V.147 W1 J0677 C.02 NO.4 1991 TI: JOURNAL OF IMMUNOS

# THE JOURNAL OF IMMUNOLOGY®

Official Journal of The American Association of Immunologists



**Anniversary**1916 - 1991



### **Contents**

CELLULAR IMMUNOLOGY		
CATA		
G. A. Bishop	1107	Requirements of Class II-Mediated B Cell Differentiation for Class II Cross- Linking and Cyclic AMP
H. Hengel, H. Wagner, and K. Heeg	1115	Triggering of CD8 <sup>+</sup> Cytotoxic T Lymphocytes via CD3- $\epsilon$ Differs from Triggering via $\alpha/\beta$ T Cell Receptor: CD3- $\epsilon$ -Induced Cytotoxicity Occurs in the Absence of Protein Kinase C and Does not Result in Exocytosis of Serine Esterases
J. P. Lake, C. W. Pierce, and J. D. Kennedy	1121	CD8+ $\alpha/\beta$ or $\gamma/\delta$ T Cell Receptor-Bearing T Cells from Athymic Nude Mice Are Cytolytically Active in Vivo
HM. Lee and S. Rich	1127	Co-Stimulation of T Cell Proliferation by Transforming Growth Factor-β1
KH. Lue, R. P. Lauener, R. J. Winchester, R. S. Geha, and D. Vercelli	1134	Engagement of CD14 on Human Monocytes Terminates T Cell Proliferation by Delivering a Negative Signal to T Cells
I. Melamed, G. P. Downey, K. Aktories, and C. M. Roifman	1139	Microfilament Assembly Is Required for Antigen-Receptor-Mediated Activation of Human B Lymphocytes
Tatsumi, M. Ogata, K. Mi- yake, T. Hamaoka, and H. Fujiwara	1147	Role of a Thymic Stromal Cell Clone in Inducing the Stage-Specific Differentiation of Various Subpopulations of Double Negative Thymocytes
I. Nakashima, YH. Zhang, S. M. J. Rahman, T. Yoshida, KI. Isobe, LN. Ding, T. Iwa- moto, M. Hamaguchi, H. Ike- zawa, and R. Taguchi	1153	Evidence of Synergy between Thy-1 and CD3/TCR Complex in Signal Delivery to Murine Thymocytes for Cell Death
canha, A. D. Levine, and J. J. Mond	1163	IgE Class Switching Is Critically Dependent Upon the Nature of the B Cell Activator, in Addition to the Presence of IL-4
C. M. Snapper, H. Yamada, J. J. Mond, and C. H. June	1171	Cross-Linkage of Ly-6A/E Induces Ca <sup>2+</sup> Translocation in the Absence of Phosphatidylinositol Turnover and Mediates Proliferation of Normal Murine B Lymphocytes
H. Spits, X. Paliard, Y. Vandek- erckhove, P. van Vlasselaer, and J. E. de Vries	1180	Functional and Phenotypic Differences between CD4 <sup>+</sup> and CD4 <sup>-</sup> T Cell Receptor-γδ Clones from Peripheral Blood

### CLINICAL IMMUNOLOGY • IMMUNOPATHOLOGY

G. D. Anderson, S. Banerjee, H. S. Luthra, and C. S. David G. C. Koo, C. L. Manyak, J. Dasch, L. Ellingsworth, and L. D. Shultz J. K. Lazdins, T. Klimkait, K. Woods-Cook, M. Walker, E. Alteri, D. Cox, N. Cerletti, R. Shipman, G. Bilbe, and G.	1194 1201	Role of $Mls$ - $l$ Locus and Clonal Deletion of T Cells in Susceptibility to Collagen-Induced Arthritis in Mice Suppressive Effects of Monocytic Cells and Transforming Growth Factor- $\beta$ on Natural Killer Cell Differentiation in Autoimmune Viable Motheaten Mutant Mice In Vitro Effect of Transforming Growth Factor- $\beta$ on Progression of HIV- $l$ Infection in Primary Mononuclear Phagocytes
Shipman, G. Bilbe, and G. McMaster  O. Lider, A. Milleer, S. Miron, R. Hershkoviz, H. L. Weiner, X. Zhang, and E. Heber-Katz	1208	Nonencephalitogenic CD4^CD8^ V $\alpha$ 2V $\beta$ 8.2 <sup>+</sup> Anti-Myelin Basic Protein Rat T Lymphocytes Inhibit Disease Induction

Continued on page 4

THE JOURNAL OF IMMUNOLOGY (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, 428 East Preston Street, Baltimore, MD 21202. Subscription rates \$170 (\$260 foreign); institutions \$300 (\$390 foreign); single copy \$10 (\$15 foreign). Indexed by Current Contents and Index Medicus. Second class postage paid at Baltimore, MD 21202 and at additional mailing offices. POSTMASTER: Send address changes to The Journal of Immunology at 428 East Preston Street, Baltimore, MD 21202. Copyright © 1991 by The American Association of Immunologists.



