A composite confocal image of an adult planarian (Schmidtea mediterranea) showing a growing colony of dividing cells (red) that initiated from a single, pluripotent stem cell called a clonogenic neoblast (cNeoblast). The ~1-millimeter-long animal is visualized with differential interference contrast microscopy and nuclear staining (blue). The colony is just posterior to the animal brain (nuclei-rich, bi-lobed structure) and eyes (two dark pigmented areas). See page 811.

Credit: Daniel E. Wagner, Irving E. Wang, Peter W. Reddien/Department of Biology, Massachusetts Institute of Technology, Whitehead Institute for Biomedical Research
RESEARCH ARTICLES

811 Clonogenic Neoblasts Are Pluripotent Adult Stem Cells That Underlie Planarian Regeneration
D. E. Wagner et al.
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>> Perspective p. 799; Report p. 852

816 Computational Design of Proteins Targeting the Conserved Stem Region of Influenza Hemagglutinin
S. J. Fleishman et al.
Proteins can be designed that bind to specific patches on target proteins to alter their subsequent interactions.
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REPORTS

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H. H. Liu et al.
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C. P. Petersen and P. W. Reddien
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M. Boly et al.
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862 Improved Learning in a Large-Enrollment Physics Class
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Magnetic field measurements made near Jupiter’s moon Io strengthen the evidence for a magma ocean in its interior.

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