

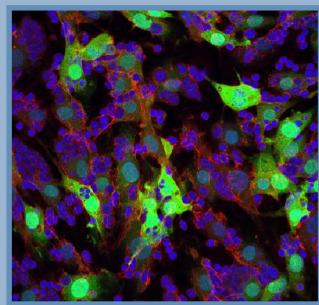
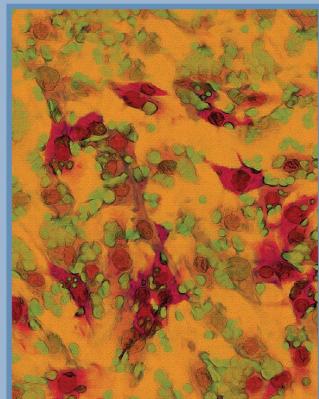
ПЧ  
N28/i

# Nature immunology

VOLUME 15 NUMBER 3 MARCH 2014

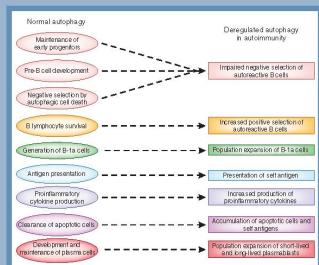
[www.nature.com/natureimmunology](http://www.nature.com/natureimmunology)

Ikaros in early B cell development  
ER stress and immunohomeostasis  
Regulating A20



Loss of the transcription factor Ikaros is associated with a poor prognosis for certain leukemias. Georgopoulos and colleagues (p. 294) show that loss of Ikaros arrests B lymphoid progenitors at an adherent and proliferative pre-B cell stage. The original image shows Ikaros-deficient pre-B cells (blue) with enhanced adhesion to bone marrow stroma (green) and more activity of the kinase FAK (red).

Artwork by Lewis Long.



Multifaceted B cells (p 209)

# nature immunology

## CORRESPONDENCE

- 207** New nomenclature for atypical chemokine receptors

## MEETING REPORT

- 209** Tweaking the B lymphocyte compartment in autoimmune diseases  
Moncef Zouali

## NEWS AND VIEWS

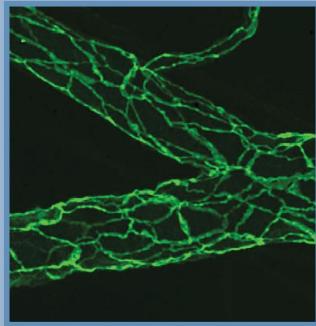
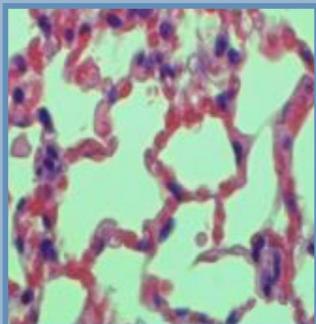
- 213** A new RIDDle in DC-mediated cross-presentation  
Manikandan Subramanian & Ira Tabas see also p 248
- 215** VE-cadherin phosphorylation decides: vascular permeability or diapedesis  
Adama Sidibé & Beat A Imhof see also p 223
- 217** Self-gratification yields not-so-naive T cells  
Christopher E Martin & Charles D Surh see also p 266
- 219** Inducible nitric oxide synthase is crucial for plasma cell survival  
Modesta N Njau & Joshy Jacob see also p 275
- 222** RESEARCH HIGHLIGHTS

## ARTICLES

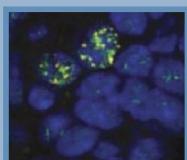
- 223** Leukocyte extravasation and vascular permeability are each controlled *in vivo* by different tyrosine residues of VE-cadherin  
Florian Wessel, Mark Winderlich, Maren Holm, Maike Frye, Ronny Rivera-Galdos, Matthias Vockel, Ruth Linnepe, Ute Ipe, Anika Stadtmann, Alexander Zarbock, Astrid F Nottebaum & Dietmar Vestweber see also p 215
- 231** K63-linked polyubiquitination of transcription factor IRF1 is essential for IL-1-induced production of chemokines CXCL10 and CCL5  
Kuzhuvelil B Harikumar, Jessie W Yester, Michael J Surace, Clement Oyeniran, Megan M Price, Wei-Ching Huang, Nitai C Hait, Jeremy C Allegood, Akimitsu Yamada, Xiangqian Kong, Helen M Lazear, Reetika Bhardwaj, Kazuaki Takabe, Michael S Diamond, Cheng Luo, Sheldon Milstien, Sarah Spiegel & Tomasz Kordula
- 239** The transcription factor DREAM represses the deubiquitinase A20 and mediates inflammation  
Chinnaswamy Tiruppathi, Dheeraj Soni, Dong-Mei Wang, Jiaping Xue, Vandana Singh, Prabhakar B Thippegowda, Bopaiah P Cheppudira, Rakesh K Mishra, Auditi DebRoy, Zhijian Qian, Kurt Bachmaier, You-Yang Zhao, John W Christman, Stephen M Vogel, Averil Ma & Asrar B Malik



nature publishing group

Inducing vascular permeability  
(pp 215 and 223)

Regulating A20 (p 239)



Targeting Aire (p 258)

- 248 The unfolded-protein-response sensor IRE-1 $\alpha$  regulates the function of CD8 $\alpha^+$  dendritic cells**  
Fabiola Osorio, Simon J Tavernier, Eik Hoffmann, Yvan Saeys, Liesbet Martens, Jessica Vitters, Iris Delrue, Riet De Rycke, Eef Parthoens, Philippe Pouliot, Takao Iwawaki, Sophie Janssens, Bart N Lambrecht see also p 213
- 258 The transcriptional regulator Aire coopts the repressive ATF7ip-MBD1 complex for the induction of immunotolerance**  
Michael Waterfield, Imran S Khan, Jessica T Cortez, Una Fan, Todd Metzger, Alexandra Greer, Kayla Fasano, Marc Martinez-Llordella, Joshua L Pollack, David J Erle, Maureen Su & Mark S Anderson
- 266 Intrinsic CD4 $^+$  T cell sensitivity and response to a pathogen are set and sustained by avidity for thymic and peripheral complexes of self peptide and MHC**  
Stephen P Persaud, Chelsea R Parker, Wan-Lin Lo, K Scott Weber & Paul M Allen  
 see also p 217
- 275 Inducible nitric oxide synthase is a major intermediate in signaling pathways for the survival of plasma cells**  
Ankur S Saini, Gautam N Shenoy, Satyajit Rath, Vineeta Bal & Anna George  
 see also p 219
- 283 Stage-specific control of early B cell development by the transcription factor Ikaros**  
Tanja A Schwickert, Hiromi Tagoh, Sinan Gultekin, Aleksandar Dakic, Elin Axelsson, Martina Minnich, Anja Ebert, Barbara Werner, Mareike Roth, Luisa Cimmino, Ross A Dickins, Johannes Zuber, Markus Jaritz & Meinrad Busslinger
- 294 Loss of Ikaros DNA-binding function confers integrin-dependent survival on pre-B cells and progression to acute lymphoblastic leukemia**  
Ila Joshi, Toshimi Yoshida, Nilamani Jena, Xiaoqing Qi, Jiangwen Zhang, Richard A Van Etten & Katia Georgopoulos
- 305 CORRIGENDA AND ERRATA**

---

NATURE IMMUNOLOGY CLASSIFIED

See back pages.