### Table of Contents

**Cellular Immunology and Immune Regulation**

1. Modulation of Immunogenicity and Antigenicity of Proteins by Maleylation to Target Scavenger Receptors on Macrophages  

9. IL-12 Activates IFN-γ Production Through the Preferential Activation of CD30+ T Cells  

17. Heterogeneity of the Circulating Human CD4+ T Cell Population: Further Evidence that the CD4+CD45RA−CD27− T Cell Subset Contains Specialized Primed T Cells  
   Paul A. Baars, Madelon M. Maurice, Martin Rep, Berend Hooibrink, and René A. W. van Lier

26. The E2 Molecule (CD99) Specifically Triggers Homotypic Aggregation of CD4+ CD8+ Thymocytes  
   Ghislaine Bernard, Didier Zoccola, Marcel Deckert, Jean-Philippe Breittmayer, Claude Aussel, and Alain Bernard

33. Characterization of Surface Lymphotoxin Forms: Use of Specific Monoclonal Antibodies and Soluble Receptors  
   Jeffrey L. Browning, Irene Dougas, Apinya Ngam-ek, Paul R. Bourdon, Barbara N. Ehrenfels, Konrad Miatkowski, Mohammad Zafari, Alfred M. Yampaglia, Pornsri Lawton, Werner Meier, Christopher P. Benjamin, and Catherine Hession

47. Induction of Peptide-Specific CD8+ CTL Clones in β2-Microglobulin-Deficient Mice  
   James R. Cook, Joyce C. Solheim, Janet M. Connolly, and Ted H. Hansen

58. The Growth Response to IL-7 During Normal Human B Cell Ontogeny Is Restricted to B-Lineage Cells Expressing CD34  
   Bonnie N. Dittel and Tucker W. LeBien
68 Regulation of cAMP-Responsive Enhancer Binding Proteins During Cell Cycle Progression in T Lymphocytes Stimulated by IL-2
Nili Feuerstein, Danyang Huang, Steven H. Hinrichs, Dana J. Orten, Nambi Aiyar, and Michael B. Prystowsky

80 Selective Loss of NK Cytotoxicity in Antisense NK-TR1 Rat LGL Cell Lines: Abrogation of Antibody-Independent Tumor and Virus-Infected Target Cell Killing

88 CD8+ T Cells Specific to the Exogenous Antigen: Mode of Antigen Recognition and Possible Implication in Immunosuppression
Tatsuhiro Hisatsune, Ken-ichi Nishijima, Masako Kohyama, Hiroko Kato, and Shuichi Kaminogawa

97 CD80 (B7) and CD86 (B70) Provide Similar Costimulatory Signals for T Cell Proliferation, Cytokine Production, and Generation of CTL
Lewis L. Lanier, Shawn O'Fallon, Chamorro Somoza, Joseph H. Phillips, Peter S. Linsley, Ko Okemura, Daisuke Ito, and Miyuki Azuma

106 IL-7 Drives Donor T Cell Proliferation and Can Costimulate Cytokine Secretion After MHC-Matched Allogeneic Bone Marrow Transplantation
Robert B. Levy, Monica Jones, Brian L. Hamilton, John Paupe, Tamir Horowitz, and Richard Riley

116 Human IL-12 p40 Homodimer Binds to the IL-12 Receptor but Does Not Mediate Biologic Activity
Ping Ling, Maurice K. Gately, Ueli Gubler, Alvin S. Stern, Ping Lin, Kurt Hollfelder, Chang Su, Yu-Ching E. Pan, and John Hakimi

128 Characterization of Fibroblasts with a Unique Defect in Processing Antigens with Disulfide Bonds

137 Delivery of Nascent MHC Class II-Invariant Chain Complexes to Lysosomal Compartments and Proteolysis of Invariant Chain by Cysteine Proteases Precedes Peptide Binding in B-Lymphoblastoid Cells
Phillip A. Morton, Michelle L. Zacheis, Karen S. Giacoletto, Julia A. Manning, and Benjamin D. Schwartz

151 Human Vascular Smooth Muscle Cells Poorly Co-Stimulate and Actively Inhibit Allogeneic CD4+ T Cell Proliferation In Vitro
Allan G. Murray, Peter Libby, and Jordan S. Pober

162 Prostaglandin E2 Promotes B Lymphocyte Ig Isotype Switching to IgE
Rachel L. Roper, Deborah M. Brown, and Richard P. Phipps

171 Analysis of Antigen Receptor Signaling in B Cells from Mice with a Retrovirus-Induced Acquired Immunodeficiency Syndrome
Linda A. Selvey, Herbert C. Morse III, Carl H. June, and Richard J. Hodes

180 Multiple Defects in Innate and Adaptive Immunologic Function in NOD/LtSz-scid Mice
Leonard D. Shultz, Peter A. Schweitzer, Sherri W. Christianson, Bruce Gott, Isabelle B. Schweitzer, Barbara Tenment, Sean McKenna, Larry Mobraaten, T. V. Rajan, Dale L. Greiner, and Edward H. Leiter
192  Cell Cycle Control of Apoptosis in Human Leukemic T Cells
Liqing Zhu and Claudio Anasetti

Molecular and Structural Immunology

201  Rearrangement of a VH-Associated LINE-1 Element with the Expressed IgH Cluster in a Murine Myeloma Cell Line
Jonathan A. Bard and Barbara K. Birshtein

209  Characterization and Expression of Alternatively Spliced IgE Heavy Chain Transcripts Produced by Peripheral Blood Lymphocytes
Facundo D. Batista, Dimitar G. Efremov, and Oscar R. Burrone

