



Explore what's possible with innovative research tools

Discover the difference >



The Journal of
Immunology

206 (11)

J Immunol 2021; 206:2501-2765; ;
<http://www.jimmunol.org/content/206/11>

This information is current as of September 26, 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.



TOP READS

- 2501 **SHP-1 Mediates CD22 Regulation of BCR Signaling** *See article p. 2544*
CD40L and Germinal Center Responses *See article p. 2552*
SARS-CoV-2 and B Cell Subsets *See article p. 2605*
Pathogen-Fueled HIV Persistence *See article p. 2638*

IMMUNOLOGY NOTES AND RESOURCES

- 2503 Conserved and Novel Mouse CD8 T Cell Epitopes within SARS-CoV-2 Spike Receptor Binding Domain Protein Identified following Subunit Vaccination
Bennett J. Davenport, Thomas E. Morrison, Ross M. Kedl, and Jared Klarquist

BRIEF REVIEWS

- 2509 Influenza Virus and SARS-CoV-2 Vaccines
Adam M. Sandor, Michael S. Sturdivant, and Jenny P. Y. Ting

CUTTING EDGE

- 2521 Cutting Edge: Myosin 18A Is a Novel Checkpoint Regulator in B Cell Differentiation and Antibody-Mediated Immunity
Michael B. Cheung, Gospel Enyindah-Asonye, Ken Matsui, Ivan Kosik, Nina Dvorina, William M. Baldwin, III, Jonathan W. Yewdell, and Neetu Gupta

ANTIGEN RECOGNITION AND RESPONSES

- 2527 Identification of T Cell Epitopes in the Spike Glycoprotein of Severe Acute Respiratory Syndrome Coronavirus 2 in Rhesus Macaques
Xiaojuan Liu, Yuzhong Li, Hongjian Xiao, Yanwei Bi, Yue Gong, Zhengrong Hu, Yaxin Zeng, Ming Sun, Zhanlong He, Shan Lu, Qihan Li, and Wei Cun

On the cover: The image depicts the distribution and levels of phosphorylated myosin L chain (green) and actin cytoskeletal organization (red) in breast cancer cells. Overall, this study demonstrates the roles of IL-9 in inhibiting metastasis of breast and cervical cancer cells. Das, S., V. Surve, S. Marathe, S. Wad, A. Karulkar, S. Srinivasan, A. Dwivedi, S. R. Barthel, and R. Purwar. 2021. IL-9 abrogates the metastatic potential of breast cancer by controlling extracellular matrix remodeling and cellular contractility. *J. Immunol.* 206: 2740–2752.

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.

AUTOIMMUNITY

- 2536 Th17 Cells Contribute to the Pathology of Autoimmune Hypophysitis
Paulina Chalan, Nithya Thomas, and Patrizio Caturegli

IMMUNE REGULATION

- 2544 The Protein Tyrosine Phosphatase SHP-1 (PTPN6) but Not CD45 (PTPRC) Is Essential for the Ligand-Mediated Regulation of CD22 in BCR-Ligated B Cells
Amin Alborzian Deh Sheikb, Chizuru Akatsu, Hajjaj H. M. Abdu-Allah, Yuki Suganuma, Akihiro Imamura, Hiromune Ando, Hiromu Takematsu, Hideharu Ishida, and Takeshi Tsubata
- 2552 A Posttranscriptional Pathway of CD40 Ligand mRNA Stability Is Required for the Development of an Optimal Humoral Immune Response
Bitha Narayanan, Diego Prado de Maio, James La Porta, Yekaterina Voskoboinik, Usha Ganapathi, Ping Xie, and Lori R. Covey

