

ON THE COVER
Watercolor by New York artist Emilie Clark (emilie@emilieclark.com).
Mast cells secrete the rash-inducing cytokine IL-1 β in patients with CAPS.
Related article by Nakamura et al.
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- 981 *TNFAIP3 (A20) is a tumor suppressor gene in Hodgkin lymphoma and primary mediastinal B cell lymphoma*
Roland Schmitz, Martin-Leo Hansmann, Verena Bohle, Jose Ignacio Martin-Subero, Sylvia Hartmann, Gunhild Mechtersheimer, Wolfram Klapper, Inga Vater, Maciej Giefing, Stefan Gesk, Jens Stanelle, Reiner Siebert, and Ralf Küppers
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- 991 *T follicular helper cells differentiate from Th2 cells in response to helminth antigens*
Arielle Glatman Zaretsky, Justin J. Taylor, Irah L. King, Fraser A. Marshall, Markus Mohrs, and Edward J. Pearce
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- 1001 *IL-4-producing CD4 $^{+}$ T cells in reactive lymph nodes during helminth infection are T follicular helper cells*
Irah L. King and Markus Mohrs
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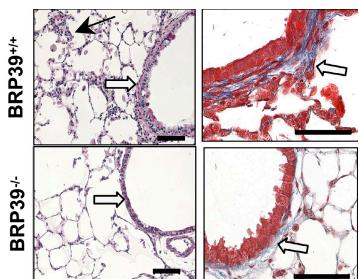
- 1009 *Identification and characterization of IL-10/IFN- γ -producing effector-like T cells with regulatory function in human blood*
Barbara Häringuer, Laura Lozza, Bodo Steckel, and Jens Geginat

- 1019 *A 220-nucleotide deletion of the intronic enhancer reveals an epigenetic hierarchy in immunoglobulin heavy chain locus activation*
Tirtha Chakraborty, Thomas Perlot, Ramesh Subrahmanyam, Anant Jani, Peter H. Goff, Yu Zhang, Irina Ivanova, Frederick W. Alt, and Ranjan Sen

- 1029 In vivo regulation of interleukin 1 β in patients with cryopyrin-associated periodic syndromes

Helen J. Lachmann, Philip Lowe, Sandra Daniela Felix, Christiane Rordorf, Kieron Leslie, Sheril Madhoo, Helmut Wittkowski, Stephan Bek, Nicole Hartmann, Sophie Bosset, Philip N. Hawkins, and Thomas Jung

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BRP39 is critical for IL-13–induced Th2 inflammatory responses in the lung.

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ARTICLES

- 1037 Mast cells mediate neutrophil recruitment and vascular leakage through the NLRP3 inflammasome in histamine-independent urticaria

Yuumi Nakamura, Naotomo Kambe, Megumu Saito, Ryuta Nishikomori, Yun-Gi Kim, Makoto Murakami, Gabriel Núñez, and Hiroyuki Matsue

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- 1047 Parp1 facilitates alternative NHEJ, whereas Parp2 suppresses IgH/c-myc translocations during immunoglobulin class switch recombination

Isabelle Robert, Françoise Dantzer, and Bernardo Reina-San-Martin

- 1057 The activation-induced cytidine deaminase (AID) efficiently targets DNA in nucleosomes but only during transcription

Hong Ming Shen, Michael G. Poirier, Michael J. Allen, Justin North, Ratnesh Lal, Jonathan Widom, and Ursula Storb

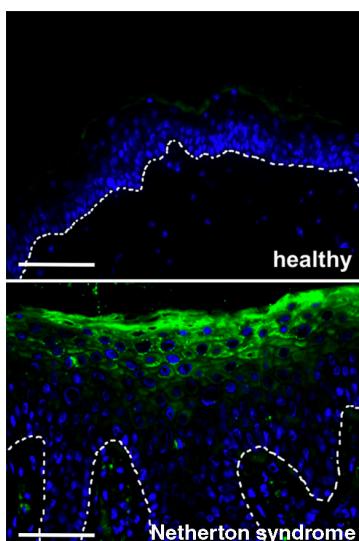
- 1073 Ikaros controls isotype selection during immunoglobulin class switch recombination

MacLean Sellars, Bernardo Reina-San-Martin, Philippe Kastner, and Susan Chan

- 1089 M-CSF inhibition selectively targets pathological angiogenesis and lymphangiogenesis

Yoshiaki Kubota, Keiyo Takubo, Takatsune Shimizu, Hiroaki Ohno, Kazuo Kishi, Masabumi Shibuya, Hideyuki Saya, and Toshio Suda

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TSLP expression (green) in the epidermis may link Netherton syndrome pathology with the disease-associated gene.

