vessels as green, whereas the damaged Bruch’s membrane and RPE were stained red for elastin. Cd59a−/− mice developed CNV complex early in the disease process. Bora, N. S., S. Kaliappan, P. Jha, Q. Xu, B. Sivasankar, C. L. Harris, B. P. Morgan, and P. S. Bora. 2007. CD59, a complement regulatory protein, controls choroidal neovascularization in a mouse model of wet-type age-related macular degeneration. J. Immunol. 178: 1783–1790.
Interactions of Ly49 Family Receptors with MHC Class I Ligands in trans and cis
Leónardo Scarpellino, Franziska Oeschger, Philippe Guillaume, Jérôme D. Coudert, Frédéric Lévy, Georges Leclercq, and Werner Held

An In Vivo Cytotoxicity Threshold for Influenza A Virus-Specific Effector and Memory CD8+ T Cells
John Stambas, Peter C. Doherty, and Stephen J. Turner

A Soluble Form of the MHC Class I-Specific CD160 Receptor Is Released from Human Activated NK Lymphocytes and Inhibits Cell-Mediated Cytotoxicity
Jérôme Giustiniani, Anne Marie-Cardine, and Armand Bensussan

An Alternative Pathway of NF-κB Activation Results in Maturation and T Cell Priming Activity of Dendritic Cells Overexpressing a Mutated IκBα
Fabrice Moore, Sofia Buonocore, Ezra Aksoy, Najate Ouedel-Haddou, Stanislas Goriely, Elena Lazarova, Frédéric Paulart, Carlo Heirman, Ely Vaeremans, Kris Thielemans, Michel Goldman, and Véronique Flamand

The Neutrophil-Activating Protein of Helicobacter pylori Crosses Endothelia to Promote Neutrophil Adhesion In Vivo
Alessandra Polenghi, Fleur Bossi, Fabio Fischetti, Paolo Durigutto, Anna Cabrelle, Nicola Tamassia, Marco A. Casatella, Cesare Montecucco, Francesco Tedesco, and Marina de Bernard

Environmental and Intrinsic Factors Lead to Antigen Unresponsiveness in CD4+ Recent Thymic Emigrants from Aged Mice
Karen Clise-Dwyer, Gail E. Huston, Amanda L. Buck, Debra K. Duso, and Susan L. Swain

Prevention of Type 1 Diabetes by Invariant NKT Cells Is Independent of Peripheral CD1d Expression
Jan Novak, Lucie Beaudoin, SeHo Park, Thibault Griieri, Luc Teyton, Albert Bendelac, and Agnès Lebuen

T-bet Regulates the Fate of Th1 and Th17 Lymphocytes in Autoimmunity
Anne R. Gacke, Petra D. Cravens, Li-Hong Ben, Rehana Z. Husain, Sara C. Northrop, Michael K. Rakee, and Amy E. Lovett-Racke

The p85α Regulatory Subunit of Class IA Phosphoinositide 3-Kinase Regulates β-Selection in Thymocyte Development
Fumiko Shiroki, Satoshi Matsuda, Tomomitsu Doi, Mari Fujiwara, Yoshito Mochizuki, Takashi Kadowaki, Harumi Suzuki, and Shigeo Koyasu

IL-12 Rapidly Alters the Functional Profile of Tumor-Associated and Tumor-Infiltrating Macrophages In Vitro and In Vivo
Stephanie K. Watkins, Nejat K. Egilmez, Jill Suttles, and Robert D. Stout

Mitogenic CD28 Signals Require the Exchange Factor Vav1 to Enhance TCR Signaling at the SLP-76-V-Itk Signalosome
Kevin M. Denny, Fernando Elias, Shin-Young Na, Klaus-Dieter Fischer, Thomas Hünig, and Fred Lühder

Kinetics and Organ Distribution of IL-17-Producing CD4 Cells in Proteolipid Protein 139–151 Peptide-Induced Experimental Autoimmune Encephalomyelitis of SJL Mice
Harald H. Hofstetter, Klaus V. Toyka, Magdalena Tary-Lehmann, and Paul V. Lehmann

Streptococcus agalactiae GAPDH Is a Virulence-Associated Immunomodulatory Protein
Pedro Madureira, Marina Baptista, Marta Vieira, Vanessa Magalhães, Ana Camelo, Liliana Oliveira, Adília Rebeiro, Delfina Tavares, Patrick Trieu-Cuot, Manuel Vilanova, and Paula Ferreira

