This information is current as of March 26, 2022.
IN THIS ISSUE

LETTERS TO THE EDITOR

1779 Comment on “Trafficking of Antigen-Specific CD8+ T Lymphocytes to Mucosal Surfaces following Intramuscular Vaccination”
Igor M. Belyakov and Jeffrey D. Ahlers

1779 Response to Comment on “Trafficking of Antigen-Specific CD8+ T Lymphocytes to Mucosal Surfaces following Intramuscular Vaccination”
David R. Kaufman and Dan H. Barouch

BRIEF REVIEWS

1781 IL-21: An Executor of B Cell Fate
Danijela Konforte, Nathalie Simard, and Christopher J. Paige

CUTTING EDGE

1789 Cutting Edge: The Y Chromosome Controls the Age-Dependent Experimental Allergic Encephalomyelitis
Sexual Dimorphism in SJL/J Mice
Karen M. Spach, Melissa Blake, Janice Y. Bunn, Ben McElnay, Rajkumar Noubade, Elizabeth P. Blankenhorn, and Cory Teuscher

1794 Cutting Edge: Phenotypic Characterization and Differentiation of Human CD8+ T Cells Producing IL-17
Takaaki Kondo, Hiroshi Takata, Fumichika Matsuhi, and Masafumi Takiguchi

CELLULAR IMMUNOLOGY AND IMMUNE REGULATION

1799 Down-Regulation of MHC Class II Expression through Inhibition of CIITA Transcription by Lytic Transactivator Zta during Epstein-Barr Virus Reactivation
Dan Li, Lu Qian, Changyao Chen, Ming Shi, Ming Yu, Meiru Hu, Lun Song, Beifen Shen, and Ning Guo

On the cover: Maturation gradient of antibody forming cells (red) shown by the loss of the proliferation marker Ki67 (white) as they pass from the edge of secondary follicles (blue mantles with white germinal centers) through the perivascular zone to the medullary cords of a mouse lymph node during a T-dependent antibody response. Mohr, E., K. Serre, R. A. Manz, A. F. Cunningham, M. Khan, D. L. Hardie, R. Bird, and I. C. M. MacLennan. Dendritic cells and monocyct/macrophages that create the IL-6/APRIL-rich lymph node microenvironments where plasmablasts mature. J. Immunol. 182: 2113-2123.
CDK2 Phosphorylation of Smad2 Disrupts TGF-β Transcriptional Regulation in Resistant Primary Bone Marrow Myeloma Cells
Linda B. Baughn, Maurizio Di Liberto, Ruben Nieszizky, Hearn J. Cho, David Jayabalal, Joseph Lane, Fang Liu, and Selina Chen-Kiang

Immunosuppressive Myeloid-Derived Suppressor Cells Can Be Converted into Immunogenic APCs with the Help of Activated NKT Cells: An Alternative Cell-Based Antitumor Vaccine
Hyun-Jeong Ko, Jung-Mi Lee, Yeon-Jeong Kim, Yun-Sun Kim, Kyoo-A Lee, and Chang-Yuil Kang

CD8+ T Cell Responses to a Viral Escape Mutant Epitope: Active Suppression via Altered SHP-1 Activity
Frederick J. Schnell, Noah Alberts-Grill, and Brian D. Evavold

Evolution of Lipopolysaccharide (LPS) Recognition and Signaling: Fish TLR4 Does Not Recognize LPS and Negatively Regulates NF-κB Activation
María P. Sepulcre, Francisca Alcaraz-Pérez, Azucena López-Muñoz, Francisco J. Roca, José Meseguer, María L. Cayuela, and Victoriano Mulero

Role of Invariant NK T Lymphocytes in Immune Responses to CpG Oligodeoxynucleotides
Christophe Paget, Emilie Bialecki, Josette Fontaine, Catherine Vendeville, Thierry Mallevoet, Christelle Faveeuw, and François Trottier

