## Contents

### COMMUNICATIONS

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>T. Soderstrom, A. Enskog, B. E. Samuelsson, and B. Cedergren</td>
<td>Immunoglobulin Subclass (IgG3) Restriction of Anti-P and Anti-P⁺ Antibodies in Patients of the Rare p Blood Group</td>
</tr>
<tr>
<td>M. Ramanadham, S. V. S. Gollapudi, and M. Kern</td>
<td>Splenic B Cells from CBA/N Mice Acquire Responsiveness to Anti-Immunoglobulin after a Brief Treatment with Pronase</td>
</tr>
<tr>
<td>E. M. Benson, R. B. Colvin, and P. S. Russell</td>
<td>Induction of Ia Antigens in Murine Renal Transplants</td>
</tr>
</tbody>
</table>

### CELLULAR IMMUNOLOGY

<table>
<thead>
<tr>
<th>Authors</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. Wu and D. W. Thomas</td>
<td>Syngeneic Responses by Murine Thymocytes: A Role for Non-MHC and Non-Mis Genes</td>
</tr>
<tr>
<td>L. S. Wicker, G. Guelde, I. Scher, and J. J. Kenny</td>
<td>Regulation of T15 Idiotype Dominance. II. Genes Unlinked to the Igh Locus Regulate T15 Dominance of the Secondary Adoptive Transfer Response to Phosphocholine</td>
</tr>
<tr>
<td>S. K. Smyk, M. K. McNamar, K. S. Gleason, and H. Kohler</td>
<td>Differences in T15 Expression of Primary and Secondary Anti-PC Responses with T Cells from T15⁺ and T15⁻ Donors</td>
</tr>
<tr>
<td>C. W. Pierce, C. M. Sorensen, and J. A. Kapp</td>
<td>T. Cell Subsets Regulating Antibody Responses to l-Glutamic Acid 60-l-Alanine 30-l-Tyrosine 10 (GAT) in Virgin and Immunized Nonresponder Mice</td>
</tr>
<tr>
<td>C. Orosz and R. M. Ferguson</td>
<td>Suppression of In Vitro CML Generation by Alloactivated Lymphocytes: Analysis of Antigen-Nonspecific Suppressive Mechanisms</td>
</tr>
<tr>
<td>A. Velardi, C. E. Grossi, and M. D. Cooper</td>
<td>A Large Subpopulation of Lymphocytes with T Helper Phenotype (Leu 3⁻/t4⁺) Exhibits the Property of Binding to NK Cell Targets and Granular Lymphocyte Morphology</td>
</tr>
<tr>
<td>S. H. Gromkowski, W. Heagy, and E. Martz</td>
<td>Blocking of CTL-Mediated Killing by Monoclonal Antibodies to LFA-1 and Lyt-2,3. II. Evidence that Trypsin Pretreatment of Target Cells Removes a Non-H-2 Molecule Important in Killing</td>
</tr>
<tr>
<td>S. S. Graves, D. L. Evans, and D. L. Dawe</td>
<td>Antiprotozoan Activity in Nonspecific Cytotoxic Cells (NCC) from the Channel Catfish (Ictalurus Punctatus)</td>
</tr>
<tr>
<td>R. M. DeKruyff, C. Clayberger, and H. Cantor</td>
<td>Monoclonal Helper T Cells Induce B Cell Responses to T-Independent Antigens: Antibody-Specific T Cells Are Directly Stimulated by Activated B Cells in the Absence of Antigen</td>
</tr>
<tr>
<td>M. G. Goodman and W. O. Weigle</td>
<td>Dissociation of Inductive from Differentiative Signals Transmitted by C8-Substituted Guanine Ribonucleosides to B Cells from SJL Mice</td>
</tr>
<tr>
<td>F. W. Klotz, W. E. Gathings, and M. D. Cooper</td>
<td>Development and Distribution of B Lineage Cells in the Domestic Cat: Analysis with Monoclonal Antibodies to Cat μ-, γ-, κ-, and λ-Chains and Heterologous Anti-α Antibodies</td>
</tr>
<tr>
<td>K. M. Coggeshall and J. C. Cambier</td>
<td>B. Cell Activation. VI. Effects of Exogenous Diglyceride and Modulators of Phospholipid Metabolism Suggest a Central Role for Diacylglycerol Generation in Transmembrane Signaling by mlg</td>
</tr>
</tbody>
</table>