Identical β Cell-Specific CD8+ T Cell Clonotypes Typically Reside in Both Peripheral Blood Lymphocyte and Pancreatic Islets
Carmen P. Wong, Rosemary Stevens, Brian Long, Li Li, Yaming Wang, Mark A. Wallet, Kevin S. Goudy, Jeffrey A. Frelinger, and Roland Tisch

Induction of IL-4 Expression in CD4+ T Cells by Thymic Stromal Lymphopoietin
Miyuki Omori and Steven Ziegler

The B Cell Antigen Receptor Controls AP-1 and NFAT Activity through Ras-Mediated Activation of Ral
David J. J. de Gorter, Johanna C. M. Vos, Steven T. Pals, and Marcel Spaargaren
Improved Outcomes in NOD Mice Treated with a Novel Th2 Cytokine-Biasing NKT Cell Activator
Claire Forestier, Toshiyuki Takaki, Alberto Molano, Jin S. Im, Ian Baime, Elliot S. Jerud, Petr Illarionov, Rachel Ndonye, Amy R. Howell, Pere Santamaria, Gurdylal S. Besra, Teresa P. DiLorenzo, and Steven A. Porcelli

B7-DC/PD-L2 Cross-Linking Induces NF-kB-Dependent Protection of Dendritic Cells from Cell Death
Suresh Radhakrishnan, Loc T. Nguyen, Bogoljub Circic, Virginia P. Van Keulen, and Larry R. Pease

Naturally Occurring Lung CD4+CD25+ T Cell Regulation of Airway Allergic Responses Depends on IL-10 Induction of TGF-β
Anthony Joetham, Katsuyuki Takada, Christian Taube, Nobuaki Miyahara, Satoko Matsubara, Toshiyuki Koya, Yeong-Ho Rha, Azzeddine Dakhama, and Erwin W. Gelfand

Age-Associated Decline in Effective Immune Synapse Formation of CD4+ T Cells Is Reversed by Vitamin E Supplementation

F2L, a Peptide Derived from Heme-Binding Protein, Chemotactically Attracts Mouse Neutrophils by Specifically Activating Fpr2, the Low-Affinity N-Formylpeptide Receptor
Ji-Liang Gao, Aude Guillabert, Jinyue Hu, Yingying Le, Eneko Urizar, Eva Seligman, Kevin J. Fang, Xiaoning Yuan, Virginie Imbault, David Communi, Ji Ming Wang, Marc Parmentier, Philip M. Murphy, and Isabelle Migeotte

Influenza Virus Infection Causes Global Respiratory Tract B Cell Response Modulation via Innate Immune Signals
W. L. William Chang, Elizabeth S. Coro, Friederike C. Raw, Yuanyuan Xiao, David J. Erle, and Nicole Batumgarth

Dendritic Cell-Independent B Cell Activation During Acute Virus Infection: A Role for Early CCR7-Driven B-T Helper Cell Collaboration
Elke Scandella, Katja Fink, Tobias Junt, Beatrice M. Senn, Evelyn Lattmann, Reinholds Förster, Hans Hengartner, and Burkhard Ludewig

Targeting of CD25 and Glucocorticoid-Induced TNF Receptor Family-Related Gene-Expressing T Cells Differentially Modulates Asthma Risk in Offspring of Asthmatic and Normal Mother Mice
Cedric Hubeau, Irina Apostolou, and Lester Kobzik

Expression Patterns of H2-O in Mouse B Cells and Dendritic Cells Correlate with Cell Function
Jennifer L. Fallas, Woeling Yi, Nicole A. Draghi, Helen M. O’Rourke, and Lisa K. Denzin

Expression and Function of Synaptotagmin VII in CTLs
Kimberly T. Fowler, Norma W. Andrews, and James W. Huleatt

Effects of Vascular Endothelial Growth Factor on the Lymphocyte-Endothelium Interactions: Identification of Caveolin-1 and Nitric Oxide as Control Points of Endothelial Cell Anergy
Caroline Bouzin, Agnès Bouret, Joelle De Vries, Julie DeWever, and Olivier Feron

Dendritic Cell Immunization Route Determines Integrin Expression and Lymphoid and Nonlymphoid Tissue Distribution of CD8 T Cells

BTNL2, a Butyrophilin/B7-Like Molecule, Is a Negative Costimulatory Molecule Modulated in Intestinal Inflammation
Heather A. Arnett, Sabine S. Escober, Eva Gonzalez-Suarez, Alison L. Budelsky, Lori A. Steffen, Norman Boiani, Ming Zhang, Gerald Siu, Avery W. Brewer, and Joanne L. Viney

