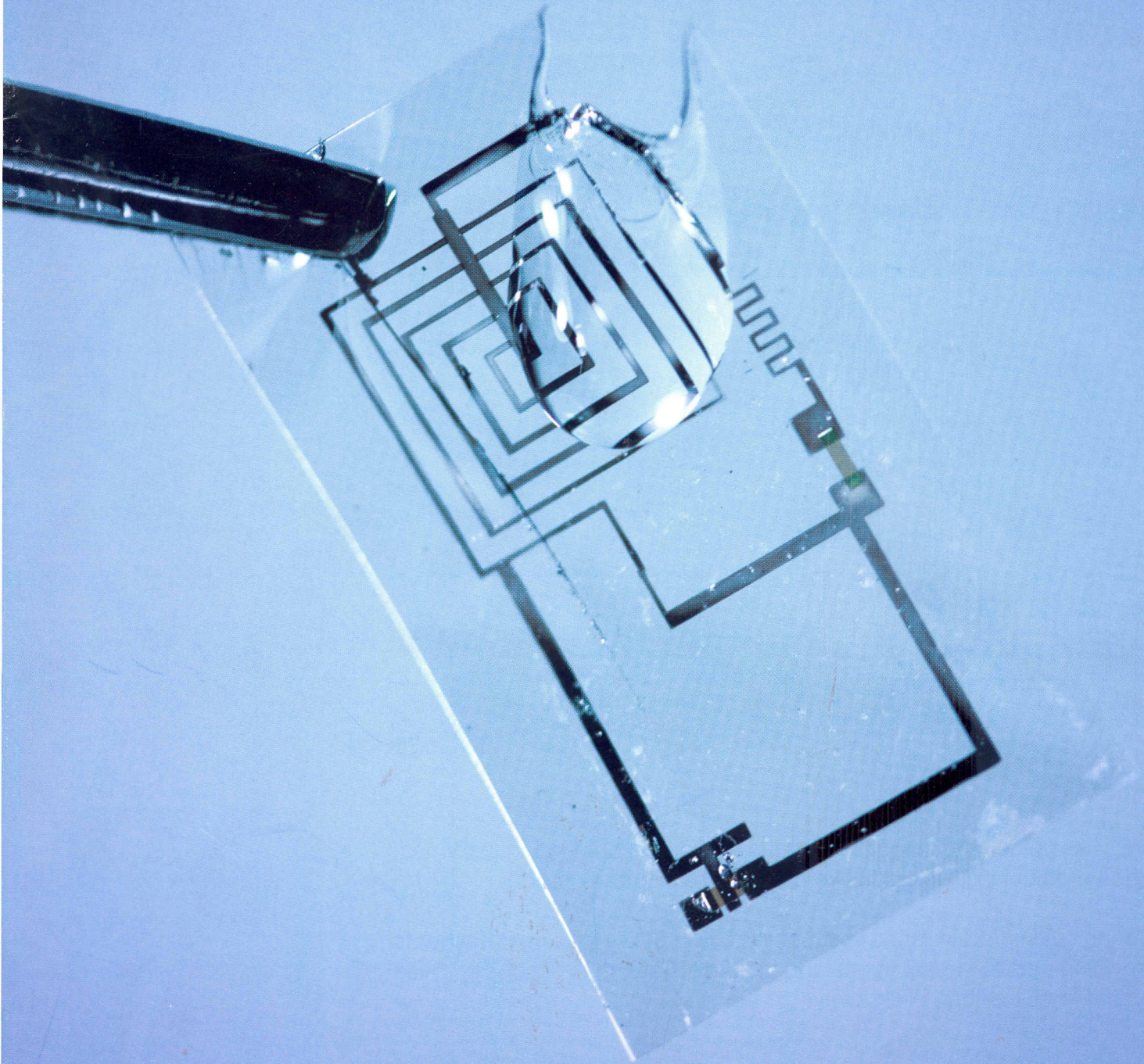


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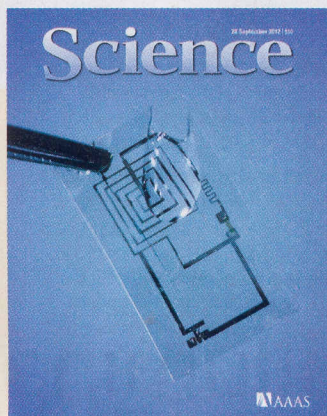
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COVER

A biodegradable integrated circuit (length: ~2.54 centimeters) shown partially dissolved by a droplet of water. This demonstration system includes transistors; diodes; inductors and capacitors, with magnesium for the electrodes/interconnects; magnesium oxide for the gate/interlayer dielectrics; silicon nanomembranes for the semiconductor; and silk as a thin, flexible substrate. The dissolution characteristics can be tuned to address applications such as bioresorbable implants, biodegradable environmental monitors, and compostable consumer electronics. See page 1640.

Image: Beckman Institute, University of Illinois, and Tufts University

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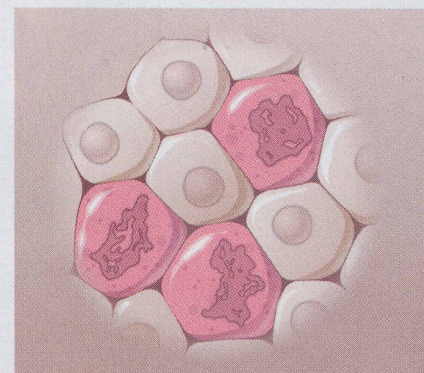
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Comment: M. Catani et al.

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Response: V. J. Wedeen et al.

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PERSPECTIVE: Peptide-Binding Domains—Are Limp Handshakes Safest?

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Engineered, high-affinity SH2 domains inhibit cell signaling, which may have therapeutic potential.

RESEARCH ARTICLE: Phosphorylation of Cytohesin-1 by Fyn Is Required for Initiation of Myelination and the Extent of Myelination During Development

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RESEARCH ARTICLE: The Tumor Suppressor PTEN Is Exported in Exosomes and Has Phosphatase Activity in Recipient Cells

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A tumor suppressor protein with lipid phosphatase activity travels to target cells in microvesicles.

PERSPECTIVE: Where EGF Receptors Transmit Their Signals

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PERSPECTIVE: Cell Responses to Growth Factors—The Role of Receptor Tyrosine Kinase Intracellular Domain Fragments

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26 September issue: <http://scim.ag/stm092612>

RESEARCH ARTICLE: Quantitative Analysis of the Human Airway Microbial Ecology Reveals a Pervasive Signature for Cystic Fibrosis

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RESEARCH ARTICLE: An RNA Profile Identifies Two Subsets of Multiple Sclerosis Patients Differing in Disease Activity

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Multiple sclerosis patients that relapse more often show distinct mRNA profiles in blood immune cells.

RESEARCH ARTICLE: Vascular Catheters with a Nonleaching Poly-Sulfobetaine Surface Modification Reduce Thrombus Formation and Microbial Attachment

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REVIEW: Biomaterial-Associated Infection—Locating the Finish Line in the Race for the Surface

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Experimental Error: The Audacity of Graduate School

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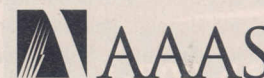
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