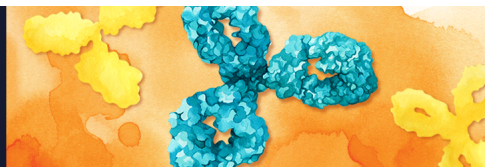


NEW *InVivoSIM*<sup>TM</sup>  
Biosimilar Antibodies  
For Research Use Only

DISCOVER Bio Cell



 *The Journal of*  
**Immunology**

**206 (8)**

*J Immunol* 2021; 206:1679-1975; ;  
<http://www.jimmunol.org/content/206/8>

This information is current as  
of May 7, 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>



VOL. 206 | NO. 8 | April 15, 2021 | Pages 1679–1978

## TOP READS

- 1679 **Treg Expansion Strategy** *See article p. 1740*  
**Taking the Sting out of Swine Fever** *See article p. 1844*  
**Inhibition of Neutrophil Priming** *See article p. 1858*  
**Mitochondrial DNA Mischief** *See article p. 1890*

## BRIEF REVIEWS

- 1681 Revisiting Current Concepts on the Tolerogenicity of Steady-State Dendritic Cell Subsets and Their Maturation Stages  
*Manfred B. Lutz, Ronald A. Backer, and Björn E. Clausen*

## CUTTING EDGE

- 1691 Cutting Edge: Reduced Adenosine-to-Inosine Editing of Endogenous Alu RNAs in Severe COVID-19 Disease  
*Philip S. Crooke, III, John T. Tossberg, Krislyn P. Porter, and Thomas M. Aune*

## ANTIGEN RECOGNITION AND RESPONSES

- 1697 Immunoproteasome Upregulation Is Not Required to Control Protein Homeostasis during Viral Infection  
*Michael Basler, Marleen Christ, Heike Goebel, and Marcus Groettrup*
- 1709 Novel Potent IFN- $\gamma$ -Inducing CD8<sup>+</sup> T Cell Epitopes Conserved among Diverse Bovine Viral Diarrhea Virus Strains  
*Neha Sangewar, Suryakant D. Wagbela, Jianxiu Yao, Huldah Sang, Jocelyn Bray, and Waitbaka Mwangi*

## AUTOIMMUNITY

- 1719 The Regulatory Subunit PPP2R2A of PP2A Enhances Th1 and Th17 Differentiation through Activation of the GEF-H1/RhoA/ROCK Signaling Pathway  
*Wenliang Pan, Kamalpreet Nagpal, Abel Suárez-Fueyo, Andrew Ferretti, Nobuya Yoshida, Maria G. Tsokos, and George C. Tsokos*

On the cover: CLPP-knockout (KO) cells are protected from vesicular stomatitis virus (VSV) due to elevated activation of the cGAS–STING signaling axis. Pictured are CLPP-KO/STING-KO mouse fibroblasts, which are highly susceptible to infection with VSV. VSV-G envelope glycoprotein appears in green, and cell nuclei appear in blue. Torres-Odio, S., Y. Lei, S. Gispert, A. Maletzko, J. Key, S. S. Menissy, I. Wittig, G. Auburger, and A. P. West. 2021. Loss of mitochondrial protease CLPP activates type I IFN responses through the mitochondrial DNA–cGAS–STING signaling axis. *J. Immunol.* 206: 1890–1900.

*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: 301-246-8401. 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 © 2021 by The American Association of Immunologists, Inc.

- 1729 Mood Disorder in Systemic Lupus Erythematosus Induced by Antiribosomal P Protein Antibodies Associated with Decreased Serum and Brain Tryptophan  
*Takamasa Cho, Hiroe Sato, Ayako Wakamatsu, Riuko Ohashi, Yoichi Ajioka, Toshio Uchiumi, Shin Goto, Ichiei Narita, and Yoshikatsu Kaneko*