Plasmacytoid Dendritic Cells Synergize with Myeloid Dendritic Cells in the Induction of Antigen-Specific Antitumor Immune Responses
Yanyan Lou, Chengwen Liu, Grace J. Kim, Yong-Jun Liu, Patrick Hwu, and Gang Wang

B7-Deficient Autoreactive T Cells Are Highly Susceptible to Suppression by CD4+CD25+ Regulatory T Cells
Kenneth F. May, Jr., Xing Chang, Huiming Zhang, Kenneth D. Lute, Penghui Zhou, Ergun Kocak, Pan Zheng, and Yang Liu
IL-7 Induces Myelopoiesis and Erythropoiesis
Francesca B. Aiello, Jonathan R. Keller, Kimberly D. Klarmann, Glenn Dranoff, Renata Mazzucchelli, and Scott K. Durum

Combined TLR/CD40 Stimulation Mediates Potent Cellular Immunity by Regulating Dendritic Cell Expression of CD70 In Vivo
Phillip J. Sanchez, Jennifer A. McWilliams, Catherine Haluszcak, Hideo Yagita, and Ross M. Kedl

Necrotic Tumor Cell Death In Vivo Impairs Tumor-Specific Immune Responses

MOLECULAR AND STRUCTURAL IMMUNOLOGY

Haplotype-Independent Costimulation of IL-10 Secretion by SDF-1/CXCL12 Proceeds via AP-1 Binding to the Human IL-10 Promoter
Kimberly N. Kremer, Ashok Kumar, and Karen E. Hedin

Secretory Antibody Formation: Conserved Binding Interactions between J Chain and Polymeric Ig Receptor from Humans and Amphibians
Ranveig Braathen, Valerie S. Hohman, Per Brandtzaeg, and Finn-Eirik Johansen

Dampening of IFN-γ-Inducible Gene Expression in Human Choriocarcinoma Cells Is Due to Phosphatase-Mediated Inhibition of the JAK/STAT-1 Pathway
Jason C. Choi, Renae Holtz, Margaret G. Petroff, Nadia Alfaidy, and Shawn P. Murphy

IMMUNOGENETICS

Dissociation of the Genetic Loci Leading to B1a and NKT Cell Expansions from Autoantibody Production and Renal Disease in B6 Mice with an Introggressed New Zealand Black Chromosome 4 Interval
Christina Loh, Yong-Chun Cai, Gabriel Bonventi, Ginette Lajoie, Ralph MacLeod, and Joan E. Wither

Slamf1, the NKT Cell Control Gene Nkt1
Margaret A. Jordan, Julie M. Fletcher, Daniel Pellicci, and Alan G. Baxter

HOST DEFENSE

Synthetic Prostacyclin Analogs Differentially Regulate Macrophage Function via Distinct Analog-Receptor Binding Specificities

Suppression of Early IL-4 Production Underlies the Failure of CD4 T Cells Activated by TLR-Stimulated Dendritic Cells to Differentiate into Th2 Cells
Jie Sun and Edward J. Pearce

Role of CD40-Dependent Down-Regulation of CD154 in Impaired Induction of CD154 in CD4⁺T Cells from HIV-1-Infected Patients
Carlos S. Subauste, Angela Subauste, and Matthew Wesendarp

Cowpox Virus Evades CTL Recognition and Inhibits the Intracellular Transport of MHC Class I Molecules
Anindya Dasgupta, Erika Hammerlund, Mark K. Slifka, and Klaus Früh

Agnostic Anti-CD40 Antibody Profoundly Suppresses the Immune Response to Infection with Lymphohytic Choriomeningitis Virus
Christina Bartholdy, Susanne Ørding Kauffmann, Jan Pravsgaard Christensen, and Allan Randrup Thomesen

Stimulation of Cell Surface CCR5 and CD40 Molecules by Their Ligands or by HSP70 Up-Regulates APOBEC3G Expression in CD4⁺T Cells and Dendritic Cells
Jeffrey Pido-Lopez, Trevor Whitall, Yuwei Wang, Lesley A. Bergmeier, Kaboutar Babaahmady, Mahavir Singh, and Thomas Lehner
Correlates of Preserved CD4+ T Cell Homeostasis during Natural, Nonpathogenic Simian Immunodeficiency Virus Infection of Sooty Mangabeys: Implications for AIDS Pathogenesis
Beth Sumpter, Richard Dunham, Shari Gordon, Jessica Engram, Margaret Hennessy, Audrey Kinter, Mirko Paiardini, Barbara Cervasi, Nichole Klatt, Harold McClure, Jeffrey M. Milush, Silvija Staprans, Donald L. Sodora, and Guido Silvestri

