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Lipid loop instigates arthritis
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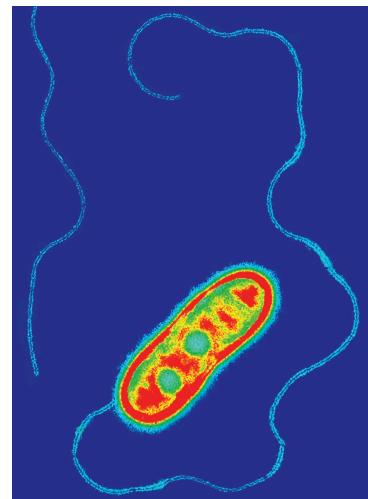
- 803 Influenza: exposing the true killer
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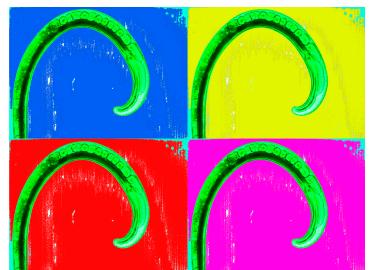
- 821 In vivo analysis of the role of aberrant histone deacetylase recruitment and RAR α blockade in the pathogenesis of acute promyelocytic leukemia
Hiromichi Matsushita, Pier Paolo Scaglioni, Mantu Bhaumik, Eduardo M. Rego, Lu Fan Cai, Samia M. Majid, Hayato Miyachi, Akira Kakizuka, Wilson H. Miller Jr., and Pier Paolo Pandolfi
- 829 A unique requirement for the leukotriene B₄ receptor BLT1 for neutrophil recruitment in inflammatory arthritis
Nancy D. Kim, Richard C. Chou, Edward Seung, Andrew M. Tager, and Andrew D. Luster
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- 837 Neutrophil-derived leukotriene B₄ is required for inflammatory arthritis
Mei Chen, Bing K. Lam, Yoshihide Kanaoka, Peter A. Nigrovic, Laurent P. Audoly, K. Frank Austen, and David M. Lee
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ON THE COVER

Image shows a *Legionella pneumophila* bacterium. *L. pneumophila* flagellin is recognized by the intracellular pathogen recognition receptor Naip5. Related article by Molofsky et al.
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- 843 Interleukin 25 regulates type 2 cytokine-dependent immunity and limits chronic inflammation in the gastrointestinal tract
Alexander M. Owyang, Colby Zaph, Emma H. Wilson, Katherine J. Guild, Terrill McClanahan, Hugh R.P. Miller, Daniel J. Cua, Michael Goldschmidt, Christopher A. Hunter, Robert A. Kastlein, and David Artis
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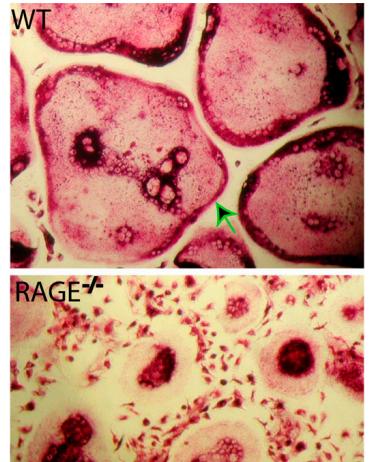


Interleukin-25 is required to generate a T helper 2 cytokine response to the intestinal helminth *Trichuris muris* (shown).
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- 851 Endogenous IRBP can be dispensable for generation of natural CD4⁺CD25⁺ regulatory T cells that protect from IRBP-induced retinal autoimmunity
Rafael S. Grajewski, Phyllis B. Silver, Rajeev K. Agarwal, Shao-Bo Su, Chi-Chao Chan, Gregory I. Liou, and Rachel R. Caspi
- 857 Regulation of phosphatidylinositol 3-kinase by polyisoprenyl phosphates in neutrophil-mediated tissue injury
Caroline Bonnans, Koichi Fukunaga, Raquel Keledjian, Nicos A. Petasis, and Bruce D. Levy
- 865 Endogenous factors enhance HIV infection of tissue naive CD4 T cells by stimulating high molecular mass APOBEC3G complex formation
Jason F. Kreisberg, Wes Yonemoto, and Warner C. Greene

