TABLE OF CONTENTS

CUTTING EDGE

1020 Commentary: Natural T Cells: Cells That Co-Express NKRP-1 and TCR
Mark Bix and Richard M. Locksley

1023 Commentary: Anatomical Environment as a Determinant in Viral Immunity
Peter C. Doherty

1028 Relative Perforin- and Fas-Mediated Lysis in T1 and T2 CD8 Effector Populations
Laura L. Carter and Richard W. Dutton

1032 Antigen-Dependent Clonal Expansion of a Trace Population of Antigen-Specific CD4+ T Cells In Vivo Is Dependent on CD28 Costimulation and Inhibited by CTLA-4
Elizabeth R. Kearney, Theresa L. Walunas, Robert W. Karr, Phillip A. Morton, Dennis Y. Loh, Jeffrey A. Bluestone, and Marc K. Jenkins

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

1039 Activated Adhesion of CTL to MHC Class I but Not to Fibronectin Is Inhibited by cis Unsaturated Fatty Acids and Phenylarsine Oxide
Alberto Anel, Matthew F. Mescher, and Alan M. Kleinfeld

1047 Latent Membrane Protein-1 Induces Cyclin D2 Expression, pRb Hyperphosphorylation, and Loss of TGF-β1-Mediated Growth Inhibition in EBV-Positive B Cells
Leandros Arvanitakis, Nabeel Yaseen, and Surendra Sharma

1057 Human Anti-Mouse Xenorecognition: Provision of Noncognate Interactions Reveals Plasticity of T Cell Repertoire
Puspa Batten, Tricia Heaton, Sherry Fuller-Espie, and Robert I. Lechler

1066 Regulation of NK Cell Functions by TGF-β1
Graziella Bellone, Miguel Aste-Amezaga, Giorgio Trinchieri, and Ulrich Rodeck

1074 Specificity of Glycopeptide-Specific T Cells
Brian Deck, Mikael Elofsson, Jan Kihlberg, and Emil R. Unanue

1079 IL-10 Induces the Tyrosine Phosphorylation of tyk2 and Jak1 and the Differential Assembly of STAT1α and STAT3 Complexes in Human T Cells and Monocytes
David S. Finbloom and Karen D. Winestock

The Journal of Immunology (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, 9650 Rockville Pike, Bethesda, MD 20814. Subscription rates $170 ($260 foreign); institutions $300 ($390 foreign); single copy $10 ($15 foreign). Air Printed Matter rates are available on request from Customer Service, P. O. Box 3000, Denville, NJ 07834. Indexed by Current Contents and Index Medicus. Second class postage paid at Bethesda, MD 20814 and at additional mailing offices. Country of origin USA. Printed on acid-free paper which can be recycled. Postmaster: Send address changes to The Journal of Immunology, P. O. Box 3000, Denville, NJ 07834. Copyright © 1995 by The American Association of Immunologists.
The Ability of B Cells to Participate in Allogeneic Cognate T-B Cell Interactions In Vitro Depends on the Presence of CD4+ T Cells During Their Development

Mercedes Gonzalez, Ramón Merino, Antonio L. González, and Jesús Merino

Stimulation of Germinal Center B Lymphocyte Proliferation by an FDC-Like Cell Line, HK

Han-Soo Kim, Xinhong Zhang, Elena Klyushnenkova, and Yong Sung Choi

Interactions Between IL-4, Anti-CD40, and Anti-Immunoglobulin as Activators of Locomotion of Human B Cells

Mousa Komai-Koma, Foo Y. Liew, and Peter C. Wilkinson

A Hierarchy for Integrin Expression and Adhesiveness Among T Cell Subsets That Is Linked to TCR Gene Usage and Emphasizes Vδ1+ γδ T Cell Adherence and Tissue Retention

Shin Nakajima, William T. Roswit, Dwight C. Look, and Michael J. Holtzman

Costimulation of Human CD4+ T Cells with LFA-3 and B7 Induce Distinct Effects on AP-1 and NF-κB Transcription Factors

Eduardo Parra, Mikael Varga, Mikael Sigvardsson, Gunnar Hedlund, Terje Kalland, Tomas Leanderson, Hans Olov Sjögren, and Mikael Dohlsten

Soluble Antigen Can Impede Maturity and the Germinal Center Reaction but Enhance Extrafollicular Immunoglobulin Production

