



nature

immunology

VOLUME 14 NUMBER 8 AUGUST 2013
www.nature.com/natureimmunology

CD36-mediated inflammasome activation

Maintaining B cell identity

T_{FH} cell differentiation

nature immunology

COMMENTARY

- 765 Matching cellular dimensions with molecular sizes**
Michael Reth

NEWS AND VIEWS

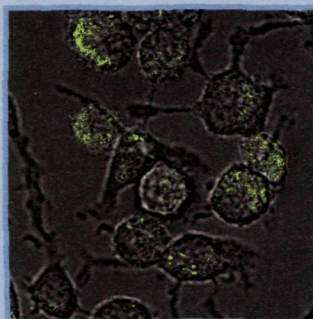
- 768 Platelet-macrophage partnership in innate immunity and inflammation**
Alberto Mantovani & Cecilia Garlanda  *see also p 785*
- 770 Control of T_{FH} differentiation by a microRNA cluster**
Yoon-Chi Han & Andrea Ventura  *see also pp 840 & 849*
- 772 NLRP3 inflammasome activation: CD36 serves double duty**
Jonathan C Kagan & Tiffany Horng  *see also p 812*
- 774 The IL-20 cytokine subfamily: bad guys in host defense?**
Daniel H Kaplan  *see also p 804*
- 776 RESEARCH HIGHLIGHTS**

PERSPECTIVE

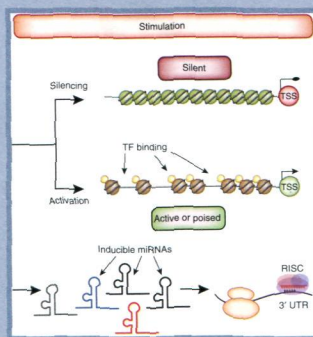
- 777 Short-term memory of danger signals and environmental stimuli in immune cells**
Silvia Monticelli & Giacchino Natoli

ARTICLES

- 785 Nucleation of platelets with blood-borne pathogens on Kupffer cells precedes other innate immunity and contributes to bacterial clearance**
Connie H Y Wong, Craig N Jenne, Björn Petri, Navina L Chrobok & Paul Kubes
 *see also p 768*
- 793 Exosomes mediate the cell-to-cell transmission of IFN- α -induced antiviral activity**
Jianhua Li, Kuancheng Liu, Yang Liu, Yan Xu, Fei Zhang, Huijuan Yang, Jiangxia Liu, Tingting Pan, Jieliang Chen, Min Wu, Xiaohui Zhou & Zhenghong Yuan
- 804 Signaling via the IL-20 receptor inhibits cutaneous production of IL-1 β and IL-17A to promote infection with methicillin-resistant *Staphylococcus aureus***
Ian A Myles, Natalia M Fontecilla, Patricia A Valdez, Paul J Vithayathil, Shruti Naik, Yasmine Belkaid, Wenjun Ouyang & Sandip K Datta  *see also p 774*



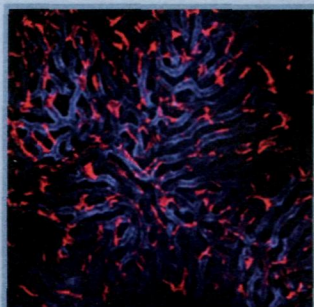
Particulate ligands such as cholesterol crystals and amyloid fibrils have been linked to the induction of IL- β in atherosclerosis, Alzheimer's disease and diabetes. Moore and colleagues show that the scavenger receptor CD36 coordinates the intracellular conversion of soluble precursors into crystals or fibrils in the lysosome, which leads to activation of the NLRP3 inflammasome and secretion of IL-1 β (p 812; News and Views by Jonathan C. Kagan & Tiffany Horng, p 772). Original confocal fluorescent reflection micrograph by Fred Sheedy and Parisa Kalantari. Artwork by Lewis Long.



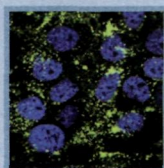
Short-term immunological memory
(p 777)

npg

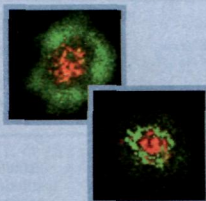
nature publishing group



Platelet surveillance (pp 768 and 785)



Antiviral exosomes (p 793)



Conveying costimulation (p 858)

- 812 CD36 coordinates NLRP3 inflammasome activation by facilitating intracellular nucleation of soluble ligands into particulate ligands in sterile inflammation**
 Frederick J Sheedy, Alena Grebe, Katey J Rayner, Parisa Kalantari, Bhama Ramkhelawon, Susan B Carpenter, Christine E Becker, Hasini N Ediriweera, Adam E Mullick, Douglas T Golenbock, Lynda M Stuart, Eicke Latz, Katherine A Fitzgerald & Kathryn J Moore  *see also p 772*
- 821 Origin of monocytes and macrophages in a committed progenitor**
 Jan Hettinger, David M Richards, Jenny Hansson, Melanie M Barra, Ann-Cathrin Joschko, Jeroen Krijgsveld & Markus Feuerer
- 831 The nuclear receptor LXR α controls the functional specialization of splenic macrophages**
 Noelia A-Gonzalez, Jose A Guillen, Germán Gallardo, Mercedes Diaz, Juan V de la Rosa, Irene H Hernandez, Maria Casanova-Acebes, Felix Lopez, Carlos Tabraue, Susana Beceiro, Cynthia Hong, Pedro C Lara, Miguel Andujar, Satoko Arai, Toru Miyazaki, Senlin Li, Angel L Corbi, Peter Tontonoz, Andres Hidalgo & Antonio Castrillo
- 840 The microRNA cluster miR-17~92 promotes T_{FH} cell differentiation and represses subset-inappropriate gene expression**
 Dirk Baumjohann, Robin Kageyama, Jonathan M Clingan, Malika M Morar, Sana Patel, Dimitri de Kouchkovsky, Oliver Bannard, Jeffrey A Bluestone, Mehrdad Matloubian, K Mark Ansel & Lukas T Jeker  *see also pp 770 & 849*
- 849 MicroRNAs of the miR-17~92 family are critical regulators of T_{FH} differentiation**
 Seung Goo Kang, Wen-Hsien Liu, Peiwen Lu, Hyun Yong Jin, Hyung W Lim, Jovan Shepherd, Daniel Fremgen, Eric Verdin, Michael B A Oldstone, Hai Qi, John R Teijaro & Changchun Xiao  *see also pp 770 & 840*
- 858 The lymphoid lineage-specific actin-uncapping protein Rltpr is essential for costimulation via CD28 and the development of regulatory T cells**
 Yinming Liang, Margot Cucchetti, Romain Roncagalli, Tadashi Yokosuka, Aurélie Malzac, Elodie Bertosio, Jean Imbert, Isaac J Nijman, Miloslav Suchanek, Takashi Saito, Christoph Wülfing, Bernard Malissen & Marie Malissen
- 867 Transcription factor EBF1 is essential for the maintenance of B cell identity and prevention of alternative fates in committed cells**
 Robert Nechanitzky, Duygu Akbas, Stefanie Scherer, Ildiko Györy, Thomas Hoyler, Senthilkumar Ramamoorthy, Andreas Diefenbach & Rudolf Grosschedl
- 876 ERRATA AND CORRIGENDA**

NATURE IMMUNOLOGY CLASSIFIED

See back pages.