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# immunology



**TAM receptor tyrosine kinase function**  
**Preserving CD4<sup>+</sup> T cell identity**  
**Neutrophils prime macrophage responses**

# nature immunology

## COMMENTARY

### 895 Nonspecific effects of neonatal and infant vaccination: public-health, immunological and conceptual challenges

Peter Aaby, Tobias R Kollmann & Christine Stabell Benn

## NEWS AND VIEWS

### 900 Continued mission of ThPOK

Takeshi Egawa  see also p 947

### 902 Neutrophils worm their way into macrophage long-term memory

John R Grainger & Richard K Grencis  see also p 938

### 904 Bcl-6 gets T cells off the sugar

Kevin Man & Axel Kallies  see also p 957

### 906 High endothelial venules through a transcriptomics lens

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## 909 RESEARCH HIGHLIGHTS

## REVIEW

### 910 Emerging functions of the unfolded protein response in immunity

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## ARTICLES

### 920 Diversification of TAM receptor tyrosine kinase function


Anna Zagórska, Paqui G Través, Erin D Lew, Ian Dransfield & Greg Lemke

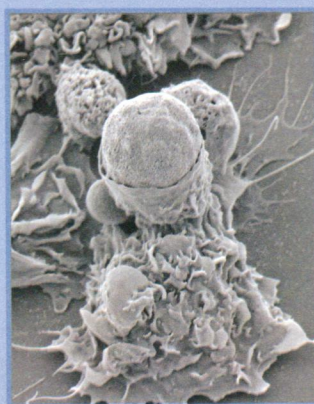
### 929 Constant replenishment from circulating monocytes maintains the macrophage pool in the intestine of adult mice

Calum C Bain, Alberto Bravo-Blas, Charlotte L Scott, Elisa Gomez Perdiguero, Frederic Geissmann, Sandrine Henri, Bernard Malissen, Lisa C Osborne, David Artis & Allan McI Mowat

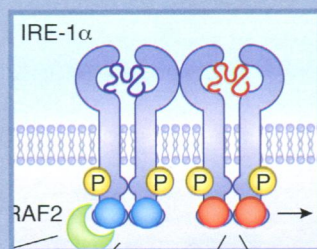
### 938 Neutrophils prime a long-lived effector macrophage phenotype that mediates accelerated helminth expulsion

Fei Chen, Wenhui Wu, Ariel Millman, Joshua F Craft, Eunice Chen, Nirav Patel, Jean L Boucher, Joseph F Urban Jr, Charles C Kim & William C Gause

 see also p 902



Billions of apoptotic cells are cleared from human tissues each day, during both tissue homeostasis and the resolution of inflammation. Lemke and colleagues show that the TAM receptor tyrosine kinases Axl and Mer are specialized to function as phagocytic receptors in these two different environments (p 920). The original image is a scanning electron micrograph of an inflammatory macrophage engulfing an apoptotic cell. Original image by Anna Zagórska and Matt Joens. Artwork by Lewis Long.

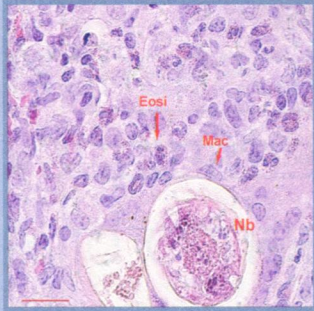


Unfolded protein response in immunity (p 910)

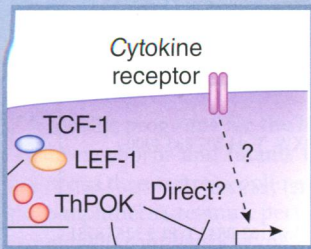


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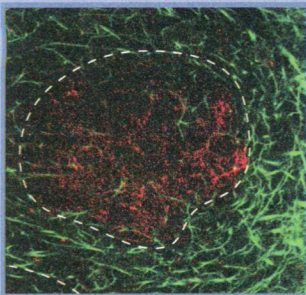
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Центральная научная библиотека  
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Neutrophil-macrophage interactions (pp 902 and 938)



ThPOK in mature CD4<sup>+</sup> T cells (pp 900 and 947)



Fibroblastic reticular cell function in lymph nodes (p 973)

**947 A ThPOK-LRF transcriptional node maintains the integrity and effector potential of post-thymic CD4<sup>+</sup> T cells**

Melanie S Vacchio, Lie Wang, Nicolas Bouladoux, Andrea C Carpenter, Yumei Xiong, Linus C Williams, Elizabeth Wohlfert, Ki-Duk Song, Yasmine Belkaid, Paul E Love & Rémy Bosselut see also p 900

**957 Bcl-6 directly represses the gene program of the glycolysis pathway**

Kenneth J Oestreich, Kaitlin A Read, Sarah E Gilbertson, Kenneth P Hough, Paul W McDonald, Veena Krishnamoorthy & Amy S Weinmann see also p 904

**965 The kinase p38 activated by the metabolic regulator AMPK and scaffold TAB1 drives the senescence of human T cells**

Alessio Lanna, Sian M Henson, David Escors & Arne N Akbar

**973 B cell homeostasis and follicle confines are governed by fibroblastic reticular cells**

Viviana Cremasco, Matthew C Woodruff, Lucas Onder, Jovana Cupovic, Janice M Nieves-Bonilla, Frank A Schildberg, Jonathan Chang, Floriana Cremasco, Christopher J Harvey, Kai Wucherpfennig, Burkhard Ludewig, Michael C Carroll & Shannon J Turley

RESOURCE

**982 Transcriptional programs of lymphoid tissue capillary and high endothelium reveal control mechanisms for lymphocyte homing**

Mike Lee, Helena Kiefel, Melissa D LaJevic, Matthew S Macauley, Edward O'Hara, Junliang Pan, James C Paulson & Eugene C Butcher see also p 906

996 RETRACTION

NATURE IMMUNOLOGY CLASSIFIED

See back pages.