*Continued on page 4*
Continued from page 3


T. Katagiri, T. Yasuda, A. Tomura, A. Saito, T. Tsumita, K. Saito

K. D. Cooper, P. Fox, G. Neises, and S. I. Katz


CLINICAL IMMUNOLOGY • IMMUNOPATHOLOGY

A. Winkelstein, R. S. Klein, T. L. Evans, B. W. Dixon, W. L. Holder, and L. D. Weaver

M. T. Lotze, L. W. Frana, and S. D. Miller

T. Tadakuma, T. Yasuda, A. Tomura, S. Saito, T. Tsumita, and K. Saito

K. D. Cooper, P. Fox, G. Neises, and S. I. Katz


A. Arenzana-Seisdedos, B. Holder, and L. D. Weaver

M. K. Jenkins, C. Waltonbaum, and T. Sakane

M. T. Lotze, L. W. Frana, S. O. Sharrow, R. J. Robb, and S. E. Rosenberg

N. Wakasugi and J.-L. Virelizier


P. D. Van Helden

J. Rauch, H. Massicotte, and H. Tannenbaum

Y. Murakawa, S. Takada, Y. Ueda, N. Suzuki, T. Hoshino, and T. Sakane

F. J. Dumont, R. C. Habbersett, and L. Z. Coker

S. A. Ahmed, M. J. Daughnecine, and N. Talal

G. Rhodes, D. A. Carson, J. Valbracht, R. Houghten, and J. H. Vaughan

F. A. Levi, C. Canon, I. P. Blum, M. Mechkouri, A. Reinsberg, and G. Mathe

M. V. Bobbs, E. L. Morgan, N. L. Baker, and W. O. Weigle

H. T. Petrie, D. L. Smith, L. W. Klassen, and H. D. Kay


S. H. Gromkowski, A. M. Krensky, E. Martz, and S. J. Burakoff

108 T-T Cell Interaction in the Induction of Delayed-Type Hypersensitivity (DTH) Responses. Vaccinia Virus-Active Helper T Cell Activity Involved in Enhanced In Vitro Induction of DTH Responses and Its Application to Augmentation of Tumor-Specific DTH Responses

114 Immunoregulatory Pathways in Adult Responder Mice. II. Regulation of Delayed-Type Hypersensitivity Responses by GAT-Specific Suppressor Factors Present in GAT-Tolerant Adult Responder Mice

122 Analysis of the Mode of Antigen Presentation Required for Triggering of T Cell Proliferation by Using Various Azobenzenearsonate-Tyrosine Derivatives

129 Effects of Ultraviolet Radiation on Human Epidermal Cell Alloantigen Presentation: Initial Depression of Langerhans Cell-Dependent Function Is Followed by the Appearance of T6"DR" Cells That Enhance Epidermal Alloantigen Presentation

138 Membrane Vesicles Shed by Murine Melanoma Cells Selectively Inhibit the Expression of La Antigen by Macrophages

145 Inhibition of Recombinant Interferon-γ Induced La Antigen Expression by Shed B16 F10 Melanoma Cell Membrane Vesicles

151 Defective In Vitro T Cell Colony Formation in the Acquired Immunodeficiency Syndrome

157 In Vivo Administration of Purified Human Interleukin 2. I. Half-Life and Immunologic Effects of the Jurkat Cell Line-Derived Interleukin 2

167 Defective IFN-γ Production in the Human Neonate. I. Dysregulation rather than Intrinsic Abnormality

172 Defective IFN-γ Production in the Human Neonate. II. Role of Increased Sensitivity to the Suppressive Effects of Prostaglandin E

