

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. Gouttefangeas, 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. Whitters, R. M. O'Hara, Jr., K. Kelleher, R. T. Kubo, and M. E. Dorf 2809 Expression of Functional $\alpha\beta$ 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 $\gamma\delta^+$ 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. Merckenschlager, D. Buck, P. C. L. Beverley, and G. J. Sattentau 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. Schon 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. Dass, 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 *lpr* Mice
- M.-L. Gougeon, G. Drean, F. Le Deist, M. Dousseau, M. Fervier, A. Diu, J. Theze, C. Griscelli, and A. Fischer 2873 Human Severe Combined Immunodeficiency Disease: Phenotypic and Functional Characteristics of Peripheral B Lymphocytes
- D. Jaraquemada, R. Martin, S. Rosen-Bronson, M. Flierlage, 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

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

CYTOKINES • MEDIATORS • REGULATORY MOLECULES

- | | | |
|--|------|--|
| Y. Abe, S. Sekiya, T. Yamasita, and F. Sendo | 2902 | 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 |
| Z. Baloch, S. Cohen, and F. D. Coffman | 2908 | Synergistic Interactions between Tumor Necrosis Factor and Inhibitors of DNA Topoisomerase I and II |
| T. Fischer, K. Wiegmann, H. Böttinger, K. Morens, G. Burmester, and K. Pfizenmaier | 2914 | Regulation of IFN- γ Receptor Expression in Human Monocytes by Granulocyte-Macrophage Colony-Stimulating Factor |
| F. P. Heinzl | 2920 | The Role of IFN- γ in the Pathology of Experimental Endotoxemia |
| D. I. Kusher, C. F. Ware, and L. R. Gooding | 2925 | Induction of the Heat Shock Response Protects Cells from Lysis by Tumor Necrosis Factor |
| P. T. Marucha, R. A. Zeff, and D. L. Kreutzer | 2932 | Cytokine Regulation of IL-1 β Gene Expression in the Human Polymorphonuclear Leukocyte |
| T. R. Mosmann, J. H. Schumacher, D. F. Fiorentino, J. Leverah, K. W. Moore, and M. W. Bond | 2938 | 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 Radioimmunoassay |
| D. Sayar, M. Ketzinzel, L. Gerez, C. Silberberg, A. Reshef, and R. Kaempfer | 2946 | Expression of the Human IL-2 Receptor on Lymphocytes Involves Rapid Turnover of Its p55 α -Subunit (Tac) |
| T. Valerius, R. Repp, J. R. Kalden, and E. Platzer | 2950 | Effects of IFN on Human Eosinophils in Comparison with Other Cytokines: A Novel Class of Eosinophil Activators with Delayed Onset of Action |

IMMUNOCHEMISTRY

- | | | |
|---|------|--|
| T. G. Goodman, H.-L. Chang, W. J. Esselman, R. LeCorre, and L. Lefrancois | 2959 | Characterization of the CD45 Molecule on Murine Intestinal Intraepithelial Lymphocytes |
| D. P. Klein, S. Galea, and J. Jongstra | 2967 | The Lymphocyte-Specific Protein LSP1 Is Associated with the Cytoskeleton and Co-Caps with Membrane IgM |
| H. Molina, T. Kinoshita, K. Inoue, J.-C. Carel, and V. M. Holers | 2974 | A Molecular and Immunochemical Characterization of Mouse CR2: Evidence for a Single Gene Model of Mouse Complement Receptors 1 and 2 |
| E. I. B. Peerschke and B. Ghebrehiwet | 2984 | Platelet C1q Receptor Interactions with Collagen- and C1q-Coated Surfaces |
| I. Seppälä, M. Kaartinen, S. Ibrahim, and O. Mäkelä | 2989 | Mouse Ig Coded by V _H Families S107 or J606 Bind to Protein A |
| S. Su, M. M. Ward, M. A. Apicella, and R. E. Ward | 2994 | Analysis of the Immune Response to Lipopolysaccharide: Existence of an Interspecies Cross-Reactive Idiotypic Associated with Anti-Lipid A Antibodies |
| D. Wang, H.-T. Chen, J. Liao, P. N. Akolkar, S. K. Sikder, F. Gruezo, and E. A. Kabat | 3002 | Two Families of Monoclonal Antibodies to $\alpha(1\rightarrow6)$ Dextran, V _H 19.1.2 and V _H 9.14.7, Show Distinct Patterns of J κ and J _H Minigene Usage and Amino Acid Substitutions in CDR3 |
| C. R. Wood, A. J. Dorner, G. E. Morris, E. M. Alderman, D. Wilson, R. M. O'Hara, Jr., and R. J. Kaufman | 3011 | High Level Synthesis of Ig in Chinese Hamster Ovary Cells |

