CONTENTS

EDITORIAL
592 Preparing for Disasters
Marcia McNutt and Alan Leshner

NEWS OF THE WEEK
596 A roundup of the week’s top stories

NEWS & ANALYSIS
598 Embezzlement Casts Harsh Light on China’s Grant System
599 How to Make a Great Ice Age, Again and Again and Again
600 France Córdova Brings Management Expertise to NSF
601 Critics Skeptical as Flu Scientists Argue for Controversial H7N9 Studies
602 Lab Burger Adds Sizzle to Bid for Research Funds
603 Grim Day for Turkish Science as Six Academics Get Long Prison Terms
604 House Subpoena Revives Battle Over Air Pollution Studies
605 Unconventional Vaccine Shows Promise Against Malaria
>> Science Express Research Article by R. A. Seder et al.

NEWS FOCUS
606 The Web’s Faceless Judges
>> Science Podcast
609 Computing a Better Fire Forecast

LETTERS
612 Gain-of-Function Experiments on H7N9
R. A. M. Fouchier et al.
>> News story p. 601; Science Express Letter by H. Jaffe et al.
613 NextGenVOICES
613 TECHNICAL COMMENT ABSTRACTS

BOOKS ET AL.
614 Arming Mother Nature
J. D. Hamblin, reviewed by G. Mitman
615 The Lost Art of Finding Our Way
J. E. Huth, reviewed by D. Lockwood

POLICY FORUM
616 Who Will Pay for Public Access to Research Data?
F. Berman and V. Cerf

PERSPECTIVES
618 Buildings as Weapons of Mass Destruction
R. Bilham and V. Gaur
>> Science Podcast
620 Graphene for Terahertz Applications
P. Tassin et al.
621 Flashing a Light on the Spatial Organization of Transcription
C. Rickman and W. A. Bickmore
>> Report p. 664
622 Lymphatics Are in My Veins
M. Simons and A. Eichmann
624 Copper’s Contribution to Amination Catalysis
S. R. Chemler
626 The Maturing Brain Methylome
H. W. Gabel and M. E. Greenberg
>> Research Article p. 629

REVIEW
628 Sequence-Controlled Polymers
J.-F. Lutz et al.
Review Summary; for full text: http://dx.doi.org/10.1126/science.1238149

RESEARCH ARTICLE
629 Global Epigenomic Reconfiguration During Mammalian Brain Development
R. Lister et al.
A genome-wide map shows that DNA methylation in neurons and glial cells changes during development in humans and mice.
Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1237905
>> Perspective p. 626

CONTENTS continued >>

ON THE WEB THIS WEEK
>> Science Podcast
Listen to stories on dangerous buildings, a malaria vaccine, postpublication peer review, and more.
>> Find More Online
Check out Science Express, our podcast, videos, daily news, our research journals, and Science Careers at www.sciencemag.org.

COVER
Spin-resolved scanning tunneling microscopy (STM) image (width: 51.6 nanometers) of single magnetic skyrmions (gray) and a few remaining spin spiral lines in a bilayer of Pd/Fe on top of an Ir(111) surface. The magnetic STM tip is sensitive to the out-of-plane magnetization component of the sample. Skyrmions can be created and annihilated locally by injecting spin-polarized currents from the STM tip. See page 636.
Image: Group of R. Wiesendanger, University of Hamburg
655  Nuclear Pore Scaffold Structure Analyzed by Super-Resolution Microscopy and Particle Averaging
A. Szymborsko et al.
The localization of individual components of the nuclear pore complex was dissected using information from thousands of pores.

658  Polyploids Exhibit Higher Potassium Uptake and Salinity Tolerance in Arabidopsis
D.-Y. Chao et al.
Certain thale cress plants collected in the wild contain a duplicated genome and can cope with salty soil.

660  Spatial Dynamics of Chromosome Translocations in Living Cells
V. Roukos et al.
An experimental system allows the visualization of human cell chromosome translocations in real time.

664  Real-Time Dynamics of RNA Polymerase II Clustering in Live Human Cells
I. I. Cisse et al.
A single-cell quantitative method reveals changes in the distribution of proteins with single-molecule sensitivity.

667  The Hologenomic Basis of Speciation: Gut Bacteria Cause Hybrid Lethality in the Genus Nasonia
R. M. Brucker and S. R. Bordenstein
Speciation may be a collective property of an organism and its microbiota.

673  T Follicular Helper Cell Dynamics in Germinal Centers
Z. Shulman et al.
Tracking individual cells reveals that immunological T cell help is shared between immune B cell germinal centers.

630  Imaging of the CO Snow Line in a Solar Nebula Analog
C. Qi et al.
Millimeter-wavelength observations locate the carbon monoxide condensation line within the disk around a young planet-forming star.

632  A Quantum Many-Body Spin System in an Active Atmosphere-Ecosystem Exchange
J.-H. Park et al.
Many volatile organic compounds emitted by vegetation are actively exchanged between plants and the atmosphere.

636  Writing and Deleting Single Magnetic Skyrmions
N. Romming et al.
An embedded tunneling field-effect transistor speeds switching by varying the voltage threshold of the main gate electrode.

640  A Semi-Floating Gate Transistor for Low-Voltage Ultrafast Memory and Sensing Operation
P.-F. Wang et al.
An embedded tunneling field-effect transistor speeds switching by varying the voltage threshold of the main gate electrode.

643  Active Atmosphere-Ecosystem Exchange of the Vast Majority of Detected Volatile Organic Compounds
J.-H. Park et al.
Many volatile organic compounds emitted by vegetation are actively exchanged between plants and the atmosphere.

647  Social Influence Bias: A Randomized Experiment
L. Muchnik et al.
A social news aggregation Web site was used to test whether prior ratings influence others to create bias in rating behavior.

651  Pluripotent Stem Cells Induced from Mouse Somatic Cells by Small-Molecule Compounds
P. Hou et al.
A proof-of-principle study reports somatic reprogramming to the pluripotent state using small-molecule compounds.

655  Nuclear Pore Scaffold Structure Analyzed by Super-Resolution Microscopy and Particle Averaging
A. Szymborsko et al.
The localization of individual components of the nuclear pore complex was dissected using information from thousands of pores.
Science 341 (6146), 591-678.