Human IgA-Inducing Protein from Dendritic Cells Induces IgA Production by Naive IgD+ B Cells
Mark A. Endley, Leo M. Njongmeta, Elisabeth Shell, Matthew W. Ryan, Alexander J. Indrikovs, Seckin Ulualp, Randall M. Goldblum, Waitbaka Muangi, and D. Mark Estes

TLR2 Engagement on CD8 T Cells Enables Generation of Functional Memory Cells in Response to a Suboptimal TCR Signal
Blandine C. Mercier, Anne Cottalorda, Charles-Antoine Coupet, Jacqueline Marvel, and Nathalie Bonnefoy-Bérard

Requirement of B Cells for Generating CD4+ T Cell Memory
Jason K. Whitmire, Mary S. Asano, Susan M. Kaech, Surojit Sarkar, Lynn G. Hannum, Mark J. Shlomchik, and Rafi Ahmed

Carbon Monoxide Inhibits TLR-Induced Dendritic Cell Immunogenicity
Séverine Rémy, Philippe Blancou, Laurent Tesson, Virginie Tardif, Régis Brion, Pierre Joseph Rayer, Roberto Motterlini, Roberta Foresti, Marion Painchaud, Sylvie Poga, Marc Gregoire, Jean Marie Bach, Ignacio Anegon, and Christine Chauveau

LAG-3 Regulates Plasmacytoid Dendritic Cell Homeostasis
Creg J. Workman, Yao Wang, Karim C. El Kasmi, Drew M. Pardoll, Peter J. Murray, Charles G. Drake, and Dario A. A. Vignali

γδ T Lymphocyte Homeostasis Is Negatively Regulated by β2-Microglobulin
Jena D. French, Christina L. Roark, Willi K. Born, and Rebecca L. O’Brien

Human Liver Dendritic Cells Promote T Cell Hyporesponsiveness
Zubin M. Bamboat, Jennifer A. Stableford, George Pitias, Bryan M. Burt, Hoang M. Nguyen, Alexander P. Welles, Mithat Gonen, James W. Young, and Ronald P. DeMatteo

A Role of IgM Antibodies in Monosodium Urate Crystal Formation and Associated Adjuvanticity
Uliana Kanevets, Karan Sharma, Karen Dresser, and Yan Shi

Cyclical Expression of EBV Latent Membrane Protein 1 in EBV-Transformed B Cells Underpins Heterogeneity of Epitope Presentation and CD8+ T Cell Recognition
Jill M. Brooks, Steven P. Lee, Alison M. Leese, Wendy A. Thomas, Martin Rouxe, and Alan B. Rickinson

The Expression of Heparin-Binding Epidermal Growth Factor-Like Growth Factor by Regulatory Macrophages
Justin P. Edwards, Xia Zhang, and David M. Mosser

