## BRIEF REVIEWS

### Structure and Function: Heat Shock Proteins and Adaptive Immunity

**Babak Javid, Paul A. MacAry, and Paul J. Lehner**

## CUTTING EDGE

### Cutting Edge: Trans-Signaling via the Soluble IL-6R Abrogates the Induction of FoxP3 in Naive CD4\(^+\)CD25\(^-\) T Cells

**Sabine Dominitzki, Massimo C. Fantini, Clemens Neufert, Alexei Nikolaev, Peter R. Galle, Jürgen Scheller, Giovanni Monteleone, Stefan Rose-John, Markus F. Neurath, and Christoph Becker**

### Cutting Edge: Primary B Lymphocytes Preferentially Expand Allogeneic FoxP3\(^+\) CD4 T Cells

**Xinjian Chen and Peter E. Jensen**

### Cutting Edge: The ST2 Ligand IL-33 Potently Activates and Drives Maturation of Human Mast Cells

**Zoulfia Allakhverdi, Dirk E. Smith, Michael R. Comeau, and Guy Delespesse**

### Cutting Edge: Primary B Lymphocytes Preferentially Expand Allogeneic FoxP3\(^+\) CD4 T Cells

**Xinjian Chen and Peter E. Jensen**

### Cutting Edge: A Hypomorphic Mutation in Ig\(\mu\) (CD79b) in a Patient with Immunodeficiency and a Leaky Defect in B Cell Development

**A. Kerry Dobbs, Tianyu Yang, Dana Farmer, Leo Kager, Ornella Parolini, and Mary Ellen Conley**

### Cutting Edge: Vitamin D-Mediated Human Antimicrobial Activity against *Mycobacterium tuberculosis* Is Dependent on the Induction of Cathelicidin

**Philip T. Liu, Steffen Stenger, Dominic H. Tang, and Robert L. Modlin**

## CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

### A Pegylated Derivative of α-Galactosylceramide Exhibits Improved Biological Properties

**Thomas Ebensen, Claudia Link, Peggy Riese, Kai Schulze, Michael Morr, and Carlos A. Guzmán**

### Generation of CD8 T Cell Memory Is Regulated by IL-12

**Erika L. Pearce and Hao Shen**

### Altered B:9 – 23 Insulin, When Administered Intranasally with Cholera Toxin Adjuvant, Suppresses the Expression of Insulin Autoantibodies and Prevents Diabetes


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On the cover: Model of cell penetrating STAT-6 binding peptide (STAT-6-IP) in which the HIV-TAT-derived PTD4 protein transduction domain was fused to seven amino acids surrounding the phosphotyrosine residue of STAT-6. The peptide phosphotyrosine residue (blue), predicted to bind to phosphorylated STAT-6, is oriented to the top. The model was generated using HyperChem 8.0 software. McCusker, C. T., Y. Wang, J. Shan, M. W. Kinyanjui, A. Villeneuve, H. Michael, and E. D. Fixman. 2007. Inhibition of experimental allergic airways disease by local application of a cell-penetrating dominant-negative STAT-6 peptide. *J. Immunol.* 179: 2556–2564.
The Adaptor Molecule CIN85 Regulates Syk Tyrosine Kinase Level by Activating the Ubiquitin-Proteasome Degradation Pathway
Giovanna Peruzzi, Rosa Molfetta, Francesca Gasparrini, Laura Vian, Stefania Morrone, Mario Piccoli, Luigi Frati, Angela Santoni, and Rossella Paolini

NK Cell Lysis of HIV-1-Infected Autologous CD4 Primary T Cells: Requirement for IFN-Mediated NK Activation by Plasmacytoid Dendritic Cells
Costin Tomescu, Jihed Chehimi, Vernon C. Maino, and Luis J. Montaner

Antigen, in the Presence of TGF-β, Induces Up-Regulation of FoxP3^+CD25^+ in CD4^+ TCR Transgenic T Cells That Mediate Linked Suppression of CD8^+ T Cell Responses
Judith A. Kapp, Kazuhiro Honjo, Linda M. Kapp, Kelly Goldsmith, and R. Pat Bucy

Role of Direct Effects of IFN-γ on T Cells in the Regulation of CD8 T Cell Homeostasis
Kavita Tewari, Yumi Nakayama, and M. Suresh

In Vivo Antigen Stability Affects DNA Vaccine Immunogenicity
Adriana D. Bins, Monika C. Wolkers, Marly D. van den Boom, John B. A. G. Haanen, and Ton N. M. Schumacher