### Continued from page 3

- S. Seki, T. Abo, T. Ohteki, K. Sugiura, and K. Kumagai
- D. V. Serreze and E. H. Leiter
- Unusual  $\alpha\beta$ -T Cells Expanded in Autoimmune lpr Mice Are Probably a Counterpart of Normal T Cells in the Liver
- 1222 Development of Diabetogenic T Cells from NOD/Lt Marrow Is Blocked When an Allo-H-2 Haplotype Is Expressed on Cells of Hemopoietic Origin, but not on Thymic Epithelium

### CYTOKINES • MEDIATORS • REGULATORY MOLECULES

J. L. Browning, M. J. Andro- lewicz, and C. F. Ware I. K. Campbell, U. Novak, J. Ce- bon, J. E. Layton, and J. A.	1230 1238	Lymphotoxin and an Associated 33-Glycorprotein Are Expressed on the Surface of an Activated Human T Cell Hybridoma Human Articular Cartilage and Chondrocytes Produce Hemopoietic Colony-Stimulating Factors in Culture in Response to IL-1
Hamilton J. A. Carman and C. E. Hayes M. R. Fung, R. M. Scearce, J. A. Hoffman, N. J. Peffer, S. R. Hammes, J. B. Hosking, R. Schmandt, W. A. Kuziel, B. F. Haynes, G. B. Mills, and W.	1247 1253	Abnormal Regulation of IFN- $\gamma$ Secretion in Vitamin A Deficiency A Tyrosine Kinase Physically Associates with the $\beta$ -Subunit of the Human IL-2 Receptor
C. Greene M. K. Ganapathi, D. Rzewnicki, D. Samols, SL. Jiang, and I. Kushner	1261	Effect of Combinations of Cytokines and Hormones on Synthesis of Serum Amyloid A and C-Reactive Protein in HEP 3B Cells
K. Nakata, K. Akagawa, M. Fu- kayama, Y. Hayashi, M. Ka- dokura, and T. Tokunaga	1266	Granulocyte-Macrophage Colony-Stimulating Factor Promotes the Proliferation of Human Alveolar Macrophages in Vitro
JH. Shieh, R. H. F. Peterson, and M. A. S. Moore	1273	IL-1 Modulation of Cytokine Receptors on Bone Marrow Cells: In Vitro and in Vivo Studies
G. Strassmann, D. R. Bertolini, S. B. Kerby, and M. Fong	1279	in Vivo Studies Regulation of Murine Mononuclear Phagocyte Inflammatory Products by Macrophage Colony-Stimulating Factor: Lack of IL-1 and Prostaglandin E <sub>2</sub> Production and Generation of a Specific IL-1 Inhibitor

#### **IMMUNOCHEMISTRY**

M. Barel, A. Gauffre, F. Lya- mani, A. Fiandino, J. Her- mann, and R. Frade	1286	Intracellular Interaction of EBV/C3d Receptor (CR2) with p68, a Calcium-Binding Protein Present in Normal but Not in Transformed B Lymphocytes
R. Busch, C. M. Hill, J. D. Hay- ball, J. R. Lamb, and J. B. Rothbard	1292	Effect of Natural Polymorphism at Residue 86 of the HLA-DR $\beta$ -Cham Peptide Binding
P. E. Harris, M. C. Gutierrez, E. Reed, D. W. King, and N. Su- ciu-Foca	1299	Biosynthesis and Partial Amino Acid Sequence of the Human NDA 4 Antigen: An Activation Antigen Common to B and T Cell Lineages
O. Kanagawa, Y. Utsunomiya, J. Bill, E. Palmer, M. W. Moore, and F. R. Carbone	1307	Conformational Difference of T Cell Antigen Receptors Revealed by Monoclonal Antibodies to Mouse $V\beta5$ T Cell Receptor for Antigen Determinants
R. W. Leu, A. Zhou, J. Rummage, D. J. Fast, and B. J. Shannon	1315	Reconstitution of a Deficiency of AKR Mouse Macrophages for Their sponse to Lipid A Activation for Tumor Cytotoxicity by Complement
S. M. Mariani, E. A. Armandola, and S. Ferrone	1322	Diversity in the Fine Specificity and Idiotypic Profile of Mouse Anti-Tipo DR Monoclonal Antibody Elicited with the Syngeneic Anti-Idiotypic Mono-
I. F. Mizukami, S. D. Vinjamuri,	1331	clonal Antibody F5-830 Purification, Biochemical Composition, and Biosynthesis of the Mo3 Acti-

Purification, Biochemical Composition, and Biosynthesis of the Mo3 Activation Antigen Expressed on the Plasma Membrane of Human Mononuclear Phagocytes

1338 A Single Amino Acid in the Second Ig-Like Domain of the Human Fcγ Receptor II Is Critical for Human IgG2 Binding

Continued on page 5



F. Perini, D. Y. Liu, and R. F.

P. A. M. Warmerdam, J. G. J.

van de Winkel, A. Vlug, N. A. C. Westerdaal, and P. J. A.

