

Protein Detection by Sequencing

Comprehensive Solutions to Uncover
What Makes Each Cell Unique.



BioLegend®

Learn More



123 (1)

J Immunol 1979; 123:1-503; ;
<http://www.jimmunol.org/content/123/1.citation>

This information is current as
of November 23, 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

PRESIDENTIAL ADDRESS

- D. W. Talmage 1 Beyond Cellular Immunology
-

CELLULAR IMMUNOLOGY

- J. Couderc, C. Bleux, M. Ventura, and P. Liacopoulos 173 Single Mouse Cells Producing Two Antibody Molecules and Giving Rise to Antigen-Driven Intraclonal Variation after Immunization with Two Unrelated Antigens
- J. J. Mond, K. E. Stein, B. Subbarao, and W. E. Paul 239 Analysis of B Cell Activation Requirements with TNP-Conjugated Polyacrylamide Beads
- J. C. Hiserodt, G. J. Tiangco, and G. A. Granger 311 The LT System in Experimental Animals. I. Rapid Release of High Levels of Lymphotoxin (LT) Activity from Murine Lymphocytes during the Interaction with Lectin-Treated Allogeneic or Xenogeneic Target Cells *in Vitro*
- J. C. Hiserodt, G. J. Tiangco, and G. A. Granger 317 The LT System in Experimental Animals. II. Physical and Immunologic Characteristics of Molecules with LT Activity Rapidly Released by Murine Lymphoid Cells Activated on Lectin-Coated Allogeneic Monolayers *in Vitro*
- M. W. Ross, G. J. Tiangco, P. Horn, J. C. Hiserodt, and G. A. Granger 325 The LT System in Experimental Animals. III. Physicochemical Characteristics and Relationships of Lymphotoxin (LT) Molecules Released *in Vitro* by Activated Lymphoid Cells from Several Animal Species
- J. C. Hiserodt, G. J. Tiangco, and G. A. Granger 332 The LT System in Experimental Animals. IV. Rapid Specific Lysis of ⁵¹Cr-Labeled Allogeneic Target Cells by Highly Unstable High M. W. Lymphotoxin-Receptor Complex(es) Released *in Vitro* by Activated Alloimmune Murine T Lymphocytes
- G. R. Klimpel, M. Okada, and C. S. Henney 350 Inhibition of *in Vitro* Cytotoxic Responses by BCG-Induced Macrophage-Like Suppressor Cells. II. Suppression Occurs at the Level of a "Helper" T Cell
- D. T. Umetsu, J. M. Chapman-Alexander, and G. J. Thorbecke 396 Cross-Priming of Murine B Cells with TNP Conjugates of Hemocyanin and Ficoll: Characteristics of Primed B Cells Responding to Both Antigens
- H. Fujiwara, R. B. Levy, G. M. Shearer, and W. D. Terry 423 Studies on *in Vivo* Priming of the TNP-Reactive Cytotoxic Effector Cell System. I. Comparison of the Effects of Intravenous Inoculation with TNP-Conjugated Cells on the Development of Contact Sensitivity and Cell-Mediated Lympholysis
- M. T. Lubet and J. R. Kettman 426 Regulation of the Primary Immune Response to Ovalbumin in Mice: Activation of T Cells Mediating Delayed Type Hypersensitivity, Nonspecific Help and Specific Help, and Their Sensitivity to Radiation
- J. E. Merrill and R. F. Ashman 434 Changes in Receptor Isotype and T/B Ratio in an Antigen-Binding Cell Population after *in Vitro* Immunization
- J. Yodoi, T. Ishizaka, and K. Ishizaka 455 Lymphocytes Bearing Fc Receptors for IgE. II. Induction of Fc_ε-Receptor-Bearing Rat Lymphocytes by IgE
-

CLINICAL IMMUNOLOGY

- E. L. Reinherz, A. J. Strelkauskas, C. O'Brien, and S. F. Schlossman 83 Phenotypic and Functional Distinctions between the TH₂⁺ and JRA⁺ T Cell Subsets in Man
- B. M. Jones, M. Bird, P. J. A. Griffin, P. R. Massey, D. A. Millar, J. J. Miller, S. Reeves, and J. R. Salaman 143 Inhibition of the Mixed Lymphocyte Reaction by Fractionated Niridazole Urine Dialysate
- S. B. Pollack and S. L. Emmons 160 Kinetic Analysis of Human Spontaneous Cell-Mediated Cytotoxicity
- D. A. Norris, R. M. Morris, R. J. Sanderson, and P. F. Kohler 166 Isolation of Functional Subsets of Human Peripheral Blood Monocytes
- R. D. Maca, G. D. Bonnard, and R. B. Herberman 246 The Suppression of Mitogen- and Alloantigen-Stimulated Peripheral Blood Lymphocytes by Cultured Human T Lymphocytes

