

ON THE COVER

The image is a micrograph (false color) showing myeloproliferation in the spleen of leukemia-prone BHX-2 mice. Related article by Turcotte et al.
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Defenseless against the common cold
Too old to help
Clean living staves off autoimmunity
Heather L. Van Epps

COMMENTARIES

- 833** Signaling for NKT cell development: the SAP–FynT connection
Christine Borowski and Albert Bendelac
- 837** T cell aging: naive but not young
Janko Nikolic-Žugich
- 841** Identifying genes that regulate bone remodeling as potential therapeutic targets
Stephen M. Krane

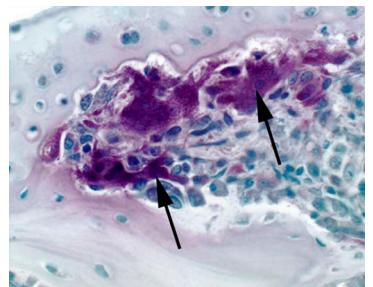
BRIEF DEFINITIVE REPORTS

- 845** Newly generated CD4 T cells in aged animals do not exhibit age-related defects in response to antigen
Laura Haynes, Sheri M. Eaton, Eve M. Burns, Troy D. Randall, and Susan L. Swain
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- 853** Granulocyte/macrophage colony-stimulating factor and accessory cells modulate radioprotection by purified hematopoietic cells
Tamiko R. Katsumoto, Jennifer Duda, Andrew Kim, Zabihullah Wardak, Glenn Dranoff, D. Wade Clapp, and Kevin Shannon

ARTICLES

- 859** Regulation of anaphylactic responses by phosphatidylinositol phosphate kinase type I α
Junko Sasaki, Takehiko Sasaki, Masakazu Yamazaki, Kunie Matsuoka, Choji Taya, Hiroshi Shitara, Shunsuke Takasuga, Miki Nishio, Katsunori Mizuno, Teiji Wada, Hideyuki Miyazaki, Hiroshi Watanabe, Ryota Iizuka, Shuichi Kubo, Shigeo Murata, Tomoki Chiba, Tomohiko Maehama, Koichi Hamada, Hiroyuki Kishimoto, Michael A. Frohman, Keiji Tanaka, Josef M. Penninger, Hiromichi Yonekawa, Akira Suzuki, and Yasunori Kanaho
- 871** Platelet activation leads to activation and propagation of the complement system
Ian del Conde, Miguel A. Crúz, Hui Zhang, José A. López, and Vahid Afshar-Kharghan

- 881** A mutation in the *Icsbp1* gene causes susceptibility to infection and a chronic myeloid leukemia-like syndrome in BXH-2 mice
Karine Turcotte, Susan Gauthier, Ashleigh Tuite, Alaka Mullick, Danielle Malo, and Philippe Gros
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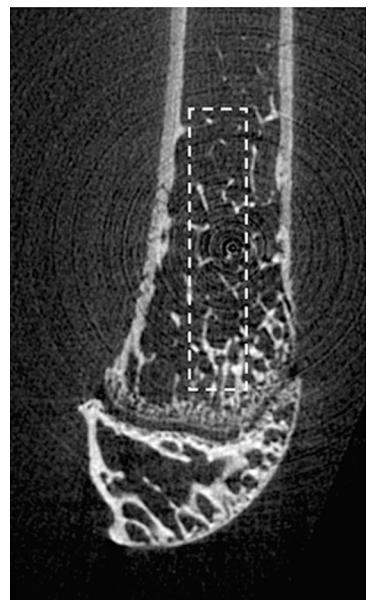
Absence of CD44 results in increased numbers of osteoclasts (purple) in joints and increased bone destruction during inflammation-induced arthritis.

