

Luminex
complexity simplified.



**Simple, Compact, and
Affordable Cell Analysis.**
Muse[®] Cell Analyzer.

LEARN MORE >



144 (5)

J Immunol 1990; 144:1549-2026; ;
<http://www.jimmunol.org/content/144/5.citation>

This information is current as
of September 30, 2020.

Why *The JI*? [Submit online.](#)

- **Rapid Reviews! 30 days*** from submission to initial decision
- **No Triage!** Every submission reviewed by practicing scientists
- **Fast Publication!** 4 weeks from acceptance to publication

**average*

Subscription Information about subscribing to *The Journal of Immunology* is online at:
<http://jimmunol.org/subscription>

Permissions Submit copyright permission requests at:
<http://www.aai.org/About/Publications/JI/copyright.html>

Email Alerts Receive free email-alerts when new articles cite this article. Sign up at:
<http://jimmunol.org/alerts>

The Journal of Immunology is published twice each month by
The American Association of Immunologists, Inc.,
1451 Rockville Pike, Suite 650, Rockville, MD 20852
All rights reserved.
Print ISSN: 0022-1767 Online ISSN: 1550-6606.



Contents

CELLULAR IMMUNOLOGY

- | | | |
|--|------|--|
| J. L. Ambrus, Jr., M. G. Peters, A. S. Fauci, and E. J. Brown | 1549 | The Ba Fragment of Complement Factor B Inhibits Human B Lymphocyte Proliferation |
| I. Eshel, N. Savion, and J. Shoham | 1554 | Analysis of Thymic Stromal Cell Subpopulations Grown in Vitro on Extracellular Matrix in Defined Medium. I. Growth Conditions and Morphology of Murine Thymic Epithelial and Mesenchymal Cells |
| I. Eshel, N. Savion, and J. Shoham | 1563 | Analysis of Thymic Stromal Cell Subpopulations Grown in Vitro on Extracellular Matrix in Defined Medium. II. Cytokine Activities in Murine Thymic Epithelial and Mesenchymal Cell Culture Supernatants |
| G. Gammon, J. Klotz, D. Ando, and E. Sercarz | 1571 | The T Cell Repertoire to a Multideterminant Antigen: Clonal Heterogeneity of the T Cell Response. Variation between Syngeneic Individuals, and in Vitro Selection of T Cell Specificities |
| D. A. Howerton, R. L. Hunter, H. K. Ziegler, and I. J. Check | 1578 | Induction of Macrophage Ia Expression in Vivo by a Synthetic Block Copolymer, L81 |
| M. K. Jenkins, E. Burrell, and J. D. Ashwell | 1585 | Antigen Presentation by Resting B Cells: Effectiveness at Inducing T cell Proliferation Is Determined by Costimulatory Signals, Not T Cell Receptor Occupancy |
| C. H. June, M. C. Fletcher, J. A. Ledbetter, and L. E. Samelson | 1591 | Increases in Tyrosine Phosphorylation Are Detectable before Phospholipase C Activation after T Cell Receptor Stimulation |
| R. G. Lorenz, J. S. Blum, and P. M. Allen | 1600 | Constitutive Competition by Self Proteins for Antigen Presentation Can Be Overcome by Receptor-Enhanced Uptake |
| A. Masellis-Smith, G. S. Jensen, J. G. Seehafer, J. R. Slupsky, and A. R. E. Shaw | 1607 | Anti-CD9 Monoclonal Antibodies Induce Homotypic Adhesion of Pre-B Cell Lines by a Novel Mechanism |
| E. V. Rothenberg, R. A. Diamond, K. A. Pepper, and J. A. Yang | 1614 | IL-2 Gene Inducibility in T Cells before T Cell Receptor Expression: Changes in Signaling Pathways and Gene Expression Requirements during Intrathymic Maturation |
| Y. Saeki, J.-J. Chen, L. Shi, Y. Okuda, and H. Köhler | 1625 | Idiotype-Specific T Helper Clones Recognize a Variable H Chain Determinant |
| N. E. Street, J. H. Schumacher, T. A. T. Fong, H. Bass, D. F. Fiorentino, J. A. Leverah, and T. R. Mosmann | 1629 | Heterogeneity of Mouse Helper T Cells: Evidence from Bulk Cultures and Limiting Dilution Cloning for Precursors of Th1 and Th2 Cells |
| G. C. Tsokos, J. D. Lambris, F. D. Finkelman, E. D. Anastasiou, and C. H. June | 1640 | Monovalent Ligands of Complement Receptor 2 Inhibit whereas Polyvalent Ligands Enhance Anti-Ig-Induced Human B Cell Intracytoplasmic Free Calcium Concentration |
| L. A. Turka, J. A. Ledbetter, K. Lee, C. H. June, and C. B. Thompson | 1646 | CD28 is an Inducible T Cell Surface Antigen That Transduces a Proliferative Signal in CD3 ⁺ Mature Thymocytes |
| T.-M. Yeh and K. A. Krolick | 1654 | T Cells Reactive with a Small Synthetic Peptide of the Acetylcholine Receptor Can Provide Help for a Clonotypically Heterogeneous Antibody Response and Subsequently Impaired Muscle Function |

