

**BREAKTHROUGHS TAKE TIME.
ISOLATING CELLS SHOULDN'T.**

STEMCELL
TECHNOLOGIES

LEARN MORE >

The Journal of
Immunology

199 (8)

J Immunol 2017; 199:2609-3005; ;
<http://www.jimmunol.org/content/199/8>

This information is current as
of August 16, 2018.

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.



IN THIS ISSUE

- 2609 **Exhaustive Elucidation of HLA-Bound Peptides** *See article p. 2639*
Finding Flexibility in the Formation of $\gamma\delta$ T cells *See article p. 2668*
cPLA2 α Controls Neutrophil Transit *See article p. 2873*
HVEM Helps T Cells Maintain Memory *See article p. 2968*

CUTTING EDGE

- 2613 Cutting Edge: Genetic Association between IFI16 Single Nucleotide Polymorphisms and Resistance to Genital Herpes Correlates with IFI16 Expression Levels and HSV-2–Induced IFN- β Expression
Kristina Eriksson, Alexandra Svensson, Alon S. Hait, Kerstin Schlüter, Petra Tunbäck, Inger Nordström, Leonid Padyukov, Jan-Åke Liljeqvist, Trine H. Mogensen, and Søren R. Paludan
- 2618 Cutting Edge: Endogenous IFN- β Regulates Survival and Development of Transitional B Cells
Jennie A. Hamilton, Qi Wu, PingAr Yang, Bao Luo, Shanrun Liu, Huixian Hong, Jun Li, Mark R. Walter, Eleanor N. Fish, Hui-Chen Hsu, and John D. Mountz
- 2624 Cutting Edge: A Critical Role of Lesional T Follicular Helper Cells in the Pathogenesis of IgG4-Related Disease
Ryuta Kamekura, Kenichi Takano, Motohisa Yamamoto, Koji Kawata, Katsunori Shigehara, Sumito Jitsukawa, Tomonori Nagaya, Fumie Ito, Akinori Sato, Noriko Ogasawara, Chieko Tsubomatsu, Hiroki Takahashi, Hiroshi Nakase, Tetsuo Himi, and Shingo Ichimiya

ANTIGEN RECOGNITION AND RESPONSES

- 2631 Activation of Human Mucosal-Associated Invariant T Cells Induces CD40L-Dependent Maturation of Monocyte-Derived and Primary Dendritic Cells
Mariolina Salio, Olivier Gasser, Claudia Gonzalez-Lopez, Anne Martens, Natacha Veerapen, Uzi Gileadi, Jacob G. Verter, Giorgio Napolitani, Regan Anderson, Gavin Painter, Gurdyl S. Besra, Ian F. Hermans, and Vincenzo Cerundolo
- 2639 Unveiling the Peptide Motifs of HLA-C and HLA-G from Naturally Presented Peptides and Generation of Binding Prediction Matrices
Moreno Di Marco, Heiko Schuster, Linus Backert, Michael Ghosh, Hans-Georg Rammensee, and Stefan Stevanović

On the cover: Nbeal2 is an important structural protein which regulates the protein levels of transcription factors and cell-cycle inhibitors in mast cells. Therefore, Nbeal2 regulates compartmentalization, proliferation, and cytokine production in mast cells. This demonstrates the relevance of Nbeal2 in immunity above and beyond granule biosynthesis. Drube, S., R. Grimlowski, C. Deppermann, J. Fröbel, F. Kraft, N. Andreas, D. Stegner, J. Dudeck, F. Weber, M. Rödiger, C. Göpfert, J. Drube, D. Reich, B. Nieswandt, A. Dudeck, and T. Kamradt. 2017. The neurobeachin-like 2 protein regulates mast cell homeostasis. *J. Immunol.* 199: 2948–2957.

The Journal of Immunology (ISSN 0022-1767) is published twice each month by The American Association of Immunologists, Inc., 1451 Rockville Pike, Suite 650, Rockville, MD 20852, Phone: 301-634-7197, Fax: 301-634-7829. Subscription terms: New subscriptions and renewals begin January 1 and expire one year later (see <http://www.jimmunol.org/subscription> for prices and details). A special rate is available to members of The American Association of Immunologists, Inc. (see <http://www.aai.org/membership>). The American Association of Immunologists, Inc., is not responsible for undeliverable issues. Replacement issues can be obtained, if available, at the regular price of single issues (see <http://www.jimmunol.org/Subscription/Claims>). Reprints of individual articles are available only from authors. Periodicals postage paid at Rockville, MD 20852, and at additional mailing offices. Country of origin U.S.A. Printed on acid-free recyclable paper. Postmaster: Send address changes 60 days in advance to *The Journal of Immunology*, Subscription Department, 1451 Rockville Pike, Suite 650, Rockville, MD 20852. Copyright © 2017 by The American Association of Immunologists, Inc.