ARTICLES

- 871 B7-H4 expression identifies a novel suppressive macrophage population in human ovarian carcinoma
Ilona Kryczek, Linhua Zou, Paulo Rodriguez, Gefeng Zhu, Shuang Wei, Peter Mottram, Michael Brumlik, Pui Cheng, Tyler Curiel, Leann Myers, Andrew Lackner, Xavier Alvarez, Augusto Ochoa, Lieping Chen, and Weiping Zou
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- 883 Tissue expression of PD-L1 mediates peripheral T cell tolerance
Mary E. Keir, Spencer C. Liang, Indira Guleria, Yvette E. Latchman, Andi Qipo, Lee A. Albacker, Maria Koulmanda, Gordon J. Freeman, Mohamed H. Sayegh, and Arlene H. Sharpe
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- 897 CD4 memory T cells survive and proliferate but fail to differentiate in the absence of CD40
Megan MacLeod, Mark J. Kwakkenbos, Alison Crawford, Sheila Brown, Brigitta Stockinger, Koen Schepers, Ton Schumacher, and David Gray
- 907 Critical role of endothelial P-selectin glycoprotein ligand 1 in chronic murine ileitis
Jesús Rivera-Nieves, Tracy L. Burcin, Timothy S. Olson, Margaret A. Morris, Marcia McDuffie, Fabio Cominelli, and Klaus Ley
- 919 Secondary memory CD8⁺ T cells are more protective but slower to acquire a central-memory phenotype
Ali Jabbari and John T. Harty



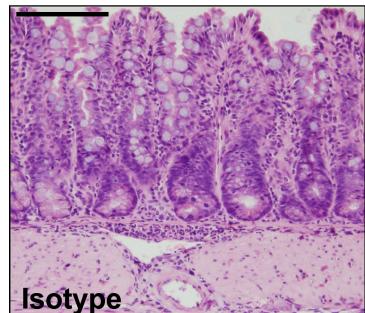
Formation of multinucleated osteoclasts (top) is impaired in the absence of the receptor for advanced glycation end products (RAGE, bottom).
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- 933 Lymphocytes are detrimental during the early innate immune response against *Listeria monocytogenes*
Javier A. Carrero, Boris Calderon, and Emil R. Unanue
- 941 CXCL1 induced by prostaglandin E₂ promotes angiogenesis in colorectal cancer
Dingzhi Wang, Haibin Wang, Joanne Brown, Takiko Daikoku, Wei Ning, Qiong Shi, Ann Richmond, Robert Strieter, Sudhansu K. Dey, and Raymond N. DuBois
- 953 Impaired Langerhans cell migration in psoriasis
Marie Cumberbatch, Minal Singh, Rebecca J. Dearman, Helen S. Young, Ian Kimber, and Christopher E.M. Griffiths
- 961 Antibiotic-refractory Lyme arthritis is associated with HLA-DR molecules that bind a *Borrelia burgdorferi* peptide
Allen C. Steere, William Klitz, Elise E. Drouin, Ben A. Falk, William W. Kwok, Gerald T. Nepom, and Lee Ann Baxter-Lowe
- 973 Postnatal acquisition of endotoxin tolerance in intestinal epithelial cells
Michael Lotz, Dominique Gütte, Sabrina Walther, Sandrine Ménard, Christian Bogdan, and Mathias W. Hornef
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- 985 Suppression of experimental autoimmune encephalomyelitis by extracellular adherence protein of *Staphylococcus aureus*
Changping Xie, Pilar Alcaide, Brian V. Geisbrecht, Darius Schneider, Mathias Herrmann, Klaus T. Preissner, Francis W. Luscinskas, and Triantafyllos Chavakis
- 995 Control of Epstein-Barr virus infection in vitro by T helper cells specific for virion glycoproteins
Dinesh Adhikary, Uta Behrends, Andreas Moosmann, Klaus Witter, Georg W. Bornkamm, and Josef Mautner
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- 1007 Dystroglycan is selectively cleaved at the parenchymal basement membrane at sites of leukocyte extravasation in experimental autoimmune encephalomyelitis
Smriti Agrawal, Per Anderson, Madeleine Durbeej, Nico van Rooijen, Fredrik Ivars, Ghislain Opdenakker, and Lydia M. Sorokin
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- 1021 Loss of SOCS3 in T helper cells resulted in reduced immune responses and hyperproduction of interleukin 10 and transforming growth factor-β1
Ichiko Kinjyo, Hiromasa Inoue, Shinjiro Hamano, Satoru Fukuyama, Takeru Yoshimura, Keiko Koga, Hiromi Takaki, Kunisuke Himeno, Giichi Takaesu, Takashi Kobayashi, and Akihiko Yoshimura