CLINICAL IMMUNOLOGY • IMMUNOPATHOLOGY

- | | | |
|---|------|--|
| P. C. Belitsos, J. E. K. Hildreth, and J. T. August | 1661 | Homotypic Cell Aggregation Induced by Anti-CD44(Pgp-1) Monoclonal Antibodies and Related to CD44(Pgp-1) Expression |
|---|------|--|

Continued on page 4

- D. R. Fregeau, T. E. Roche, P. A. Davis, R. Coppel, and M. E. Gershwin 1671 Primary Biliary Cirrhosis: Inhibition of Pyruvate Dehydrogenase Complex Activity by Autoantibodies Specific for E1 α , a Non-Lipoic Acid Containing Mitochondrial Enzyme
- K. H. G. Mills, P. A. Kitchin, B. P. Mahon, A. L. Barnard, S. E. Adams, S. M. Kingsman, and A. J. Kingsman 1677 HIV p-24 Specific Helper T Cell Clones from Immunized Primates Recognize Highly Conserved Regions of HIV-1
- M. Nishimura, A. Adachi, M. Maeda, I. Akiyuchi, A. Ishimoto, and J. Kimura 1684 Human T Lymphotropic Virus Type I May Not Be Associated with Multiple Sclerosis in Japan
- R. B. Nussenblatt, R. R. Caspi, R. Mahdi, C.-C. Chan, F. Roberge, O. Lider, and H. L. Weiner 1689 Inhibition of S-Antigen Induced Experimental Autoimmune Uveoretinitis by Oral Induction of Tolerance with S-Antigen
- G. Pantaleo, S. Koenig, M. Baseler, H. C. Lane, and A. S. Fauci 1696 Defective Clonogenic Potential of CD8⁺ T Lymphocytes in Patients with AIDS: Expansion in Vivo of a Nonclonogenic CD3⁺CD8⁺DR⁺CD25⁻ T Cell Population
- D. Portnoi, A. M. Stall, D. Schwartz, T. C. Merigan, L. A. Herzenberg, and T. Bascham 1705 Zidovudine (Azido Dideoxythymidine) Inhibits Characteristic Early Alterations of Lymphoid Cell Populations in Retrovirus-Induced Murine AIDS
- M. P. Protti, A. A. Manfredi, C. Straub, X. Wu, J. F. Howard, Jr., and B. M. Conti-Tronconi 1711 Use of Synthetic Peptides to Establish Anti-Human Acetylcholine Receptor CD4⁺ Cell Lines from Myasthenia Gravis Patients
- K. Rosenkrantz, C. Keever, K. Bhimani, A. Horvath, J. Brochstein, R. O'Reilly, B. Dupont, and N. Flomenberg 1721 Both Ongoing Suppression and Clonal Elimination Contribute to Graft-Host Tolerance after Transplantation of HLA Mismatched T Cell-Depleted Marrow for Severe Combined Immunodeficiency
- M. W. J. Sadelain, D. R. Green, and T. G. Wegmann 1729 Host Natural Suppressor Activity Regulates Hemopoietic Engraftment Kinetics in Antibody-Conditioned Recipient Mice
- I. N. Targoff 1737 Autoantibodies to Aminoacyl-Transfer RNA Synthetases for Isoleucine and Glycine: Two Additional Synthetases Are Antigenic in Myositis