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- 891** Transmission and accumulation of CTL escape variants drive negative associations between HIV polymorphisms and HLA
Alasdair Leslie, Daniel Kavanagh, Isobella Honeyborne, Katja Pfafferott, Charles Edwards, Tilly Pillay, Louise Hilton, Christina Thobakgale, Danni Ramduth, Rika Draenert, Sylvie Le Gall, Graz Luzzi, Anne Edwards, Christian Brander, Andrew K. Sewell, Sarah Moore, James Mullins, Corey Moore, Simon Mallal, Nina Bhardwaj, Karina Yusim, Rodney Phillips, Paul Kleenerman, Bette Korber, Photini Kiepiela, Bruce Walker, and Philip Goulder

- 903** CD44 is a determinant of inflammatory bone loss
Silvia Hayer, Günter Steiner, Birgit Götz, Erika Reiter, Makiyah Tohidast-Akrad, Michael Amling, Oskar Hoffmann, Kurt Redlich, Jochen Zwerina, Karl Skriner, Frank Hilberg, Erwin F. Wagner, Josef S. Smolen, and Georg Schett

- 915** Interleukin-1 receptor-associated kinase-1 plays an essential role for Toll-like receptor (TLR)7- and TLR9-mediated interferon- α induction
Satoshi Uematsu, Shintaro Sato, Masahiro Yamamoto, Tomonori Hirotani, Hiroki Kato, Fumihiko Takeshita, Michiyuki Matsuda, Cevayir Coban, Ken J Ishii, Taro Kawai, Osamu Takeuchi, and Shizuo Akira



The focal adhesion protein CIZ is a negative regulator of osteoclast function—its absence causes increased bone mass.

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- 925** Inhibition of platelet-derived growth factor signaling attenuates pulmonary fibrosis
Amir Abdollahi, Minglun Li, Gong Ping, Christian Plathow, Sophie Domhan, Fabian Kiessling, Leslie B. Lee, Gerald McMahon, Hermann-Josef Gröne, Kenneth E. Lipson, and Peter E. Huber

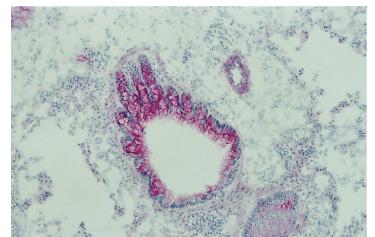
- 937** Asthmatic bronchial epithelial cells have a deficient innate immune response to infection with rhinovirus
Peter A.B. Wark, Sebastian L. Johnston, Fabio Buchieri, Robert Powell, Sarah Puddicombe, Vasile Laza-Stanca, Stephen T. Holgate, and Donna E. Davies
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- 949** A role for fungal β -glucans and their receptor Dectin-1 in the induction of autoimmune arthritis in genetically susceptible mice
Hiroyuki Yoshitomi, Noriko Sakaguchi, Katsuya Kobayashi, Gordon D. Brown, Tomoyuki Tagami, Toshiko Sakihama, Keiji Hirota, Satoshi Tanaka, Takashi Nomura, Ichiro Miki, Siamon Gordon, Shizuo Akira, Takashi Nakamura, and Shimon Sakaguchi
[See news article on page 831](#)

- 961** The nucleocytoplasmic shuttling protein CIZ reduces adult bone mass by inhibiting bone morphogenetic protein–induced bone formation

Mikihiko Morinobu, Tetsuya Nakamoto, Kazunori Hino, Kunikazu Tsuji, Zhong-Jian Shen, Kazuhisa Nakashima, Akira Nifuji, Haruyasu Yamamoto, Hisamaru Hirai, and Masaki Noda

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Dendritic cells are required for the development of allergic asthma.
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- 971** Interleukin-7 is necessary to maintain the B cell potential in common lymphoid progenitors

Sheila Dias, Hamilton Silva Jr., Ana Cumano, and Paulo Vieira

- 981** In vivo depletion of lung CD11c⁺ dendritic cells during allergen challenge abrogates the characteristic features of asthma

Leonie S. van Rijt, Steffen Jung, Alex KleinJan, Nanda Vos, Monique Willart, Catherine Duez, Henk C. Hoogsteden, and Bart N. Lambrecht

- 993** Complement receptors regulate differentiation of bone marrow plasma cell precursors expressing transcription factors Blimp-1 and XBP-1

Dominique Gatto, Thomas Pfister, Andrea Jegerlehner, Stephen W. Martin, Manfred Kopf, and Martin F. Bachmann

- 1007** Vaccinia virus protein A46R targets multiple Toll-like–interleukin-1 receptor adaptors and contributes to virulence

Julianne Stack, Ismar R. Haga, Martina Schröder, Nathan W. Bartlett, Geraldine Maloney, Patrick C. Reading, Katherine A. Fitzgerald, Geoffrey L. Smith, and Andrew G. Bowie

- 1019** Correction