Enhancement of Human Melanoma Antigen Expression by IFN-β
Ian S. Dunn, Timothy J. Haggerty, Mochihiro Kono, Paul J. Denda, David Butler, David B. Macdonald, Elizabeth M. Benson, Lenora B. Rose, and James T. Kurnick

Chronic Immunodeficiency in Mice Lacking RasGRP1 Results in CD4 T Cell Immune Activation and Exhaustion
John J. Priatel, Xiaoxi Chen, Lauren A. Zenerwicz, Hao Shen, Kenneth W. Harder, Marc S. Horwitz, and Hung-Sia Teh

Induction of FoxP3^+CD4^+25^+ Regulatory T Cells Following Hemopoietic Stem Cell Transplantation: Role of Bone Marrow-Derived Facilitating Cells
Kendra N. Taylor, Vivek R. Shinde-Patil, Evan Cohick, and Yolonda L. Colon

Age-Dependent TCR Revision Mediated by Interaction between αβ TCR and Self-Antigens
Mitsuyo Takake, Edith M. Kanagawa, and Osami Kanagawa

Selective Expansion of Foxp3-Positive Regulatory T Cells and Immunosuppression by Suppressors of Cytokine Signaling 3-Deficient Dendritic Cells
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Acute Rejection of Allografted CTL-Susceptible Leukemia Cells from Perforin/Fas Ligand Double-Deficient Mice
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The Context of Epitope Presentation Can Influence Functional Quality of Recalled Influenza A Virus-Specific Memory CD8^+ T Cells
E. Bridie Day, Weiguang Zeng, Peter C. Doherty, David C. Jackson, Katherine Kedzierska, and Stephen J. Turner

OX40 Costimulation Promotes Persistence of Cytomegalovirus-Specific CD8 T Cells: A CD4-Dependent Mechanism
Ian R. Humphreys, Andrea Loewendorf, Carl de Trez, Kirsten Schneider, Chris A. Benedict, Michael W. Munks, Carl F. Ware, and Michael Croft

CD134 Costimulation Couples the CD137 Pathway to Induce Production of Supereffector CD8 T Cells That Become IL-7 Dependent

NKT Cell-Derived Urokinase-Type Plasminogen Activator Promotes Peripheral Tolerance Associated with Eye
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Phospholipase Cβ Is Critical for T Cell Chemotaxis
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Multiple Constraints at the Level of TCRα Rearrangement Impact Vα14i NKT Cell Development
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MHC Class II+ Exosomes in Plasma Suppress Inflammation in an Antigen-Specific and Fas Ligand/Fas-Dependent Manner
Seon Hee Kim, Nicole R. Bianco, William J. Shufesky, Adrian E. Morelli, and Paul D. Robbins

Effective Treatment of Inflammatory Disease Models with Exosomes Derived from Dendritic Cells Genetically Modified to Express IL-4
Seon Hee Kim, Nicole R. Bianco, William J. Shufesky, Adrian E. Morelli, and Paul D. Robbins

TCR Affinity Promotes CD8+ T Cell Expansion by Regulating Survival
Mirja Hommel and Philip D. Hodgkin

Class IA Phosphoinositide 3-Kinase Modulates Basal Lymphocyte Motility in the Lymph Node
Melanie P. Mathieu, Jonathan A. Deane, Ian Parker, David A. Fruman, and Michael D. Cahalan

The Recirculating B Cell Pool Contains Two Functionally Distinct, Long-Lived, Posttransitional, Follicular B Cell Populations
Annaiah Cariappa, Cristian Boboila, Stewart T. Moran, Haoyuan Liu, Hai Ning Shi, and Shiv Pillai

TACI Is Required for Efficient Plasma Cell Differentiation in Response to T-Independent Type 2 Antigens
George T. Mantchev, Catarina S. Cortesão, Michelle Rebovic, Marilia Cascalho, and Richard J. Bram

CCR5 Blockade Modulates Inflammation and Alloimmunity in Primates

A Single Early Activation of Invariant NK T Cells Confers Long-Term Protection against Collagen-Induced Arthritis in a Ligand-Specific Manner

Molecular and Cellular Requirements for Enhanced Antigen Cross-Presentation to CD8 Cytotoxic T Lymphocytes
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Development of Sjögren’s Syndrome in Nonobese Diabetic-Derived Autoimmune-Prone C57BL/6.NOD-Asc1Aec2 Mice Is Dependent on Complement Component-3
Cuong Q. Nguyen, Hyuna Kim, Janet G. Cornelius, and Ammon B. Peck

