



CyTOF<sup>®</sup> XT. The neXT  
evolution in cytometry.

See what's neXT >



132 (6)

*J Immunol* 1984; 132:2683-3230; ;  
<http://www.jimmunol.org/content/132/6.citation>

This information is current as  
of October 17, 2021.

**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

## COMMUNICATION

- L. Varesio 2683 Down Regulation of RNA Labeling as a Selective Marker for Cytotoxic but not Suppressor Macrophages
- D. Wofsy, R. R. Hardy, and W. E. Seaman 2686 The Proliferating Cells in Autoimmune MLR/*Ipr* Mice Lack L3T4, an Antigen on "Helper" T Cells that Is Involved in the Response to Class II Major Histocompatibility Antigens
- J. Burns, A. Rosenzweig, B. Zweiman, A. Moskovitz, and R. Lisak 2690 Recovery of Myelin Basic Protein Reactive T Cells from Spinal Cords of Lewis Rats with Autoimmune Encephalomyelitis
- D. P. Hartmann, M. M. Georgian, and E. Kagan 2693 Enhanced Alveolar Macrophage Ia Antigen Expression after Asbestos Inhalation
- R. Yarchoan, R. J. M. Engler, L. A. Barrow, C. C. Kurman, and D. L. Nelson 2696 Antigen-Stimulated Human B Cell Clones Are Committed to the Production of a Single Class of Antibody *In Vitro*
- D. N. Posnett, C. C. Marboe, D. M. Knowles II, E. A. Jaffe, and H. G. Kunkel 2700 A Membrane Antigen (HC1) Selectively Present on Hairy Cell Leukemia Cells, Endothelial Cells, and Epidermal Basal Cells

## CELLULAR IMMUNOLOGY

- R. L. Wolfert, M. G. Goodman, and W. O. Weigle 2703 Demonstration of Activation-Specific Interactions among B Lymphocyte Membrane Proteins by a Photoreactive Cross-Linking Agent
- R. R. Shenk, H. Z. Weissberger, and H. B. Dickler 2709 Anti-Idiotype Stimulation of Antigen-Specific Antigen-Independent Antibody Responses *In Vitro*. II. Triggering of B Lymphocytes by Idiotype Plus Anti-Idiotype in the Absence of T Lymphocytes
- A. R. Brown 2715 Expression and Regulation of Two Idiotype Families and Subsets within an Idiotype Family among BALB/c Antibodies against *p*-Azophenylarsonate
- K. S. Landreth, P. W. Kincade, G. Lee, and D. E. Harrison 2724 B Lymphocyte Precursors in Embryonic and Adult W Anemic Mice
- J. Tseng 2730 A Population of Resting IgM-IgD Double-Bearing Lymphocytes in Peyer's Patches: The Major Precursor Cells for IgA Plasma Cells in the Gut Lamina Propria
- C. O. Elson and W. Ealding 2736 Generalized Systemic and Mucosal Immunity in Mice after Mucosal Stimulation with Cholera Toxin
- I. Nakamura 2742 Cell-Mediated Cytotoxicity against Allogeneic Mutant H-2 Antigens: Restricted and Nonrestricted Responses
- W. Dröge, C. Moyers, A. Wehrmaker, H. Schmidt, S. Panknin, D. Männel, and W. Falk 2749 Capacity of Different Cell Types to Stimulate Cytotoxic T Lymphocyte Precursor Cells in the Presence of Interleukin 2
- A.-R. Alsheikhly, B. Wählin, T. Andersson, and P. Perlmann 2760 Virus-Induced Enhancement of Lymphocyte-Mediated Antibody-Dependent Cytotoxicity (ADCC) *In Vitro*
- R. V. Flores and P. J. Gilmer 2767 Differential Recognition and Lysis of EL4 Target Cells by Cytotoxic T Cells: Differences in H-2K<sup>b</sup> Antigenic Density and Cytoskeletal Proteins
- A. Pierres, P. Naquet, A. van Agthoven, F. Bekkhoucha, F. Denizot, Z. Mishal, A.-M. Schmitt-Verhulst, and M. Pierres 2775 A Rat Anti-Mouse T4 Monoclonal Antibody (H129.19) Inhibits the Proliferation of Ia-Reactive T Cell Clones and Delineates Two Phenotypically Distinct (T4<sup>+</sup>, Lyt-2,3<sup>-</sup> and T4<sup>-</sup>, Lyt-2,3<sup>+</sup>) Subsets among Anti-Ia Cytolytic T Cell Clones