IMMUNOTHERAPY AND VACCINES

- 2566 Genome-Wide B Cell, CD4⁺, and CD8⁺ T Cell Epitopes That Are Highly Conserved between Human and Animal Coronaviruses, Identified from SARS-CoV-2 as Targets for Preemptive Pan-Coronavirus Vaccines
Swayam Prakash, Ruchi Srivastava, Pierre-Gregoire Coulon, Nisha R. Dhanushkodi, Aziz A. Chentoufi, Delia F. Tifrea, Robert A. Edwards, Cesar J. Figueroa, Sebastian D. Schubl, Lanny Hsieh, Michael J. Buchmeier, Mohammed Bouziane, Anthony B. Nesburn, Baruch D. Kuppermann, and Lbakhir BenMohamed
- 2583 Modulating T Follicular Cells In Vivo Enhances Antigen-Specific Humoral Immunity
Jose D. Pagan, Hera Vlamakis, Anthony Gaca, Ramnik J. Xavier, and Robert M. Anthony
- 2596 Cellular and Humoral Immune Responses in Mice Immunized with Vaccinia Virus Expressing the SARS-CoV-2 Spike Protein
Jake C. Harbour, Zoe L. Lyski, John B. Schell, Archana Thomas, William B. Messer, Mark K. Slifka, and Jeffrey C. Nolz

INFECTIOUS DISEASE AND HOST RESPONSE

- 2605 Evaluation of Cellular and Serological Responses to Acute SARS-CoV-2 Infection Demonstrates the Functional Importance of the Receptor-Binding Domain
Grace Mantus, Lindsay E. Nyhoff, Robert C. Kauffman, Venkata Viswanadh Edara, Lilin Lai, Katharine Floyd, Pei-Yong Shi, Vineet D. Menachery, Srilatha Edupuganti, Erin M. Scherer, Ariel Kay, Nina McNair, Evan J. Anderson, Nadine Rouphael, Rafi Ahmed, Mehul S. Suthar, and Jens Wrangé
- 2614 Characterization of the SARS-CoV-2 Neutralization Potential of COVID-19–Convalescent Donors
Bernd Jahrsdörfer, Rüdiger Groß, Alina Seidel, Lukas Wettstein, Carolin Ludwig, Tatjana Schwarz, Sixten Körper, Markus Rojewski, Ramin Lotfi, Christoph Weinstock, Erhard Seifried, Victor Max Corman, Christian Drosten, Jan Münch, and Hubert Schrezenmeier
- 2623 β -Arrestin 2 Regulates Inflammatory Responses against *Mycobacterium tuberculosis* Infection through ERK1/2 Signaling
Qian Wen, Yanfen Li, Zhenyu Han, Honglin Liu, Shimeng Zhang, Yaoxin Chen, Jianchun He, Xialin Du, Yuling Fu, Lijie Zhang, Zelin Zhang, Yulan Huang, Xinying Zhou, Chaoying Zhou, Shengfeng Hu, and Li Ma
- 2638 RALDH Activity Induced by Bacterial/Fungal Pathogens in CD16⁺ Monocyte-Derived Dendritic Cells Boosts HIV Infection and Outgrowth in CD4⁺ T Cells
Amélie Cattin, Vanessa Sue Wacleche, Natalia Fonseca Do Rosario, Laurence Raymond Marchand, Jonathan Dias, Annie Gosselin, Eric A. Cohen, Jérôme Estaquier, Nicolas Chomont, Jean-Pierre Routy, and Petronela Ancuta

INNATE IMMUNITY AND INFLAMMATION

- 2652 NFAT5 Amplifies Antipathogen Responses by Enhancing Chromatin Accessibility, H3K27 Demethylation, and Transcription Factor Recruitment
Giulia Lunazzi, Maria Buxadé, Marta Riera-Borrull, Laura Higuera, Sarah Bonnin, Hector Huerga Encabo, Silvia Gaggero, Diana Reyes-Garau, Carlos Company, Luca Cozzuto, Julia Ponomarenko, José Aramburu, and Cristina López-Rodríguez