- 2652 Integration of Kinase and Calcium Signaling at the Level of Chromatin Underlies Inducible Gene Activation in T Cells
Ruth Brignall, Pierre Cauchy, Sarah L. Bevington, Bethany Gorman, Angela O. Pisco, James Bagnall, Christopher Boddington, William Rowe, Hazel England, Kevin Rich, Lorraine Schmidt, Nigel P. Dyer, Mark A. Travis, Sascha Ott, Dean A. Jackson, Peter N. Cockerill, and Pawel Paszek

AUTOIMMUNITY

- 2668 IL-1 β and IL-23 Promote Extrathymic Commitment of CD27⁺CD122⁻ $\gamma\delta$ T Cells to $\gamma\delta$ T17 Cells
Andreas Muschaweckh, Franziska Petermann, and Thomas Korn
- 2680 NFM Cross-Reactivity to MOG Does Not Expand a Critical Threshold Level of High-Affinity T Cells Necessary for Onset of Demyelinating Disease
Lori Blanchfield, Joseph J. Sabatino, Jr., Laurel Lawrence, and Brian D. Evavold
- 2692 The Role of Leukocyte-Associated Ig-like Receptor-1 in Suppressing Collagen-Induced Arthritis
Seunghyun Kim, Ellis R. Easterling, Lauren C. Price, Savannah L. Smith, John E. Coligan, Jeoung-Eun Park, David D. Brand, Edward F. Rosloniec, John M. Stuart, Andrew H. Kang, and Linda K. Myers

IMMUNE REGULATION

- 2701 Sublethal Total Body Irradiation Causes Long-Term Deficits in Thymus Function by Reducing Lymphoid Progenitors
Shiyun Xiao, Ivo D. Shterev, Wen Zhang, Lauren Young, Jae-Hung Shieh, Malcolm Moore, Marcel van den Brink, Gregory D. Sempowski, and Nancy R. Manley
- 2713 Peripheral Deletion of CD8 T Cells Requires p38 MAPK in Cross-Presenting Dendritic Cells
Trevor Smith, Xiaotian Lin, Marielle Mello, Kristi Marquardt, Jocelyn Cheung, Binfeng Lu, Linda A. Sherman, and Grégory Verdeil
- 2721 Regulatory T Cell-Mediated Suppression of Inflammation Induced by DR3 Signaling Is Dependent on Galectin-9
Shravan Madireddi, So-Young Eun, Amit K. Mehta, Aruna Birta, Dirk M. Zajonc, Toshiro Niki, Mitsuomi Hirashima, Eckhard R. Podack, Taylor H. Schreiber, and Michael Croft
- 2729 Maternal Pregavid Obesity Remodels the DNA Methylation Landscape of Cord Blood Monocytes Disrupting Their Inflammatory Program
Subas Sureshchandra, Randall M. Wilson, Maham Rais, Nicole E. Marshall, Jonathan Q. Purnell, Kent L. Thornburg, and Ilhem Messaoudi
- 2745 T Cells Regulate Peripheral Naive Mature B Cell Survival by Cell-Cell Contact Mediated through SLAMF6 and SAP
Libi Radomir, Sivan Cohen, Matthias P. Kramer, Eszter Bakos, Hadas Lewinsky, Avital Barak, Ziv Porat, Richard Bucala, Polina Stepensky, Shirly Becker-Herman, and Idit Shachar

IMMUNE SYSTEM DEVELOPMENT

- 2758 Grb2-Mediated Recruitment of USP9X to LAT Enhances Themis Stability following Thymic Selection
Anne Garreau, Gaëtan Blaize, Jérémy Argenty, Nelly Rouquié, Audrey Tourdès, Stephen A. Wood, Abdelhadi Saoudi, and Renaud Lesourne
- 2767 IL-4/IL-13 Signaling Inhibits the Potential of Early Thymic Progenitors To Commit to the T Cell Lineage
Subhasis Barik, Mindy M. Miller, Alexis N. Cattin-Roy, Tobeckukwu K. Ukab, Weirong Chen, and Habib Zaghouani
- 2777 Fate Decision Between Group 3 Innate Lymphoid and Conventional NK Cell Lineages by Notch Signaling in Human Circulating Hematopoietic Progenitors
Seishi Kyoizumi, Yoshiko Kubo, Junko Kajimura, Kengo Yoshida, Tomonori Hayashi, Kei Nakachi, Malcolm A. Moore, Marcel R. M. van den Brink, and Yoichiro Kusunoki