Todd III

Capel

Continued from page 4

P. MacDermott, J. C. Chappel, S. L. Teitelbaum, and S.

L. Perkins

L. Y. Whiteman, D. B. Purkall, 1344 Association of Activated Properdin with Complexes of Properdin with C3 and S. Ruddy

### **IMMUNOPHARMACOLOGY**

J. Hakimi, R. Chizzonite, D. R. Luke, P. C. Familletti, P. Bailon, J. A. Kondas, R. S. Pilson, P. Lin, D. V. Weber, C. Spence, L. J. Mondini, WH. Tsien, J. L. Levin, V. H. Gallati, L. Korn, T. A. Waldmann, C. Gueen, and W. R. Benjamin	1352	Reduced Immunogenicity and Improved Pharmacokinetics of Humanized Anti-Tac in Cynomolgus Monkeys
D. Hudig, N. J. Allison, T. M. Pickett, U. Winkler, CM. Kam, and J. C. Powers	1360	The Function of Lymphocyte Proteases: Inhibition and Restoration of Granule-Mediated Lysis with Isocoumarin Serine Protease Inhibitors
T. W. Kuijpers, B. C. Hakkert, M. Hoogerwerf, J. F. M. Leeu- wenberg, and D. Roos	1369	Role of Endothelial Leukocyte Adhesion Molecule-1 and Platelet-Activating Factor in Neutrophil Adherence to IL-1-Prestimulated Endothelial Cells: Endothelial Leukocyte Adhesion Molecule-1-Mediated CD18 Activation

Endothelial Leukocyte Adhesion Molecule-1-Mediated CD18 Activation S. Schreiber, W. F. Stenson, R. Aggregated Bovine IgG Inhibits Mannose Receptor Expression of Murine Bone Marrow-Derived Macrophages via Activation 1377

### MICROBIAL IMMUNOLOGY

JP. Coutelier, J. T. M. Van Der Logt, and F. W. A. Heessen K. B. Madden, J. F. Urban, Jr., H. J. Ziltener, J. W. Schrader, F. D. Finkelman, and I. M. Katona	1383 1387	IgG Subclass Distribution of Primary and Secondary Immune Responses Concomitant with Viral Infection Antibodies to IL-3 and IL-4 Suppress Helminth-Induced Intestinal Masto- cytosis
D. Muller, K. Pederson, R. Murray, and J. A. Frelinger	1392	A Single Amino Acid Substitution in an MHC Class I Molecule Allows Heteroclitic Recognition by Lymphocytic Choriomeningitis Virus-Specific
J. Yagi, S. Rath, and C. A. Janeway, Jr.	1398	Cytotoxic T Lymphocyte Control of T Cell Responses to Staphylococcal Enterotoxins by Stimulator Cell MHC Class II Polymorphism

### MOLECULAR BIOLOGY • MOLECULAR GENETICS

D. J. Decker, N. E. Boyle, and N. R. Klinman	1406	Predominance of Nonproductive Rearrangements of $V_{\rm H}81X$ Gene Segments Evidences a Dependence of B Cell Clonal Maturation on the Structure of
R. Kay, P. M. Rosten, and R. K. Humphries	1412	Nascent H Chains CD24, a Signal Transducer Modulating B Cell Activation Responses, Is a Very Short Peptide with a Glycosyl Phosphatidylinositol Membrane An-
S. Wong, J. D. Freeman, C. Kel- leher, D. Mager, and F. Takei LJ. Zhou, D. C. Ord, A. L. Hughes, and T. D. Grid, A. L.	1417	chor Ly-49 Multigene Family: New Members of a Superfamily of Type II Membrane Proteins with Lectin-Like Domains Structure and Domain Organization of the CD19 Antigen of Human, Mouse,
Hughes, and T. F. Tedder	1424	and Guinea Pig B Lymphocytes: Conservation of the Extensive Cytoplasmic Domain

Continued on page 6



TUMOR IMMUNOLOGY		
T. M. Blieden, A. J. McAdam, J. G. Frelinger, and E. M. Lord	1433	Mechanism of Cytolytic T Lymphocyte Killing of a Low Class I-Expressing Tumor
J. O. Brubaker, K. T. Chong, and R. M. Welsh	1439	Lymphokine-Activated Killer Cells Are Rejected in Vivo by Activated Natural Killer Cells
F. Novelli, M. Giovarelli, R. Re- ber-Liske, G. Virgallita, G. Garotta, and G. Forni	1445	Blockade of Physiologically Secreted IFN- $\gamma$ Inhibits Human T Lymphocyte and Natural Killer Cell Activation
N. P. Restifo, F. Esquivel, A. L. Asher, H. Stötter, R. J. Barth, J. R. Bennink, J. J. Mulé, J. W. Yewdell, and S. A. Rosenberg	1453	Defective Presentation of Endogenous Antigens by a Murine Sarcoma: Implications for the Failure of an Anti-Tumor Immune Response
Erratum	1460	
Announcement	1461	
Author Index	í	



# DOCKET

# Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

# **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

# **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

