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Scaling Up Alternative Energy

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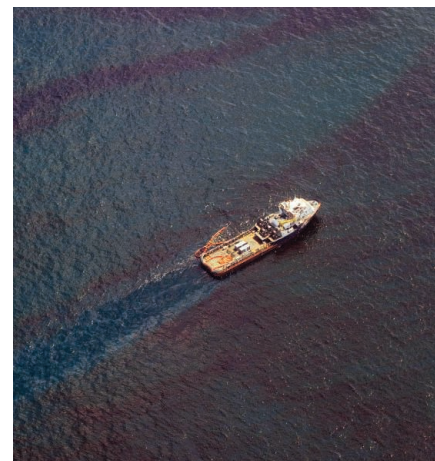
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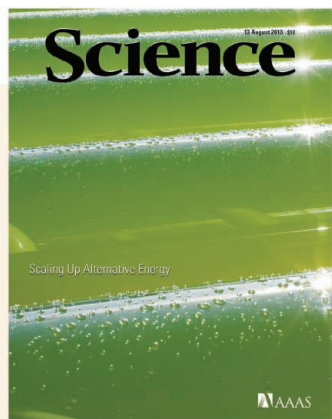
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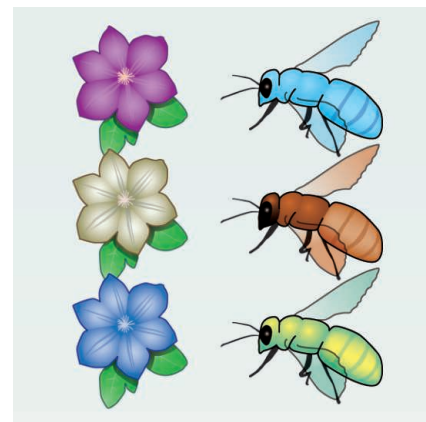
COVER

A large-scale algae growing system. Oil extraction from algae is one approach being actively explored to replace petroleum as an energy source. A special section beginning on page 779 highlights worldwide research efforts aimed at scaling up this and other carbon-neutral processes to generate cleaner power.
Photo: Ashley Cooper/Visuals Unlimited, Inc.

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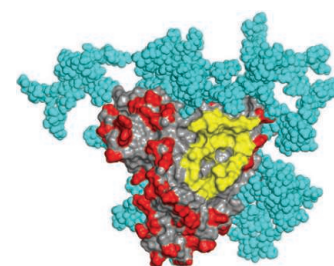
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10.1126/science.1189664

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10.1126/science.1189435

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10.1126/science.1195253

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Busy Brains Make for Deeper Sleep

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Reprogramming common cells could help repair damage from heart attacks.

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RESEARCH ARTICLE: The PI3K Isoforms p110 α and p110 δ Are Essential for Pre-B Cell Receptor Signaling and B Cell Development

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PERSPECTIVE: B Cell Receptor Signaling—Picky About PI3Ks

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PERSPECTIVE: Trafficking, Acidification, and Growth Factor Signaling

C. Niehrs and M. Boutros

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NETWATCH: GenBank, Gene Expression Omnibus (GEO), and Worldwide Protein Data Bank (wwPDB)

Deposit sequence, microarray, and structural data into public data banks; in Technical Information.

SCIENCE CAREERS

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Scientist's Work Bridges Math and Cancer

S. Webb

Franziska Michor's research skills involve equations and computers, but her goal is clinical: to eliminate cancer.

Improving Science Through Animal Welfare

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First trained as a biology and geology teacher, Portuguese researcher Nuno Henrique Franco looks to improve science by improving animal welfare.

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COMMENTARY: Pharmacy Benefit Managers, Pharmacies, and Pharmacogenomic Testing—Prescription for Progress?

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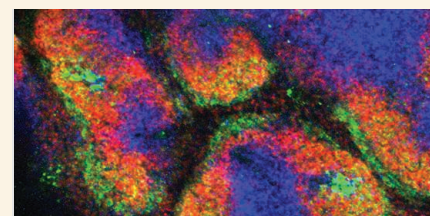
RESEARCH ARTICLE: Bacteria-Induced Gap Junctions in Tumors Favor Antigen Cross-Presentation and Antitumor Immunity

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PERSPECTIVE: Coupled for Cross-Presentation in Tumor Immunotherapy

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Bacterial infection-induced gap junctions in melanoma cells shuttle tumor antigens to immune cells and spur a successful antitumor immune response.



SCIENCE SIGNALING
Developing B cells.

RESEARCH ARTICLE: Fatty Acid Oxidation and Malonyl-CoA Decarboxylase in the Vascular Remodeling of Pulmonary Hypertension

G. Sutendra et al.

The overgrowth of vascular cells that causes pulmonary hypertension can be prevented by inhibiting a metabolic shift toward glycolysis.

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SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Periodicals Mail postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 2010 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$146 (\$74 allocated to subscription). Domestic institutional subscription (51 issues): \$910; Foreign postage extra: Mexico, Caribbean (surface mail) \$55; other countries (air assist delivery) \$85. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #1254 88122. Publications Mail Agreement Number 1069624. Printed in the U.S.A.

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329 (5993)

Science **329** (5993), 723-862.

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