Perturbation of B Cell Activation in SLAM-Associated Protein-Deficient Mice Is Associated with Changes in Gammaherpesvirus Latency Reservoirs
In-Jeong Kim, Claire E. Burkum, Tres Cookenham, Pamela L. Schwartzberg, David L. Woodland, and Marcia A. Blackman

Differential NKP30 Inducibility in Chimpanzee NK Cells and Conserved NK Cell Phenotype and Function in Long-Term HIV-1-Infected Animals
Erik Rutjens, Stefania Mazza, Roberto Biasoni, Gerrit Koopman, Luana Radic, Manuela Fogli, Paola Costa, Maria Cristina Mingari, Lorenzo Moretta, Jonathan Henney, and Andrea De Maria

Contribution of T Cells and Neutrophils in Protection of Young Susceptible Rats from Fatal Experimental Malaria
Christine Pierrot, Estelle Adam, David Hot, Sophia Lafitte, Monique Capron, James D. George, and Jamal Khalife

The Chemokine Receptor CXCR3 Attenuates the Control of Chronic Mycobacterium tuberculosis Infection in BALB/c Mice
Soumya D. Chakravarty, Jiaoyong Xu, Bao Lu, Craig Gerard, JoAnne Flynn, and John Chan

A Novel Role for IkB Kinase (IKKα) and IKKβ in ERK-Dependent Up-Regulation of MUC5AC Mucin Transcription by Streptococcus pneumoniae
Unhwan Ha, Jae Hyang Lim, Hirofumi Jono, Tomoaki Koga, Amit Srivastava, Richard Malley, Gilles Pagès, Jacques Pouyssegur, and Jian-Dong Li

INFLAMMATION

Visfatin, an Adipocytokine with Proinflammatory and Immunomodulating Properties
Alexander R. Moschen, Arthur Kaser, Barbara Enrich, Birgit Mosheimer, Milan Theurl, Harald Niederegger, and Herbert Tilg

Induction of the Formyl Peptide Receptor 2 in Microglia by IFN-γ and Synergy with CD40 Ligand
Keqiang Chen, Pablo Iribarren, Jian Huang, Lingzhi Zhang, Wanghua Gong, Edward H. Cho, Stephen Lockett, Nancy M. Dunlop, and Ji Ming Wang

Fiber-Modified Adenovirus Vectors Decrease Liver Toxicity through Reduced IL-6 Production
Naoya Koizumi, Tomoko Yamauchi, Kenji Kawahata, Fuminori Sakurai, Tomomi Sasaki, Yoshiteru Watanabe, Takao Hayakawa, and Hiroyuki Mizuguchi

Vascular Endothelial Growth Factor Expression in Arthritic Joint Is Regulated by SAF-1 Transcription Factor
Bimal K. Ray, Arvind Shakya, and Alpana Ray

CD59, a Complement Regulatory Protein, Controls Choroidal Neovascularization in a Mouse Model of Wet-Type Age-Related Macular Degeneration
Nalini S. Bora, Sankaranarayanan Kalappan, Purnabottom Jha, Qin Xu, Baalasubramanian Sivasankar, Claire L. Harris, B. Paul Morgan, and Puran S. Bora

Regulatory T Cell Vaccination without Autoantigen Protects against Experimental Autoimmune Encephalomyelitis
Javier Ochoa-Repaírez, Carol Riccardi, Agnieszka Rynda, SangMu Jun, Gayle Callis, and David W. Pascual

Airway Epithelial NF-κB Activation Modulates Asbestos-Induced Inflammation and Mucin Production In Vivo
Astrid Haegens, Trisha F. Barrett, Joanna Gell, Arti Shukla, Maximilian MacPherson, Pamela Vasoy, Matthew E. Poynter, Kelly J. Butnor, Yvonne M. Jansen-Heininger, Chad Steele, and Brooke T. Mosman
1809 Commensal Bacteria Exacerbate Intestinal Inflammation but Are Not Essential for the Development of Murine Ileitis
Giorgos Bamias, Akira Okazawa, Jesus Rivera-Nieves, Kristen O. Arseneau, Sarah A. De La Rue, Theresa T. Pizarro, and Fabio Cominelli

