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The theme of the 2012 AAAS Annual Meeting, 16 to 20 February in Vancouver, Canada, is *Flattening the World: Building a Global Knowledge Society*. This theme focuses the program on the complex, interconnected challenges of the 21st century and on pathways to global solutions through international, multidisciplinary efforts. Speakers come from more than half of the world's top research universities and institutes. The preliminary program begins on page 834.

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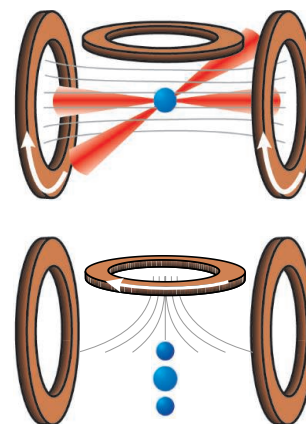
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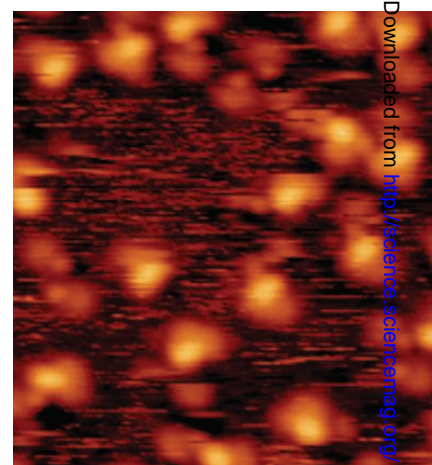
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A. Cruz-Migoni et al.
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- 825 **Late Interleukin-6 Escalates T Follicular Helper Cell Responses and Controls a Chronic Viral Infection**
J. A. Harker et al.
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- 829 **Attention But Not Awareness Modulates the BOLD Signal in the Human V1 During Binocular Suppression**
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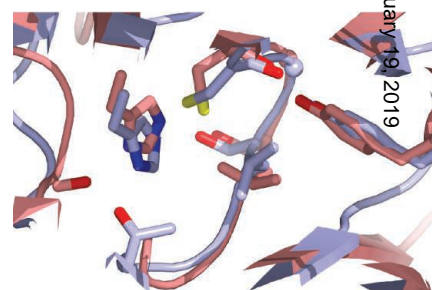
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Detection of Pristine Gas Two Billion Years After the Big Bang

M. Fumagalli et al.

Two cosmic clouds have been observed with a composition close to that of the universe before the first stars were formed.

10.1126/science.1213581

>> [Science Podcast](#)

Protostellar Feedback Halts the Growth of the First Stars in the Universe

T. Hosokawa et al.

Simulations suggest that most of the first stars in the universe might have been less massive than previously thought.

10.1126/science.1207433

Interconversion Between Intestinal Stem Cell Populations in Distinct Niches

N. Takeda et al.

Two niches with distinct characteristics work in tandem.

10.1126/science.1213214

Inhibitory Plasticity Balances Excitation and Inhibition in Sensory Pathways and Memory Networks

T. P. Vogels et al.

Plasticity at inhibitory synapses maintains balanced excitatory and inhibitory synaptic inputs at cortical neurons.

10.1126/science.1211095

Hemoglobins S and C Interfere with Actin Remodeling in *Plasmodium falciparum*-Infected Erythrocytes

M. Cyrklaff et al.

The malaria parasite mines actin from the membrane skeleton of its erythrocyte host to generate a cytoskeletal structure.

10.1126/science.1213775

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Highlights From Our Daily News Coverage

Was the Spotted Horse an Imaginary Creature?

DNA analysis shows the veracity of early cave paintings.

<http://scim.ag/CaveArt>

Drug Tested on Brain-Dead People Shrinks Monkeys' Waistlines

Protein pieces block blood flow to fat tissue.

<http://scim.ag/ObesityTherapy>

Fundamental Constant May Depend on Where in the Universe You Are

Retread of old idea meets with skepticism, however.

<http://scim.ag/space-constant>

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The Signal Transduction Knowledge Environment

8 November issue: <http://scim.ag/ss110811>

RESEARCH RESOURCE: Systematic Phosphorylation Analysis of Human Mitotic Protein Complexes

B. Hegemann et al.

Analysis of the phosphorylation of mitotic protein complexes suggests that specific members of the complexes relay regulatory signals to these molecular machines.

RESEARCH ARTICLE: Short RNA Duplexes Elicit RIG-I–Mediated Apoptosis in a Cell Type– and Length–Dependent Manner

O. Ishibashi et al.

Short double-stranded RNAs induce death in certain cell types without knocking down gene expression.

PERSPECTIVE: Setting the Clock for Recirculating Lymphocytes

A. Eichner and M. Sixt

Desensitization of a sphingosine 1-phosphate receptor enables lymphocytes to leave the vascular compartment.

PODCAST

D. M. Sabatini and A. M. VanHook

The vacuolar ATPase is required for amino acid–mediated activation of mTORC1.

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Integrating Medicine and Science

9 November issue: <http://scim.ag/stm110911>

FOCUS: C-Path—A Watson-Like Visit to the Pathology Lab

D. L. Rimm

RESEARCH ARTICLE: Systematic Analysis of Breast Cancer Morphology Uncovers Stromal Features Associated with Survival
A. H. Beck et al.

Computer-based quantification of tumor morphology has arguably solved the problem of standardized tumor grading.

PERSPECTIVE: Harmonization of Immune Biomarker Assays for Clinical Studies

S. H. van der Burg et al.

Harmonizing immune assay use in clinical trials could reduce data variability and support immune biomarker development.

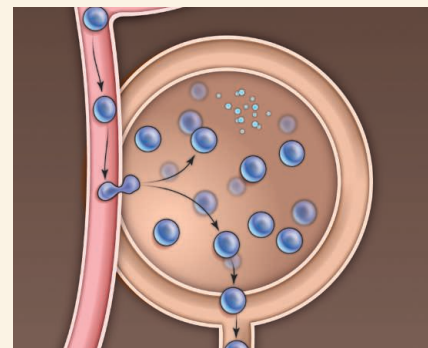
RESEARCH ARTICLE: A Peptidomimetic Targeting White Fat Causes Weight Loss and Improved Insulin Resistance in Obese Monkeys
K. F. Barnhart et al.

A peptide-based drug that targets the vasculature of adipose tissue induces weight loss and improves metabolic function in spontaneously obese monkeys.

RESEARCH ARTICLE: Differential Inhibitor Sensitivity of Anaplastic Lymphoma Kinase Variants Found in Neuroblastoma

S. C. Bresler et al.

Neuroblastoma sensitivity to crizotinib depends on the ATP-binding affinity of ALK variants, suggesting that higher doses may overcome resistance.



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Lymphocytes on the move.

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NASA's Planetary Protection Officer

R. Kaufman

Cassie Conley's job is, among other challenges, to protect Earth from the (pond) scum of the universe.

http://scim.ag/Cassie_Conley

Building a New Niche Network

M. Price

Scientists studying the physics of living systems utilize an NSF initiative to expand their network and make it easier to find jobs.

http://scim.ag/niche_network

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On the 11 November *Science* Podcast: pristine gas clouds, the indirect effects of aerosols, moving research forward with a tighter budget, and more.

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