



## Vaccine Adjuvants

Take your vaccine to the next level

InvivoGen



176 (3)

*J Immunol* 2006; 176:1293-2023; ;  
<http://www.jimmunol.org/content/176/3>

This information is current as  
of April 13, 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.





# IMMUNOLOGY

## THE JOURNAL OF

### TABLE OF CONTENTS

#### 1293 IN THIS ISSUE

---

#### PILLARS OF IMMUNOLOGY

---

1295 In the Beginning Was Sm  
*George C. Tsokos*

1297 Pillars Article: Characteristics of a Soluble Nuclear Antigen Precipitating with Sera of Patients with Systemic Lupus Erythematosus. *J. Immunol.* 1966. 96: 464–471.  
*E. M. Tan and H. G. Kunkel*

#### BRIEF REVIEWS

---

1305 The Central Role of the Alternative Complement Pathway in Human Disease  
*Joshua M. Thurman and V. Michael Holers*

#### CUTTING EDGE

---

1311 Cutting Edge: Identification of E-Cadherin as a Ligand for the Murine Killer Cell Lectin-Like Receptor G1  
*Carsten Gründemann, Monika Bauer, Oliver Schweier, Nanette von Oppen, Ute Lässig, Philippe Saudan, Karl-Friedrich Becker, Klaus Karp, Thomas Hanke, Martin F. Bachmann, and Hanspeter Pircher*

1316 Cutting Edge: Deficiency in the E3 Ubiquitin Ligase Cbl-b Results in a Multifunctional Defect in T Cell TGF- $\beta$  Sensitivity In Vitro and In Vivo  
*Elizabeth A. Wohlfert, Leonid Gorelik, Robert Mittler, Richard A. Flavell, and Robert B. Clark*

1321 Cutting Edge: A Novel Nonoxidative Phagosomal Mechanism Exerted by Cathepsin-D Controls *Listeria monocytogenes* Intracellular Growth  
*Elida del Cerro-Vadillo, Fidel Madrazo-Toca, Eugenio Carrasco-Marín, Lorena Fernandez-Prieto, Christian Beck, Francisco Leyva-Cobián, Paul Saftig, and Carmen Alvarez-Dominguez*

1326 Cutting Edge: Prostaglandin D<sub>2</sub> Enhances Leukotriene C<sub>4</sub> Synthesis by Eosinophils during Allergic Inflammation: Synergistic In Vivo Role of Endogenous Eotaxin  
*Fabio P. Mesquita-Santos, Adriana Vieira-de-Abreu, Andrea S. Calbeiros, Isabela H. Figueiredo, Hugo C. Castro-Faria-Neto, Peter F. Weller, Patricia T. Bozza, Bruno L. Diaz, and Christianne Bandeira-Melo*

On the cover: Immunofluorescence staining of activated MK2 in lesional psoriatic skin. Single cells stained positive for activated MK2 (red) were scattered throughout the basal and suprabasal layers of the epidermis. Green staining demonstrates keratin 14 and DAPI staining was used to detect nuclei (blue). Johansen, C., A. T. Funding, K. Otkjaer, K. Kragballe, U. B. Jensen, M. Madsen, L. Binderup, T. Skak-Nielsen, M. S. Fjording, and L. Iversen. 2006. Protein expression of TNF- $\alpha$  in psoriatic skin is regulated at a posttranscriptional level by MAPK-activated protein kinase 2. *J. Immunol.* 176: 1431–1438.

*The Journal of Immunology* (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, Inc., 9650 Rockville Pike, Bethesda, MD 20814-3994. Subscription term: New subscriptions and renewals begin January 1 and expire one year later (see <http://www.jimmunol.org/subscriptions> for prices and details). A special rate is available to members of The American Association of Immunologists, Inc. (see <http://www.aai.org/membership>). Periodicals postage paid at Bethesda, MD 20814-3998, and at additional mailing offices. Country of origin U.S.A. Printed on acid-free recyclable paper. Postmaster: Send address changes to *The Journal of Immunology*, Subscription Department, Room L-2407A, 9650 Rockville Pike, Bethesda, MD 20814-3998. Copyright © 2006 by The American Association of Immunologists, Inc.

## CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

---

- 1331 Soluble HLA-G Inhibits Cell Cycle Progression in Human Alloreactive T Lymphocytes  
*Rajia Babri, Francois Hirsch, Adeline Josse, Nathalie Rouas-Freiss, Nicolas Bidere, Aime Vasquez, Edgardo D. Carosella, Bernard Charpentier, and Antoine Durrbach*
- 1340 The Endoplasmic Reticulum Is a Key Component of the Plasma Cell Death Pathway  
*Nadège Pelletier, Montserrat Casamayor-Pallejà, Karelle De Luca, Paul Mondière, Frédéric Saltel, Pierre Jurdic, Chantal Bella, Laurent Genestier, and Thierry Defrance*
- 1348 Direct Costimulatory Effect of TLR3 Ligand Poly(I:C) on Human  $\gamma\delta$  T Lymphocytes  
*Daniela Wesch, Susann Beetz, Hans-Heinrich Oberg, Matthias Marget, Kirsten Krengel, and Dieter Kabelitz*
- 1355 Flightless I Homolog Negatively Modulates the TLR Pathway  
*Tianyi Wang, Tsung-Hsien Chuang, Tapani Ronni, Sheng Gu, Yu-Chun Du, Hong Cai, Hui-Qiao Sun, Helen L. Yin, and Xian Chen*
- 1363 Immunologic Control of Tumors by In Vivo Fc $\gamma$  Receptor-Targeted Antigen Loading in Conjunction with Double-Stranded RNA-Mediated Immune Modulation  
*Adrian Bot, Dan Smith, Bill Phillips, Simona Bot, Constantin Bona, and Habib Zaghouani*
- 1375 Murine Mammary Carcinoma Exosomes Promote Tumor Growth by Suppression of NK Cell Function  
*Cunren Liu, Shaohua Yu, Kurt Zinn, Jianhua Wang, Liming Zhang, Yujiang Jia, John C. Kappes, Stephen Barnes, Robert P. Kimberly, William E. Grizzle, and Huang-Ge Zhang*
- 1386 Potentiation of Antigen-Stimulated V $\gamma$ 9V $\delta$ 2 T Cell Cytokine Production by Immature Dendritic Cells (DC) and Reciprocal Effect on DC Maturation  
*Marie-Claire Devilder, Sophie Maillet, Isabelle Bouyge-Moreau, Emmanuel Donnadieu, Marc Bonneville, and Emmanuel Scotet*
- 1394 Critical, but Conditional, Role of OX40 in Memory T Cell-Mediated Rejection  
*Minh Diem Vu, Michael R. Clarkson, Hideo Yagita, Laurence A. Turka, Mohamed H. Sayegh, and Xian Chang Li*
- 1402 CD40 Expression by Microglial Cells Is Required for Their Completion of a Two-Step Activation Process during Central Nervous System Autoimmune Inflammation  
*Eugene D. Ponomarev, Leah P. Shriver, and Bonnie N. Dittel*
- 1411 Soluble Form of T Cell Ig Mucin 3 Is an Inhibitory Molecule in T Cell-Mediated Immune Response  
*Hui Geng, Gui-Mei Zhang, Dong Li, Hui Zhang, Ye Yuan, Han-Gang Zhu, Han Xiao, Ling-Fei Han, and Zuo-Hua Feng*
- 1421 A Cell-Type Specific CD1d Expression Program Modulates Invariant NKT Cell Development and Function  
*Michael I. Zimmer, Angela Colmone, Kyrie Felio, Honglin Xu, Averil Ma, and Chyung-Ru Wang*
- 1431 Protein Expression of TNF- $\alpha$  in Psoriatic Skin Is Regulated at a Posttranscriptional Level by MAPK-Activated Protein Kinase 2  
*Claus Johansen, Anne Toftegaard Funding, Kristian Otkjaer, Knud Kragballe, Uffe Birk Jensen, Mogens Madsen, Lise Binderup, Tine Skak-Nielsen, Marianne Scheel Fjording, and Lars Iversen*
- 1439 Human Naive CD8 T Cells Down-Regulate Expression of the WNT Pathway Transcription Factors Lymphoid Enhancer Binding Factor 1 and Transcription Factor 7 (T Cell Factor-1) following Antigen Encounter In Vitro and In Vivo  
*Tim Willinger, Tom Freeman, Mark Herbert, Hitoshi Hasegawa, Andrew J. McMichael, and Margaret F. C. Callan*
- 1447 Tumor-Specific CD4<sup>+</sup> T Cells Are Activated by “Cross-Dressed” Dendritic Cells Presenting Peptide-MHC Class II Complexes Acquired from Cell-Based Cancer Vaccines  
*Brian P. Dolan, Kenneth D. Gibbs, Jr., and Suzanne Ostrand-Rosenberg*
- 1456 CXCR3/CXCR3 Ligand Biological Axis Impairs RENCA Tumor Growth by a Mechanism of Immunoangiostasis  
*Judong Pan, Marie D. Burdick, John A. Belperio, Ying Ying Xue, Craig Gerard, Sherven Sharma, Steven M. Dubinett, and Robert M. Strieter*

