# Contents


## OPINION

E. D. Kilbourne 1447 Influenza as a Problem in Immunology

## CELLULAR IMMUNOLOGY

M. G. Goodman and W. O. Weigle 1453 Nonspecific Activation of Murine Lymphocytes. II. Parameters of the Interaction between Splenic Lymphocytes and Radiolabeled 2-Mercaptoethanol *in Vitro*

S. B. Mizel, J. J. Oppenheim, and D. L. Rosenstreich 1497 Characterization of Lymphocyte-Activating Factor (LAF) Produced by the Macrophage Cell Line, P388$D_1$. I. Enhancement of LAF Production by Activated T Lymphocytes

S. B. Mizel, J. J. Oppenheim, and D. L. Rosenstreich 1504 Characterization of Lymphocyte-Activating Factor (LAF) Produced by the Macrophage Cell Line, P388$D_1$. II. Biochemical Characterization of LAF Induced by Activated T Cells and LPS

M. F. Kagnoff 1509 Effects of Antigen-Feeding on Intestinal and Systemic Immune Responses. II. Suppression of Delayed-Type Hypersensitivity Reactions

K. Resch, D. Bouillon, and D. Gemsa 1514 The Activation of Lymphocytes by the Ionophore A 23 187

P. D. Burrows, J. F. Kearney, A. R. Lawton, and M. D. Cooper 1526 Pre-B Cells: Bone Marrow Persistence in Anti-$\mu$-suppressed Mice, Conversion to B Lymphocytes, and Recovery after Destruction by Cyclophosphamide

P. J. Edelson and C. Erbs 1532 Biochemical and Functional Characteristics of the Plasma Membrane of Macrophages from BCG-Infected Mice

M. H. Touton and W. R. Clark 1537 Progressive Changes in Cytotoxic Potential during Mixed Lymphocyte Culture

R. S. Martineau and J. S. Johnson 1550 Normal Mouse Serum Immunosuppressive Activity: Action on Adherent Cells

M. I. Greene, M. Sugimoto, B. Benacerraf 1604 Mechanisms of Regulation of Cell-Mediated Immune Responses. I. Effect of the Route of Immunization with TNP-Coupled Syngeneic Cells on the Induction and Suppression of Contact Sensitivity to Picryl Chloride

E. L. Morgan and C. H. Tempelis 1669 The Requirement for the Fc Portion of Antibody in Antigen-Antibody Complex-Mediated Suppression

E. W. Fuson, H. D. Whitten, R. D. Ayers, and E. W. Lamon 1726 Antibody-Dependent Cell-Mediated Cytotoxicity by Human Lymphocytes. I. Comparison of IgM- and IgG-/Induced Cytotoxicity

## CLINICAL IMMUNOLOGY

F. D. Finkelman and P. E. Lipsky 1465 Immunoglobulin Secretion by Human Splenic Lymphocytes *in Vitro*: The Effects of Antibodies to IgM and IgD

A. Iio, T. A. Waldmann, and W. Strober 1696 Metabolic Study of Human IgE: Evidence for an Extravascular Catabolic Pathway

## IMMUNOCHEMISTRY

M. R. MacKenzie, N. L. Warner, and G. F. Mitchell 1493 The Binding of Murine Immunoglobulins to Staphylococcal Protein A

R. Schwenk, W. Y. Lee, and A. H. Sehon 1612 Specific Suppression of Anti-hapten Reaginic Antibody Titers with Hapten-Coated Liposomes

J. J. Burge, D. T. Fearon, and K. F. Austen 1625 Inhibition of the Alternative Pathway of Complement by Gold Sodium Thiomalate *in Vitro*

W. E. Freimuth, W. J. Esselman, and H. C. Miller 1651 Release of Thy-1.2 and Thy-1.1 from Lymphoblastoid Cells: Partial Characterization and Antigenicity of Shed Material

M. D. P. Boyle, J. J. Langone, and T. Borsos 1721 Studies on the Terminal Stages of Immune Hemolysis. III. Distinction between the Insertion of C9 and the Formation of a Transmembrane Channel

| | | |
|---|---|---|
| **R. E. Cone, B. Huber, H. Cantor, and R. K. Gershon** | 1733 | Molecular Identification of a Surface Structure on B Cells (Lyb-3) and Its Relationship To B Cell Triggering |

