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COVER
Bright-field light microscopy image of peritoneal cells, including a macrophage undergoing cell division (center cell, ~20 micrometers across), taken from mice treated with the cytokine interleukin-4. On page 1284, Jenkins et al. describe a mechanism of inflammation in response to parasitic nematode infection whereby macrophages expand in number through cell division rather than by recruitment from the blood.

Photo: Stephen Jenkins, University of Edinburgh, UK

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A randomized controlled trial reveals both expected and surprising effects of microcredit.
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1284  Local Macrophage Proliferation, Rather than Recruitment from the Blood, Is a Signature of T2 Inflammation
S. J. Jenkins et al.
Proliferation in situ, rather than immune cell recruitment, drives macrophage expansion in response to parasitic infection.
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Simulations show that control of the conductivity of a region within a graphene sheet could guide optical waves.
1294  Wafer-Scale Graphene Integrated Circuit
Y.-M. Lin et al.
Components such as inductors were fabricated alongside graphene transistors to create integrated radio-frequency mixers.
1297  Endotoxin-Induced Structural Transformations in Liquid Crystalline Droplets
I.-H. Lin et al.
Bacterial lipid A was detected by its interactions with defects in droplet-confined liquid crystals.

1300  Methylhydroxycarbene: Tunneling Control of a Chemical Reaction
P. R. Schreiner et al.
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1304  Origin and Evolution of Prebiotic Organic Matter As Inferred from the Tagish Lake Meteorite
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The study of organic matter in a well-preserved meteorite provides insights into processes that affected its parent asteroids.
1307  Activation of Visual Pigments by Light and Heat
D.-G. Luo et al.
Thermal activation of visual pigments involves the same chromophore-isomerization reaction as does light activation.
1313  A DNA Damage Response Screen Identifies RHINO, a 9-1-1 and TopBP1 Interacting Protein Required for ATR Signaling
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G. Bell and A. Gonzalez
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1330  Nicotine Decreases Food Intake Through Activation of POMC Neurons
Y. S. Mineur et al.
Nicotine decreases weight gain by targeting a brain pathway involved in the regulation of energy balance and food intake.
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