Up-Regulation of Bcl-2 through ERK Phosphorylation Is Associated with Human Macrophage Survival in an Estrogen Microenvironment
Manikandan Subramanian and Chandrima Shaha

CTLs Contain and Use Intracellular Stores of FasL Distinct from Cytolytic Granules
Jin-Shu He and Hanne L. Østergaard

Fimbrial Proteins of Porphyromonas gingivalis Mediate In Vivo Virulence and Exploit TLR2 and Complement Receptor 3 to Persist in Macrophages
Min Wang, Muhamad-Ali K. Shakhathre, Deanna James, Shuang Liang, So-ichiro Nishiyama, Fuminobu Yoshihira, Donald R. Demuth, and George Hajishengallis

Complement Receptor 3 Blockade Promotes IL-12-Mediated Clearance of Porphyromonas gingivalis and Negates Its Virulence In Vivo
George Hajishengallis, Muhamad-Ali K. Shakhathre, Min Wang, and Shuang Liang

In Vivo Persistence of Codominant Human CD8+ T Cell Clonotypes Is Not Limited by Replicative Senescence or Functional Alteration
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2397  Signal-Transducing Adaptor Protein-2 Regulates Integrin-Mediated T Cell Adhesion through Protein
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2501  Fusobacterium nucleatum Induces Fetal Death in Mice via Stimulation of TLR4-Mediated Placental
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Hongqi Liu, Raymond W. Redline, and Yiping W. Han
Mycobacterium tuberculosis Infects Dendritic Cells with High Frequency and Impairs Their Function In Vivo
Andrea J. Wolf, Beth Linas, Giraldina J. Trevejo-Nuñez, Eleanor Kincaid, Toshiki Tamura, Kiyoshi Takatsu, and Joel D. Ernst

C-Terminal Tail Phosphorylation of N-Formyl Peptide Receptor: Differential Recognition of Two Neutrophil Chemoattractant Receptors by Monoclonal Antibodies NFPR1 and NFPR2

The Cellular Immune Response to Mycobacterium tuberculosis Infection in the Guinea Pig
Diane Ordway, Gopinath Palaniyami, Marcela Henao-Tamayo, Erin E. Smith, Crystal Shawley, Ian M. Orme, and Randall J. Bazarab

Porphyromonas gingivalis Selectively Up-Regulates the HIV-1 Coreceptor CCR5 in Oral Keratinocytes
Rodrigo A. Giacaman, Angela H. Nobbi, Karen F. Russ, and Mark C. Herzberg

IL-1 Receptor Accessory Protein and ST2 Comprise the IL-33 Receptor Complex
Alissa A. Chackerian, Elizabeth R. Oldham, Erin E. Murphy, Jochen Schmitz, Stefan Pflanz, and Robert A. Kastelein

Inhibition of Experimental Allergic Airways Disease by Local Application of a Cell-Penetrating Dominant-Negative STAT-6 Peptide
Christine T. McCusker, Yufa Wang, Jichuan Shan, Margaret W. Kiniyanji, Annie Villeneuve, Husbeem Michael, and Elizabeth D. Fixman

Induction and Function of Lipocalin Prostaglandin D Synthase in Host Immunity
Myungsoo Joo, Minjae Kwon, Ruxana T. Sadikos, Philip J. Kingsley, Lawrence J. Marnett, Timothy S. Blackwell, R. Stokes Pebbels, Jr., Yoshihiro Urade, and John W. Christman

Human Blood-Brain Barrier Disruption by Retroviral-Infected Lymphocytes: Role of Myosin Light Chain Kinase in Endothelial Tight-Junction Disorganization
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Platelet Factor 4 (CXCL Chemokine Ligand 4) Differentially Regulates Respiratory Burst, Survival, and Cytokine Expression of Human Monocytes by Using Distinct Signaling Pathways
Brigitte Kasper, Ernst Brands, Sven Brandau, and Frank Petersen

Cellular and Humoral Autoreactivity in Idiopathic Pulmonary Fibrosis
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Properdin Can Initiate Complement Activation by Binding Specific Target Surfaces and Providing a Platform for De Novo Convertase Assembly
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Unchecked CD70 Expression on T Cells Lowers Threshold for T Cell Activation in Rheumatoid Arthritis
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Functional T Cell Responses to Tumor Antigens in Breast Cancer Patients Have a Distinct Phenotype and Cytokine Signature
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