Continued on page 4

Continued from page 3

- J. S. Cowdery and B. J. Johlin 2783 Regulation of the Primary *In Vitro* Response to TNP-Polymerized Ovalbumin by T Suppressor Cells Induced by Ovalbumin Feeding
- K. Kato, K.-I. Yamamoto, T. Kimura, I. Azuma, and P. W. Askenase 2790 Suppression of BCG Cell Wall-Induced Delayed-Type Hypersensitivity by Pretreatment with Killed BCG: Induction of Nonspecific Suppressor T Cells by the Adjuvant Portion (MDP) and of Specific Suppressor T Cells by the Antigen Portion (TAP)
- P. M. Vargo and J. R. Battisto 2796 Tolerance to MLS-Disparate Cells Induces Suppressor T Cells that Act at the Helper Level to Prevent *In Vivo* Generation of Cytolytic Lymphocytes to Hapten-Altered Self
- U. Mauer, R. Burger, D. Von Steldern, D. Bitter-Suermann, and U. Hadding 2802 Expression of Ia Antigens on Macrophages Is Reduced after Stimulation with Homologous C3b
- D. W. Thomas and M. D. Hoffman 2807 Identification of Macrophage Receptors for Angiotensin: A Potential Role in Antigen Uptake for T Lymphocyte Responses?
- K. Kline and B. G. Sanders 2813 Suppression of Con A Mitogen-Induced Proliferation of Normal Spleen Cells by Macrophages from Chickens with Hereditary Muscular Dystrophy
- K. Yoshizawa and A. Yano 2820 Mouse T Lymphocyte Proliferative Responses Specific for Human MHC Products in Mouse Anti-Human Xenogeneic MLR
- M. M. Griffiths and C. W. DeWitt 2830 Genetic Control of Collagen-Induced Arthritis in Rats: The Immune Response to Type II Collagen among Susceptible and Resistant Strains and Evidence for Multiple Gene Control

---

CLINICAL IMMUNOLOGY • IMMUNOPATHOLOGY

---

- W. B. Bruszewski, J. A. Bruszewski, H. Tonnu, S. L. Ferzy, R. L. O'Brien, and J. W. Parker 2837 Early Mitogen-Induced Metabolic Events Essential to Proliferation of Human T Lymphocytes: Dependence of Specific Events on the Influence of Adherent Accessory Cells
- A. Hassner and A. Saxon ✓ 2844 Isotype-Specific Human Suppressor T Cells for IgE Synthesis Activated by IgE-Anti-IgE Immune Complexes
- S. Shiobara, R. P. Witherspoon, L. G. Lum, and R. Storb 2850 Immunoglobulin Synthesis after HLA-Identical Marrow Grafting. V. The Role of Peripheral Blood Monocytes in the Regulation of *In Vitro* Immunoglobulin Secretion Stimulated by Pokeweed Mitogen
- J. H. Kehrl, A. Muraguchi, and A. S. Fauci 2857 Differential Expression of Cell Activation Markers after Stimulation of Resting Human B Lymphocytes
- D. E. Van Epps and D. E. Chenoweth 2862 Analysis of the Binding of Fluorescent C5a and C3a to Human Peripheral Blood Leukocytes
- B. S. Edwards, J. A. Merritt, P. A. Jelen, and E. C. Borden 2868 Effects of Diethylthiocarbamate, an Inhibitor of Interferon Antiviral Activity, upon Human Natural Killer Cells
- M. P. N. Nair and S. A. Schwartz 2876 Immunomodulatory Effects of Corticosteroids on Natural Killer and Antibody-Dependent Cellular Cytotoxic Activities of Human Lymphocytes
- R. I. Fox, S. Fong, C. Tsoukas, and J. H. Vaughan 2883 Characterization of Recirculating Lymphocytes in Rheumatoid Arthritis Patients: Selective Deficiency of Natural Killer Cells in Thoracic Duct Lymph
- H. S. Warren 2888 Differentiation of NK-like Cells from OKT3<sup>-</sup>, OKT11<sup>+</sup>, and OKM1<sup>+</sup> Small Resting Lymphocytes by Culture with Autologous T Cell Blasts and Lymphokine
- M. C. Liu, D. Proud, R. P. Schleimer, and M. Plaut ✓ 2895 Human Lung Macrophages Enhance and Inhibit Lymphocyte Proliferation
- M. J. Fritzler, J. Etherington, C. Sokoluk, T. D. Kinsella, and D. W. Valencia 2904 Antibodies from Patients with Autoimmune Disease React with a Cytoplasmic Antigen in the Golgi Apparatus
- R. H. Weisbart, G. Chan, A. Kacena, and R. E. Saxton 2909 Characterization of Mouse and Human Monoclonal Antibodies Cross-Reactive with SLE Serum Antibodies to Guanosine
- K. R. Bray, M. E. Gershwin, R. R. Skelly, A. Ahmed, and P. W. Kincade 2913 Studies of Congenitally Immunologically Mutant New Zealand Mice. IX. Age-Related Microenvironmental Effects on Autoantibody Production in NZB and NZB.X<sup>1d</sup> Mice Studied by Transplantation
- J. Trotter and L. Steinman 2919 Homing of Lyt-2<sup>+</sup> and Lyt-2<sup>-</sup> T Cell Subsets and B Lymphocytes to the Central Nervous System of Mice with Acute Experimental Allergic Encephalomyelitis