177 Potential Z-DNA-Forming Elements in Serum DNA from Human Systemic Lupus Erythematosus

180 Hyridoma Anti-DNA Autoantibodies from Patients with Rheumatoid Arthritis and Systemic Lupus Erythematosus Demonstrate Similar Nuclear Acid Binding Characteristics

187 Characterization of T Lymphocyte Subpopulations Responsible for Deficient Interleukin 2 Activity in Patients with Systemic Lupus Erythematosus

196 Subsets of Lyt-2" Cells Defined by Differential Expression of the 9F3 Antigen: Alterations in Mice of the 1pr/pr Genotype

204 Effects of Short-Term Administration of Sex Hormones on Normal and Autoimmune Mice

211 Human Immune Responses to Synthetic Peptides from the Epstein-Barr Nuclear Antigen

217 Circadian and/or Circahemidian Rhythms in Nine Lymphocyte-Related Variables from Peripheral Blood of Healthy Subjects

223 Regulation of Antibody Responses by Rheumatoid Factor. I. Polyclonal Activation of Human B Cells by Rheumatoid Factor-Containing Preparations from Seropositive Plasma

230 Inhibition of Human Cytotoxic T Lymphocyte Activity In Vitro by Autologous Peripheral Blood Granulocytes

235 Immunoregulatory T Cell Circuits in Man: Identification of a Distinct T Cell Subpopulation of the Helper/Inducer Lineage that Amplifies the Development of Alloantigen-Specific Suppressor T Cells

244 Functional Distinctions between the LFA-1, LFA-2, and LFA-3 Membrane Proteins on Human CTL Are Revealed with Trypsin-Pretreated Target Cells

Continued on page 5
D. F. Lobach, R. M. Searce, and B. F. Haynes

T. G. Mayer, A. A. Fuller, T. C. Fuller, A. I. Lazarovits, L. A. Boyle, and J. T. Kurnick

E. Platzter, B. Y. Rubin, L. Lu, K. Welte, H. E. Broxmeyer, and M. A. S. Moore

P. J. D’Amore and S. H. Golub

B. D. Gitter, O. J. Finn, and R. S. Metzgar

A. J. Hance, S. Douches, R. J. Winchester, V. J. Ferraas, and R. G. Crystal

The Human Thymic Microenvironment: Phenotypic Characterization of Hassall’s Bodies with the Use of Monoclonal Antibodies

Characterization of In Vivo-Activated Allospecific T Lymphocytes Propagated from Human Renal Allograft Biopsies Undergoing Rejection

OKT3 Monoclonal Antibody Induces Production of Colony-Stimulating Factor(s) for Granulocytes and Macrophages in Cultures of Human T Lymphocytes and Adherent Cells

Suppression of Human NK Cell Cytotoxicity by an MLC-Generated Cell Population

Cytofluorometric Isolation of 1937, an Ia Antigen-Bearing Variant of the Ia Negative Human Monocytic Cell Line U937

Characterization of Mononuclear Phagocyte Subpopulations in the Human Lung by using Monoclonal Antibodies: Changes in Alveolar Macrophage Phenotype Associated with Pulmonary Sarcoidosis