**IMMUNOGENETICS AND TRANSPLANTATION**

| | | |
|---|---|---|
| **B. Rotman** | 1460 | Genetic Control of Immunologic Unresponsiveness to Adjuvant-Free Solutions of B-D-Galactosidase. I. Inheritance of the *Ir-Z1* and *Ir-Z2* Loci in Mice |
| **J. Halper, S. M. Fu, C. Y. Wang, R. Winchester, and H. G. Kunkel** | 1480 | Patterns of Expression of Human "Ia-Like" Antigens during the Terminal Stages of B Cell Development |
| **T. J. Linna, H. D. Engers, J.-C. Cerottini, and K. T. Brunner** | 1544 | Inhibition of Cytolytic T Lymphocyte Activity with Subcellular Alloantigen Preparations and with Unlabeled Allogeneic Target Cells |
| **G. H. Sunshine, R. S. Basch, R. G. Coffey, K. W. Cohen, G. Goldstein, and J. W. Hadden** | 1594 | Thymopoietin Enhances the Allogeneic Response and Cyclic GMP Levels of Mouse Peripheral, Thymus-Derived Lymphocytes |
| **W. Pierpaoli and G. J. M. Maestroni** | 1600 | Pharmacologic Control of the Hormonally Modulated Immune Response. III. Prolongation of Allogeneic Skin Graft Rejection and Prevention of Runt Disease by a Combination of Drugs Acting on Neuroendocrine Functions |
| **C. S. David and S. E. Cullen** | 1659 | Murine Ia Antigens: Identification and Mapping of Ia.23 and Further Definition of the *I-E* Subregion |
| **F. Lemonnier, S. J. Burakoff, M. Mescher, M. E. Dorf, and B. Benacerraf** | 1717 | Inhibition of the Induction of Cytolytic T Lymphocytes with Alloantisera Directed against H-2K and H-2D Gene Products |
| **R. H. Schwartz, J. A. Berzofsky, C. L. Horton, A. N. Schechter, and D. H. Sachs** | 1741 | Genetic Control of the T Lymphocyte Proliferation Response to Staphylococcal Nuclease: Evidence for Multiple MHC-Linked *Ir* Gene Control |

**IMMUNOPATHOLOGY**

| | | |
|---|---|---|
| **M.-S. Tsoi, R. Storb, E. Jones, P. L. Weiden, H. Shulman, R. Witherspoon, K. Atkinson, and E. D. Thomas** | 1485 | Deposition of IgM and Complement at the Dermo-epidermal Junction in Acute and Chronic Cutaneous Graft-*vs*-Host Disease in Man |
| **J. C. Guckian, W. D. Christensen, and D. P. Fine** | 1580 | Trypan Blue Inhibits Complement-Mediated Phagocytosis by Human Polymorphonuclear Leukocytes |