## IMMUNE REGULATION

- 1740 Characterization of a TNFR2-Selective Agonistic TNF- $\alpha$  Mutant and Its Derivatives as an Optimal Regulatory T Cell Expander  
*Masaki Inoue, Kanako Yamashita, Yuta Tsuji, Midori Miki, Shota Amano, Taichi Okumura, Koki Kuge, Takao Tone, Shota Enomoto, Chinatsu Yoshimine, Yuki Morita, Daisuke Ando, Haruhiko Kamada, Norihisa Mikami, Yasuo Tsutsumi, and Shin-ichi Tsunoda*
- 1752 Erythropoietin Protects against Diffuse Alveolar Hemorrhage in Mice by Regulating Macrophage Polarization through the EPOR/JAK2/STAT3 Axis  
*Zhongnan Yang, Lei Yan, Huixia Cao, Yue Gu, Pan Zhou, Mingyue Shi, Guodong Li, Xiaojing Jiao, Na Li, Xiangnan Li, Kai Sun, and Fengmin Shao*
- 1765 The Ancient Cytokine BAFF- and APRIL-like Molecule Regulates the Functionality of Teleost IgM<sup>+</sup> B Cells Similarly to BAFF and APRIL  
*Rocío Simón, Patricia Díaz-Rosales, and Carolina Tafalla*
- 1776 PDK1 Is Required for Maintenance of CD4<sup>+</sup> Foxp3<sup>+</sup> Regulatory T Cell Function  
*Hyunju Oh, Jingyao Zhao, Yenkel Grinberg-Bleyer, Thomas S. Postler, Pingzhang Wang, Sung-Gyoo Park, Raul Rabadan, Matthew S. Hayden, and Sankar Ghosh*
- 1784 Cross-Talk between the Complement Pathway and the Contact Activation System of Coagulation: Activated Factor XI Neutralizes Complement Factor H  
*Cristina Puy, Jiaqing Pang, Stéphanie E. Reitsma, Christina U. Lorentz, Erik I. Tucker, David Gailani, Andrés Gruber, Florea Lupu, and Owen J. T. McCarty*
- 1793 CD154 Resistant to Cleavage from Intracellular Milieu and Cell Surface Induces More Potent CD40-Mediated Responses  
*Suzanne Salti, Loubna Al-Zoobi, Youssef Darif, Ghada S. Hassan, and Walid Mourad*

## IMMUNOTHERAPY AND VACCINES

- 1806 Glycolipid-Containing Nanoparticle Vaccine Engages Invariant NKT Cells to Enhance Humoral Protection against Systemic Bacterial Infection but Abrogates T-Independent Vaccine Responses  
*Travis Shute, Eyal Amiel, Noran Alam, Jennifer L. Yates, Katya Mohrs, Elizabeth Dudley, Briana Salas, Chloe Mesa, Adriana Serrata, Daniel Angel, Brandy K. Vincent, Amanda Weyers, Paula A. Lanthier, Emilie Vombhof-Dekrey, Rachel Fromme, Mitchell Laughlin, Olivia Durham, Jianjun Miao, Devon Shipp, Robert J. Linhardt, Kelly Nash, and Elizabeth A. Leadbetter*
- 1817 Inclusion of an Optimized *Plasmodium falciparum* Merozoite Surface Protein 2–Based Antigen in a Trivalent, Multistage Malaria Vaccine  
*Jacqueline S. Eacret, Elizabeth M. Parzych, Donna M. Gonzales, and James M. Burns, Jr.*

## INFECTIOUS DISEASE AND HOST RESPONSE

- 1832 OTUD1 Regulates Antifungal Innate Immunity through Deubiquitination of CARD9  
*Xiaorong Chen, Honghai Zhang, Xueer Wang, Zhugui Shao, Yanqi Li, Guimin Zhao, Feng Liu, Bingyu Liu, Yi Zheng, Tian Chen, Hui Zheng, Lei Zhang, and Chengjiang Gao*
- 1844 African Swine Fever Virus MGF-505-7R Negatively Regulates cGAS–STING-Mediated Signaling Pathway  
*Dan Li, Wenping Yang, Lulu Li, Pan Li, Zhao Ma, Jing Zhang, Xiaolan Qi, Jingjing Ren, Yi Ru, Qingli Niu, Zhijie Liu, Xiangtao Liu, and Haixue Zheng*

- 1858 Pinaverium Bromide Attenuates Lipopolysaccharide-Induced Excessive Systemic Inflammation via Inhibiting Neutrophil Priming  
*Xiaohuan Chen, Yun Liu, Hallie Dolin, Jinghua Liu, Yong Jiang, and Zhixing K. Pan*