C. Huber, H. Rodt, S. Thierfelder, and H. Braunsteiner	405	Surface Properties and <i>in Vitro</i> Functional Capacities of Human T Lymphocyte Subsets Separated by Linear Density Gradients
J. B. Smith and R. P. Knowlton	419	Activation of Suppressor T Cells in Human Autologous Mixed Lymphocyte Culture
C. W. Distelhorst and J. C. Rogers	487	Glucocorticoids Inhibit Trypsin-Induced DNA Release from Phyto-hemagglutinin-Stimulated Blood Lymphocytes
S. M. Friedman, O. Irigoyen, J. Kuhns, and L. Chess	496	Cell-Mediated Lympholysis of Fluorescein Isothiocyanate-Conjugated Autologous Human Cells: Evidence for Hapten-Specific Altered-Self Reactive Human Cytotoxic T Lymphocytes

IMMUNOCHEMISTRY

J. L. Ebersole, M. A. Taubman, and D. J. Smith	19	Thymic Control of Secretory Antibody Responses in the Rat
M. D. P. Boyle and T. Borsos	71	Studies on the Terminal Stages of Immune Hemolysis. V. Evidence That Not All Complement-Produced Transmembrane Channels are Equal
M. D. P. Boyle, A. P. Gee, and T. Borsos	77	Studies on the Terminal Stages of Immune Hemolysis. VI. Osmotic Blockers of Differing Stokes' Radii Detect Complement-Induced Transmembrane Channels of Differing Size
W. W. Freimuth, H. C. Miller, and W. J. Esselman	201	Soluble Factors Containing Thy-1 Antigen Shed from Lymphoblastoid Cells Modulate <i>in Vitro</i> Plaque-Forming Cell Response
M. Fujiwara and S. Kishimoto	263	IgE Antibody Formation and Aging. I. Age-Related Changes in IgE Antibody Formation and Avidity for the DNP-Determinant in Mice
J. D. Capra and A. Nisonoff	279	Structural Studies on Induced Antibodies with Defined Idiotypic Specificities. VII. The Complete Amino Acid Sequence of the Heavy Chain Variable Region of Anti- <i>p</i> -azophenylarsenate Antibodies from A/J Mice Bearing a Cross-Reactive Idiotype
E. L. Alexander, J. A. Titus, and D. M. Segal	295	Human Leukocyte Fc (IgG) Receptors: Quantitation and Affinity with Radiolabeled Affinity Cross-Linked Rabbit IgG
G. H. Strejan, P. M. Smith, C. W. Grant, and D. Surlan	370	Naturally Occurring Antibodies to Liposomes. I. Rabbit Antibodies to Sphingomyelin-Containing Liposomes before and after Immunization with Unrelated Antigens
J. Schilling, D. Hansburg, J. M. Davie, and L. Hood	384	Analysis of the Diversity of Murine Antibodies to Dextran B1355: N-Terminal Amino Acid Sequences of Heavy Chains from Serum Antibody
E. C. de Macario and A. J. L. Macario	442	Specific Inhibition of the Antibody-Mediated Activation of a Defective Beta-D-Galactosidase by Circulating Activating Epitope-Binding Molecules
W. P. Arend and J. C. Sturge	447	Composition and Biologic Properties of Soluble IgG-Anti-IgG Immune Complexes: Effects of Variations in the Specificity of Rabbit Antibodies to Different Structural Components of Human IgG

