Contents

PRESIDENTIAL ADDRESS

G. J. Thorbecke  2779  Focusing: The Dilemma of Interpreting Sharp Images on a Blurred Background

CELLULAR IMMUNOLOGY

S. Aiba and S. I. Katz  2791  Phenotypic and Functional Characteristics of in Vivo-Activated Langerhans Cells

L. Boumsell, M. Schmid, H. Dastot, C. Gouletfangeas, D. Mathieu-Mahul, and A. Bensussan  2797  In Vitro Differentiation from a Pluripotent Human CD4+CD8+ Thymic Cloned Cell into Four Phenotypically Distinct Subsets

T.-L. Chang, C. M. Shea, S. Urioste, R. C. Thompson, W. H. Boom, and A. K. Abbas  2803  Heterogeneity of Helper/Inducer T Lymphocytes. III. Responses of IL-2- and IL-4-Producing (Th1 and Th2) Clones to Antigens Presented by Different Accessory Cells

M. Collins, V. K. Kuchroo, M. J. Whitter, R. M. O'Hara, Jr., K. Kelleher, R. T. Kubo, and M. E. Dorf  2809  Expression of Functional αβ T Cell Receptor Gene Rearrangements in Suppressor T Cell Hybridomas Correlates with Antigen Binding, but Not with Suppressor Cell Function

G. Girolomoni, J. C. Simon, P. R. Bergstresser, and P. D. Cruz, Jr.  2820  Freshly Isolated Spleen Dendritic Cells and Epidermal Langerhans Cells Undergo Similar Phenotypic and Functional Changes during Short Term Culture

D. Kabelitz, A. Bender, S. Schondelmaier, M. L. da Silva Lobo, and O. Janssen  2827  Human Cytotoxic Lymphocytes. V. Frequency and Specificity of γδ+ Cytotoxic Lymphocyte Precursors Activated by Allogeneic or Autologous Stimulator Cells

M. L. Kripke, C. G. Munn, A. Jeevan, J.-M. Tang, and C. Bucana  2833  Evidence that Cutaneous Antigen-Presenting Cells Migrate to Regional Lymph Nodes during Contact Sensitization

M. Merkenschlager, D. Buck, P. C. L. Beverley, and G. J. Satmentau  2839  Functional Epitope Analysis of the Human CD4 Molecule: The MHC Class II-Dependent Activation of Resting T Cells Is Inhibited by Monoclonal Antibodies to CD4 Regardless whether or Not They Recognize Epitopes Involved in the Binding of MHC Class II or HIV gp120

M. Takata, P. K. Maiti, R. T. Kubo, Y. Chen, V. Holford-Strevens, E. S. Rector, and A. H. Sehon  2846  Cloned Suppressor T Cells Derived from Mice Tolerized with Conjugates of Antigen and Monomethoxypolyethylene Glycol: Relationship between Monoclonal T Suppressor Factor and the T Cell Receptor

CLINICAL IMMUNOLOGY • IMMUNOPATHOLOGY

O. Baadsgaard, B. Salvo, A. Mannie, B. Dase, D. A. Fox, and K. D. Cooper  2854  In Vivo Ultraviolet-Exposed Human Epidermal Cells Activate T Suppressor Cell Pathways That Involve CD4+CD45RA+ Suppressor-Inducer T Cells

R. C. Budd, G. Winslow, S. Inokuchi, and J. B. Imboden  2862  Intact Antigen Receptor-Mediated Generation of Inositol Phosphates and Increased Intracellular Calcium in CD4+CD8- T Lymphocytes from MRL 1pr Mice


D. Jaraquemada, R. Martin, S. Rosen-Bronson, M. Flerlage, H. F. McFarland, and E. O. Long  2880  HLA-DR2a Is the Dominant Restriction Molecule for the Cytotoxic T Cell Response to Myelin Basic Protein in DR2Dw2 Individuals

Continued on page 4
Continued from page 3

<table>
<thead>
<tr>
<th>Authors</th>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Masinovsky, D. Urdal, and W. M. Gallatin</td>
<td>2886</td>
<td>IL-4 Acts Synergistically with IL-1β to Promote Lymphocyte Adhesion to Microvascular Endothelium by Induction of Vascular Cell Adhesion Molecule-1</td>
</tr>
<tr>
<td>M. Tremblay, K. Numazaki, X. Li, M. Gornitsky, J. Hiscott, and M. A. Wainberg</td>
<td>2896</td>
<td>Resistance to Infection by HIV-1 of Peripheral Blood Mononuclear Cells from HIV-1-Infected Patients Is Probably Mediated by Neutralizing Antibodies</td>
</tr>
</tbody>
</table>