CYTKINES • MEDIATORS • REGULATORY MOLECULES

J. E. Weiel, D. O. Adams, and T. A. Hamilton

R. H. Neubauer, L. Goldstein, H. Rabin, and N. Stebbing


D. A. Fox, R. E. Hussey, K. A. Fitzgerald, A. Bensussan, J. F. Daley, S. F. Schlossman, and E. L. Reinherz

S.-L. Wce, A. C. Ochoa, and F. H. Bach

C. C. Grosz, J. W. Scott, S. Gillis, and J. H. Finke

A. I. Scher, J. B. Orosz, J. E. You, R. M. Scearce, and M. A. Fuller

A. A. Fuller, T. C. Wee, M. A. T. Crow, and J. J. Mond

J. G. Giri, P. T. Lomedico, and R. H. Neubauer

J. C. Reed, R. J. Robb, W. C. Greene, and P. C. Nowell

C. C. Groz, J. W. Scott, S. Gillis, and J. H. Finke

A. I. Scher, J. B. Orosz, J. E. You, R. M. Scearce, and M. A. Fuller

A. A. Fuller, T. C. Wee, M. A. T. Crow, and J. J. Mond

J. G. Giri, P. T. Lomedico, and R. H. Neubauer

J. C. Reed, R. J. Robb, W. C. Greene, and P. C. Nowell

C. C. Groz, J. W. Scott, S. Gillis, and J. H. Finke

A. I. Scher, J. B. Orosz, J. E. You, R. M. Scearce, and M. A. Fuller

A. A. Fuller, T. C. Wee, M. A. T. Crow, and J. J. Mond

J. G. Giri, P. T. Lomedico, and R. H. Neubauer

The Human Thymic Microenvironment: Phenotypic Characterization of Hassall’s Bodies with the Use of Monoclonal Antibodies

Characterization of In Vivo-Activated Allospecific T Lymphocytes Propagated from Human Renal Allograft Biopsies Undergoing Rejection

OKT3 Monoclonal Antibody Induces Production of Colony-Stimulating Factor(s) for Granulocytes and Macrophages in Cultures of Human T Lymphocytes and Adherent Cells

Suppression of Human NK Cell Cytotoxicity by an MLC-Generated Cell Population

Cytofluorometric Isolation of 1937, an Ia Antigen-Bearing Variant of the Ia Negative Human Monocytic Cell Line U937

Characterization of Mononuclear Phagocyte Subpopulations in the Human Lung by using Monoclonal Antibodies: Changes in Alveolar Macrophage Phenotype Associated with Pulmonary Sarcoidosis

Biochemical Models of γ-Interferon Action: Altered Expression of Transferrin Receptor on Murine Peritoneal Macrophages after Treatment In Vitro with PMA or A23187

Stimulation of In Vitro Immunoglobulin Production by α-Interferons

M1F-Like Activity of Natural and Recombinant Human γ-Interferon and Their Neutralization by Monoclonal Antibody

Human Alloreactive CTL Clones: Loss and Reacquisition of Specific Cytophopic Activity Can Be Regulated by “Recombinant” Interleukin 2

Effect of Wheat Germ Agglutinin on the Interleukin Pathway of Human T Lymphocyte Activation

Reversal of Phorbol Ester-Mediated Reduction of Cloned T Lymphocyte Cytolysis by Interleukin

Activation of Human Thymocytes Via the 50KD T11 Sheep Erythrocyte Binding Protein induces the Expression of Interleukin 2 Receptors on both T3+ and T3− Populations

Reconstitution of Nude Mouse T Cell Function In Vivo: IL 2-Independent Effect of Human T Cells

Studies on the Synthesis and Secretion of Interleukin 1. I. A 33,000 Molecular Weight Precursor for Interleukin 1

Interleukin 1 Production by the Human Monocyte Cell Line U937 Requires a Lymphokine Induction Signal Distinct from Interleukin 2 or Interferons

Role of Interleukin 1 in Experimental Pulmonary Granuloma in Mice

Strain Dependence of Muramyl Dipeptide-Induced LAF (IL 1) Release by Murine-Adherent Peritoneal Cells

T Cell-Derived B Cell Growth Factor[s) Can Induce Stimulation of both Resting and Activated B Cells

Identification and Characterization of a B Cell Growth Inhibitory Factor (BIF) on BCGF-Dependent B Cell Proliferation

Purification and Physicochemical Characterization of Murine T Cell Replacing Factor (TRP)

A. “Lymphokine-Like” Soluble Product that Induces Proliferation and Maturation of B Cells Appears in the Serum-Free Supernatant of a T Cell Hybridoma as a Consequence of Mycoplasmal Contamination

