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Image: Fotosearch.com

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10.1126/science.1213775
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10.1126/science.1211095

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balanced excitatory and inhibitory synaptic plasticity at inhibitory synapses maintains synaptic

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and Memory Networks

and Inhibition in Sensory Pathways

Two niches with distinct characteristics in the universe might have been less massive than previously thought.

Simulations suggest that most of the first stars in the universe were formed in less massive clouds, the indirect effects of aerosols, moving research forward with a tighter budget, and more.

After the Big Bang

Two cosmic clouds have been observed with a composition close to that of the universe before the Big Bang.

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After the Big Bang

Detection of Pristine Gas Two Billion Years After the Big Bang

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10.1126/science.1213581

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

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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

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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

FOCUS: C-Path—A Watson-Like Visit

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

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SIGNALING

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SCIENCE

>> News story p. 750

Enhancing 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.

Lymphocytes on the move.

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. K. Ribe et al.

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

PERPECTIVE: Setting the Clock for Recirculating Lymphocytes

A. Eichner and M. Sist

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

PODCAST

D. M. Sabatini and A. M. VanHook

The vascular ATPase is required for amino acid–mediated activation of mORC1.

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