**CYTOKINES • MEDIATORS • REGULATORY MOLECULES**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y. Abe, S. Sekiya, T. Yamasita, and F. Sendo</td>
<td>2902</td>
<td>Vascular Hyperpermeability Induced by Tumor Necrosis Factor and Its Augmentation by IL-1 and IFN-γ Is Inhibited by Selective Depletion of Neutrophils with a Monoclonal Antibody</td>
</tr>
<tr>
<td>Z. Baloch, S. Cohen, and F. D. Coffman</td>
<td>2908</td>
<td>Synergistic Interactions between Tumor Necrosis Factor and Inhibitors of DNA Topoisomerase I and II</td>
</tr>
<tr>
<td>T. Fischer, K. Wiegmann, H. Bottinger, K. Morens, G. Burnkester, and K. Pfizenmaier</td>
<td>2914</td>
<td>Regulation of IFN-γ Receptor Expression in Human Monocytes by Granulocyte-Macrophage Colony-Stimulating Factor</td>
</tr>
<tr>
<td>F. P. Heinzle</td>
<td>2920</td>
<td>The Role of IFN-γ in the Pathology of Experimental Endotoxemia</td>
</tr>
<tr>
<td>D. I. Kushner, C. F. Ware, and L. R. Gooding</td>
<td>2925</td>
<td>Induction of the Heat Shock Response Protects Cells from Lysis by Tumor Necrosis Factor</td>
</tr>
<tr>
<td>P. T. Marucha, R. A. Zeff, and D. L. Kreutzer</td>
<td>2932</td>
<td>Cytokine Regulation of IL-1β Gene Expression in the Human Polymorphonuclear Leukocyte</td>
</tr>
<tr>
<td>T. R. Mosmann, J. H. Schumacher, D. F. Fiorentino, J. Leverah, K. W. Moore, and M. W. Bond</td>
<td>2938</td>
<td>Isolation of Monoclonal Antibodies Specific for IL-4, IL-5, IL-6, and a New Th2-Specific Cytokine (IL-10), Cytokine Synthesis Inhibitory Factor, by Using a Solid Phase Radioimmunoabsorbent Assay</td>
</tr>
<tr>
<td>D. Sayar, M. Ketzel, L. Gerez, C. Silberberg, A. Reshef, and R. Kaempfer</td>
<td>2946</td>
<td>Expression of the Human IL-2 Receptor on Lymphocytes Involves Rapid Turnover of Its p55 α-Subunit (Tac)</td>
</tr>
<tr>
<td>T. Valerius, R. Repp, J. R. kalden, and E. Platzer</td>
<td>2950</td>
<td>Effects of IFN on Human Eosinophils in Comparison with Other Cytokines: A Novel Class of Eosinophil Activators with Delayed Onset of Action</td>
</tr>
</tbody>
</table>

**IMMUNOCHEMISTRY**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. P. Klein, S. Galea, and J. Jongstra</td>
<td>2967</td>
<td>The Lymphocyte-Specific Protein LSP1 Is Associated with the Cytoskeleton and Co-Caps with Membrane IgM</td>
</tr>
<tr>
<td>H. Molina, T. Kinoshita, K. Inoue, J.-C. Carel, and V. M. Holers</td>
<td>2974</td>
<td>A Molecular and Immunochemical Characterization of Mouse CR2: Evidence for a Single Gene Model of Mouse Complement Receptors 1 and 2</td>
</tr>
<tr>
<td>E. I. B. Peerschke and B. Ghebrehiwet</td>
<td>2984</td>
<td>Platelet C1Q Receptor Interactions with Collagen- and C1Q-Coated Surfaces</td>
</tr>
<tr>
<td>I. Seppala, M. Kaartinen, S. ibrahim, and O. Makeda</td>
<td>2989</td>
<td>Mouse Ig Coded by Vα Families S107 or J606 Bind to Protein A</td>
</tr>
</tbody>
</table>