Lymphokine-Mediated Induction of Cytolytic Activity in a T Cell Hybridoma Suppressor T Lymphocyte Induction by a Factor Released from Cultured Blastocysts

Continued on page 6
IMMUNOCHEMISTRY

M. R. van Schravendijk, W. E. Biddison, A. E. Berger, and J. E. Coligan


S. K. Dower and D. M. Segal

S. Nishinarita, J. L. Claffin, and R. Lieberman

P. A. Stearne, I. R. van Driel, B. Grego, R. J. Simpson, and J. W. Goding

S. J. Orlow, D. L. Rosenstreich, S. Pilko-Hirst, and O. M. Rosen


T. S. Edgington, L. K. Curtiss, and E. F. Plow

P. Perez, J. A. Bluestone, D. A. Stephany, and D. M. Segal

J. Couderc, M. D. Kazatchkine, M. Ventura, H. T. Duc, F. Maillet, N. Thobie, and P. Li-acopoulous

T. Borsos and A. Circolo

J. Tschopp, E. R. Podack, and H. J. Muller-Eberhard

J. J. Weis, S. K. Law, R. P. Levine, and P. P. Cleary

S. I. Rosenfeld, D. E. Jenkins, Jr., and J. P. Leddy


512 Normal Number and Function of CR1 on Affected Erythrocytes of Patients with Paroxysmal Nocturnal Hemoglobinuria

IMMUNOPHARMACOLOGY

W. T. Lee and D. H. Conrad

L. B. Schwartz


410 Comparative Structural Analysis of HLA-A3 Antigens Distinguishable by Cytotoxic T Lymphocytes: Variant E1

417 Demonstration of Structural Polymorphism among MB3 Light Chains by Two-Dimensional Gel Electrophoresis

423 Differential Glycosylation Requirements for the Cell Surface Expression of Class I Molecules

431 Interaction of Monoclonal Antibodies with MHC Class I Antigens on Mouse Spleen Cells. II. Levels of Expression of H-2K, H-2D, and H-2L in Different Mouse Strains

436 T15 D Region Germ Line Amino Acid Sequences Distinguished by Monoclonal Anti-Idiotope Antibody

443 The Murine Plasma Cell Antigen PC-1: Purification and Partial Amino Acid Sequence

449 Purification and Distribution of a Novel Macrophage-Specific Calmodulin-Binding Glycoprotein

457 Identification of Epitopes Associated with hCG and the p-hCG Carboxyl Terminus by Monoclonal Antibodies Produced against a Synthetic Peptide

465 Characterization of a Polyvalent Antibody Directed against the IgG Fc Receptor of Human Mononuclear Phagocytes

471 A Linkage between the Hemostatic and Immune Systems Embodied in the Fibrinolytic Release of Lymphocyte Suppressive Peptides

478 Quantitative Measurements of the Specificity and Kinetics of Conjugate Formation between Cloned Cytotoxic T Lymphocytes and Splenic Target Cells by Dual Parameter Flow Cytometry

486 Activation of the Human Classical Complement Pathway by a Mouse Monoclonal Hybrid IgG1-2a Monovalent Anti-TNP Antibody Bound to TNP-Conjugated Cells

492 Binding and Activation of Hemolytic Complement by IgG Antibodies of Different Hapten Specificity

495 The Membrane Attack Complex of Complement C5b-8 Complex as Accelerator of C9 Polymerization

500 Resistance to Phagocytosis by Group A Streptococci: Failure of Deposited Complement Opsonins to Interact with Cellular Receptors

506 Enhanced Reactive Lysis of Paroxysmal Nocturnal Hemoglobinuria Erythrocytes by C5b-9 Does Not Involves Increased C7 Binding or Cell-Bound C3b