- 1465 Protein Vaccines Induce Uncommitted IL-2-Secreting Human and Mouse CD4 T Cells, Whereas Infections Induce More IFN- $\gamma$ -Secreting Cells  
*Anagha A. Divekar, Dietmar M. W. Zaiss, F. Eun-Hyung Lee, Dacheng Liu, David J. Topham, Alice J. A. M. Sijts, and Tim R. Mosmann*
- 1474 Enhanced FTY720-Mediated Lymphocyte Homing Requires G $\alpha$ i Signaling and Depends on  $\beta_2$  and  $\beta_7$  Integrin  
*Oliver Pabst, Heike Herbrand, Stefanie Willenzon, Tim Worbs, Angela Schippers, Werner Müller, Günter Bernhardt, and Reinhold Förster*
- 1481 Splenic Dendritic Cells Induced by Oral Antigen Administration Are Important for the Transfer of Oral Tolerance in an Experimental Model of Asthma  
*Katsuya Nagatani, Makoto Dohi, Yasuo To, Ryoichi Tanaka, Katsuhide Okunishi, Kazuyuki Nakagome, Kayo Sagawa, Yudo Tanno, Yoshinori Komagata, and Kazuhiko Yamamoto*
- 1490 IL-21 Down-Regulates NKG2D/DAP10 Expression on Human NK and CD8<sup>+</sup> T Cells  
*Steven J. Burgess, Alina I. Marusina, Ishani Pathmanathan, Francisco Borrego, and John E. Coligan*
- 1498 CD8 T Cells, Like CD4 T Cells, Are Triggered by Multivalent Engagement of TCRs by MHC-Peptide Ligands but Not by Monovalent Engagement  
*Jennifer D. Stone and Lawrence J. Stern*
- 1506 Expansion of Functionally Immature Transitional B Cells Is Associated with Human-Immunodeficient States Characterized by Impaired Humoral Immunity  
*Amanda K. Cuss, Danielle T. Avery, Jennifer L. Cannons, Li Jun Yu, Kim E. Nichols, Peter J. Shaw, and Stuart G. Tangye*
- 1517 CD27 Dissects Mature NK Cells into Two Subsets with Distinct Responsiveness and Migratory Capacity  
*Yoshihiro Hayakawa and Mark J. Smyth*
- 1525 Therapeutic Vaccination of Active Arthritis with a Glycosylated Collagen Type II Peptide in Complex with MHC Class II Molecules  
*Balík Dzhambazov, Kutty Selva Nandakumar, Jan Kihlberg, Lars Fugger, Rikard Holmdahl, and Mikael Vestberg*
- 1534 Pregnancy-Associated Exosomes and Their Modulation of T Cell Signaling  
*Douglas D. Taylor, Sibel Akyol, and Cicek Gerceci-Taylor*
- 1543 Human  $\alpha\beta$  and  $\gamma\delta$  Thymocyte Development: TCR Gene Rearrangements, Intracellular TCR $\beta$  Expression, and  $\gamma\delta$  Developmental Potential—Differences between Men and Mice  
*Michelle L. Joachims, Jennifer L. Chain, Scott W. Hooker, Christopher J. Knott-Craig, and Linda F. Thompson*
- 1553 Responsiveness of Naive CD4 T Cells to Polarizing Cytokine Determines the Ratio of Th1 and Th2 Cell Differentiation  
*Natallia Mikhalkevich, Brian Becknell, Michael A. Caligiuri, Michael D. Bates, Richard Harvey, and Wei-ping Zheng*
- 1561 TLR Agonists Abrogate Costimulation Blockade-Induced Prolongation of Skin Allografts  
*Thomas B. Thornley, Michael A. Brehm, Thomas G. Markees, Leonard D. Shultz, John P. Mordes, Raymond M. Welsh, Aldo A. Rossini, and Dale L. Greiner*
- 1571 Tec Kinases Itk and Rlk Are Required for CD8<sup>+</sup> T Cell Responses to Virus Infection Independent of Their Role in CD4<sup>+</sup> T Cell Help  
*Luana O. Atherly, Michael A. Brehm, Raymond M. Welsh, and Leslie J. Berg*
- 1582 CD4<sup>+</sup>CD25<sup>+</sup> T Regulatory Cells Suppress NK Cell-Mediated Immunotherapy of Cancer  
*Mark J. Smyth, Michele W. L. Teng, Jeremy Swann, Konstantinos Kyparissoudis, Dale I. Godfrey, and Yoshihiro Hayakawa*
- 1588 Brain-Derived Heat Shock Protein 70-Peptide Complexes Induce NK Cell-Dependent Tolerance to Experimental Autoimmune Encephalomyelitis  
*Grazyna Galazka, Mariusz Stasiolek, Agata Walczak, Anna Jurewicz, Alicja Zyllicz, Celia F. Brosnan, Cedric S. Raine, and Krzysztof W. Selmaj*
- 1600 Respiratory Syncytial Virus G Protein and G Protein CX3C Motif Adversely Affect CX3CR1<sup>+</sup> T Cell Responses  
*Jennifer Harcourt, Rene Alvarez, Les P. Jones, Christine Henderson, Larry J. Anderson, and Ralph A. Tripp*