**IMMUNOPHARMACOLOGY**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y. Aida and M. J. Pabst</td>
<td>3017</td>
<td>Priming of Neutrophils by Lipopolysaccharide for Enhanced Release of Superoxide: Requirement for Plasma but not for Tumor Necrosis Factor-α</td>
</tr>
</tbody>
</table>
Continued from page 4

E. Crockett-Torabi and J. C. Fantone
N. Hirasawa, Y. Funaba, Y. Hirano, K. Kawarasaki, M. Omata, M. Watanabe, S. Mue, S. Tsurufuji, and K. Ohuchi
S. R. McColl, D. Beauseigle, C. Gilbert, and P. H. Naccache
V. Patella, V. Casolaro, L. Björck, and G. Marone
D. W. H. Riches, S. K. Young, J. F. Seccombe, J. E. Henson, K. L. Clay, and P. M. Henson

MICROBIAL IMMUNOLOGY

J. J. Donnelly, R. R. Deck, and M. A. Liu
A. M. Haberman, C. Moller, D. McCready, and W. U. Gerhard
M. A. Montesano, G. L. Freeman, Jr., G. Gazzinelli, and D. G. Colley
C. Pirmez, C. Cooper, M. Paes-Oliveira, A. Schubach, V. K. Torigian, and R. L. Modlin

MOLECULAR BIOLOGY • MOLECULAR GENETICS

J. A. Garcia-Sanz, H. R. Macdonald, D. E. Jenne, J. Tschopp, and M. Nabholz
K. W. Lee, A. H. Johnson, and C. K. Hurley
N. Nezu, K. Ryu, Y. Koide, and T. O. Yoshida

TUMOR IMMUNOLOGY

M. Bosco, M. Giovarelli, M. Forni, A. Modesti, S. Scarpa, L. Masuelli, and G. Forni

3026 Soluble and Insoluble Immune Complexes Activate Human Neutrophil NADPH Oxidase by Distinct Fcγ Receptor-Specific Mechanisms
3033 Endothelial and Leukocyte Forms of IL-8: Conversion by Thrombin and Interactions with Neutrophils
3041 Inhibition by Dexamethasone of Histamine Production in Allergic Inflammation in Rats
3047 Priming of the Human Neutrophil Respiratory Burst by Granulocyte-Macrophage Colony-Stimulating Factor and Tumor Necrosis Factor-α Involves Regulation at a Post-Cell Surface Receptor Level: Enhancement of the Effect of Agents Which Directly Activate G Proteins
3054 Protein L: A Bacterial Ig-Binding Protein That Activates Human Basophils and Mast Cells
3062 The Subcellular Distribution of Platelet-Activating Factor in Stimulated Human Neutrophils
3071 Immunogenicity of a Haemophilus influenzae Polysaccharide-Neisseria meningitidis Outer Membrane Protein Complex Conjugate Vaccine
3080 The Adenovirus E3-14.7K Protein Is a General Inhibitor of Tumor Necrosis Factor-Mediated Cytolysis
3087 A Large Degree of Functional Diversity Exists among Helper T Cells Specific for the Same Antigenic Site of Influenza Hemagglutinin
3095 Immune Responses during Human Schistosomiasis Mansoni. XVII. Recognition by Monoclonal Anti-Idiotypic Antibodies of Several Idiotopes on a Monoclonal Anti-Soluble Schistosomal Egg Antigen Antibody and Anti-Soluble Schistosomal Egg Antigen Antibodies from Patients with Different Clinical Forms of Infection
3100 Immunologic Responsiveness in American Cutaneous Leishmaniasis Lesions
3105 Identification of B-Epitopes in the Human Papillomavirus 18 E7 Open Reading Frame Protein
3111 Cell Specificity of Granzyme Gene Expression
3119 Two Divergent Routes of Evolution Gave Rise to the DRw13 Haplotypes
3126 Regulation of HLA Class II Molecule Expressions by IFN-γ: The Signal Transduction Mechanism in Glioblastoma Cell Lines
3136 Low Doses of IL-4 Injected Perilymphatically in Tumor-Bearing Mice Inhibit the Growth of Poorly and Apparently Nonimmunogenic Tumors and Induce a Tumor-Specific Immune Memory

Continued on page 6
A. L. Richards and J. Y. Djeu  3144  Calcium-Dependent Natural Killer and Calcium-Independent Natural Cytotoxic Activities in an IL-2-Dependent Killer Cell Line

Letters to the Editor  3150

Errata  3151

Announcements  3152

Author Index  3153