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An analysis of lunar high-resolution topographic data helps explain how surface features are supported by the lithosphere.

900 Farside Gravity Field of the Moon from Four-Way Doppler Measurements of SELENE (Kaguya)
N. Namiki et al.
A gravity field model reveals differences in the lithosphere between the Moon’s far- and nearsides.

909 Lunar Radar Sounder Observations of Subsurface Layers Under the Nearside Maria of the Moon
T. Ono et al.
A period of reduced volcanism may account for extensive regions of radar-reflective minerals that underlie some major lunar basalt flows.

912 Equilibrium Iron Isotope Fractionation at Core-Mantle Boundary Conditions
V. B. Polyakov
Calculated iron fractionation factors at high pressures may explain the different isotopic values found for Earth, Mars, and meteorites.

915 Skyrmion Lattice in a Chiral Magnet
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A. Bézier et al.
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930 Effects of Genetic Perturbation on Seasonal Life History Plasticity
A. M. Wilczek et al.
Interactions among mutation, germination timing, and climate alter flowering patterns in Arabidopsis.

934 The Hallucinogen N,N-Dimethyltryptamine (DMT) Is an Endogenous Sigma-1 Receptor Regulator
D. Fontanilla et al.
An endogenous compound is a ligand for a ubiquitously expressed receptor that binds many synthetic drugs and has been implicated in psychiatric disease.

937 When Your Gain Is My Pain and Your Pain Is My Gain: Neural Correlates of Envy and Schadenfreude
H. Takahashi et al.
Envy is strongest against those with similar attributes, and the most joy is gained from the pain of those envied the most.

940 A Neural Mechanism for Microsaccade Generation in the Primate Superior Colliculus
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943 An ABC Transporter Controls Export of a Drosophila Germ Cell Attractant
S. Ricozzo and R. Lehmann
Similar lipid modification and export pathways produce the attractants important in migration of budding yeast and fruit fly germ cells.

946 The Orphan G Protein–Coupled Receptor 3 Modulates Amyloid-Beta Peptide Generation in Neurons
A. Thathiah et al.
A neuronal G protein–coupled receptor can stimulate the generation of the Ab peptide implicated in Alzheimer’s disease.

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Pre-verbal communication through gestures can improve a child’s vocabulary.

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A transient form of vesicle fusion that allows vesicle reuse is more prevalent early during synaptic response to a train of stimuli.
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Genome-Wide Analysis in Vivo of Translation with Nucleotide Resolution Using Ribosome Profiling
N. T. Ingolia et al.
Profiling the position of ribosomes on messenger RNA allows rapid, high-precision investigation of cellular protein translation.
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Omnidirectional Printing of Flexible, Stretchable, and Spanning Silver Microelectrodes
B. Y. Ahn et al.
Colloidal silver particles can be formed into flexible electrodes of arbitrary shape in three dimensions.
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full text at www.sciencemag.org/cgi/content/full/323/5916/877c

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Novel HIV-Fighting Method Finally Gels
Study reports first “success” in preventing HIV infections with vaginal microbicide.

One Giant Leap for Robot-Kind
Cockroach-inspired design could help Mars rovers and other robots traverse sandy terrain.

Flu: It’s the Humidity. Absolutely
Study suggests that absolute, not relative, humidity explains why influenza is seasonal.

The Signal Transduction Knowledge Environment

RESEARCH ARTICLE: Brx Mediates the Response of Lymphocytes to Osmotic Stress Through the Activation of NFAT5
T. Kino et al.
The guanine nucleotide exchange factor Brx is essential for osmotic stress–mediated expression of nfat5 in lymphocytes.

MEETING REPORT: Emerging Roles of NAD+ and Its Metabolites in Cell Signaling
F. Koch-Nolte et al.
Scientists discussed the molecular aspects of NAD+ metabolism and signaling at a conference in Hamburg, Germany.

NETWATCH: Simmune Project
Build models, run simulations, and explore the dynamics of signaling pathways; in Modeling Tools.

NETWATCH: American Physiological Society Archive
Browse or search an index of peer-reviewed science education materials; in Educator Sites.

Free Career Resources for Scientists

The Man Who Wasn’t There
B. L. Benderly
Douglas Prasher’s story reveals a lot about the scientific labor market.

Discouraging Days for Job-Seekers
S. Carpenter
Many universities and colleges have canceled faculty searches or imposed hiring freezes.

Download the 13 February Science Podcast to hear about how toddler gesturing may improve children’s vocabulary, a new global view of the Moon, an update on the Neandertal genome, and more.

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