- 2668 Inducible ATP1B1 Upregulates Antiviral Innate Immune Responses by the Ubiquitination of TRAF3 and TRAF6
Wei Cao, Yifei Guo, Zhikui Cheng, Gang Xu, Qi Zuo, Longyu Nie, Yu Huang, Shi Liu, and Ying Zhu
- 2682 UBX Domain Protein 6 Positively Regulates JAK-STAT1/2 Signaling
Harshada Kekkar, Andrew G. Harrison, Vincent R. Graziano, Tingting Geng, Long Yang, Anthony T. Vella, and Penghua Wang
- 2692 Galectin-9 Targets NLRP3 for Autophagic Degradation to Limit Inflammation
Wenwen Wang, Ying Qin, Hui Song, Lijuan Wang, Mutian Jia, Chunyuan Zhao, Mouchun Gong, and Wei Zhao

MOLECULAR AND STRUCTURAL IMMUNOLOGY

- 2700 B Lymphocyte Specification Is Preceded by Extensive Epigenetic Priming in Multipotent Progenitors
Tobias Strid, Kazuki Okuyama, Johanna Tingvall-Gustafsson, Jacob Kuruvilla, Christina T. Jensen, Stefan Lang, Mahadesh Prasad, Rajesh Somasundaram, Josefine Åhsberg, Susana Cristobal, Shamit Soneji, Jonas Ungerback, and Mikael Sigvardsson

MUCOSAL IMMUNOLOGY

- 2714 The Roles of Type 2 Cytotoxic T Cells in Inflammation, Tissue Remodeling, and Prostaglandin (PG) D₂ Production Are Attenuated by PGD₂ Receptor 2 Antagonism
Wentao Chen, Jian Luo, Yuan Ye, Ryan Hoyle, Wei Liu, Rowie Borst, Shamsah Kazani, Eric A. Shikatani, Veit J. Erpenbeck, Ian D. Pavord, Paul Klenerman, David A. Sandham, and Luzheng Xue
- 2725 MicroRNA-142 Critically Regulates Group 2 Innate Lymphoid Cell Homeostasis and Function
Luke B. Roberts, Geraldine M. Jowett, Emily Read, Tomas Zabinski, Rita Berkachy, Murray E. Selkirk, Ian Jackson, Umar Niazi, Nelomi Anandagoda, Masatake Araki, Kimi Araki, Jagath Kasturiarachchi, Chela James, Tariq Enver, Rachael Nimmo, Rita Reis, Jane K. Howard, Joana F. Neves, and Graham M. Lord

TUMOR IMMUNOLOGY

- 2740 IL-9 Abrogates the Metastatic Potential of Breast Cancer by Controlling Extracellular Matrix Remodeling and Cellular Contractility
Sreya Das, Vishakha Surve, Soumitra Marathe, Siddhi Wad, Atharva Karulkar, Srisathya Srinivasan, Alka Dwivedi, Steven R. Barthel, and Rahul Purwar

NOVEL IMMUNOLOGICAL METHODS

- 2753 An Antigen Capture Assay for the Detection of Mycolactone, the Polyketide Toxin of *Mycobacterium ulcerans*
Louisa Warryn, Jean-Pierre Dangy, Philipp Gersbach, Matthias Gebringer, Karl-Heinz Altmann, and Gerd Pluschke

LETTERS OF RETRACTION

- 2763 Retraction: HLA-B35 Upregulates Endothelin-1 and Downregulates Endothelial Nitric Oxide Synthase via Endoplasmic Reticulum Stress Response in Endothelial Cells
Stefania Lenna, Filemon K. Tan, and Maria Trojanowska

CORRECTIONS

- 2764 Correction: ROR γ t Represses IL-10 Production in Th17 Cells To Maintain Their Pathogenicity in Inducing Intestinal Inflammation
Mingming Sun, Chong He, Liang Chen, Wenjing Yang, Wei Wu, Feidi Chen, Anthony T. Cao, Suxia Yao, Sara M. Dann, T. G. Murali Dhar, Luisa Salter-Cid, Qihong Zhao, Zhanju Liu, and Yingzi Cong

- 2766 AUTHOR INDEX