IMMUNOTHERAPY AND VACCINES

- 2794 Enhancing Vaccine Efficacy by Engineering a Complex Synthetic Peptide To Become a Super Immunogen
Therése Nordström, Manisha Pandey, Ainslie Calcutt, Jessica Powell, Zachary N. Phillips, Grace Yeung, Ashwini K. Giddam, Yun Shi, Thomas Haselhorst, Mark von Itzstein, Michael R. Batzloff, and Michael F. Good

INFECTIOUS DISEASE AND HOST RESPONSE

- 2803 Complexity of Complement Resistance Factors Expressed by *Acinetobacter baumannii* Needed for Survival in Human Serum
Amaro F. Sanchez-Larrayoz, Noha M. Elbosseiny, Marc G. Chevette, Yang Fu, Peter Giunta, Raúl G. Spallanzani, Keerthikka Ravi, Gerald B. Pier, Stephen Lory, and Tomás Maira-Litrán
- 2815 IL-21 Receptor Signaling Is Essential for Optimal CD4⁺ T Cell Function and Control of *Mycobacterium tuberculosis* Infection in Mice
Satyanarayana Swamy Cheekatla, Deepak Tripathi, Sambasivan Venkatasubramanian, Padmaja Paidipally, Elwyn Welch, Amy R. Tinnereim, Roza Nurieva, and Ramakrishna Vankayalapati
- 2823 An Anti-Inflammatory Role for NLRP10 in Murine Cutaneous Leishmaniasis
Gwendolyn M. Clay, Diogo G. Valadares, Joel W. Graff, Tyler K. Ulland, Richard E. Davis, Breanna M. Scorza, Bayan Sudan Zhanbolat, Yani Chen, Fayyaz S. Sutterwala, and Mary E. Wilson
- 2834 Therapeutic Effects of Monoclonal Antibody against Dengue Virus NS1 in a STAT1 Knockout Mouse Model of Dengue Infection
Shu-Wen Wan, Pei-Wei Chen, Chin-Yu Chen, Yen-Chung Lai, Ya-Ting Chu, Chia-Yi Hung, Han Lee, Hsuan Franziska Wu, Yung-Chun Chuang, Jessica Lin, Chih-Peng Chang, Shuying Wang, Ching-Chuan Liu, Tzong-Shiann Ho, Chiou-Feng Lin, Chien-Kuo Lee, Betty A. Wu-Hsieh, Robert Anderson, Trai-Ming Yeh, and Yee-Shin Lin
- 2845 A *Chlamydia*-Specific TCR-Transgenic Mouse Demonstrates Th1 Polyfunctionality with Enhanced Effector Function
Taylor B. Poston, Yanyan Qu, Jenna Girardi, Catherine M. O'Connell, Lauren C. Frazer, Ali N. Russell, McKensie Wall, Uma M. Nagarajan, and Toni Darville
- 2855 NLRP3 and Potassium Efflux Drive Rapid IL-1 β Release from Primary Human Monocytes during *Toxoplasma gondii* Infection
Lanny Gov, Christine A. Schneider, Tatiane S. Lima, William Pandori, and Melissa B. Lodoen

INNATE IMMUNITY AND INFLAMMATION

- 2865 NKG2D Signaling between Human NK Cells Enhances TACE-Mediated TNF- α Release
Neekun Sharma, Camille V. Trinidad, Andrew P. Trembath, and Mary A. Markiewicz
- 2873 Neutrophil-Derived Cytosolic PLA2 α Contributes to Bacterial-Induced Neutrophil Transepithelial Migration
Lael M. Yonker, Michael A. Pazos, Bernard B. Lanter, Hongmei Mou, Kengyeh K. Chu, Alexander D. Eaton, Joseph V. Bonventre, Guillermo J. Tearney, Jayaraj Rajagopal, and Bryan P. Hurley
- 2885 Viral Infection Sensitizes Human Fetal Membranes to Bacterial Lipopolysaccharide by MERTK Inhibition and Inflammasome Activation
Sarah N. Cross, Julie A. Potter, Paulomi Aldo, Ja Young Kwon, Mary Pitruzzello, Mancy Tong, Seth Guller, Carla V. Rothlin, Gil Mor, and Vikki M. Abrahams
- 2896 The Scaffolding Protein IQGAP1 Interacts with NLRC3 and Inhibits Type I IFN Production
Aaron M. Tocker, Emily Durocher, Kimberly D. Jacob, Kate E. Trieschman, Suzanna M. Talento, Alma A. Rechnitzer, David M. Roberts, and Beckley K. Davis
- 2910 Cyclodextrin Reduces Cholesterol Crystal-Induced Inflammation by Modulating Complement Activation
Siril S. Bakke, Marie H. Aune, Nathalie Niyonzima, Katrine Pilely, Liv Ryan, Mona Skjelland, Peter Garred, Pål Aukrust, Bente Halvorsen, Eicke Latz, Jan K. Damås, Tom E. Mollnes, and Terje Espevik
- 2921 IL-17A Produced by Innate Lymphoid Cells Is Essential for Intestinal Ischemia-Reperfusion Injury
Mayya Geha, Maria G. Tsokos, Robin E. Bosse, Tatyana Sannikova, Yoichiro Iwakura, Jurandir J. Dalle Lucca, Rene De Waal Malefyt, and George C. Tsokos
- 2930 Activated Protein C Attenuates Severe Inflammation by Targeting VLA-3^{high} Neutrophil Subpopulation in Mice
Pranita P. Sarangi, Hyun-wook Lee, Yelena V. Lerman, Alissa Trzeciak, Eric J. Harrower, Alireza R. Rezaie, and Minsoo Kim