Endogenous expression of the retinal antigen IRBP is dispensable for the development of regulatory T cells that protect against IRBP-induced uveitis.

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Isotype

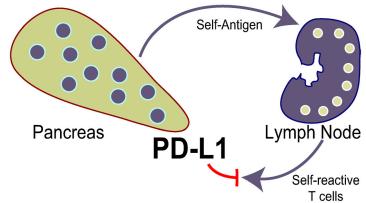


Anti-PSGL-1

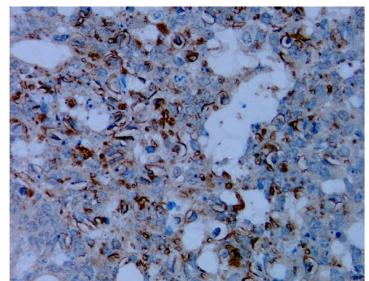
Blocking the endothelial L-selectin ligand PSGL-1 (anti-PSGL1) protects against intestinal inflammation in a mouse model of chronic ileitis.

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- 1033 Evidence for discrete stages of human natural killer cell differentiation *in vivo*
Aharon G. Freud, Akihiko Yokohama, Brian Becknell, Melissa T. Lee, Hsiaoyin C. Mao, Amy K. Ferketich, and Michael A. Caligiuri
- 1045 CD4⁺ T cells that enter the draining lymph nodes after antigen injection participate in the primary response and become central-memory cells
Drew M. Catron, Lori K. Rusch, Jason Hataye, Andrea A. Itano, and Marc K. Jenkins
- 1055 Physiological pathway of differentiation of hematopoietic stem cell population into mural cells
Yoshihiro Yamada and Nobuyuki Takakura
- 1067 Regulation of osteoclast function and bone mass by RAGE
Zheng Zhou, David Immel, Cai-Xia Xi, Angelika Bierhaus, Xu Feng, Lin Mei, Peter Nawroth, David M. Stern, and Wen-Cheng Xiong
- 1081 Antigen recognition strength regulates the choice between extrafollicular plasma cell and germinal center B cell differentiation
Didrik Paus, Tri Giang Phan, Tyani D. Chan, Sandra Gardam, Antony Bastein, and Robert Brink
- 1093 Cytosolic recognition of flagellin by mouse macrophages restricts *Legionella pneumophila* infection
Ari B. Molofsky, Brenda G. Byrne, Natalie N. Whitfield, Cressida A. Madigan, Etsu T. Fuse, Kazuhiro Tateda, and Michele S. Swanson
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- 1105 Identification of an interleukin (IL)-25-dependent cell population that provides IL-4, IL-5, and IL-13 at the onset of helminth expulsion
Padraig G. Fallon, Sarah J. Ballantyne, Niamh E. Mangan, Jillian L. Barlow, Ayan Dasvarma, Duncan R. Hewett, Ann McIlgorm, Helen E. Jolin, and Andrew N.J. McKenzie
See commentary on page 809
- 1117 Antioxidants protect from atherosclerosis by a heme oxygenase-1 pathway that is independent of free radical scavenging
Ben J. Wu, Krishna Kathir, Paul K. Witting, Konstanze Beck, Katherine Choy, Cheng Li, Kevin D. Croft, Trevor A. Mori, David Tanous, Mark R. Adams, Antony K. Lau, and Roland Stocker
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- 1129 Correction
- 1131 Correction



Expression of the inhibitory receptor PD-L1 on pancreatic islet cells protects against CD4⁺ T cell-mediated destruction of transplanted islet cells.
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Prostaglandin E2 induces tumor cell expression of the proangiogenic chemokine CXCL1 (brown), thus promoting tumor growth.
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