IMMUNOGENETICS AND TRANSPLANTATION

Y-C. M. Kong, C. S. David, A. A. Giraldo, M. Elrehewy, and N. R. Rose	15	Regulation of Autoimmune Response to Mouse Thyroglobulin: Influence of H-2D-End Genes
W. C. DeWolf, P. G. Carroll, C. R. Mehta, S. L. Martin, and E. J. Yunis	37	The Genetics of PLT Response. II. HLA-DRw is a Major PLT-Stimulating Determinant
J. A. Kapp, D. S. Strayer, P. F. Robbins, and R. M. Perlmutter	109	Insulin-Specific Murine Antibodies of Limited Heterogeneity. I. Genetic Control of Spectrotypes
T. L. Delovitch and U. Sohn	121	<i>In Vitro</i> Analysis of Allogeneic Lymphocyte Interaction. IV. Dual Recognition of B Cell-Associated <i>Mls</i> Locus and <i>I</i> -Region Determinants by a Helper Allogeneic Effect Factor (AEF) Generated across a Minor H Locus Disparity
J-E. Ryser and H. R. MacDonald	128	Limiting Dilution Analysis of Alloantigen-Reactive T Lymphocytes. III. Effect of Priming on Precursor Frequencies
K. Okuda, S. S. Twining, C. S. David, and M. Z. Atassi	182	Genetic Control of Immune Response to Sperm Whale Myoglobin in Mice. II. T-Lymphocyte Proliferative Response to the Synthetic Antigenic Sites
W. J. Urba and W. H. Hildemann	209	Functional Analysis of <i>H-2</i> -Linked Genetic Control of Immune Responsiveness to TNP-MSA
S. Natsuume-Sakai, K. Moriwaki, S. Amano, J-I. Hayakawa, T. Kaidoh, and M. Takahashi	216	Allotypes of C3 in Laboratory and Wild Mouse Distinguished by Alloantisera
M. E. Dorf, J. H. Stimpfling, and B. Benacerraf	269	Gene Dose Effects in <i>Ir</i> Gene-Controlled Systems

Continued on page 4

Continued from page 3

R. H. Schwartz, C. F. Merryman, and P. H. Maurer	272	Gene Complementation in the T Lymphocyte Proliferative Response to Poly-(Glu ⁵⁷ Lys ³⁸ Tyr ⁵): Evidence for Effects of Polymer Handling and Gene Dosage
P. Parham, C. J. Barnstable, and W. F. Bodmer	342	Use of a Monoclonal Antibody (W6/32) in Structural Studies of HLA-A,B,C Antigens
M. Gottlieb, S. Strober, and H. S. Kaplan	379	Allogeneic Marrow Transplantation after Total Lymphoid Irradiation (TLI): Effect of Dose/Fraction, Thymic Irradiation, Delayed Marrow Infusion, and Presensitization
A. Dessein, R. N. Germain, M. E. Dorf, and B. Benacerraf	463	IgE Responses to Synthetic Polypeptide Antigens. I. Simultaneous <i>Ir</i> Gene and Isotype-Specific Regulation of IgE Responses to L-Glutamic Acid ⁶⁰ -L-Alanine ³⁰ -L-Tyrosine ¹⁰ (GAT)
L. J. Rosenwasser, M. A. Barcinski, R. H. Schwartz, and A. S. Rosenthal	471	Immune Response Gene Control of Determinant Selection. II. Genetic Control of the Murine T Lymphocyte Proliferative Response to Insulin
I. Scher, A. K. Berning, and R. Asofsky	477	X-Linked B Lymphocyte Defect in CBA/N Mice. IV. Cellular and Environmental Influences on the Thymus-Dependent IgG Anti-sheep Red Blood Cell Response

IMMUNOPATHOLOGY

P. J. Meredith, J. A. Kristie, and R. L. Walford	87	Aging Increases Expression of LPS-Induced Autoantibody-Secreting B Cells
J. M. Johnston and N. M. Kredich	97	Inhibition of Methylation by Adenosine in Adenosine Deaminase-Inhibited, Phytohemagglutinin-Stimulated Human Lymphocytes
J. H. Passwell, J-M. Dayer, and E. Merler	115	Increased Prostaglandin Production by Human Monocytes after Membrane Receptor Activation
J. C. Foreman, A. K. Sobotka, and L. M. Lichtenstein	153	The Action of Strontium on Basophil Leukocytes and Its Use to Probe the Relationship between Immunologic Stimulus and Secretory Response
J. Uberti, J. J. Lightbody, and R. M. Johnson	189	The Effect of Nucleosides and Deoxycoformycin on Adenosine and Deoxyadenosine Inhibition of Human Lymphocyte Activation
D. G. Wright and J. I. Gallin	285	Secretory Responses of Human Neutrophils: Exocytosis of Specific (Secondary) Granules by Human Neutrophils during Adherence <i>in Vitro</i> and during Exudation <i>in Vivo</i>

