Spore-bearing fungal parasites emerge from the digested corpses of three bdelloid rotifers. These freshwater invertebrates (length <0.5 millimeters) present an evolutionary puzzle because they have reproduced without sex for millions of years but have not been driven extinct by relentlessly coevolving parasites. Bdelloids can escape fungal parasites in space and time through complete desiccation and dispersal by wind to uninfected habitats. See page 574.

Image: Kent Loeffler, Kathie T. Hodge, Chris Wilson
Making Genetics Easy to Understand
L. A. Stark and K. Pompei

Coexistence of Quiescent and Active Adult Stem Cells in Mammals
L. Li and H. Clevers

Role of ABA and ABI3 in Desiccation Tolerance
A. Khandelwal et al.
The hormone pathway that stabilizes seeds may have served more primitive seedless plants in supporting desiccation tolerance.

Local and Long-Range Reciprocal Regulation of cAMP and cGMP in Axon/Dendrite Formation
M. Shelly et al.
Cyclic adenosine monophosphate and cyclic guanosine monophosphate regulate axon formation and exert opposite actions on dendrite formation.

Phase Transitions of Adsorbed Atoms on the Surface of a Carbon Nanotube
Z. Wang et al.
The adsorption behavior of rare gases is followed through changes in resonance frequency of a single-walled carbon nanotube.

Spontaneous and X-ray–Triggered Crystallization at Long Range in Self-Assembling Filament Networks
H. Cui et al.
Dilute solutions of alkyl-terminated peptide filaments can undergo ordering upon x-ray exposure.

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G. Meng et al.
Entropic effects favor the formation of small clusters of colloidal particles that have lower symmetry.

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A structural isomer of benzene in which carbon is replaced by silicon exhibits unexpected electronic stabilization.

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A Basal Alvarezsauroid Theropod from the Early Late Jurassic of Xinjiang, China
J. N. Choiniere et al.
The Alvarezsauroidea group extends the clade containing birds and their theropod relatives back to 160 million years ago.

Anciently Asexual Bdelloid Rotifers Escape Lethal Fungal Parasites by Drying Up and Blowing Away
C. G. Wilson and P. W. Sherman
Asexual bdelloid rotifers avoid the evolutionary parasite trap through desiccation resistance and dispersal.

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A. J. Oswald and S. Wu
Subjective life-satisfaction scores agree with objective measures of well-being across 50 American states.

Platelets Amplify Inflammation in Arthritis via Collagen-Dependent Microparticle Production
E. Boilard et al.
Microparticles released by platelets contribute to inflammation underlying rheumatoid arthritis.

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A. S. Ecker et al.
Despite dense connectivity and shared input, the firing rates of nearby neurons are largely uncorrelated.

The Asynchronous State in Cortical Circuits
A. Renart et al.
A general theoretical description of correlations in highly connected recurrent neuronal circuits.

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R. T. Pomerantz and M. O’Donnell
Head-on collisions between DNA and RNA polymerases are resolved in vitro.

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D. G. Kirsch et al.
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Make Black Holes

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in disparate species.

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F. Wang et al.

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