Continued on page 5

---

**CYTOKINES • MEDIATORS • REGULATORY MOLECULES**


---

- A. Kelso and A. L. Glasebrook 2924 Secretion of Interleukin 2, Macrophage-Activating Factor, Interferon, and Colony-Stimulating Factor by Alloreactive T Lymphocyte Clones
- A. Kelso, H. R. MacDonald, K. A. Smith, J.-C. Cerottini, and K. T. Brunner 2932 Interleukin 2 Enhancement of Lymphokine Secretion by T Lymphocytes: Analysis of Established Clones and Primary Limiting Dilution Microcultures
- H. Wakasugi, A. Harel, M. C. Dokhelar, D. Fradelizi, and T. Tursz 2939 Accessory Function and Interleukin 1 Production by Human Leukemic Cell Lines
- K. Yoshizaki, T. Nakagawa, K. Fukunaga, L. T. Tseng, Y. Yamamura, and T. Kishimoto 2948 Isolation and Characterization of B Cell Differentiation Factor (BCDF) Secreted from a Human B Lymphoblastoid Cell Line
- B. D.-M. Chen and H. Lin 2955 Colony-Stimulating Factor (CSF-1): Its Enhancement of Plasminogen Activator Production and Inhibition of Cell Growth in a Mouse Macrophage Cell Line
- K. A. Clouse, F. H. Bach, and C. G. Orosz 2961 Detection of HSV-1-Induced Lymphokine Production in Human Cells by a Direct Indicator Cell Addition Assay

---

**IMMUNOCHEMISTRY**


---

- B. W. Elliott, Jr., and L. A. Steiner 2968 Amino- and Carboxy-Terminal Sequence of Mouse J Chain and Analysis of Tryptic Peptides
- P. Parham 2975 Changes in Conformation with Loss of Alloantigenic Determinants of a Histocompatibility Antigen (HLA-B7) Induced by Monoclonal Antibodies
- M. S. Krangel, D. Pious, and J. L. Strominger 2984 Characterization of a B Lymphoblastoid Cell Line Mutant that Secretes HLA-A2
- K. Imai, Y. Moriya, H. Fujita, M. Tsujisaki, M. Kawaharada, and A. Yachi 2992 Immunologic Characterization and Molecular Profile of Carcinoembryonic Antigen Detected by Monoclonal Antibodies
- A. Yachi, K. Imai, H. Fujita, Y. Moriya, M. Tanda, T. Endo, M. Tsujisaki, and M. Kawaharada 2998 Immunohistochemical Distribution of the Antigenic Determinants Detected by Monoclonal Antibodies to Carcinoembryonic Antigen
- Y. Wano, T. Uchiyama, K. Fukui, M. Maeda, H. Uchino, and J. Yodoi 3005 Characterization of Human Interleukin 2 Receptor (Tac Antigen) in Normal and Leukemic T Cells: Co-expression of Normal and Aberrant Receptors on Hut-102 Cells
- M. E. Hemler, F. Sanchez-Madrid, T. J. Flotte, A. M. Krensky, S. J. Burakoff, A. K. Bhan, T. A. Springer, and J. L. Strominger 3011 Glycoproteins of 210,000 and 130,000 m.w. on Activated T Cells: Cell Distribution and Antigenic Relation to Components on Resting Cells and T Cell Lines
- D. E. Isenman and J. R. Young 3019 The Molecular Basis for the Difference in Immune Hemolysis Activity of the Chido and Rodgers Isotypes of Human Complement Component C4
- R. M. Jack and D. T. Fearon 3028 Altered Surface Distribution of Both C3b Receptors and Fc Receptors on Neutrophils Induced by Anti-C3b Receptor or Aggregated IgG