CYTOKINES • MEDIATORS • REGULATORY MOLECULES

- T. A. T. Fong and T. R. Mosmann 1744 Alloreactive Murine CD8⁺ T Cell Clones Secrete the Th1 Pattern of Cytokines
- C. Gordon and D. Wofsy 1753 Effects of Recombinant Murine Tumor Necrosis Factor- α on Immune Function
- S. L. Pelech, H. B. Paddon, D. L. Charest, and B. S. Feder-spiel 1759 IL-3-Induced Activation of Protein Kinases in the Mast Cell/Megakaryocyte R6-XE.4 Line
- J. J. Ruegemer, S. N. Ho, J. A. Augustine, J. W. Schlager, M. P. Bell, D. J. McKean, and R. T. Abraham 1767 Regulatory Effects of Transforming Growth Factor- β on IL-2- and IL-4-Dependent T Cell-Cycle Progression
- M. R. Smith, K. Muegge, J. R. Keller, H.-F. Kung, H. A. Young, and S. K. Durum 1777 Direct Evidence for an Intracellular Role for IFN- γ : Microinjection of Human IFN- γ Induces Ia Expression on Murine Macrophages
- T. Suda, R. Murray, M. Fischer, T. Yokota, and A. Zlotnik 1783 Tumor Necrosis Factor- α and P40 Induce Day 15 Murine Fetal Thymocyte Proliferation in Combination with IL-2
- S. L. Swain, A. D. Weinberg, and M. English 1788 CD4⁺ T Cell Subsets: Lymphokine Secretion of Memory Cells and of Effector Cells Which Develop from Precursors in Vitro
- A. D. Weinberg, M. English, and S. L. Swain 1800 Distinct Regulation of Lymphokine Production Is Found in Fresh versus in Vitro Primed Murine Helper T Cells
- R. Yamamoto, L. S. Lin, R. Lowe, M. K. Warren, and T. J. White 1808 The Human Lung Fibroblast Cell Line, MRC-5, Produces Multiple Factors Involved with Megakaryocytopoiesis

IMMUNOCHEMISTRY

- | | | |
|--|------|--|
| E. J. Gosselin, M. F. Brown, C. L. Anderson, T. F. Zipf, and P. M. Guyre | 1817 | The Monoclonal Antibody 41H16 Detects the Leu 4 Responder Form of Human Fc γ RII |
| R. Harada, N. Okada, T. Fujita, and H. Okada | 1823 | Purification of 1F5 Antigen That Prevents Complement Attack on Homologous Cell Membranes |
| J. M. Lee and T. H. Watts | 1829 | On the Dissociation and Reassociation of MHC Class II-Foreign Peptide Complexes: Evidence that Brief Transit through an Acidic Compartment Is Not Sufficient for Binding Site Regeneration |
| M. J. Mamula, R. Jemmerson, and J. A. Hardin | 1835 | The Specificity of Human Anti-Cytochrome c Autoantibodies That Arise in Autoimmune Disease |
| I. F. Mizukami, S. D. Vinjamuri, R. D. Trochelman, and R. F. Todd III | 1841 | A Structural Characterization of the Mo3 Activation Antigen Expressed on the Plasma Membrane of Human Mononuclear Phagocytes |
| P. A. Roche and P. Cresswell | 1849 | High-Affinity Binding of an Influenza Hemagglutinin-Derived Peptide to Purified HLA-DR |
| C. C. Striebich, R. M. Miceli, D. H. Schulze, G. Kelsoe, and J. Cerny | 1857 | Antigen-Binding Repertoire and Ig H Chain Gene Usage among B Cell Hybridomas from Normal and Autoimmune Mice |

IMMUNOPHARMACOLOGY

- | | | |
|--|------|---|
| F. Grimminger, B. Kreuzler, U. Schneider, G. Becker, and W. Seeger | 1866 | Influence of Microvascular Adherence on Neutrophil Leukotriene Generation: Evidence for Cooperative Eicosanoid Synthesis |
| T. J. Gross and R. G. Sitrin | 1873 | The THP-1 Cell Line Is a Urokinase-Secreting Mononuclear Phagocyte with a Novel Defect in the Production of Plasminogen Activator Inhibitor-2 |
| K. Hirata, K. Maghni, P. Borgeat, and P. Sirois | 1880 | Guinea Pig Alveolar Eosinophils and Macrophages Produce Leukotriene B ₄ but No Peptido-Leukotriene |
| J. S. Marshall, R. H. Stead, C. McSharry, L. Nielsen, and J. Bienenstock | 1886 | The Role of Mast Cell Degranulation Products in Mast Cell Hyperplasia. I. Mechanism of Action of Nerve Growth Factor |
| E. Morita, J.-M. Schröder, and E. Christophers | 1893 | Identification of a Novel and Highly Potent Eosinophil Chemotactic Lipid in Human Eosinophils Treated with Arachidonic Acid |
| T. J. Mullmann, M. I. Siegel, R. W. Egan, and M. M. Billah | 1901 | Complement C5a Activation of Phospholipase D in Human Neutrophils: A Major Route to the Production of Phosphatidates and Diglycerides |
| J. T. O'Flaherty, J. F. Redman, and D. P. Jacobson | 1909 | Mechanisms Involved in the Bidirectional Effects of Protein Kinase C Activators on Neutrophil Responses to Leukotriene B ₄ |