- 1609 CD4<sup>+</sup>CD25<sup>+</sup> Regulatory T Cells Inhibit the Antigen-Dependent Expansion of Self-Reactive T Cells In Vivo  
*Tricia D. Zwar, Simon Read, Ian R. van Driel, and Paul A. Gleeson*
- 1618 MR1-Restricted V $\alpha$ 19i Mucosal-Associated Invariant T Cells Are Innate T Cells in the Gut Lamina Propria That Provide a Rapid and Diverse Cytokine Response  
*Izumi Kawachi, Jorge Maldonado, Carey Strader, and Susan Gilfillan*
- 1628 Cross-Positive Selection of Thymocytes Expressing a Single TCR by Multiple Major Histocompatibility Complex Molecules of Both Classes: Implications for CD4<sup>+</sup> versus CD8<sup>+</sup> Lineage Commitment  
*Koji Eshima, Harumi Suzuki, and Nobukata Shinohara*
- 1637 Early Autoimmune Destruction of Islet Grafts Is Associated with a Restricted Repertoire of IGRP-Specific CD8<sup>+</sup> T Cells in Diabetic Nonobese Diabetic Mice  
*Carmen P. Wong, Li Li, Jeffrey A. Frelinger, and Roland Tisch*
- 1645 NKT Cells and IFN- $\gamma$  Establish the Regulatory Environment for the Control of Diabetogenic T Cells in the Nonobese Diabetic Mouse  
*Judith A. Cain, Judith A. Smith, Jennifer K. Ondr, Bo Wang, and Jonathan D. Katz*

## MOLECULAR AND STRUCTURAL IMMUNOLOGY

---

- 1655 The Nucleotide Targets of Somatic Mutation and the Role of Selection in Immunoglobulin Heavy Chains of a Teleost Fish  
*Feixue Yang, Geoffrey C. Waldbieser, and Craig J. Lobb*
- 1668 Phosphatidylinositol 3-Kinase Functions as a Ras Effector in the Signaling Cascade That Regulates Dephosphorylation of the Actin-Remodeling Protein Cofilin after Costimulation of Untransformed Human T Lymphocytes  
*Guido H. Wabnitz, Gabriele Nebl, Martin Klemke, Andreas J. Schröder, and Yvonne Samstag*
- 1675 Opioids Trigger  $\alpha_5\beta_1$  Integrin-Mediated Monocyte Adhesion  
*Oscar M. Pello, Béatrice Duthey, David Garcia-Bernal, José Miguel Rodríguez-Frade, Jens V. Stein, Joaquín Teixido, Carlos Martínez-A., and Mario Mellado*
- 1686 Characterization of Functional Oligosaccharide Mimics of the *Shigella flexneri* Serotype 2a O-Antigen: Implications for the Development of a Chemically Defined Glycoconjugate Vaccine  
*Armelle Phalipon, Corina Costachel, Cyrille Grandjean, Audrey Thuizat, Catherine Guerreiro, Myriam Tanguy, Farida Nato, Brigitte Vulliez-Le Normand, Frédéric Bélot, Karen Wright, Véronique Marcel-Peyre, Philippe J. Sansonetti, and Laurence A. Mulard*
- 1695 Glucocorticoids Engage Different Signal Transduction Pathways to Induce Apoptosis in Thymocytes and Mature T Cells  
*Dapeng Wang, Nora Müller, Kirsty G. McPherson, and Holger M. Reichardt*