Bali Pulendran, K. G. C. Smith, and G. J. V. Nossal

Immunologic Self-Tolerance Maintained by Activated T Cells Expressing IL-2 Receptor α-Chains (CD25): Breakdown of a Single Mechanism of Self-Tolerance Causes Various Autoimmune Diseases

Shimon Sakaguchi, Noriko Sakaguchi, Masanao Asano, Misako Itoh, and Masaaki Toda

Ex Vivo Coating of Islet Cell Allografts with Murine CTLA4/Fc Promotes Graft Tolerance

Wolfgang Steurer, Peter W. Nickerson, Alan W. Steele, Jury Steiger, Xin Xiao Zheng, and Terry B. Strom

Treatment with Okadaic Acid Reveals Strong Threonine Phosphorylation of CD18 After Activation of CD11/CD18 Leukocyte Integrins with Phorbol Esters or CD3 Antibodies

Leena Valmu and Carl G. Gahmberg

A Novel Biologic Function of Serum Amyloid A: Induction of T Lymphocyte Migration and Adhesion

Luoling Xu, Raffaele Badolato, William J. Murphy, Dan L. Longo, Miriam Anver, Shirley Hale, Joost J. Oppenheim, and Ji Ming Wang

MOLECULAR AND STRUCTURAL IMMUNOLOGY

V(D)J Recombination and Allelic Exclusion of a TCR β-Chain Minilocus Occurs in the Absence of a Functional Promoter

J. D. Alvarez, Steven J. Anderson, and Dennis Y. Loh

Structure of the Gene for the Human Myeloid IgA Fc Receptor (CD89)

Ton P. M. de Wit, H. Craig Morton, Peter J. A. Capel, and Jan G. J. van de Winkel

Mutational Analysis of Two DRα Residues Involved in Dimers of HLA-DR Molecules

Steven Goodman, Tetsuji Sawada, James A. Barbosa, Barry Cole, Robert Pergolizzi, Jack Silver, Elizabeth Mellins, and Ming-der Y. Chang
Kinetic Analysis of the Interactions of Recombinant Human VpreB and Ig V Domains
Yasuhiko Hirabayashi, Jean-Michel Lecerf, Zengjun Dong, and B. David Stollar

Molecular Analyses of the Association of CD4 with Two Members of the Transmembrane 4 Superfamily, CD81 and CD82
Toshio Imai, Mayumi Kakizaki, Miyuki Nishimura, and Osamu Yoshie

Multiple Signals Are Required for Function of the Human Granulocyte-Macrophage Colony-Stimulating Factor Gene Promoter in T Cells
Fay Jenkins, Peter N. Cockerill, Dirk Bohmann, and M. Frances Shannon

Conserved Regions in the Cytoplasmic Domains of the Leukocyte Integrin αLβ2 Are Involved in Endoplasmic Reticulum Retention, Dimerization, and Cytoskeletal Association
Ruggero Pardi, Giovanna Bossi, Luca Inverardi, Ermanna Rovida, and Jeffrey R. Bender

Selection for S107-V11 Gene Expression by Peritoneal B Cells in Adult Mice
Christopher A. Pennell

Human Anti-Gal Heavy Chain Genes: Preferential Use of V13 and the Presence of Somatic Mutations
Le Wang, Marko Z. Radic, and Uri Galili

Functional Dissection of the Murine Ick Distal Promoter
Robert S. Wildin, Hai U. Wang, Katherine A. Forbush, and Roger M. Perlmutter

HOST DEFENSE

Anti-CD3 × Anti-Tumor F(ab’)2 Bifunctional Antibody Activates and Retargets Tumor-Infiltrating Lymphocytes
Andrei I. Chapoval, Heidi Nelson, and Claude Thibault

Plasminogen Activator Inhibitor Type 2 Prevents Programmed Cell Death of Human Macrophages Infected with Mycobacterium avium, Serovar 4
HuiXian Gan, Gale W. Newman, and Heinz G. Remold

Identification of Recombinant Filarial Proteins Capable of Inducing Polyclonal and Antigen-Specific IgE and IgG4 Antibodies
Olivier Garraud, Céline Nkenfou, Janette E. Bradley, Francine B. Perter, and Thomas B. Nutman

Small Amounts of Exogenous IL-4 Increase the Severity of Encephalitis Induced in Mice by the Intranasal Infection of Herpes Simplex Virus Type 1
Kaori Ikemoto, Richard B. Pollard, Tetsuo Fukumoto, Mitsunori Morimatsu, and Fujio Suzuki