- 2937 Anti-Inflammatory Role of Langerhans Cells and Apoptotic Keratinocytes in Ultraviolet-B–Induced Cutaneous Inflammation
Mayumi Hatakeyama, Atsushi Fukunaga, Ken Washio, Kumiko Taguchi, Yoshiko Oda, Kanako Ogura, and Chikako Nishigori

MOLECULAR AND STRUCTURAL IMMUNOLOGY

- 2948 The Neurobeachin-like 2 Protein Regulates Mast Cell Homeostasis
Sebastian Drube, Randy Grimlowski, Carsten Deppermann, Julia Fröbel, Florian Kraft, Nico Andreas, David Stegner, Jan Dudeck, Franziska Weber, Mandy Rödiger, Christiane Göpfert, Julia Drube, Daniela Reich, Bernhard Nieswandt, Anne Dudeck, and Thomas Kamradt
- 2958 The Orphan Nuclear Receptor NR4A3 Is Involved in the Function of Dendritic Cells
Masanori Nagaoka, Takuya Yashiro, Yuna Uchida, Tomoaki Ando, Mutsuko Hara, Hajime Arai, Hideoki Ogawa, Ko Okumura, Kazumi Kasakura, and Chiharu Nishiyama

MUCOSAL IMMUNOLOGY

- 2968 HVEM Imprints Memory Potential on Effector CD8 T Cells Required for Protective Mucosal Immunity
Pritesh Desai, Georges Abboud, Jessica Stanfield, Paul G. Thomas, Jianxun Song, Carl F. Ware, Michael Croft, and Shabram Salek-Ardakani
- 2976 Microbial-Derived Butyrate Promotes Epithelial Barrier Function through IL-10 Receptor–Dependent Repression of Claudin-2
Leon Zheng, Caleb J. Kelly, Kayla D. Battista, Rachel Schaefer, Jordi M. Lanis, Erica E. Alexeev, Ruth X. Wang, Joseph C. Onyiah, Douglas J. Kominsky, and Sean P. Colgan

SYSTEMS IMMUNOLOGY

- 2985 Learning the High-Dimensional Immunogenomic Features That Predict Public and Private Antibody Repertoires
Victor Greiff, Cédric R. Weber, Johannes Palme, Ulrich Bodenhofer, Enkelejda Mibo, Ulrike Menzel, and Sai T. Reddy

NOVEL IMMUNOLOGICAL METHODS

- 2998 New Methods To Analyze B Cell Immune Responses to Thymus-Dependent Antigen Sheep Red Blood Cells
Ellen J. McAllister, John R. Apgar, Charlotte R. Leung, Robert C. Rickert, and Julia Jellusova

CORRECTIONS

- 3004 Correction: PRMT5-Selective Inhibitors Suppress Inflammatory T Cell Responses and Experimental Autoimmune Encephalomyelitis
Lindsay M. Webb, Stephanie A. Amici, Kyle A. Jablonski, Himanshu Savardekar, Amanda R. Panfil, Linsen Li, Wei Zhou, Kevin Peine, Vrajesh Karkhanis, Eric M. Bachelder, Kristy M. Ainslie, Patrick L. Green, Chenglong Li, Robert A. Baiocchi, and Mireia Guerau-de-Arellano
- 3005 Correction: Cutting Edge: Helminth Coinfection Blocks Effector Differentiation of CD8 T Cells through Alternate Host Th2- and IL-10–Mediated Responses
Andrew Marple, Wenhui Wu, Subagi Shah, Yanlin Zhao, Peicheng Du, William C. Gause, and George S. Yap

- 3006 AUTHOR INDEX