Naive Mouse Macrophages Become Activated following Recognition of L5178Y Lymphoma Cells via Concurrent Ligation of CD40, NKG2D, and CD18 Molecules
Ilia N. Buhtoiarov, Alexander L. Rahmilleevich, Lewis L. Lanier, Erik A. Ranheim, and Paul M. Sondel
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2093</td>
<td>Conditional Inactivation of TACE by a Sox9 Promoter Leads to Osteoporosis and Increased Granulopoiesis via Dysregulation of IL-17 and G-CSF</td>
<td>Keisuke Horiuchi, Takahiro Kimura, Takeshi Miyamoto, Kana Miyamoto, Haruhiko Akiyama, Hironari Takatsi, Hideo Morioka, Takashi Nakamura, Yasunori Okada, Carl P. Blobel, and Yoshiaki Toyama</td>
</tr>
<tr>
<td>2102</td>
<td>Intestinal Tolerance Is Converted to Autoimmune Enteritis upon PD-1 Ligand Blockade</td>
<td>Erika D. Reynoso, Kutlu G. Elpek, Laís Francisco, Roderick Bronson, Angélique Bellemare-Pelletier, Arlene H. Sharpe, Gordon J. Freeman, and Shannon J. Turley</td>
</tr>
<tr>
<td>2113</td>
<td>Dendritic Cells and Monocyte/Macrophages That Create the IL-6/APRIL-Rich Lymph Node Microenvironments Where Plasmablasts Mature</td>
<td>Elodie Mobra, Karine Serre, Rudolf A. Manz, Adam F. Cunningham, Mahmood Khan, Deborah L. Hardie, Roger Bird, and Ian C. M. MacLennan</td>
</tr>
<tr>
<td>2124</td>
<td>Unique Phenotype of Human Tonsillar and In Vitro-Induced FOXP3+CD8+ T Cells</td>
<td>Kerstin Siegmund, Beate Rückert, Nadja Onakoud, Simone Bürgler, Andreas Speiser, Cezmi A. Akdis, and Carsten B. Schmidt-Weber</td>
</tr>
<tr>
<td>2131</td>
<td>The Sequestosome 1/p62 Attenuates Cytokine Gene Expression in Activated Macrophages by Inhibiting IFN Regulatory Factor 8 and TNF Receptor-Associated Factor 6/NF-κB Activity</td>
<td>Ji Young Kim and Keiko Ozato</td>
</tr>
<tr>
<td>2141</td>
<td>High-Affinity IgE Recognition of a Conformational Epitope of the Major Respiratory Allergen Phl p 2 As Revealed by X-Ray Crystallography</td>
<td>Sivaraman Padawatian, Sabine Flicker, Tilmann Schirmer, Christoph Madritzch, Stefanie Randow, Gerald Reese, Stefan Vieths, Christian Lupinek, Christof Ebner, Rudolf Valenta, and Zora Markovic-Housley</td>
</tr>
<tr>
<td>2152</td>
<td>Ignition of p53 Bomb Sensitizes Tumor Cells to Granzyme K-Mediated Cytolysis</td>
<td>Guoqiang Hua, Shuo Wang, Chao Zhong, Peng Xue, and Zusei Fan</td>
</tr>
<tr>
<td>2160</td>
<td>Genetically Encoded Förster Resonance Energy Transfer Sensors for the Conformation of the Src Family Kinase Lck</td>
<td>Wolfgang Paster, Christian Paar, Paul Eckerstorfer, Andrea Jakober, Karel Drbal, Gerhard J. Schütz, Alois Sonnleitner, and Hannes Stochinger</td>
</tr>
<tr>
<td>2168</td>
<td>A Specific Epitope of Protein Inhibitor of Activated STAT3 Is Responsible for the Induction of Apoptosis in Rat Transformed Mast Cells</td>
<td>Zohar Yagil, Gillian Kay, Hovav Nechushtan, and Ehud Razin</td>
</tr>
<tr>
<td>2176</td>
<td>Kinetic of RelA Activation Controls Magnitude of TLR-Mediated IL-12p40 Induction</td>
<td>Konrad A. Bode, Frank Schmitz, Leonardo Vargas, Klaus Heeg, and Alexander H. Dalpke</td>
</tr>
<tr>
<td>2185</td>
<td>Single Nucleotide Changes in the Human Il1 and Il4 Promoters Underlie Different Transcriptional Responses to CD40</td>
<td>Frank L. Sinquett, Rebecca L. Dryer, Valentina Marcelli, Ameesha Batheja, and Lori R. Covey</td>
</tr>
<tr>
<td>2194</td>
<td>Mycolactone Inhibits Monocyte Cytokine Production by a Posttranscriptional Mechanism</td>
<td>Rachel E. Simmonds, Ferdinand V. Lali, Tim Smallie, Pamela L. C. Small, and Brian M. Foxwell</td>
</tr>
<tr>
<td>2203</td>
<td>Highly Variable Immune-Response Proteins (185/333) from the Sea Urchin, Strongylocentrotus purpuratus: Proteomic Analysis Identifies Diversity within and between Individuals</td>
<td>Nolwenn M. Dheilly, Sham V. Nair, L. Courtney Smith, and David A. Raftos</td>
</tr>
</tbody>
</table>
Enhanced In Vivo Growth of Lymphoma Tumors in the Absence of the NK-Activating Receptor NKp46/NCR1
Gili G. Halfteck, Moran Elboim, Chamutal Gur, Hagit Achdout, Hornas Ghadially, and Ofer Mandelboim