TUMOR IMMUNOLOGY

T. Taniyama and H. T. Holden	43	Requirement of Histocompatible Macrophages for the Induction of a Secondary Cytotoxic Response to Syngenic Tumor Cells <i>in Vitro</i>
J. O. Shaw, S. W. Russell, M. P. Printz, and R. A. Skidgel	50	Macrophage-Mediated Tumor Cell Killing: Lack of Dependence on the Cyclooxygenase Pathway of Prostaglandin Synthesis
D. G. Hafeman and Z. J. Lucas	55	Polymorphonuclear Leukocyte-Mediated, Antibody-Dependent, Cellular Cytotoxicity against Tumor Cells: Dependence on Oxygen and the Respiratory Burst
J. M. Zarling, L. Eskra, E. C. Borden, J. Horoszewicz, and W. A. Carter	63	Activation of Human Natural Killer Cells Cytotoxic for Human Leukemia Cells by Purified Interferon
W. W. Young, Jr., S-I. Hakomori, and P. Levine	92	Characterization of Anti-Forssman (Anti-Fs) Antibodies in Human Sera: Their Specificity and Possible Changes in Patients with Cancer
S. I. Schlager and S. H. Ohanian	146	A Role for Fatty Acid Composition of Complex Cellular Lipids in the Susceptibility of Tumor Cells to Humoral Immune Killing
J. M. Sharma, R. B. Herberman, J. Y. Djeu, and M. E. Nunn	222	Production of Migration Inhibition Factor by Spleen Cells of Normal Rats upon Culture <i>in Vitro</i> with Tumor Cells and Cells Expressing Endogenous Virus
M. O. de Landazuri, A. Silva, J. Alvarez, and R. B. Herberman	252	Evidence That Natural Cytotoxicity and Antibody-Dependent Cellular Cytotoxicity are Mediated in Humans by the Same Effector Cell Populations
M. Small, M. Lasser-Weiss, and V. Daniel	259	Release of Immature Cells from the Thymus during Solid Tumor Growth: Identification by Assay of TdT Activity
S. Hickman and Y. P. Wong-Yip	389	Re-expression of Nonglycosylated Surface IgA in Trypsin-Treated MOPC 315 Plasmacytoma Cells

Continued on page 5

VIRAL AND MICROBIAL IMMUNOLOGY

S. C. Suffin, G. A. Prince, K. B. Muck, and D. D. Porter	6	Ontogeny of the Ferret Humoral Immune Response
S. C. Suffin, G. A. Prince, K. B. Muck, and D. D. Porter	10	Immunoprophylaxis of Respiratory Syncytial Virus Infection in the Infant Ferret
S. Kohl, D. L. Cahall, D. L. Walters, and V. E. Schaffner	25	Murine Antibody-Dependent Cellular Cytotoxicity to Herpes Simplex Virus-Infected Target Cells
J. F. Woodruff	31	Lack of Correlation between Neutralizing Antibody Production and Suppression of Coxsackievirus B-3 Replication in Target Organs: Evidence for Involvement of Mononuclear Inflammatory Cells in Host Defense
J. S. Dahl, C. E. Dahl, and R. P. Levine	104	Role of Lipid Fatty Acyl Composition and Membrane Fluidity in the Resistance of <i>Acholeplasma laidlawii</i> to Complement-Mediated Killing
K. W. Hunter, Jr., F. D. Finkelman, G. T. Strickland, P. C. Sayles, and I. Scher	133	Defective Resistance to <i>Plasmodium yoelii</i> in CBA/N Mice
M. G. Tovey, G. Lenoir, J. Begon-Lours, H. Tapiero, and C. Rochette-Egly	138	The Effect of Mitogens on the Expression of Epstein-Barr Virus Antigens in Human Lymphoid Cell Lines
R. A. Cox and D. R. Arnold	194	Immunoglobulin E in Coccidioidomycosis
D. Coope, L. Heston, J. Brandsma, and G. Miller	232	Cross-Neutralization of Infectious Mononucleosis and Burkitt Lymphoma Strains of Epstein-Barr Virus with Hyperimmune Rabbit Antisera
S. K. Chapes and W. A. F. Tompkins	303	Cytotoxic Macrophages Induced in Hamsters by Vaccinia Virus: Selective Cytotoxicity for Virus-Infected Targets by Macrophages Collected Late after Immunization
R. E. Paque, D. C. Straus, T. J. Nealon, and C. J. Gauntt	358	Fractionation and Immunologic Assessment of KCl-Extracted Cardiac Antigens in Coxsackievirus B3 Virus-Induced Myocarditis
N. J. Roberts, Jr., R. G. Douglas, Jr., R. M. Simons, and M. E. Diamond	365	Virus-Induced Interferon Production by Human Macrophages
D. Humphrey, A. Tsukamoto-Adey, O. M. Witte, R. Fox, L. Jerabek, and I. L. Weissman	412	A Serologic Comparison of Moloney Lymphoma Cell Surface and Moloney Oncor-navirus Antigens

COMMUNICATION

L. Sherman, M. F. Mescher, and S. J. Burakoff	501	The Induction of Cytolytic T Lymphocytes with Syngeneic Trinitrophenyl-Coupled Membranes
Announcements	503	
Author Index	504	