EDITORIAL
815  Keystone XL
Marcia McNutt

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

NEWS & ANALYSIS
826  New Neutrino May Have Heated Baby Universe
827  FDA Considers Trials of ‘Three-Parent Embryos’
829  DNA Sequencers Still Waiting for the Nanopore Revolution
830  Antarctic Scientists Continue to Reel From Shutdown
831  Atlantic Current Can Shut Down for Centuries, Disrupting Climate
>> Science Express Report by E. V. Galaasen et al.
833  Rival Detectors Prepare to Take Snapshots of Distant Worlds

NEWS FOCUS
834  Eavesdropping on Ecosystems
>> Science Podcast

LETTERS
838  Taking a Bite Out of Biodiversity
B. Machovina and K. J. Feeley
838  Curtailing Chimpanzee Exploitation
C. A. Litchfield
839  A Defense of Eastern European Science
A. Rotter and C. Gostinčar
839  CORRECTIONS AND CLARIFICATIONS

BOOKS ET AL.
840  Oxygen
D. E. Canfield, reviewed by W. W. Fischer
841  On the Frontier of Science
L. Ceccarelli, reviewed by C. L. Newell

POLICY FORUM
842  Averting Lemur Extinctions amid Madagascar’s Political Crisis
C. Schweitzer et al.

PERSPECTIVES
844  From Past to Future Warming
G. Hegerl and P. Stott
845  Fibers Do the Twist
J. Yuan and P. Poulin
>> Report p. 868
846  Charting the Islands of Memory
H. T. Blair
>> Reports pp. 891 and 896
848  Reach Out and Touch Someone
P. Rørth
>> Research Article p. 852
849  Unraveling a Flavivirus Enigma
P.-Y. Shi
>> Report p. 881
850  Remote Control by Steric Effects
M. Tobisu and N. Chatani
>> Research Article p. 853

CONTENTS continued >>

ON THE WEB THIS WEEK
>> Science Podcast
This week’s show features a segment on the science of soundscapes and a roundup of shorts from our daily news site.

>> Find More Online
Check out the latest in a series of Perspectives on Challenges in Climate Science at www.sciencemag.org/extra/climate.

COVER
Composite image from a molecular animation of how endocytic clathrin-coated vesicles ~100 nanometers in diameter form. Clathrin is the principal molecular scaffold for many cellular membrane trafficking processes. The Gordon Research Conference on Lysosomes and Endocytosis will be held 15 to 20 June 2014 in Andover, New Hampshire. See page 902 for the conference schedule and preliminary programs.

Image: Janet Iwasa (University of Utah) and Tom Kirchhausen (Harvard Medical School)

DEPARTMENTS
813  This Week in Science
817  Editors’ Choice
820  Science Staff
902  Gordon Research Conferences
931  New Products
932  Science Careers
RESEARCH ARTICLES

852  
Cytoneme-Mediated Contact-Dependent Transport of the Drosophila Decapentaplegic Signaling Protein  
S. Roy et al.  
Transfer of signaling proteins along long filopodia is required for proper development in the fruit fly.  
Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1244624  
>> Perspective p. 848

853  
Rhodium-Catalyzed Intermolecular C–H Silylation of Arenes with High Steric Regiocontrol  
C. Cheng and J. F. Hartwig  
A catalyst that adds silyl groups to specific sites on aryl rings could streamline synthesis of pharmaceutical intermediates.  
>> Perspective p. 850

855  
Dendritic Inhibition in the Hippocampus Supports Fear Learning  
M. Lovett-Barron et al.  
Cholinergic activation of somatostatin-positive hippocampal CA1 interneurons promotes fear-context associations.

857  
“Nonswellable” Hydrogel Without Mechanical Hysteresis  
H. Kamata et al.  
Addition of a thermoresponsive component to a hydrogel counters its tendency to swell and improves its mechanical properties.

875  
The Robustness and Evolvability of Transcription Factor Binding Sites  
J. L. Payne and A. Wagner  
Transcription factor binding sites form connected networks.

878  
Structural Insights into Ubiquinone Biosynthesis in Membranes  
W. Cheng and W. Li  
An integral membrane enzyme active site opens laterally to the lipid bilayer to facilitate catalysis inside the membrane.

881  
Flavivirus NS1 Structures Reveal Surfaces for Associations with Membranes and the Immune System  
D. L. Akey et al.  
The structure of a viral protein provides a basis for understanding its function and could guide vaccine development.

REPORTS

864  
Discovery of a Three-Dimensional Topological Dirac Semimetal, Na, Bi  
Z. K. Liu et al.  
Angle-resolved photoemission spectroscopy is used to detect bulk Dirac cones in a three-dimensional analog of graphene.

868  
Artificial Muscles from Fishing Line and Sewing Thread  
C. S. Haines et al.  
Polymer fibers can be transformed into highly efficient artificial muscles through the application of extreme twist.

873  
“Nonswellable” Hydrogel Without Mechanical Hysteresis  
H. Kamata et al.  
Addition of a thermoresponsive component to a hydrogel counters its tendency to swell and improves its mechanical properties.

888  
Growth Factors Engineered for Super-Affinity to the Extracellular Matrix Enhance Tissue Healing  
M. M. Martino et al.  
A strategy to engineer tissues uses substantially lower growth factor levels without compromising tissue viability.

891  
Action Monitoring and Medial Frontal Cortex: Leading Role of Supplementary Motor Area  
F. Banni et al.  
Detection of a core brain region for performance monitoring and error detection in humans is shown.

896  
Island Cells Control Temporal Association Memory  
T. Kitamura et al.  
A distinct set of excitatory neurons in the entorhinal cortex projects directly to specific interneurons in the hippocampus.
Science 343 (6173), 813-931.