Absence of Mucosal Immunity in the Human Upper Respiratory Tract to the Commensal Bacteria Neisseria lactamica but Not Pathogenic Neisseria meningitidis during the Peak Age of Nasopharyngeal Carriage
Andrew T. Vaughan, Andrew Gorringe, Victoria Davenport, Neil A. Williams, and Robert S. Heyderman

A Synthetic Carbohydrate-Protein Conjugate Vaccine Candidate against Shigella flexneri 2a Infection
Armelle Phalipon, Myriam Tanguy, Cyrille Grandjean, Catherine Guerreiro, Frédéric Bélot, Dani Cohen, Philippe J. Sansonetti, and Laurence A. Mulard

TANK-Binding Kinase-1 Plays an Important Role during In Vitro and In Vivo Type I IFN Responses to DNA Virus Infections
Andrea K. Miyahira, Arash Shabangian, Seungmin Huang, Ren Sun, and Genhong Cheng

IL-10-Dependent S100A8 Gene Induction in Monocytes/Macrophages by Double-Stranded RNA
Yasumi Endoh, Yuen Ming Chung, Ian A. Clark, Carolyn L. Geczy, and Kenneth Hsu

Lipopolysaccharide Initiates a Positive Feedback of Epidermal Growth Factor Receptor Signaling by Prostaglandin E1 in Human Biliary Carcinoma Cells
Laetitia Finzi, Matt X. G. Shao, François Paye, Chantal Housset, and Jay A. Nadel

Immune Reconstitution during Pneumocystis Lung Infection: Disruption of Surfactant Component Expression and Function by S-Nitrosylation
Elena N. Atochina-Vasserman, Andrew J. Gow, Helen Abramova, Chang-Jiang Guo, Yaniv Tomer, Angela M. Preston, James M. Beck, and Michael F. Beers

Trypanosoma cruzi Triggers an Early Type I IFN Response In Vivo at the Site of Intradermal Infection
Anne-Danielle C. Chesler, Meera Unnikrishnan, Amy K. Bei, Johanna P. Daily, and Barbara A. Burleigh

Local Type I IFN Receptor Signaling Protects against Virus Spread within the Central Nervous System
Claudia N. Derje, Thomas Meyer, Hauke Schmidt, Dorothée Kreaux, John K. Rose, Ingo Bechmann, Marco Prinz, and Ulrich Kalinke

Innate Immunity Mediated by MyD88 Signal Is Not Essential for Induction of Lipopolysaccharide-Specific B Cell Responses but Is Indispensable for Protection against Salmonella enterica serovar Typhimurium infection
Hyoon-Jeong Ko, Jin-Young Yang, Doo-Hee Shim, Hyungjun Yang, Sung-Moo Park, Roy Curtiss III, and Mi-Na Kweon

Specific Targeting of the EBV Lytic Phase Protein BLNYF2a to the Transporter Associated with Antigen Processing Results in Impairment of HLA Class I-Restricted Antigen Presentation
Dianelle Horst, Daphne van Leeuwen, Nathan P. Croft, Malgorzata A. Garstka, Andrew D. Hislop, Elisabeth Kremmer, Alan B. Rickinson, Emmanuel J. H. J. Wiertz, and Maaike E. Ressing

Macrophase NADPH Oxidase Flavocytochrome b Localizes to the Plasma Membrane and Rab11-Positive Recycling Endosomes
Amy-Jo Casbon, Lee-Ann H. Allen, Kenneth W. Dunn, and Mary C. Dinauer