---

**IMMUNOPHARMACOLOGY**


---

- J. D. Williams, J. K. Czop, and K. F. Austen 3034 Release of Leukotrienes by Human Monocytes on Stimulation of Their Phagocytic Receptor for Particulate Activators
- J. Palmblad, H. Gyllenhammar, J. Å. Lindgren, and C. L. Malmsten 3041 Effects of Leukotrienes and f-Met-Leu-Phe on Oxidative Metabolism of Neutrophils and Eosinophils
- D. E. Van Epps and L. Saland 3046  $\beta$ -Endorphin and Met-Enkephalin Stimulate Human Peripheral Blood Mononuclear Cell Chemotaxis
- D. E. Griswold, S. Alessi, A. M. Badger, G. Poste, and N. Hanna 3054 Inhibition of T Suppressor Cell Expression by Histamine Type 2 (H<sub>2</sub>) Receptor Antagonists

Continued on page 6

Continued from page 5

- J. G. Wilson, D. T. Fearon, R. L. Stevens, N. Seno, and K. F. Austen 3058 Inhibition of the Function of Activated Properdin by Squid Chondroitin Sulfate E Glycosaminoglycan and Murine Bone Marrow-Derived Mast Cell Chondroitin Sulfate E Proteoglycan
- M. M. Merker and R. E. Hand-schumacher ✓ 3064 Uptake and Nature of the Intracellular Binding of Cyclosporin A in a Murine Thymoma Cell Line, BW5147
- H. Ratech, M. K. Bell, R. Hirschhorn, and G. J. Thorbecke 3071 Effects of Deoxycoformycin in Mice. I. Suppression and Enhancement of *In Vivo* Antibody Responses to Thymus-Dependent and -Independent Antigens
- H. Ratech, J. Kim, R. Asofsky, G. J. Thorbecke, and R. Hirschhorn 3077 Effects of Deoxycoformycin in Mice. II. Differences between the Drug Sensitivities and Purine Metabolizing Enzymes of Transplantable Lymphomas of Varying Immunologic Phenotypes

---

### MICROBIAL IMMUNOLOGY

---

- R. L. Modlin, F. M. Hofman, D. A. Horwitz, L. A. Husmann, S. Gillis, C. R. Taylor, and T. H. Rea ✓ 3085 *In Situ* Identification of Cells in Human Leprosy Granulomas with Monoclonal Antibodies to Interleukin 2 and Its Receptor
- K. J. Reis, E. M. Ayoub, and M. D. P. Boyle 3091 Streptococcal Fc Receptors. I. Isolation and Partial Characterization of the Receptor from a Group C Streptococcus
- K. J. Reis, E. M. Ayoub, and M. D. P. Boyle 3098 Streptococcal Fc Receptors. II. Comparison of the Reactivity of a Receptor from a Group C Streptococcus with Staphylococcal Protein A
- C. E. Taylor, P. W. Stashak, J. Chiang, W. M. Leiserson, G. Caldes, B. Prescott, and P. J. Baker 3103 Characteristics of Amplifier T Cells Involved in the Antibody Response to the Capsular Polysaccharide of Type III *Streptococcus pneumoniae*
- J. Weiss, K. Muello, M. Victor, and P. Elsbach 3109 The Role of Lipopolysaccharides in the Action of the Bactericidal/Permeability-Increasing Neutrophil Protein on the Bacterial Envelope
- S. G. Reed, M. Barral-Netto, and J. A. Inverso ✓ 3116 Treatment of Experimental Visceral Leishmaniasis with Lymphokine Encapsulated in Liposomes
- W. T. Hockmeyer, D. Walters, R. W. Gore, J. S. Williams, A. H. Fortier, and C. A. Nacy 3120 Intracellular Destruction of *Leishmania donovani* and *Leishmania tropica* Amastigotes by Activated Macrophages: Dissociation of these Microbicidal Effector Activities *In Vitro*
- A. B. Vaidya, W. A. Schleif, W. R. Majarian, T. M. Daly, D. W. Taylor, and C. A. Long 3126 Analysis of mRNA Coding for Blood-Stage Antigens of a Rodent Malarial Parasite, *Plasmodium yoelii*: mRNA Coding for a Possible Protective Antigen Purify as Poly A<sup>+</sup>
- W. R. Majarian, T. M. Daly, W. P. Weidanz, and C. A. Long 3131 Passive Immunization against Murine Malaria with an IgG3 Monoclonal Antibody
- M. M. Canlas and W. F. Piesens ✓ 3138 Stage-Specific and Common Antigens of *Brugia malayi* Identified with Monoclonal Antibodies
- D. J. Wyler, M. J. Stadecker, C. A. Dinarello, and J. F. O'Dea ✓ 3142 Fibroblast Stimulation in Schistosomiasis. V. Egg Granuloma Macrophages Spontaneously Secrete a Fibroblast-Stimulating Factor
- M. D. Chapman, D. Snary, and M. A. Miles 3149 Quantitative Differences in the Expression of a 72,000 Molecular Weight Cell Surface Glycoprotein (GP72) in *Trypanosoma cruzi* Zymodemes
- D. B. Burlington, J. Y. Djeu, M. A. Wells, S. C. Kiley, and G. V. Quinnan, Jr. 3154 Large Granular Lymphocytes Provide an Accessory Function in the *In Vitro* Development of Influenza A Virus-Specific Cytotoxic T Cells
- A. S. Klein, R. Fixler, and J. Shoham 3159 Antiviral Activity of a Thymic Factor in Experimental Viral Infections. I. Thymic Hormonal Effect on Survival, Interferon Production and NK Cell Activity in Mengo Virus-Infected Mice

