Volume 322, Issue 5909

COVER

A metaphorical USB cable transmitting genetic information to "reprogram" cells symbolizes the Breakthrough of the Year for 2008. Advances in the burgeoning field of cellular reprogramming have brought scientists closer to the goal of using stem cells to better understand and someday treat disease. See the special section beginning on page 1766.

Image: Chris Bickel

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Breakthrough of the Year

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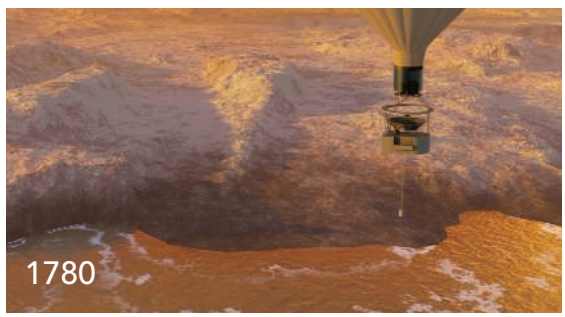
>> Editorial p. 1757; for related online content, see p. 1751 or go to www.sciencemag.org/btoy2008/



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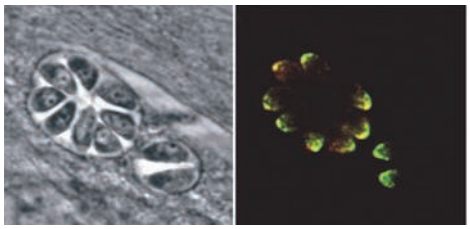

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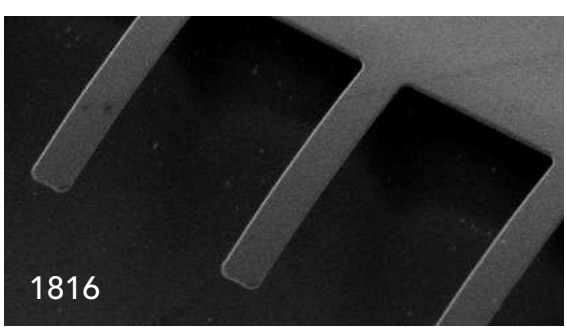

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2000-year-old site suggests Romans returned to area of massive defeat.

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Intelligence marks a man as a good match.

Science in translation.

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Programs Aim to Train Translational Scientists
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New Ph.D. programs in translational medicine provide basic science training and clinical experience.

A Young Scientist at the Forefront of Cell Reprogramming
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Curiosity, boldness, and single-mindedness won Austrian scientist Konrad Hochedlinger a place in cell reprogramming, *Science*'s Breakthrough of the Year for 2008.
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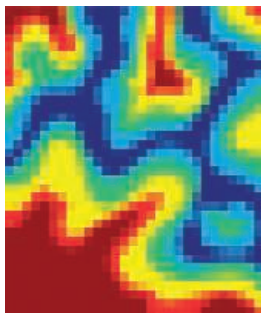

Visualizing gene expression dynamics.

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R. Arp and B. Smith
A meeting of philosophers and biologists reveals the great diversity in ideas about how pathway information can be organized.

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J. F. Foley and A. M. VanHook
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NETWATCH: GEDI, the Gene Expression Dynamics Inspector
Convert microarray data into visual portraits to identify genes that share dynamic expression profiles; in Bioinformatics Resources.

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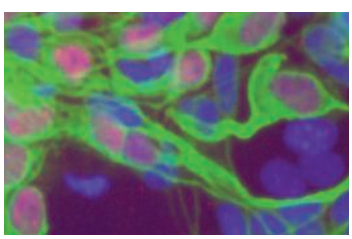

SCIENCE **ONLINE FEATURE**

VIDEO: 2008 Breakthrough of the Year
An introduction to some of the work that led studies in reprogramming cells to be tagged the top scientific story for 2008.
>> Breakthrough of the Year section p. 1766 and www.sciencemag.org/btoy2008/

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