Regulatory T Cells: A Role in the Control of Helminth-Driven Intestinal Pathology and Worm Survival
Riccardo D’Elia, Jerzy M. Behnke, Janette E. Bradley, and Kathryn J. Else

INFLAMMATION

CREB Mediates Prostaglandin F2α-Induced MUC5AC Overexpression
Wen-Cheng Chung, Seung-Hee Ryu, Hongxia Sun, Darryl C. Zeldin, and Ja Seok Koo

Resistin-Like Molecule α Decreases Glucose Tolerance during Intestinal Inflammation

Cytolysins Augment Superantigen Penetration of Stratified Mucosa
Amanda J. Brosnahan, Mary J. Mantz, Christopher A. Squier, Marnie L. Peterson, and Patrick M. Schlievert
2374 The Ubiquitin Ligase c-Cbl Down-Regulates FcγRIIa Activation in Human Neutrophils  
Louis Marois, Myriam Vaillancourt, Sébastien Marois, Sophie Proulx, Guillaume Paré, Emmanuelle Rollet-Labelle, and Paul H. Naccache

2385 Activation of Rho Kinase Isoforms in Lung Endothelial Cells during Inflammation  
Phyllis Y. Mong and Qin Wang

2395 Critical Role of Apoptotic Speck Protein Containing a Caspase Recruitment Domain (ASC) and NLRP3  
in Causing Necrosis and ASC Speck Formation Induced by Porphyromonas gingivalis in Human Cells  
Max Tze-Han Huang, Debra J. Taxman, Elizabeth A. Holley-Guébrie, Chris B. Moore, Stephen B. Willingham, Victoria Madden, Rebecca Keyser Parsons, Gerald L. Featherstone, Roland R. Arnold, Brian P. O’Connor, and Jenny Pan-Yun Ting

2405 Hyporesponsiveness of Intestinal Dendritic Cells to TLR Stimulation Is Limited to TLR4  
Vuk Cerovic, Christopher D. Jenkins, Andrew G. C. Barnes, Simon W. F. Milling, G. Gordon MacPherson, and Linda S. Klavinskis

2416 IgE Influences the Number and Function of Mature Mast Cells, but Not Progenitor Recruitment  
in Allergic Pulmonary Inflammation  
Clinton B. Mathias, Eva-Jasmin Freyschmidt, Benjamin Caplan, Tatiana Jones, Dimitri Poddighe, Wei Xing, Krista L. Harrison, Michael F. Gurish, and Hans C. Oetjen

2425 Blocking Development of a CD8+ T Cell Response by Targeting Lymphatic Recruitment of APC  
Denise Teoh, Louise A. Johnson, Tomas Hanke, Andrew J. McMichael, and David G. Jackson

2432 Human Basophils Secrete IL-3: Evidence of Autocrine Priming for Phenotypic and Functional Responses in Allergic Disease  
John T. Schroeder, Kristin L. Chichester, and Anja P. Bieneman

2439 TNF-Like Weak Inducer of Apoptosis (TWEAK) Activates Proinflammatory Signaling Pathways and Gene Expression through the Activation of TGF-β-Activated Kinase 1  
Mukesh Kumar, Denys Y. Makonchuk, Hong Li, Ashwani Mittal, and Ashok Kumar

2449 Regulation of Mature ADAM17 by Redox Agents for L-Selectin Shedding  
Yue Wang, Amy H. Herrera, Ying Li, Kiran K. Belani, and Bruce Walcheck

2458 Bacterial Endotoxin Induces the Release of High Mobility Group Box 1 via the IFN-β Signaling Pathway  
Ju-Hyun Kim, Seon-Ju Kim, Im-Soon Lee, Myung-Shik Lee, Satoshi Uematsu, Shizuo Akira, and Kwon Ik Oh