## HOST DEFENSE

---

- 1703 Qa-1<sup>b</sup> and CD94-NKG2a Interaction Regulate Cytolytic Activity of Herpes Simplex Virus-Specific Memory CD8<sup>+</sup> T Cells in the Latently Infected Trigeminal Ganglia  
*Susmit Suwas, Ahmet Kursat Azkur, and Barry T. Rouse*
- 1712 Immunity and Tolerance to *Aspergillus* Involve Functionally Distinct Regulatory T Cells and Tryptophan Catabolism  
*Claudia Montagnoli, Francesca Fallarino, Roberta Gaziano, Silvia Bozza, Silvia Bellocchio, Teresa Zelante, Wiswanath P. Kurup, Lucia Pizzurra, Paolo Puccetti, and Luigina Romani*
- 1724 Experimental African Trypanosomiasis: A Subset of Pathogenic, IFN- $\gamma$ -Producing, MHC Class II-Restricted CD4<sup>+</sup> T Cells Mediates Early Mortality in Highly Susceptible Mice  
*Meiqing Shi, Guojian Wei, Wanling Pan, and Henry Tabel*
- 1733 Respiratory Syncytial Virus Induces TLR3 Protein and Protein Kinase R, Leading to Increased Double-Stranded RNA Responsiveness in Airway Epithelial Cells  
*Dayna J. Groskreutz, Martha M. Monick, Linda S. Powers, Timur O. Yarovinsky, Dwight C. Look, and Gary W. Hunninghake*



- 1741 DC-SIGN Is a Receptor for Human Herpesvirus 8 on Dendritic Cells and Macrophages  
*Giovanna Rappocciolo, Frank J. Jenkins, Heather R. Hensler, Paolo Piazza, Mariel Jais, Luann Borowski, Simon C. Watkins, and Charles R. Rinaldo, Jr.*
- 1750 CD25<sup>+</sup> Regulatory T Cell Depletion Augments Immunotherapy of Micrometastases by an IL-21-Secreting Cellular Vaccine  
*Alberto Comes, Ombretta Rosso, Anna Maria Orengo, Emma Di Carlo, Carlo Sorrentino, Raffaella Meazza, Tiziana Piazza, Barbara Valzasina, Patrizia Nanni, Mario P. Colombo, and Silvano Ferrini*
- 1759 Immunological Characterization and Antibacterial Function of Persisting Granulocytes in Leukemic Patients Receiving Pulse Cytosine Arabinoside-Consolidation Chemotherapy on Days 1, 3, and 5  
*Maria-T. Krauth, Stefan Florian, Alexandra Böhm, Karoline Sonneck, Hermine Agis, Puchit Samorapoompichit, Alexander W. Hauswirth, Wolfgang R. Sperr, and Peter Valent*
- 1769 Deficiency of Mannose-Binding Lectin Greatly Increases Susceptibility to Postburn Infection with *Pseudomonas aeruginosa*  
*Mette Møller-Kristensen, W. K. Eddie Ip, Lei Shi, Lakshmi D. Gowda, Michael R. Hamblin, Steffen Thiel, Jens Chr. Jensenius, R. Alan B. Ezekowitz, and Kazue Takahashi*
- 1776 *Bacillus anthracis* Edema Toxin Acts as an Adjuvant for Mucosal Immune Responses to Nasally Administered Vaccine Antigens  
*Alexandra Duverger, Raymond J. Jackson, Frederick W. van Ginkel, Romy Fischer, Angela Tafaro, Stephen H. Leppla, Kohitaro Fujihashi, Hiroshi Kiyono, Jerry R. McGhee, and Prosper N. Boyaka*
- 1784 Induction of Positive Cellular and Humoral Immune Responses by a Prime-Boost Vaccine Encoded with Simian Immunodeficiency Virus *gag/pol*  
*Kenji Someya, Yasushi Ami, Tadasbi Nakasone, Yasuyuki Izumi, Kazuhiro Matsuo, Shigeo Horibata, Ke-Qin Xin, Hiroshi Yamamoto, Kenji Okuda, Naoki Yamamoto, and Mitsuo Honda*
- 1796 Identification of Cross-Reactive Peptides Using Combinatorial Libraries Circumvents Tolerance against Her-2/neu-Immunodominant Epitope  
*Joseph Lustgarten, Ana L. Dominguez, and Clemencia Pinilla*
- 1806 Human Macrophages Do Not Require Phagosome Acidification to Mediate Fungistatic/Fungicidal Activity against *Histoplasma capsulatum*  
*Simon L. Newman, Lisa Gootee, Jeremy Hilty, and Randall E. Morris*
- 1814 Costimulation Requirements for Antiviral CD8<sup>+</sup> T Cells Differ for Acute and Persistent Phases of Polyoma Virus Infection  
*Christopher C. Kemball, Eun D. Han Lee, Eva Szomolanyi-Tsuda, Thomas C. Pearson, Christian P. Larsen, and Aron E. Lukacher*
- 1825 Inhibition of TCR Signaling by Herpes Simplex Virus  
*Derek D. Sloan, Jin-Young Han, Tracy K. Sandifer, Mary Stewart, Aaron J. Hinz, Miri Yoon, David C. Johnson, Patricia G. Spear, and Keith R. Jerome*
- 1834 Mimicry of Apoptotic Cells by Exposing Phosphatidylserine Participates in the Establishment of Amastigotes of *Leishmania (L) amazonensis* in Mammalian Hosts  
*João L. M. Wanderley, Maria E. C. Moreira, Aline Benjamin, Adriana C. Bonomo, and Marcello A. Barcinski*
- 1840 Induction of Suppressor of Cytokine Signaling-1 by *Toxoplasma gondii* Contributes to Immune Evasion in Macrophages by Blocking IFN- $\gamma$  Signaling  
*Stefan Zimmermann, Peter J. Murray, Klaus Heeg, and Alexander H. Dalpke*