## INNATE IMMUNITY AND INFLAMMATION

- 1866 IFN- $\lambda$  Regulates Neutrophil Biology to Suppress Inflammation in Herpes Simplex Virus-1-Induced Corneal Immunopathology  
*Ferrin Antony, Chetan Pundkar, Maninder Sandey, Anil K. Jaiswal, Amarjit Mishra, Ashok Kumar, Rudragouda Channappanavar, and Amol Suryawanshi*
- 1878 Noncanonical Roles of Caspase-4 and Caspase-5 in Heme-Driven IL-1 $\beta$  Release and Cell Death  
*Beatriz E. Bolívar, Alexandra N. Brown-Suedel, Brittany A. Rohrman, Chloé I. Charendoff, Vanda Yazdani, John D. Belcher, Gregory M. Vercellotti, Jonathan M. Flanagan, and Lisa Bouchier-Hayes*
- 1890 Loss of Mitochondrial Protease CLPP Activates Type I IFN Responses through the Mitochondrial DNA-cGAS-STING Signaling Axis  
*Sylvia Torres-Odio, Yuanjiu Lei, Suzana Gispert, Antonia Maletzko, Jana Key, Saeed S. Menissy, Ilka Wittig, Georg Auburger, and A. Phillip West*
- 1901 *Mycobacterium smegmatis* Resists the Bactericidal Activity of Hypochlorous Acid Produced in Neutrophil Phagosomes  
*Heather A. Parker, Nina Dickerhof, Lorna Forrester, Heath Ryburn, Leon Smyth, Joris Messens, Htin L. Aung, Gregory M. Cook, Anthony J. Kettle, and Mark B. Hampton*
- 1913 Pyroptosis Mediates Neutrophil Extracellular Trap Formation during Bacterial Infection in Zebrafish  
*Weijie Chen, Jingjing Zhao, Di Mu, Zhuang Wang, Qin Liu, Yuanxing Zhang, and Dabai Yang*
- 1923 Neutrophils and IL-1 $\alpha$  Regulate Surfactant Homeostasis during Cigarette Smoking  
*Nadia Milad, Marie Pineault, Ariane Lechasseur, Joanie Routhier, Marie-Josée Beaulieu, Sophie Aubin, and Mathieu C. Morissette*
- 1932 Long Noncoding RNA EGOT Responds to Stress Signals to Regulate Cell Inflammation and Growth  
*Marina Barriocanal, Celia Prior, Beatriz Suarez, Juan Pablo Unfried, Nerea Razquin, Sandra Hervás-Stubbs, Bruno Sangro, Victor Segura, and Puri Fortes*
- 1943 Human Inflammatory Neutrophils Express Genes Encoding Peptidase Inhibitors: Production of Elafin Mediated by NF- $\kappa$ B and CCAAT/Enhancer-Binding Protein  $\beta$   
*Isabelle Allaey, Flavia Ribeiro de Vargas, Sylvain G. Bourgoin, and Patrice E. Poubelle*

## MOLECULAR AND STRUCTURAL IMMUNOLOGY

- 1957 Two Human Monoclonal HLA-Reactive Antibodies Cross-React with Mamu-B\*008, a Rhesus Macaque MHC Allotype Associated with Control of Simian Immunodeficiency Virus Replication  
*Natasja G. de Groot, Corrine M. C. Heijmans, Suzanne Bezstarosti, Jesse Bruijnesteijn, Geert W. Haasnoot, Arend Mulder, Frans H. J. Claas, Sebastiaan Heidt, and Ronald E. Bontrop*

## TUMOR IMMUNOLOGY

- 1966 IL-1 $\alpha$  Mediates Innate and Acquired Resistance to Immunotherapy in Melanoma  
*Shubhra Singh, Zhilan Xiao, Karishma Bavisi, Jason Roszik, Brenda D. Melendez, Zhiqiang Wang, Mark J. Cantwell, Richard E. Davis, Greg Lizee, Patrick Hwu, Sattva S. Neelapu, Willem W. Overwijk, and Manisha Singh*

- 1976 AUTHOR INDEX