**TUMOR IMMUNOLOGY**

| | | |
|---|---|---|
| **R. S. Cimprich, S. Specter, and H. Friedman** | 1473 | Requirement for Direct Cellular Contact for Immunosuppression by a Murine Virus-Induced Lymphoma (FBL-3) |
| **C.-p. Hu, T. G. Konen, C. Hoes, and I. Green** | 1521 | Solubilization and Partial Characterization of a Tumor-Associated Transplantation Antigen of the Guinea Pig $L_2C$ Leukemia |
| **G. R. Pasternack, R. J. Johnson, and H. S. Shin** | 1560 | Tumor Cell Cytostasis by Macrophages and Antibody *in Vitro*. I. Resolution into Contact-Dependent and Contact-Independent Steps |
| **G. R. Pasternack, R. J. Johnson, and H. S. Shin** | 1567 | Tumor Cell Cytostasis by Macrophages and Antibody *in Vitro*. II. Isolation and Characterization of Suppressed Cells |
| **J. L. Ninnemann** | 1573 | Melanoma-Associated Immunosuppression through B Cell Activation of Suppressor T Cells |
| **S. Carrel, N. Gross, and S. Salvi** | 1587 | Rabbit Antiserum against Daudi-Cell Membrane Fractions Detects Cell Surface Antigens Present on Subpopulations of Human Lymphocytes |
| **M. J. Daley, H. M. Gebel, and R. G. Lynch** | 1620 | Idiotype-Specific Transplantation Resistance to MOPC-315: Abrogation by Post-immunization Thymectomy |
| **G. Mandel, S. Shimizu, R. Gill, and W. Clark** | 1631 | Alteration of the Fatty Acid Composition of Membrane Phospholipids in Mouse Lymphoid Cells |
| **G. Mandel and W. Clark** | 1637 | Functional Properties of EL-4 Tumor Cells with Lipid-Altered Membranes |
| **S. I. Schlager, S. H. Ohanian, and T. Borsos** | 1644 | Identification of Lipids Synthesized and Released by Tumor Cells under Attack by Antibody and Complement |
| **J. Ignjatovic, H. Rübsamen, M. Haymani, and H. Bauer** | 1663 | Rous Sarcoma Virus-Transformed Avian Cells Express Four Different Cell Surface Antigens that are Distinguishable by a Cell-Mediated Cytotoxicity-Blocking Test |


*Continued on page 4*

*Continued from page 3*


| | | |
|---|---|---|
| **A. Iorio, F. Campanile, M. Neri, F. Spreafico, A. Goldin, and E. Bonmassar** | 1679 | Inhibition of Lymphoma Growth in the Spleen and Liver of Lethally Irradiated Mice |


## VIRAL AND MICROBIAL IMMUNOLOGY


| | | |
|---|---|---|
| **L. F. Lee, J. M. Sharma, K. Nazerian, and R. L. Witter** | 1554 | Suppression of Mitogen-Induced Proliferation of Normal Spleen Cells by Macrophages from Chickens Inoculated with Marek's Disease Virus |
| **J.-L. Virelizier and I. Gresser** | 1616 | Roles of Interferon in the Pathogenesis of Viral Diseases of Mice as Demonstrated by the Use of Anti-Interferon Serum. V. Protective Role in Mouse Hepatitis Virus Type 3 Infection of Susceptible and Resistant Strains of Mice |
| **R. E. Paque, C. J. Gauntt, T. J. Nealon, and M. D. Trousdale** | 1672 | Assessment of Cell-Mediated Hypersensitivity against Coxsackievirus B3 Viral-Induced Myocarditis by Utilizing Hypertonic Salt Extracts of Cardiac Tissue |
| **A. M. Macher, J. E. Bennett, J. E. Gadek, and M. M. Frank** | 1686 | Complement Depletion in Cryptococcal Sepsis |
| **R. E. Baughn and D. M. Musher** | 1691 | Altered Immune Responsiveness Associated with Experimental Syphilis in the Rabbit: Elevated IgM and Depressed IgG Responses to Sheep Erythrocytes |
| **K. Sakamoto and Y. Hinuma** | 1702 | Demonstration of a Surface Antigen on Epstein-Barr Virus Genome-Carrying Lymphoid Cells: Distinction from the Virus-Determined Membrane Antigen |
| **W. E. Bullock, E. M. Carlson, and R. K. Gershon** | 1709 | The Evolution of Immunosuppressive Cell Populations in Experimental Mycobacterial Infection |
| **S. B. Svenson and A. A. Lindberg** | 1750 | Immunochemistry of Salmonella O-Antigens: Preparation of and Octasaccharide-Bovine Serum Albumin Immunogen Representative of Salmonella Serogroup B O-Antigen and Characterization of the Antibody Response |


## COMMUNICATION


| | | |
|---|---|---|
| **T. Itaya, K. Okumura, N. Watanabe, and Z. Ovary** | 1758 | Absence of Correlation of Ig-1 Allotype and IgE Antibody Suppression in SJL Mice |
| **Letter to the Editor** | 1760 | |
| **Abstracts of Papers Presented at the Seventh International Complement Workshop, St. Petersburg Beach, Florida, November 19–22, 1977** | 1761 | |
| **Announcements** | 1804 | |
| **Errata** | 1806 | |
| **Author Index** | 1807 | |