2467 The Role of Hepatic Invariant NKT Cells in Systemic/Local Inflammation and Mortality during Polymicrobial Septic Shock  
Caroline K. Hu, Fabienne Venet, David S. Heffernan, Yvonne L. Wang, Brian Horner, Xin Huang, Chun-Shiang Chung, Stephen H. Gregory, and Alfred Ayala

2476 Lactate Boosts TLR4 Signaling and NF-κB Pathway-Mediated Gene Transcription in Macrophages via Monocarboxylate Transporters and MD-2 Up-Regulation  
Devadoss J. Samuvel, Kamala P. Sundararaj, Alena Nareika, Maria F. Lopes-Virella, and Yan Huang

2485 Plasma Osteopontin Modulates Chronic Restraint Stress-Induced Thymus Atrophy by Regulating Stress Hormones: Inhibition by an Anti-Osteopontin Monoclonal Antibody  
Kathryn X. Wang, Yufang F. Shi, Yacov Ron, Christian C. Kazaneci, and David T. Denhardt

CLINICAL IMMUNOLOGY

2492 A Phase I-II Study of α-Galactosylceramide-Pulsed IL-2/GM-CSF-Cultured Peripheral Blood Mononuclear Cells in Patients with Advanced and Recurrent Non-Small Cell Lung Cancer  
Shinichiro Motohashi, Kaoru Nagato, Naoki Kusui, Heizaburo Yamamoto, Kazuki Yamasaki, Kohsuke Okita, Hideki Hanaoka, Naomi Shimizu, Makoto Suzuki, Ichiro Yoshino, Masaru Taniguchi, Takehiko Fujisawa, and Toshinori Nakayama

2502 Asthma-Related Environmental Fungus, Alternaria, Activates Dendritic Cells and Produces Potent Th2 Adjuvant Activity  
Takao Kobayashi, Koji Iijima, Suresh Radhakrishnan, Vinay Mehta, Robert Vassallo, Christopher B. Lawrence, Jong-Chol Cwong, Larry R. Pease, Katsuki Oguchi, and Hirohito Kita
Herpesvirus Seropositivity in Childhood Associates with Decreased Monocyte-Induced NK Cell
IFN-γ Production
Shanie Saghafian-Hedengren, Yvonne Sundström, Ebba Sohlberg, Caroline Nilsson, Annika Linde,
Marita Troye-Blomberg, Louise Berg, and Eva Sverremark-Ekström

Synergistic Induction of Inflammation by Bacterial Products Lipopolysaccharide and fMLP: An Important
Microbial Pathogenic Mechanism
Ling-Yu Chen, Warren W. Pan, Miao Chen, Jain-Dong Li, Wei Liu, Guoqiang Chen, Shuang Huang,
Thomas J. Papadimos, and Zhixing K. Pan

IFN-β Impairs Superoxide-Dependent Parasite Killing in Human Macrophages: Evidence for a
Deleterious Role of SOD1 in Cutaneous Leishmaniasis
Ricardo Khouri, André Bafica, Maria da Purificação Pereira Silva, Almerio Noronha, Jean-Pierre Kolb, Juana Wietzerbin,
Aldina Barral, Manoel Barral-Netto, and Johan Van Weyenberg

Accelerated Pathological and Clinical Nephritis in Systemic Lupus Erythematosus-Prone New Zealand
Mixed 2328 Mice Doubly Deficient in TNF Receptor 1 and TNF Receptor 2 via a
Th17-Associated Pathway
Noam Jacob, Haitao Yang, Luminita Pricop, Yi Liu, Xiaoni Gao, Song Guo Zheng, Juhua Wang, Hua-Xin Gao,
Chaim Putterman, Michael N. Koss, William Stohl, and Chaim O. Jacob

Human Basophils Express the Glycosylphosphatidylinositol-Anchored Low-Affinity IgG Receptor
FcγRIIIB (CD16B)
Nihad Meknache, Friederike Jönsson, Jérôme Laurent, Marie-Thérèse Guinnepain, and Marc Daëron

CORRECTIONS

AUTHOR INDEX