EDITORIAL
317 Leveling the Playing Field
Marcia McNutt

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

NEWS & ANALYSIS
327 Clinical Trials Paused as India Adopts New Rules
328 Bacterial Meningitis Finds New Niche in Gay Communities
329 Biologists Tell Dueling Stories of How Turtles Get Their Shells
330 At an Impasse, U.S. Particle Physicists Gather by the River to Plan and Dream
331 The Savage Radiation of the Van Allen Belts Is Homegrown
  >> Science Express Report by G. D. Reeves et al.
332 For Scientists, Protests Morph Into Fight for Academic Freedom
Fragile Wetland Will Test Turkey’s Resolve in Protecting Biodiversity

NEWS FOCUS
334 Indispensable Outsider
338 An Invisible Hand Behind Plan to Realign U.S. Science Education
NIH Teaching Units, Cherished in Schools, May Be Shredded

LETTERS
342 Retraction
P. Puneet et al.
Silver Lining of Singapore’s Haze
L. R. Carrasco
A Statistically Significant Future for Bayes’ Rule
R. van Hulst
Response
B. Efron

BOOKS ET AL.
344 Summer Reading—Seven Book Reviews from Former AAAS Mass Media Fellows

POLICY FORUM
349 Determining Benefits and Costs for Future Generations
K. Arrow et al.

PERSPECTIVES
351 Why Does Gastric Bypass Surgery Work?
H.-R. Berthoud
  >> Report p. 406
352 How Nitrogen Is Lost
B. Ward
354 Proton Conduction with Metal-Organic Frameworks
G. K. H. Shimizu et al.
355 Where Is PTEN?
N. R. Leslie and V. G. Brunton
  >> Reports pp. 395 and 399
357 A Path to Complex Carbohydrates
L. L. Kiessling and M. B. Kraft
  >> Report p. 379
358 Genome Mosaicism—One Human, Multiple Genomes
J. R. Lupski
  >> Science Podcast

SCIENCE PRIZE ESSAY
360 Engaging High School Students in Research on Smoking Behavior
M. M. Munn et al.

RESEARCH ARTICLES
363 The Diffusion of Microfinance
A. Banerjee et al.
The first person in a village to learn about microfinance influences how widely the information spreads.
Research Article Summary; for full text:
http://dx.doi.org/10.1126/science.1236498

CONTENTS continued >>

ON THE WEB THIS WEEK
>> Science Podcast
Listen to stories on our many genomes, implanting false memories in mice, science in Turkey, 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
Immunostained fluorescence microscopy image of memory engram–bearing cells (red) in the dentate gyrus of a mouse hippocampus (image width: 1.5 millimeters). These cells were genetically tricked to express the protein channelrhodopsin-2 during memory formation, thus becoming responsive to light stimulation. When the cells were activated by light, the mice simultaneously associated a genuine memory with an undesirable event (a foot shock) to create a new but false memory. See page 387.

Image: Xu Liu and Steve Ramirez

DEPARTMENTS
316 This Week in Science
319 Editors’ Choice
322 Science Staff
362 AAAS News & Notes
415 New Products
416 Science Careers

www.sciencemag.org  SCIENCE  VOL 341  26 JULY 2013  Published by AAAS
REPORTS

365 I-Love-Q: Unexpected Universal Relations for Neutron Stars and Quark Stars
K. Yagi and N. Yunes
The relation of inertia, Love number, and quadrupole moment is independent of neutron and quark stars’ internal structure.

368 Holographic Vortex Liquids and Superfluid Turbulence
P. M. Chesler et al.
A gravitational theory is used to elucidate the flow of energy in a turbulent superfluid.

372 Element-Resolved Corrosion Analysis of Stainless-Type Glass-Forming Steels
M. J. Duarte et al.
Measurements of the local composition of a steel alloy are correlated with the corrosion resistance.

376 Geometric Frustration of Icosahedron in Metallic Glasses
A. Hirata et al.
Small-volume regions in a bulk metallic glass show icosahedral ordering distorted by partial face-centered cubic symmetry.

379 A General Strategy for the Chemoenzymatic Synthesis of Asymmetrically Branched N-Glycans
Z. Wang et al.
Oligosaccharides synthesized from a versatile common precursor can be used to probe protein-carbohydrate interactions.

384 Identification of a Colonial Chordate Histocompatibility Gene
A. Vokobynik et al.
A single gene predicts transplantation compatibility reactions in the star ascidian, Botryllus schlosseri.

387 Creating a False Memory in the Hippocampus
S. Ramírez et al.
Associations can be artificially created through reactivation of memory engrams in mouse dentate gyrus granule cells.

392 FtsZ Protofilaments Use a Hinge-Opening Mechanism for Constrictive Force Generation
Y. Li et al.
The curved structure of a protein involved in cell division reveals the mechanism for Z-ring constriction during cytokinesis.

395 Nuclear PTEN Controls DNA Repair and Sensitivity to Genotoxic Stress
C. Bassi et al.
The phosphatase PTEN works as a lipid phosphatase in the cytoplasm and a protein phosphatase in the nucleus.

399 A Secreted PTEN Phosphatase That Enters Cells to Alter Signaling and Survival
B. D. Hopkins et al.
An alternative translation start site produces an elongated PTEN that can enter tumor cells and kill them.

403 Xk-Related Protein 8 and CED-8 Promote Phosphatidylserine Exposure in Apoptotic Cells
J. Suzuki et al.
An enzyme involved in the flipping of phospholipids in dying cells’ surfaces to mark the cells for removal is identified.

406 Reprogramming of Intestinal Glucose Metabolism and Glycemic Control in Rats After Gastric Bypass
N. Saedi et al.
The intestine can adopt a role in glucose control after surgery, possibly explaining why the surgery cures diabetes.

410 H7N9 Influenza Viruses Are Transmissible in Ferrets by Respiratory Droplet
Q. Zhang et al.
A large survey of H7N9 influenza viruses in China reveals a spectrum of mutation and virulence.