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768 Hepcidin and the Iron-Infection Axis
H. Drakesmith and A. M. Prentice

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773 An Interacting Binary System Powers Precessing Outflows of an Evolved Star
H. M. J. Boffin et al.
Spectra of a planetary nebula’s central star reveal a companion star responsible for launching the system’s rotating jets.

775 Polarity-Switching Top Coats Enable Orientation of Sub–10-nm Block Copolymer Domains
C. M. Bates et al.
A chemical reaction in a thin polymer film imposes orientational ordering of lamellar domains in an underlying film.

779 Driving a Macroscopic Oscillator with the Stochastic Motion of a Hydrogen Molecule
C. Latz et al.
The random motion of an activated hydrogen molecule produces forces that drive periodic motions of a scanning probe cantilever.

783 Discovery of an Organic Trefoil Knot
N. Ponnuswamy et al.
Hydrophobic interactions appear to steer three molecular fragments into a knot, rather than a simpler ring geometry.

785 Tissint Martian Meteorite: A Fresh Look at the Interior, Surface, and Atmosphere of Mars
H. Chennaoui Aoudjehane et al.
A meteorite that fell in Morocco in July 2011 provides a sample to study processes that operated on Mars 700,000 years ago.

788 Development and Disintegration of Maya Political Systems in Response to Climate Change
D. J. Kennett et al.
A record of rainfall from a stalagmite in southern Belize provides a context for better understanding Maya civilization.

792 A Less Cloudy Future: The Role of Subtropical Subsidence in Climate Sensitivity
J. T. Fasullo and K. E. Trenberth
Seasonal variations in tropospheric relative humidity may provide an observational constraint on climate sensitivity.

795 Coagulation Factor X Activates Innate Immunity to Human Species C Adenovirus
K. Doronin et al.
Tagging adenovirus with a serum protein prompts an immune response when the virus enters cells.

798 Germ Cell Migration Across Sertoli Cell Tight Junctions
B. E. Smith and R. E. Braun
Syncytial germ cell chains span a network of transient compartments to cross the blood-testis barrier in adult mice.

802 Bateman in Nature: Predation on Offspring Reduces the Potential for Sexual Selection
J. Byers and S. Dunn
The relationship between mate number and offspring output in male pronghorn confirms Bateman’s findings.

804 Corals Chemically Cue Mutualistic Fishes to Remove Competing Seaweeds
D. L. Dixson and M. E. Hay
Goby fish remove toxic algae from their coral habitat, becoming more distasteful to predators in the process.

807 A Core Metabolic Enzyme Mediates Resistance to Phosphine Gas
D. I. Schlipalius et al.
Mutations in a lipoic acid metabolism enzyme confer resistance to phosphine but also result in sensitivity to arsenite.

810 Optical Control of Protein Activity by Fluorescent Protein Domains
X. X. Zhou et al.
Shining light onto an engineered fluorescent protein controls the activity of domains fused to the protein.

815 Intramitochondrial Transport of Phosphatidic Acid in Yeast by a Lipid Transfer Protein
M. Connerth et al.
A lipid transfer protein, Ups1, controls the accumulation of cardiolipin in mitochondrial outer and inner membranes.

818 IRE1α Cleaves Select microRNAs During ER Stress to Derepress Translation of Proapoptotic Caspase-2
J.-P. Upton et al.
Protein misfolding stimulates the destruction of microRNAs and the synthesis of an enzyme that promotes cell death.

822 Mitochondrial Network Size Scaling in Budding Yeast
S. M. Rafelski et al.
Yeast cells produce buds with uniform mitochondrial content, even as the aging mother cell loses out.
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The Dawn spacecraft shows how Vesta’s blemishes are removed, but why isn’t space aging it?
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RESEARCH ARTICLE: Key Roles for the Lipid Signaling Enzyme Phospholipase D1 in the Tumor Microenvironment During Tumor Angiogenesis and Metastasis
Q. Chen et al.

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C. K. Kitani et al.
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C. W. Pikielny et al.
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A. A. Belov and M. Mohammadi
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D. Huh et al.
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K. S. Thornloe et al.
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D. M. Dambach and H. Uppal
A collaborative effort to build human organs-on-a-chip may strengthen drug-related adverse-event prediction.
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E. Quintana et al.
The ability of melanomas to produce circulating tumor cells and metastasize in immunocompromised mice correlates with their ability to form distant metastases in patients.

COMMENTARY: Research Results—Preserving Newborn Blood Samples
M. H. Lewis et al.
The debate about retention of dried blood samples from newborns should include their value to biomedical research.

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