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Hot dust clouds in the center of the Milky Way, photographed by the Infrared Array Camera (IRAC) aboard the Spitzer Space Telescope. The International Year of Astronomy gets under way this week with opening ceremonies at UNESCO headquarters in Paris; Science marks the occasion with a special News Focus section beginning on page 326.

Image: NASA/JPL-Caltech/S. Stolovy (Spitzer Science Center/Caltech)

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The periodic wrapping of DNA around nucleosomes in chromatin determines a periodic variation in mutation type and frequency around transcription start sites in a fish.

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>> Science Podcast
10.1126/science.1165857

Strong Release of Methane on Mars in Northern Summer 2003
M. J. Mumma et al.
Earth-based spectrometers have detected seasonal variations of methane emissions from certain locations on Mars in 2003.
10.1126/science.1165243

Sensing Chromosome Bi-Orientation by Spatial Separation of Aurora B Kinase from Kinetochore Substrates
D. Liu et al.
The mechanism for sensing tension across chromosome pairs before mitotic separation relies on the distance between enzyme and substrate.
10.1126/science.1167000

Effects of Genetic Perturbation on Seasonal Life History Plasticity
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Interactions among mutation, germination timing, and climate alter flowering patterns in Arabidopsis.
10.1126/science.1165826

A Genetic Defect Caused by a Triple Repeat Expansion in Arabidopsis thaliana
S. Sureshkumar et al.
A strain of Arabidopsis provides a plant model for the harmful effects of repeat nucleotide expansions in populations.
10.1126/science.1164014

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PERSPECTIVE: Growth and Patterning in the Limb—Signaling Gradients Make the Decision
Y. Yang
Signaling gradients coordinately regulate proliferation and cell fate determination in the developing limb.

PODCAST
J. D. Scott et al.
The scaffold protein mAKAP localizes factors important for the cellular response to hypoxia.

NETWATCH: Cytoscape
Cytoscape is an expandable, open-source network analysis software platform; in Bioinformatics Resources.

NETWATCH: The Human Protein Atlas
An antibody-based proteomics database provides tissue-specific expression data for a growing list of human proteins; in Protein Databases.

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Tooling Up: The Job Seeker’s Lexicon
D. Jensen
Job seekers need to interpret the jargon used in job ads and interviews.

Astronomer Finds Rewards in Outreach
L. Laursen
Cameron Hummels is a student ambassador representing NASA during the International Year of Astronomy.
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