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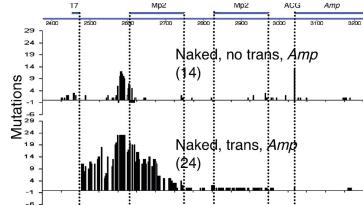
- 1103 OX40 engagement and chemotherapy combination provides potent antitumor immunity with concomitant regulatory T cell apoptosis

Daniel Hirschhorn-Cymerman, Gabrielle A. Rizzuto, Taha Merghoub, Adam D. Cohen, Francesca Avogadri, Alexander M. Lesokhin, Andrew D. Weinberg, Jedd D. Wolchok, and Alan N. Houghton

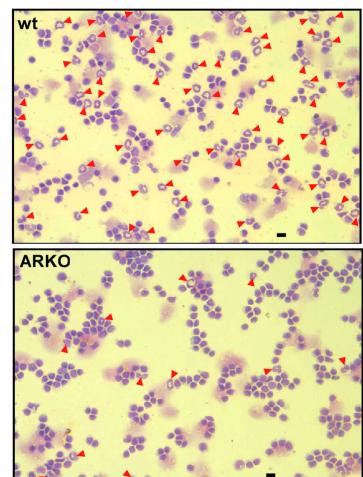
- 1117 Low-dose rectal inoculation of rhesus macaques by SIVsmE660 or SIVmac251 recapitulates human mucosal infection by HIV-1

Brandon F. Keele, Hui Li, Gerald H. Learn, Peter Hraber, Elena E. Giorgi, Truman Grayson, Chuanxi Sun, Yalu Chen, Wendy W. Yeh, Norman L. Letvin, John R. Mascola, Gary J. Nabel, Barton F. Haynes, Tanmoy Bhattacharya, Alan S. Perelson, Bette T. Korber, Beatrice H. Hahn, and George M. Shaw

- 1135** Kallikrein 5 induces atopic dermatitis-like lesions through PAR2-mediated thymic stromal lymphopoietin expression in Netherton syndrome
Anaïs Briot, Céline Deraison, Matthieu Lacroix, Chrystelle Bonnart, Aurélie Robin, Céline Besson, Pierre Dubus, and Alain Hovnanian
- 1149** Role of breast regression protein 39 (BRP-39)/chitinase 3-like-1 in Th2 and IL-13-induced tissue responses and apoptosis
Chun Geun Lee, Dominik Hartl, Gap Ryol Lee, Barbara Koller, Hiroshi Matsuura, Carla A. Da Silva, Myung Hyun Sohn, Lauren Cohn, Robert J. Homer, Alexander A. Kozhich, Alison Humbles, Jennifer Kearley, Anthony Coyle, Geoffrey Chupp, Jennifer Reed, Richard A. Flavell, and Jack A. Elias
- 1167** Myeloid heme oxygenase-1 regulates innate immunity and autoimmunity by modulating IFN- β production
Sotiria Tzima, Panayiotis Victoratos, Ksanthi Kranidioti, Maria Alexiou, and George Kollias
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- 1181** Neutropenia with impaired host defense against microbial infection in mice lacking androgen receptor
Kuang-Hsiang Chuang, Saleh Altuwaijri, Gonghui Li, Jiann-Jyh Lai, Chin-Yi Chu, Kuo-Pao Lai, Hung-Yun Lin, Jong-Wei Hsu, Peter Keng, Ming-Chi Wu, and Chawnshang Chang
- CORRECTIONS**
- 1201** Alternatively activated macrophage-derived RELM- α is a negative regulator of type 2 inflammation in the lung
Meera G. Nair, Yurong Du, Jacqueline G. Perrigoue, Colby Zaph, Justin J. Taylor, Michael Goldschmidt, Gary P. Swain, George D. Yancopoulos, David M. Valenzuela, Andrew Murphy, Margaret Karow, Sean Stevens, Edward J. Pearce, and David Artis
- 1203** Antibody to the dendritic cell surface activation antigen CD83 prevents acute graft-versus-host disease
John Wilson, Hannah Cullup, Rohan Lourie, Yonghua Sheng, Anna Palkova, Kristen J. Radford, Anne M. Dickinson, Alison M. Rice, Derek N.J. Hart, and David J. Munster
- 1205** Mast cells mediate neutrophil recruitment and vascular leakage through the NLRP3 inflammasome in histamine-independent urticaria
Yuumi Nakamura, Naotomo Kambe, Megumu Saito, Ryuta Nishikomori, Yun-Gi Kim, Makoto Murakami, Gabriel Núñez, and Hiroyuki Matsue
- RETRACTION**
- 1207** Role of interleukin 12 and costimulators in T cell anergy in vivo
Luk Van Parijs, Victor L. Perez, Andre Biuckians, Robert G. Maki, Cheryl A. London, and Abul K. Abbas



AID targets DNA in nucleosomes only during transcription.
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Androgen receptor-deficient mice have fewer neutrophils (red arrows) and are more susceptible to acute bacterial infection.

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