EDITORIAL
937 Accelerating Ocean Exploration
Marcia McNutt

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

NEWS & ANALYSIS
946 Lab Dishes Up Mini-Brains
947 NIH Effort Gambles on Mysterious Extracellular RNAs
948 Link to MERS Virus Underscores Bats’ Puzzling Threat
949 Taking the Life Out of Titan
950 European Hunter-Gatherers Dined on Domestic Pigs

NEWS FOCUS
951 A Teacher’s Quest
954 The Promise of Poop
Regulators Grapple With an Unorthodox Therapy
>> Science Podcast

LETTERS
958 Evidence-Based Environmental Laws for China
X. Li et al.
Call for Prudence in Whole-Genome Testing
C. G. Van El et al.
Data Disclosure Crucial After DNA Patent Verdict
A. De Costa
959 CORRECTIONS AND CLARIFICATIONS

BOOKS ET AL.
960 Time Reborn
L. Smolin, reviewed by H. Price
961 Browsings
>> Policy Podcast

POLICY FORUM
962 Confronting the Sorry State of U.S. Health
R. Bayer et al.

PERSPECTIVES
964 The Curious Behavior of the Milky Way’s Central Black Hole
J. D. Schnittman
>> Report p. 981
965 Strength Under Tension
R. Bainer and V. Weaver
>> Research Article p. 975
966 Minimizing Caribbean Tsunami Risk
C. von Hillebrandt-Andrade
968 A Clear Advance in Soft Actuators
J. A. Rogers
>> Report p. 984
969 The Poor’s Poor Mental Power
K. D. Vohs
>> Research Article p. 976

SCIENCE PRIZE ESSAY
971 An Inquiry into the Water Around Us
E. K. H. Saitta et al.

REVIEW
974 The Chemistry and Applications of Metal-Organic Frameworks
H. Furukawa et al.
Review Summary; for full text:
http://dx.doi.org/10.1126/science.1230444

ON THE WEB THIS WEEK
>> Science Podcast
Listen to stories on stretchable, transparent ionic conductors; fecal transplants; teaching birds migratory routes; 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
Young whooping cranes (Grus americana) follow an ultralight aircraft. Each year, endangered whooping cranes are reared in captivity and artificially trained by ultralight aircraft on their first lifetime migration from Wisconsin to Florida. Analyses of data from subsequent unaided migration events show that migratory performance improves over many years and that social learning from older birds plays an important role. See page 999.

Photo: Joseph Duff/Operation Migration USA, Inc.
RESEARCH ARTICLES

975 Nuclear Lamin-A Scales with Tissue Stiffness and Enhances Matrix-Directed Differentiation
J. Swift et al.
Tissues that need to remain stiff under stress rely on lamin-A to keep the cell nucleus whole. Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1240104
>> Perspective p. 965

976 Poverty Impedes Cognitive Function
A. Mani et al.
Being poor is a state of mind. >> Perspective p. 969

REPORTS

981 Dissecting X-ray–Emitting Gas Around the Center of Our Galaxy
Q. D. Wang et al.
X-ray observations of the center of our Galaxy reveal the interplay between the massive black hole there and its surroundings. >> Perspective p. 964

984 Stretchable, Transparent, Ionic Conductors
C. Keplinger et al.
Stretchable ionic gels are fabricated into transparent actuators and loudspeakers. >> Perspective p. 968; Science Podcast

988 Reaction of O2 with Subsurface Oxygen Vacancies on TiO2, Anatase (101)
M. Setvin et al.
Subsurface oxygen vacancies created at an anatase surface play a key role in forming a bridging oxygen (O2-) dimer from adsorbed O2-.

991 Electron Acceleration in the Heart of the Van Allen Radiation Belts
G. D. Reeves et al.
Satellite observations provide evidence for local relativistic electron acceleration in Earth’s radiation belts.

994 A Uranian Trojan and the Frequency of Temporary Giant-Planet Co-Orbitals
M. Alexandersen et al.
Observations with the Canada-France-Hawaii Telescope reveal a body that temporarily shares its orbit with that of Uranus.

997 Paleofluvial Mega-Canyon Beneath the Central Greenland Ice Sheet
J. L. Bamber et al.
A large subglacial canyon extends for more than 750 kilometers from central Greenland to its northern margin.

999 Social Learning of Migratory Performance
T. Mueller et al.
Whooping cranes learn their annual migration routes from their neighbors. >> Science Podcast

1002 Nuclear Wave 1 Is Required for Reprogramming Transcription in Oocytes and for Normal Development
K. Miyamoto et al.
A cytoskeletal protein associates with the transcription machinery and is required for nuclear reprogramming.

1005 Pou5f1 Transcription Factor Controls Zygotic Gene Activation in Vertebrates
M. Leichsenring et al.
Work in zebrafish provides a link between zygotic gene activation and pluripotency control.

1009 Molecular Basis of Tubulin Transport Within the Cilium by IFT74 and IFT81
S. Bhogaraju et al.
Two proteins cooperate to promote tubulin transport to and into cilia.

1012 Crystal Structure of MraY, an Essential Membrane Enzyme for Bacterial Cell Wall Synthesis
B. C. Chung et al.
The cell wall component peptidoglycan is attached to a carrier lipid for transfer across the cell membrane.

1016 βCaMKII in Lateral Habenula Mediates Core Symptoms of Depression
K. Li et al.
In a rodent model of depression, the increase of a protein kinase is accompanied by an up-regulation of GluR1 receptors.
Editor's Summary

This copy is for your personal, non-commercial use only.

**Article Tools**
Visit the online version of this article to access the personalization and article tools:
http://science.sciencemag.org/content/341/6149

**Permissions**
Obtain information about reproducing this article:
http://www.sciencemag.org/about/permissions.dtl