Surface tension supports a water strider. At small scales, the influence of surface tension can exceed that of gravity, affecting everything from how small animals urinate to how water ferns stay buoyant and how pathogens spread from a sneeze or cough. Science explores the small world of surface tension in a News Focus on page 1194.

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RESEARCH ARTICLES

1215 Structures of Cas9 Endonucleases Reveal RNA-Mediated Conformational Activation
M. Jinek et al.
Binding of a guide RNA triggers structural changes in a set of DNA-cleaving enzymes. Research Article Summary; for full text: http://dx.doi.org/10.1126/science.1247997

1216 Ligand-Controlled C(sp3)-H Arylation and Olefination in Synthesis of Unnatural Chiral α-Amino Acids
J. He et al.
Two different ligands can be used in succession to tune the reactivity of a palladium catalyst.

1221 Specific and Nonhepatotoxic Degradation of Nuclear Hepatitis B Virus cccDNA
J. Lucifora et al.
Cytokine induction renders viral DNA vulnerable and eliminates infection. >> Perspective p. 1212

REPORTS

1228 Free-Standing Single-Atom-Thick Iron Membranes Suspended in Graphene Pores
J. Zhao et al.
The pores in a graphene membrane stabilize the formation of two-dimensional iron sheets.

1232 Main-Group Compounds Selectively Oxidize Mixtures of Methane, Ethane, and Propane to Alcohol Esters
B. G. Hashiguchi et al.
Lead and thallium salts are surprisingly selective and efficient oxidants of the constituents of natural gas.

1237 Changes in Seismic Anisotropy Shed Light on the Nature of the Gutenberg Discontinuity
C. Beghein et al.
The Gutenberg discontinuity is distinct from the lithosphere-asthenosphere boundary.

1240 Lethal Interactions Between Parasites and Prey Increase Niche Diversity in a Tropical Community
M. A. Condon et al.
Incorrect fly-host choice in parasitoid wasps creates multidimensional niches, generating high levels of hidden diversity. >> Perspective p. 1213

1244 Structure of Human RNase L Reveals the Basis for Regulated RNA Decay in the IFN Response
Y. Han et al.
The crystal structure of an interferon-induced ribonuclease shows how it selects and shreds its RNA targets.

1249 Selective Methylation of Histone H3 Variant H3.1 Regulates Heterochromatin Replication
Y. Jacob et al.
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1253 Vertebrate Limb Bud Formation Is Initiated by Localized Epithelial-to-Mesenchymal Transition
J. Gros and C. J. Tabin
Cell state change, rather than differential proliferation, initiates limb formation during development.

1256 The stum Gene Is Essential for Mechanical Sensing in Proprioceptive Neurons
B. S. Desai et al.
The stumle gene in flies is required in neurons that sense joint angles.

1260 Complement Is Activated by IgG Hexamers Assembled at the Cell Surface
C. A. Diebold et al.
Hexameric platforms of antibodies on the cell surface trigger the complement cascade.

1264 Dlk1 Promotes a Fast Motor Neuron Biophysical Signature Required for Peak Force Execution
D. Müller et al.
The fast versus slow profile of motor neurons is controlled by expression of a membrane protein.