Immuno–electron micrograph of a plastid-dividing ring (diameter ~500 nm), a structure required for chloroplast division, isolated from the unicellular alga *Cyanidioschyzon merolae*. Immunogold particles (black dots) indicate localization of the glycosyltransferase protein PDR1 (protein dividing ring 1), which forms a ring with carbohydrates that constricts to physically divide the chloroplast. See page 949.

Image: Yamato Yoshida, Haruko Kuroiwa, Tsuneyoshi Kuroiwa/Research Information Center for Extremophile, Rikkyo University, Tokyo, Japan
RESEARCH ARTICLE

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A factor that regulates chromatin accessibility and recombination during immunoglobulin rearrangements is identified.

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The relatively young age of the faults and their distribution suggest global, late-stage contraction of the Moon.

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An intracellular bacterial pathogen interferes with host cell membrane trafficking.

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Y. Yoshida et al.
Enzymatic transfer of simple sugars is essential for the formation of the chloroplast-division machinery.

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A fungal protein binds to a host cell wall component to allow the fungus to escape immune responses.

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An actin-dependent mechanism is involved in moving nuclei so that they are properly positioned for cell migration.

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N. Li et al.
Ketamine, an anaesthetic and recreational drug, rapidly increases synaptic signaling and antidepressant behavioral responses.

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Female birds that have multiple mates favor fertilization by the most genetically compatible father.

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Time-lapse recording characterizes the rhythm and cleavage pattern of the embryo during early stages of development.
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Altering the homeostasis of membrane-bound signaling molecules allows a bacterial pathogen to corrupt cell function.
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S. M. Morris Jr.
In addition to acting as an enzyme substrate, arginine functions as a regulatory molecule in immune cells.

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P13K signaling is important in the development of normal and malignant thymocytes.

GLOSSARY
Find out what AER, AGC, and COS mean in the world of cell signaling.

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