Wealthy nations now devote billions of dollars each year to helping low- and middle-income countries confront HIV/AIDS epidemics. Investment in biomedical research has also shot up. What has come of this flood of money? And will there be enough in the future to meet increasing demands? See the special section beginning on page 511.

Image: Kelly Krause/Science
The Metamorphosis of Supernova SN 2008D/XRF 080109: A Link Between Supernovae and GRBs/Hypernovae

P. A. Mazalli et al.

The spectra of a recent supernova evolved from that of a more energetic event to that of a less energetic one, providing a link between previous observations.

10.1126/science.1158088

Human CHN1 Mutations Hyperactivate α2-Chimaerin and Cause Duane’s Retraction Syndrome

N. Miyake et al.

A signaling protein that helps nerve fibers find their correct target muscles is required for innervation of the eye muscles and, if defective, causes an eye movement disorder.

10.1126/science.1156121

Tail Reconnection Triggering Substorm Onset

V. Angelopoulos et al.

Satellite and ground-based data show that reconnection of magnetic field lines in Earth’s magnetotail precedes dramatic aurora displays and is the source of magnetic substorms.

10.1126/science.1160495

PERSPECTIVE: The Elusive Onset of Geomagnetic Substorms

A. A. Petrukovich

10.1126/science.1162426

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An Argonaute Transports siRNAs from the Cytoplasm to the Nucleus

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A protein similar to one that binds small cytoplasmic RNAs transports small RNAs into the nucleus, where they participate in RNA-based nuclear silencing processes.
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BSKs Mediate Signal Transduction from the Receptor Kinase BR1 in Arabidopsis
W. Tang et al.
When a plant membrane receptor is activated by a steroid hormone, two kinases are phosphorylated that ultimately regulate gene expression and development.

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K. E. Carpenter et al.
The viability of the world’s major coral reefs is endangered both by direct human disturbance and by disease and bleaching events brought on by climate change.

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T. Rolef Ben-Shahar et al.
A molecular determinant for the establishment of sister chromatid cohesion.

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L. Li et al.
Bismuth exhibits sharp phase transitions in its magnetization when subjected to high magnetic fields at low temperature.

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J. P. Heremans et al.
Introduction of thallium into lead telluride improves its ability to generate electricity when heated by up to 50 percent.

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DNA Events Manipulating the Metazoan Mitochondrial Genome with Targeted Restriction Enzymes
H. Xu, S. Z. DeLuca, P. H. O’Farrell
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