IMMUNOPHARMACOLOGY

- | | | |
|-------------------------|------|---|
| Y. Aida and M. J. Pabst | 3017 | Priming of Neutrophils by Lipopolysaccharide for Enhanced Release of Superoxide: Requirement for Plasma but not for Tumor Necrosis Factor- α |
|-------------------------|------|---|

- | | | |
|--|------|---|
| E. Crockett-Torabi and J. C. Fantone | 3026 | Soluble and Insoluble Immune Complexes Activate Human Neutrophil NADPH Oxidase by Distinct Fc γ Receptor-Specific Mechanisms |
| C. A. Hébert, F. W. Lusinskas, J.-M. Kiely, E. A. Luis, W. C. Darbonne, G. L. Bennett, C. C. Liu, M. S. Obin, M. A. Gimbrone, Jr., and J. B. Baker | 3033 | Endothelial and Leukocyte Forms of IL-8: Conversion by Thrombin and Interactions with Neutrophils |
| N. Hirasawa, Y. Funaba, Y. Hirano, K. Kawarasaki, M. Omata, M. Watanabe, S. Mue, S. Tsurufuji, and K. Ohuchi | 3041 | Inhibition by Dexamethasone of Histamine Production in Allergic Inflammation in Rats |
| S. R. McColl, D. Beauseigle, C. Gilbert, and P. H. Naccache | 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 |
| V. Patella, V. Casolaro, L. Björck, and G. Marone | 3054 | Protein L: A Bacterial Ig-Binding Protein That Activates Human Basophils and Mast Cells |
| D. W. H. Riches, S. K. Young, J. F. Secombe, J. E. Henson, K. L. Clay, and P. M. Henson | 3062 | The Subcellular Distribution of Platelet-Activating Factor in Stimulated Human Neutrophils |

MICROBIAL IMMUNOLOGY

- | | | |
|---|------|--|
| J. J. Donnelly, R. R. Deck, and M. A. Liu | 3071 | Immunogenicity of a <i>Haemophilus influenzae</i> Polysaccharide- <i>Neisseria meningitidis</i> Outer Membrane Protein Complex Conjugate Vaccine |
| L. R. Gooding, I. O. Sofola, A. E. Tollefson, P. Duerksen-Hughes, and W. S. M. Wold | 3080 | The Adenovirus E3-14.7K Protein Is a General Inhibitor of Tumor Necrosis Factor-Mediated Cytolysis |
| A. M. Haberman, C. Moller, D. McCreedy, and W. U. Gerhard | 3087 | A Large Degree of Functional Diversity Exists among Helper T Cells Specific for the Same Antigenic Site of Influenza Hemagglutinin |
| M. A. Montesano, G. L. Freeman, Jr., G. Gazzinelli, and D. G. Colley | 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 |
| C. Pirmez, C. Cooper, M. Paes-Oliveira, A. Schubach, V. K. Torigian, and R. L. Modlin | 3100 | Immunologic Responsiveness in American Cutaneous Leishmaniasis Lesions |
| L. A. Selvey, R. W. Tindle, H. M. Geysen, C. J. Haller, J. A. Smith, and I. H. Frazer | 3105 | Identification of B-Epitopes in the Human Papillomavirus 18 E7 Open Reading Frame Protein |

MOLECULAR BIOLOGY • MOLECULAR GENETICS

- | | | |
|---|------|---|
| J. A. Garcia-Sanz, H. R. MacDonald, D. E. Jenne, J. Tschopp, and M. Nabholz | 3111 | Cell Specificity of Granzyme Gene Expression |
| K. W. Lee, A. H. Johnson, and C. K. Hurley | 3119 | Two Divergent Routes of Evolution Gave Rise to the DRw13 Haplotypes |
| N. Nezu, K. Ryu, Y. Koide, and T. O. Yoshida | 3126 | Regulation of HLA Class II Molecule Expressions by IFN- γ : The Signal Transduction Mechanism in Glioblastoma Cell Lines |

TUMOR IMMUNOLOGY

- | | | |
|---|------|--|
| M. Bosco, M. Giovarelli, M. Forni, A. Modesti, S. Scarpa, L. Masuelli, and G. Forni | 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 from page 5

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	