1819 C3a Is Required for the Production of CXC Chemokines by Tubular Epithelial Cells after Renal Ischemia/Reperfusion

1829 Cathelicidin Antimicrobial Peptides Block Dendritic Cell TLR4 Activation and Allergic Contact Sensitization

1835 High Concentration of Antioxidants N-Acetylcysteine and Mitoquinone-Q Induces Intercellular Adhesion Molecule 1 and Oxidative Stress by Increasing Intracellular Glutathione
Tapan K. Mukherjee, Anurag K. Mishra, Srirupa Mukhopadhyay, and John R. Hoidal

1845 Prednisolone Dose-Dependently Influences Inflammation and Coagulation during Human Endotoxemia

1852 Serum Amyloid A Induces Monocyte Tissue Factor

1861 Complement C1q and C3 Are Critical for the Innate Immune Response to Streptococcus pneumoniae in the Central Nervous System
Tobias A. Rupprecht, Barbara Angele, Matthias Klein, Juergen Hesemann, Haus-Walter Pfister, Marina Botto, and Uwe Koedel

1870 Osteopontin Induces Ubiquitin-Dependent Degradation of STAT1 in RAW264.7 Murine Macrophages
Chengjiang Gao, Hongtao Guo, Zhiyong Mi, Michael J. Grusby, and Paul C. Kuo

1882 Diverse and Potent Chemokine Production by Lung CD11bhigh Dendritic Cells in Homeostasis and in Allergic Lung Inflammation
Steven R. Beaty, C. Edward Rose, Jr., and Sun-sang J. Sung

1896 Functions and Regulation of NF-κB RelA during Pneumococcal Pneumonia
Lee J. Quinton, Matthew R. Jones, Benjamin T. Simms, Mariya S. Kogan, Bryanne E. Robson, Shawn J. Skerrett, and Joseph P. Mizgerd

1904 Peroxisome Proliferator-Activated Receptor-γ Agonists Suppress the Production of IL-12 Family Cytokines by Activated Glia
Jihong Xu and Paul D. Drew

CLA\NICAL IMMUNOLOGY

1914 Unmasking of α-Fetoprotein-Specific CD4+ T Cell Responses in Hepatocellular Carcinoma Patients Undergoing Embolization
Lakshmana Ayaru, Stephen P. Pereira, Akel Alisa, Ansar A. Pathan, Roger Williams, Brian Davidson, Andrew K. Barroughs, Tim Meyer, and Shahriar Behboudi

1923 Selective Inhibition of IkB Kinase Sensitizes Mantle Cell Lymphoma B Cells to TRAIL by Decreasing Cellular FLIP Level
Gaël Roué, Patricia Pérez-Galán, Mónica López-Guerra, Neus Villamor, Elias Campo, and Dolors Colomer

1931 Effects of Specific Immunotherapy on the B7 Family of Costimulatory Molecules in Allergic Inflammation
Stefania Piconi, Daria Trabattoni, Marina Saresella, Enrico Iemoli, Monica Schenal, Alessandra Fusi, Manuela Berelli, Lieping Chen, Ambra Mascheri, and Mario Clerici
1938  Phosphorylated ERM Is Responsible for Increased T Cell Polarization, Adhesion, and Migration in Patients with Systemic Lupus Erythematosus
Yansong Li, Tatsuhiro Harada, Yuang-Taung Juang, Vasileios C. Kyttaris, Ying Wang, Michael Zidanic, Kenneth Tung, and George C. Tsokos

1948  IL-18 Is Induced and IL-18 Receptor α Plays a Critical Role in the Pathogenesis of Cigarette Smoke-Induced Pulmonary Emphysema and Inflammation
Min-Jong Kang, Robert J. Homer, Amy Gallo, Chun Geun Lee, Kristina A. Crothers, Soo Jung Cho, Carolyn Rochester, Hilary Cain, Geoffrey Chupp, Ho Joo Yoon, and Jack A. Elias

1960  Increased Levels of NF-ATc2 Differentially Regulate CD154 and IL-2 Genes in T Cells from Patients with Systemic Lupus Erythematosus
Vasileios C. Kyttaris, Ying Wang, Yuen-Taung Juang, Arthur Weinstein, and George C. Tsokos

1967  Author Index

1971  AAI Membership Application

1972  AAI Trainee Membership Application