## INFLAMMATION

---

- 1848 Anti-Inflammatory Actions of Neuroprotectin D1/Protectin D1 and Its Natural Stereoisomers: Assignments of Dihydroxy-Containing Docosatrienes  
*Charles N. Serhan, Katherine Gotlinger, Song Hong, Yan Lu, Jeffrey Siegelman, Tamara Baer, Rong Yang, Sean P. Colgan, and Nicos A. Petasis*
- 1860 Fraktalkine Produced by Airway Smooth Muscle Cells Contributes to Mast Cell Recruitment in Asthma  
*Amr El-Shazly, Patrick Berger, Pierre-Olivier Girodet, Olga Ousova, Michael Fayon, Jean-Marc Vernejoux, Roger Marthan, and J. Manuel Tunon-de-Lara*

- 1869 Corticotropin-Releasing Factor and the Urocortins Induce the Expression of TLR4 in Macrophages via Activation of the Transcription Factors PU.1 and AP-1  
*Christos Tsatsanis, Ariadne Androulidaki, Themis Alissafi, Ioannis Charalampopoulos, Erini Dermizaki, Thierry Roger, Achille Gravanis, and Andrew N. Margioris*
- 1878 Lipoxin A<sub>4</sub> Redistributes Myosin IIA and Cdc42 in Macrophages: Implications for Phagocytosis of Apoptotic Leukocytes  
*Keira Reville, John K. Crean, Sharon Vivers, Ian Dransfield, and Catherine Godson*
- 1889 Proinflammatory Effects of Tweak/Fn14 Interactions in Glomerular Mesangial Cells  
*Sean Campbell, Linda C. Burkly, Hua-Xin Gao, Joan W. Berman, Lihe Su, Beth Browning, Timothy Zheng, Lena Schiffer, Jennifer S. Michaelson, and Chaim Putterman*
- 1899 Essential Role of MAPK Phosphatase-1 in the Negative Control of Innate Immune Responses  
*Konstantin V. Salojin, Iris B. Owusu, Karen A. Millerchip, Mark Potter, Ken A. Platt, and Tamas Oravecz*
- 1908 In Vitro and In Situ Expression of IL-23 by Keratinocytes in Healthy Skin and Psoriasis Lesions: Enhanced Expression in Psoriatic Skin  
*Gamze Piskin, Regien M. R. Sylva-Steenland, Jan D. Bos, and Marcel B. M. Teunissen*
- 1916 Circulating Progenitor Epithelial Cells Traffic via CXCR4/CXCL12 in Response to Airway Injury  
*Brigitte N. Gomperts, John A. Belperio, P. Nagesh Rao, Scott H. Randell, Michael C. Fishbein, Marie D. Burdick, and Robert M. Strieter*
- 1928 Suppression of Discoidin Domain Receptor 1 by RNA Interference Attenuates Lung Inflammation  
*Wataru Matsuyama, Masaki Watanabe, Yuko Shirahama, Ryuki Hirano, Hideo Mitsuyama, Ikkou Higashimoto, Mistuhiro Osame, and Kimiyoshi Arimura*
- 1937 Deletion of TLR3 Alters the Pulmonary Immune Environment and Mucus Production during Respiratory Syncytial Virus Infection  
*Brian D. Rudd, Jetse J. Smit, Richard A. Flavell, Lena Alexopoulou, Matthew A. Schaller, Achim Gruber, Aaron A. Berlin, and Nicholas W. Lukacs*
- 1943 Inhibition of Chronic Airway Inflammation and Remodeling by Galectin-3 Gene Therapy in a Murine Model  
*Esther López, Victoria del Pozo, Teresa Miguel, Beatriz Sastre, Carmen Seoane, Esther Civantos, Elena Llanes, M. Luisa Baeza, Pilar Palomino, Blanca Cárdbaba, Soledad Gallardo, Félix Manzarbeitia, José M. Zubeldia, and Carlos Lahoz*