512 Normal Number and Function of CR1 on Affected Erythrocytes of Patients with Paroxysmal Nocturnal Hemoglobinuria

Continued on page 7
Continued from page 6

**MICROBIAL IMMUNOLOGY**

H. Naher, U. Sperling, and H. Hahn

Y. Fujiyama, K. Kobayashi, S. Senda, Y. Benno, T. Bamba, and S. Hosoda

J. W. Murphy and R. L. Mosley


N. M. Parish, W. I. Morrison, and T. W. Pearson

L. Stitz, A. Althage, H. Hengartner, and R. M. Zinkernagel

D. M. Lopez, V. Charyulu, and R. D. Paul


**MOLECULAR GENETICS • MOLECULAR BIOLOGY**

T. Shiroishi, G. A. Evans, E. Appella, and K. Ozato

M. J. Rogers, R. N. Germain, J. Hare, E. Long, and D. S. Singer

F. Levine, H. A. Erlich, B. Mach, and D. Pious

A. S. Whitehead, H. R. Colten, C. C. Chang, and R. DeMars

**TUMOR IMMUNOLOGY**

S. Muller and R. G. Hoover

Y. Ibayashi, T. Uede, T. Uede, and K. Kikuchi

Obituary

Announcements

Author Index

---

J. Farnam, J. A. Grant, M. A. Lett-Brown, C. Hunt, D. O. Thueson, and P. G. Giclas

A. S. Heiman and F. T. Crews

N. E. Reiner and C. J. Malemud

M. D. P. Boyle, M. J. P. Lawman, A. P. Gee, and M. Young

541 Complement- and IgE-Mediated Release of Histamine from Basophils In Vitro. V. Differential Effects of Drugs Modulating Arachidonic Acid Metabolism

548 Characterization of the Effects of Phorbol Esters on Rat Mast Cell Secretion

556 Arachidonic Acid Metabolism by Murine Peritoneal Macrophages Infected with Leishmania donovani: In Vitro Evidence for Parasite-Induced Alterations in Cyclooxygenase and Lipoygenase Pathways

564 Nerve Growth Factor: A Chemotactic Factor for Polymorphonuclear Leukocytes

---

H. 2K-Restricted Granuloma Formation by Ly-2+ T Cells in Anti-Bacterial Protection to Facultative Intracellular Bacteria

A Novel IgA Protease from Clostridium sp. Capable of Cleaving IgA1 and IgA2 A2m(1) Allotype but not IgA2 A2m(2) Allotype Paraproteins

Regulation of Cell-Mediated Immunity in Cryptococcosis. III. Characterization of Second-Order T Suppressor Cells (Ts2)

Characterization of Monoclonal Antibodies to Treponema pallidum

Identification of an Antigen Specific to Trypanosoma congolense by using Monoclonal Antibodies

Natural Killer Cells vs Cytotoxic T Cells in the Peripheral Blood of Virus-Infected Mice

B Cell Subsets in Spleens of Balb/c Mice: Identification and Isolation of MMTV-Expressing and MMTV-Responding Subpopulations

Mechanism of Recovery from Acute Virus Infection. I. Role of T Lymphocytes in the Clearance of Lymphocytic Choriomeningitis Virus from Mice

Recognition of Influenza Virus Hemagglutinin by Subtype-Specific and Cross- Reactive Proliferative T Cells: Contribution of HA1 and HA2 Polypeptide Chains

In Vitro Mutagenesis of a Mouse MHC Class I Gene for the Examination of Structure-Function Relationships

Comparison of MHC Genes among Distantly Related Members of the Genus Mus

Transcriptional Regulation of HLA Class II and Invariant Chain Genes

Localization of the Human MHC-Linked Complement Genes between HLA-B and HLA-DR by using HLA Mutant Cell Lines

T Cells with Fc Receptors in Myeloma Suppression of Growth and Secretion of MOPC-315 by Tα Cells

Functional Analysis of Mononuclear Cells Infiltrating into Tumors: Differential Cytotoxicity of Mononuclear Cells from Tumors of Immune and Nonimmune Rats

---

Obituary

Announcements

Author Index