219  A Simple Mathematical Model for the Functional Peptide/MHC/TCR Interactions
Gérard Eberl, Mario A. Roggero, and Giampietro Corradin

226  A Human Anti-Insulin IgG Autoantibody Apparently Arises Through Clonal Selection from an Insulin-Specific “Germ-Line” Natural Antibody Template: Analysis by V Gene Segment Reassortment and Site-Directed Mutagenesis
Yuji Ichiyoshi, Min Zhou, and Paolo Casali

239  Characterization of the Mouse Lymphotoxin-β Gene
Pornsri Lawton, Janice Nelson, Richard Tizard, and Jeffrey L. Browning

247  Several HLA Alleles Share Overlapping Peptide Specificities
John Sidney, Marie-France del Guercio, Scott Southwood, Victor H. Engelhard, Ettore Appella, Hans-George Rammensee, Kirsten Falk, Olaf Rötzschke, Masafumi Takiguchi, Ralph T. Kubo, Howard M. Grey, and Alessandro Sette

Host Defense

260  Characterization of Regions of Herpes Simplex Virus Type 1 Glycoprotein E Involved in Binding the Fc Domain of Monomeric IgG and in Forming a Complex with Glycoprotein I
Saswata Basu, Gary Dubin, Mitali Basu, Van Nguyen, and Harvey M. Friedman

268  Alteration of Pulmonary Macrophage Function by Respiratory Syncytial Virus Infection In Vitro
G. Franke-Ullmann, C. Pförtner, P. Walter, C. Steinmüller, M.-L. Lohmann-Matthes, L. Kobzik, and J. Freihorst

281  Antitumor Activities of Subsets of Human IL-2-Activated Natural Killer Cells in Solid Tissues
Nikola L. Vujanovic, Satoshi Yasumura, Hideki Hirabayashi, Wen-chang Lin, Simon Watkins, Ronald B. Herberman, and Theresa L. Whiteside

290  Enhanced Cytotoxicity of IFN-γ-Producing CD4+ Cytotoxic T Lymphocytes Specific for T. gondii-Infected Human Melanoma Cells
Tian-Hui Yang, Fumie Aosai, Kazumi Norose, Masakatsu Ueda, and Akihiko Yano

Inflammation

299  Ligation of Platelet/Endothelial Cell Adhesion Molecule 1 (PECAM-1/CD31) on Monocytes and Neutrophils Increases Binding Capacity of Leukocyte CR3 (CD11b/CD18)
Miriam E. Berman and William A. Muller
Inhibition of Chemotactic Peptide-Induced Neutrophil Adhesion to Vascular Endothelium by cAMP Modulators
Claudia K. Derian, Rosemary J. Santulli, Patricia E. Rao, Howard F. Solomon, and John A. Barrett

IgG Immune Complexes Inhibit IFN-γ-Induced Transcription of the FcγRI Gene in Human Monocytes by Preventing the Tyrosine Phosphorylation of the p91 (Stat1) Transcription Factor
Gerald M. Feldman, Eric J. Chuang, and David S. Finbloom

Inhibition of Neutrophil Adhesion by Adenosine and an Adenosine Kinase Inhibitor: The Role of Selectins
Gary S. Firestein, David A. Bullough, Mark D. Erion, Roland Jimenez, Michele Ramirez-Weinhouse, Jerzy Barankiewicz, C. Wayne Smith, Harry E. Gruber, and Kevin M. Mullane

Functional Characterization of the Rat Chemokine KC and Its Importance in Neutrophil Recruitment in a Rat Model of Pulmonary Inflammation
Charles W. Frevert, Songlih Huang, Hadi Danaee, Joseph D. Paulauskis, and Lester Kobzik

Potential Requirement of a Functional Double-Stranded RNA-Dependent Protein Kinase (PKR) for the Tumoricidal Activation of Macrophages by Lipopolysaccharide or IFN-αβ, but not IFN-γ
G. Luca Gusella, Tiziana Musso, Sandra E. Rottschafer, Kari Pulkki, and Luigi Varesio

Murine KIT+ Lineage− Bone Marrow Progenitors Express Fcγ-RII But Do Not Express Fcγ-RII Until Mast Cell Granule Formation
Chris S. Lantz and Thomas F. Huff

Constitutive Expression of Human hsp27, Drosophila hsp27, or Human αB-Crystallin Confers Resistance to TNF- and Oxidative Stress-Induced Cytotoxicity in Stably Transfected Murine L929 Fibroblasts
Patrick Mehlen, Xavier PREVILE, Pierre Charegron, Jérôme Briolay, Roman Klemenz, and André-Patrick Arrigo

Ig-Binding Surface Proteins of Streptococcus pyogenes also Bind Human C4b-Binding Protein (C4BP), a Regulatory Component of the Complement System
Anette Them, Lars Stenberg, Björn Dahlbäck, and Gunnar Lindahl

Clinical Immunology

Experimental Autoimmune Encephalomyelitis-Resistant Mice Have Highly Encephalitogenic Myelin Basic Protein (MBP)-Specific T Cell Clones That Recognize a MBP Peptide with High Affinity for MHC Class II
Sara Abromson-Leeman, Jeff Alexander, Roderick Bronson, John Carroll, Scott Southwood, and Martin Dorf

A Peptide-Based Human T Cell Leukemia Virus Type I Vaccine Containing T and B Cell Epitopes That Induces High Titters of Neutralizing Antibodies
Eishi Baba, Minoru Nakamura, Kazu Ohkuma, Jun-ichi Kira, Yuetsu Tanaka, Shuji Nakano, and Yoshiyuki Niho