## CLINICAL IMMUNOLOGY

---

- 1951 Redundancy in Antigen-Presenting Function of the HLA-DR and -DQ Molecules in the Multiple Sclerosis-Associated HLA-DR2 Haplotype  
*Mireia Sospedra, Paolo A. Muraro, Irena Stefanová, Yingdong Zhao, Katherine Chung, Yili Li, Marc Giulianiotti, Richard Simon, Roy Mariuzza, Clemencia Pinilla, and Roland Martin*
- 1962 Effacing of the T Cell Compartment by Cardiac Transplantation in Infancy  
*Brenda M. Ogle, Lori J. West, David J. Driscoll, Scott E. Strome, Raymund R. Razonable, Carlos V. Paya, Marília Cascalho, and Jeffrey L. Platt*
- 1968 Identification of an Epitope within Human Integrin  $\alpha_6$  Subunit for the Binding of Autoantibody and Its Role in Basement Membrane Separation in Oral Pemphigoid  
*Khwaja Aftab Rashid, Joel N. H. Stern, and A. Razaque Ahmed*
- 1978 TLR9 Activation Is Defective in Common Variable Immune Deficiency  
*Charlotte Cunningham-Rundles, Lin Radigan, Adina K. Knight, Li Zhang, Laura Bauer, and Atsushi Nakazawa*
- 1988 Allelic Variation in Key Peptide-Binding Pockets Discriminates between Closely Related Diabetes-Protective and Diabetes-Susceptible *HLA-DQB106* Alleles  
*Ruth A. Ettinger, George K. Papadopoulos, Antonis K. Moustakas, Gerald T. Nepom, and William W. Kwok*

- 1999 Predicting Tumor Outcome following Cancer Vaccination by Monitoring Quantitative and Qualitative CD8<sup>+</sup> T Cell Parameters  
*Antonio Rosato, Alessia Zoso, Silvia Dalla Santa, Gabriella Milan, Paola Del Bianco, Gian Luca De Salvo, and Paola Zanovello*
- 2007 Pretreatment Intracerebral and Peripheral Blood Immune Responses in Vietnamese Adults with Tuberculous Meningitis: Diagnostic Value and Relationship to Disease Severity and Outcome  
*Cameron P. Simmons, Guy E. Thwaites, Nguyen Than Ha Quyen, Estee Torok, Dang Minh Hoang, Tran Thi Hong Chau, Pham Phuong Mai, Nguyen Thi Ngoc Lan, Nguyen Huy Dung, Hoang Thi Quy, Nguyen Duc Bang, Tran Tinh Hien, and Jeremy Farrar*
- 2015 Autoreactive T and B Cells from Bullous Pemphigoid (BP) Patients Recognize Epitopes Clustered in Distinct Regions of BP180 and BP230  
*Sybill Thoma-Uszynski, Wolfgang Uter, Susanne Schwietzke, Gerold Schuler, Luca Borradori, and Michael Hertl*
- 2024 Author Index
- 2027 AAI Membership Application
- 2028 AAI Trainee Membership Application