RESEARCH ARTICLE

928 Electrically, Chemically, and Photonically Powered Torsional and Tensile Actuation of Hybrid Carbon Nanotube Yarn Muscles
M. D. Lima et al.
Thermally driven actuators use a guest material within carbon nanotube yarns to generate fast torsional and tensile motions.
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REPORTS

932 Synthetic Lipid Membrane Channels Formed by Designed DNA Nanostructures
M. Langecker et al.
DNA-based transmembrane channels exhibit gating responses and can be used for single-molecule detection.
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936 Coherent Phonon Heat Conduction in Superlattices
M. N. Luckyanova et al.
Coherent phonon transport is evidenced by linear increases of thermal conductivity with total superlattice thickness.

939 Evidence for a Dynamo in the Main Group Pallasite Parent Body
J. A. Tarduno et al.
Some pallasite meteorites might have formed when liquid FeNi from an impactor was injected into their parent body’s mantle.
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942 Evidence for Early Hafted Hunting Technology
J. Wilkins et al.
Damage on 500,000-year-old stone points implies their use on spears, perhaps by the ancestor of Neandertals and Homo sapiens.
>> Science Podcast

946 Financial Costs of Meeting Global Biodiversity Conservation Targets: Current Spending and Unmet Needs
D. P. McCarthy et al.
Data for birds and protected area requirements yield estimated costs for maintaining worldwide diversity targets.

949 Pathological α-Synuclein Transmission Initiates Parkinson-like Neurodegeneration in Nontransgenic Mice
K. C. Luk et al.
Intracerebral inoculation of synthetic misfolded α-synuclein mimics Parkinson’s disease in wild-type mice.

953 Orbitofrontal Cortex Supports Behavior and Learning Using Inferred But Not Cached Values
J. L. Jones et al.
Inferred value can be used to both guide behavior and modulate learning in rats.

956 Akt-Mediated Regulation of Autophagy and Tumorigenesis Through Beclin 1 Phosphorylation
R. C. Wang et al.
A direct link between a cancer-promoting protein kinase and the control of autophagy is presented.

960 A Rab32-Dependent Pathway Contributes to Salmonella Typhi Host Restriction
S. Spanò and J. E. Galán
Expression of a single effector protein allows a human-specific pathogen to replicate within normally nonpermissive mice.

963 Salmonella Inhibits Retrograde Trafficking of Mannose-6-Phosphate Receptors and Lysosome Function
K. McGourty et al.
A bacterial pathogen interferes with intracellular trafficking of receptors needed for host cell lysosomal-enzyme targeting.

968 Convergent Evolution Between Insect and Mammalian Audition
F. Montealegre-Z. et al.
In an example of convergent evolution, rainforest katydids hear using similar mechanisms to those found in mammalian ears.
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971 Offspring from Oocytes Derived from In Vitro Primordial Germ Cell–like Cells in Mice
K. Hayashi et al.
Mature, fully functional female gametes can be generated from mouse pluripotent stem cells.

975 A Genomic Regulatory Element That Directs Assembly and Function of Immune-Specific AP-1–IRF Complexes
E. Glasmacher et al.
Cooperative binding of transcription factors to composite genomic elements regulates T helper 17 cell differentiation.
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The COMPASS Subunit Spp1 Links Histone Methylation to Initiation of Meiotic Recombination
L. Acquaviva et al.
10.1126/science.1225739

Porphyry-Copper Ore Shells Form at Stable Pressure-Temperature Fronts Within Dynamic Fluid Plumes
P. Wei et al.
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Optomechanical Dark Mode
C. Dong et al.
10.1126/science.1228370

Alignment of Magnetized Accretion Disks and Relativistic Jets with Spinning Black Holes
J. C. McKinney et al.
10.1126/science.1230811

Wired for Harmony?
A new study shows that the ear and brain prefer harmonic sounds.
http://scim.ag/Wired_Harmony

Human Ancestors Were Grass Gourmands
Fossil teeth suggest that early hominins had a taste for the green stuff.
http://scim.ag/Grass-Gourmands

Bodystorming: Dance Grooves Show How Molecules Move
Dancers help scientists assess models of molecular motion inside a cell.
http://scim.ag/Molecular-Motion

Understanding adaptor specificity.

Tooling Up: Questions to Set Your Sails By (Part 1)
D. Jensen
Answering these six questions can help you choose your career path.

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M. Price
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Science 338 (6109), 861-981.