Integration of Mycobacterial Lipoarabinomannans into Glycosylphosphatidylinositol-Rich Domains of Lymphomonocytic Cell Plasma Membranes
Subburaj Ilangumaran, Stephan Arni, Monique Poinset, Jean-Marc Theler, Patrick J. Brennan, Nasir-ud-Din, and Daniel C. Hoessli
Identification of a Tyrosinase Epitope Recognized by HLA-A24-Restricted, Tumor-Infiltrating Lymphocytes
Xiaoqiang Kang, Yutaka Kawakami, Mona El-Gamil, Rongfu Wang, Kazuyasu Sakaguchi, John R. Yannelli, Ettore Appella, Steven A. Rosenberg, and Paul F. Robbins

TGF-β Is Important in Determining the In Vivo Patterns of Susceptibility or Resistance in Mice Infected with Candida albicans
Roberta Spaccapelo, Luigina Romani, Laura Tonnetti, Elio Cenci, Antonella Mencacci, Giuseppe Del Sero, Ritta Tognellini, Steven G. Reed, Paolo Puccetti, and Francesco Bistoni

Lipoarabinomannan Inhibits Nonopsonic Binding of Mycobacterium tuberculosis to Murine Macrophages
Richard W. Stokes and David P. Speert

Characterization of the Gene Encoding the Polymorphic Immunodominant Molecule, a Neutralizing Antigen of Theileria parva
Philip G. Toye, Marcel J. Metzelaar, Peter L. J. Wijngaard, Vishvanath Nene, Keith Iams, Jeroen Roose, John K. Nyanjui, Elke Gobright, Antony J. Musoke, and Hans C. Clevers

T Cells Infiltrating Non-Hodgkin’s B Cell Lymphomas Show Altered Tyrosine Phosphorylation Pattern Even Though T Cell Receptor/CD3-Associated Kinases Are Present
Qiu Wang, Jill Stanley, Seiji Kudoh, Jonathan Myles, Vladimir Kolenko, Taolin Yi, Raymond Tubbs, Ronald Bukowski, and James Finke

Cancer Immunotherapy of Established Tumors with IL-12: Effective Delivery by Genetically Engineered Fibroblasts
Laurence Zitvogel, Hideaki Tahara, Paul D. Robbins, Walter J. Storkus, Martha R. Clarke, Michael A. Nalesnik, and Michael T. Lotze

INFLAMMATION

The Serine/Threonine Phosphatase Inhibitor, Calyculin A, Inhibits and Dissociates Macrophage Responses to Lipopolysaccharide
Sheila A. Barber, Pin-Yu Perera, Ranney McNally, and Stefanie N. Vogel

IL-4 Inhibits IL-2-Induced Tumoricidal Activity and Secretory Functions of Human Monocytes: Modulation of IL-2 Binding and IL-2 Receptor βγ Chain Expression
Maria Carla Bosco, Kari Pulkki, Tammy K. Rowe, Arnold H. Zea, Tiziana Musso, Dan L. Longo, Luigi Varesio, and Igor Espinoza-Delgado

Inhibition of IL-10 Expression by IFN-γ Up-Regulates Transcription of TNF-α in Human Monocytes
Raymond P. Donnelly, Sherry L. Freeman, and Mark P. Hayes

IL-8 Induces Neutrophil Chemotaxis Predominantly Via Type I IL-8 Receptors
Mary Ellen Wernette Hammond, Gena Reza Lapointe, Paul H. Feucht, Susan Hilt, Carol A. Gallegos, Carrie A. Gordon, Martin A. Giedlin, Guy Mullenbach, and Patricia Tekamp-Olson
Enhancement by the Complement Membrane Attack Complex of Tumor Necrosis Factor-α-Induced Endothelial Cell Expression of E-Selectin and ICAM-1
Kenneth S. Kilgore, Joseph P. Shen, Bradford F. Miller, Peter A. Ward, and Jeffrey S. Warren

Up-Regulation of Lung Vascular ICAM-1 in Rats Is Complement Dependent
Ara A. Vaporciyan, Michael S. Mulligan, Jeffrey S. Warren, Peter A. Barton, Masayuki Miyasaka, and Peter A. Ward

Characterization of Latent TGF-β Activation by Murine Peritoneal Macrophages
Irene Nunes, Richard L. Shapiro, and Daniel B Rifkin