---

### MOLECULAR GENETICS

---

- C. A. Slaughter, D. J. Jeske, W. A. Kuziel, E. C. B. Milner, and J. D. Capra 3164 Use of *J<sub>H</sub>4* Joining Segment Gene by an Anti-Arsonate Antibody that Bears the Major A-Strain Cross-Reactive Idiotype but Displays Diminished Antigen Binding

Continued on page 7

---

**TUMOR IMMUNOLOGY**


---

<b>K. C. Anderson, M. P. Bates, B. Slaughenhaupt, S. F. Schlossman, and L. M. Nadler</b>	3172	A Monoclonal Antibody with Reactivity Restricted to Normal and Neoplastic Plasma Cells
<b>K. Sugamura, M. Fujii, S. Ueda, and Y. Hinuma</b>	3180	Identification of a Glycoprotein, gp21, of Adult T Cell Leukemia Virus by Monoclonal Antibody
<b>R. J. van de Griend, B. A. van Krimpen, C. P. M. Ronteltap, and R. L. H. Bolhuis</b>	3185	Rapidly Expanded Activated Human Killer Cell Clones Have Strong Antitumor Cell Activity and Have the Surface Phenotype of either T $\gamma$ , T-non- $\gamma$ , or Null Cells
<b>S. I. Abrams and Z. Brahmi</b>	3192	Compared Mechanisms of Tumor Cytolysis by Human Natural Killer Cells and Activated Polymorphonuclear Leukocytes
<b>P. J. Millard, M. P. Henkart, C. W. Reynolds, and P. A. Henkart</b>	3197	Purification and Properties of Cytoplasmic Granules from Cytotoxic Rat LGL Tumors
<b>S. Macphail, P. A. Paciucci, and O. Stutman</b>	3205	Phenotypic Heterogeneity of Antisyngeneic Tumor Killer Cells (ASTK) Generated in Allogeneic Mixed Lymphocyte Reactions
<b>M. J. Rogers, G. Galetto, V. J. Hearing, D. F. Siwarski, and L. W. Law</b>	3211	Purification of a Glycoprotein Bearing a Tumor Transplantation Antigen Specific for Friend, Moloney, and Rauscher MuLV-Induced Tumors
<b>M. Sensi, C. G. Orosz, and F. H. Bach</b>	3218	Alloantigen-Induced Cytotoxicity against Syngeneic Tumor Cells: Analysis at the Clonal Level
<b>E. Blasi, R. B. Herberman, and L. Varesio</b>	3226	Requirement for Protein Synthesis for Induction of Macrophage Tumoricidal Activity by IFN- $\alpha$ and IFN- $\beta$ but not by IFN- $\gamma$
<b>Letters</b>	3229	
<b>Announcements</b>	3231	
<b>Erratum</b>	3233	
<b>Author Index</b>	3234	
<b>Ad Hoc Reviewers</b>	3236	
<b>Author Index to Volume 132</b>	3239	
<b>Subject Index to Volume 132</b>	3246	