MICROBIAL IMMUNOLOGY

- | | | |
|---|------|--|
| D. R. Blanco, E. M. Walker, D. A. Haake, C. I. Champion, J. N. Miller, and M. A. Lovett | 1914 | Complement Activation Limits the Rate of in Vitro Treponemicidal Activity and Correlates with Antibody-Mediated Aggregation of <i>Treponema pallidum</i> Rare Outer Membrane Protein |
| F. I. Lamb, N. B. Singh, and M. J. Colston | 1922 | The Specific 18-Kilodalton Antigen of <i>Mycobacterium leprae</i> Is Present in <i>Mycobacterium habana</i> and Functions as a Heat-Shock Protein |
| D. Moskophidis, L. Fang, J. Gossmann, R. Drjupin, J. Löhler, M. Bruns, and F. Lehmann-Grube | 1926 | Virus-Specific Delayed-Type Hypersensitivity (DTH): Cells Mediating Lymphocytic Choriomeningitis Virus-Specific DTH Reaction in Mice |
| Y. Nakano, K. Onozuka, Y. Terada, H. Shinomiya, and M. Nakano | 1935 | Protective Effect of Recombinant Tumor Necrosis Factor- α In Murine Salmonellosis |
| M. Sarmiento and E. S. Kleiner-man | 1942 | Innate Resistance to Herpes Simplex Virus Infection: Human Lymphocyte and Monocyte Inhibition of Viral Replication |
| Y. Suzuki and J. S. Remington | 1954 | The Effect of Anti-IFN- γ Antibody on the Protective Effect of LYT-2 ⁺ Immune T Cells against Toxoplasmosis in Mice |

Continued on page 6

MOLECULAR BIOLOGY • MOLECULAR GENETICS

- | | | |
|---|------|---|
| A. B. Begovich, T. H. Vu, and P. P. Jones | 1957 | Characterization of the Molecular Defects in the Mouse $E\beta^L$ and $E\beta^H$ Genes: Implications for the Origin of MHC Polymorphism |
| A. J. Caton, D. Herlyn, A. H. Ross, and H. Koprowski | 1965 | Identical D Region Sequences Expressed by Murine Monoclonal Antibodies Specific for a Human Tumor-Associated Antigen |
| L. A. DiPietro and K. L. Knight | 1969 | Restricted Utilization of Germ-Line VH Genes and Diversity of D Regions in Rabbit Splenic Ig mRNA |
| S. O. Gollnick, M. L. Trounstein, L. C. Yamashita, M. R. Kehry, and K. W. Moore | 1974 | Isolation, Characterization, and Expression of cDNA Clones Encoding the Mouse Fc Receptor for IgE (Fc ϵ RII) |
| G. G. Lennon and R. P. Perry | 1983 | The Temporal Order of Appearance of Transcripts from Unrearranged and Rearranged Ig Genes in Murine Fetal Liver |
| M. S. Paul, M. Aegerter, K. Ceppek, M. D. Miller, and J. H. Weis | 1988 | The Murine Complement Receptor Gene Family. III. The Genomic and Transcriptional Complexity of the Crry and Crry-ps Genes |
| M. Suter, R. S. Becker, and K. L. Knight | 1997 | Rearrangement of VHa1-Encoding Ig Gene Segment to the a2 Chromosome in an a ¹ /a ² Heterozygous Rabbit: Evidence for <i>trans</i> Recombination |
| S. Zunino, R. C. Bleackley, J. Martinez, and D. Hudig | 2001 | RNKP-1, a Novel Natural Killer-Associated Serine Protease Gene Cloned from RNK-16 Cytotoxic Lymphocytes |

TUMOR IMMUNOLOGY

- | | | |
|-------------------------------|------|--|
| S. H. Bridges and D. L. Longo | 2010 | T Cell Tumor Cure by T Cell Receptor-Mediated Activation Requires the Development of CD8-Dependent Host Immunity |
| K. L. Schreiber and J. Forman | 2018 | Effect of Graft-Versus-Host Disease on Anti-Tumor Immunity |
| Erratum | 2027 | |
| Announcement | 2027 | |
| Author Index | 2028 | |