Variation of LPS-Binding Capacity, Epitope Expression, and Shedding of Membrane-Bound CD14 During Differentiation of Human Monocytes
Thierry Pedron, Robert Girard, and Richard Chaby

Expression, Purification, and Characterization of the Recombinant Proform of Eosinophil Granule Major Basic Protein

Characterization of Rat Complement Receptors and Regulatory Proteins: CR2 and Crry Are Conserved, and the C3b Receptor of Neutrophils and Platelets Is Distinct from CR1
Richard J. Quigg and V. Michael Holers

Intercellular Adhesion Molecule-1 Gene Expression by Glial Cells: Differential Mechanisms of Inhibition by IL-10 and IL-6
Protul Shrikant, Edit Weber, Tamas Jilling, and Etty N. Benveniste

Macrophage Inflammatory Protein-1α Mediates Lung Leukocyte Recruitment, Lung Capillary Leak, and Early Mortality in Murine Endotoxemia
Theodore J. Standiford, Steven L. Kunkel, Nicholas W. Lukacs, Marc J. Greenberger, Jean M. Danforth, Robin G. Kunkel, and Robert M. Strieter

Activation of p42mapk/erk2 Following Engagement of Tumor Necrosis Factor Receptor CD120a (p55) in Mouse Macrophages
Brent W. Winston and David W. H. Riches

Identification of a Novel Class of Mammalian Fcy Receptor
Gaiping Zhang, John R. Young, Clive A. Tregaskes, Paul Sopp, and Chris J. Howard

Clinical Immunology

An Anti-Murine CD3 Monoclonal Antibody with a Low Affinity for Fcγ Receptors Suppresses Transplantation Responses While Minimizing Acute Toxicity and Immunogenicity
Maria-Luisa Alegre, J. Yun Tso, Husain A. Sattar, Judy Smith, Fabrice Desalle, Michael Cole, and Jeffrey A. Bluestone
Analysis of Vβ8.2 CDR3 Sequences from Spinal Cord T Cells of Lewis Rats Vaccinated or Treated with TCR Vβ8.2-39–59 Peptide
Abigail C. Buenafe, Margarita Vainiene, Bozena Celnik, Arthur A. Vandenbark, and Halina Offner

HIV Infection Suppresses Type 1 Lymphokine and IL-12 Responses to Toxoplasma gondii but Fails to Inhibit the Synthesis of Other Parasite-Induced Monokines
Ricardo T. Gazzinelli, Shukal Bala, Randy Stevens, Michael Baseler, Larry Wahl, Joseph Kovacs, and Alan Sher

The Antirheumatic Drug Disodium Aurothiomalate Inhibits CD4+ T Cell Recognition of Peptides Containing Two or More Cysteine Residues
Peter Griem, Kazuo Takahashi, Hubert Kalbacher, and Ernst Gleichmann

Autoimmunity Induction by Human T Cell Leukemia Virus Type 1 in Transgenic Mice That Develop Chronic Inflammatory Arthropathy Resembling Rheumatoid Arthritis in Humans
Yoichiro Iwakura, Shinobu Saijo, Yuko Kioka, Junko Nakayama-Yamada, Keiko Itagaki, Mariko Tosu, Masahide Asano, Yoshiyuki Kanai, and Kiichi Kakimoto

Exquisite Peptide Specificity of Oral Tolerance in Experimental Autoimmune Encephalomyelitis
Najma H. Javed, Ingrid E. Gienapp, Karen L. Cox, and Caroline C. Whitacre

Altered Expression of Monocyte IgA Fc Receptors Is Associated with Defective Endocytosis in Patients with Alcoholic Cirrhosis: Potential Role for IFN-γ
Christine Silvain, Claire Patry, Pierre Launay, Agnès Leheny, and Renato C. Monteiro

Self-Thyroid Epithelial Cell (TEC)-Reactive CD8+ T Cell Lines/Clones Derived from Autoimmune Thyroiditis Lesions: They Recognize Self-Thyroid Antigens Directly on TEC to Exhibit T Helper Cell 1-Type Lymphokine Production and Cytotoxicity against TEC
Shigetaka Sugihara, Hiromi Fujiwara, Hiroo Niimi, and Gene M. Shearer

Epitope Specificity of Monoclonal Anti-β2-Glycoprotein I Antibodies Derived from Patients with the Antiphospholipid Syndrome
Min-Xia Wang, D. A. Kandiah, K. Ichikawa, M. Khamashta, G. Hughes, T. Koike, R. Roubey, and Steven A. Krilis

Errata