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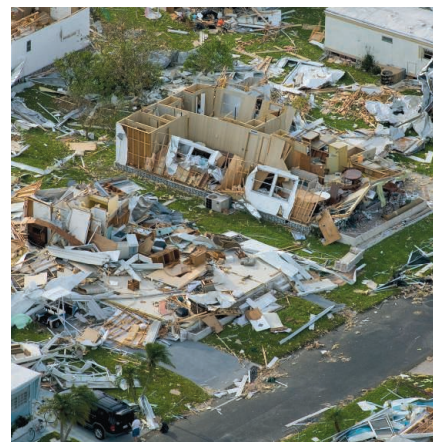
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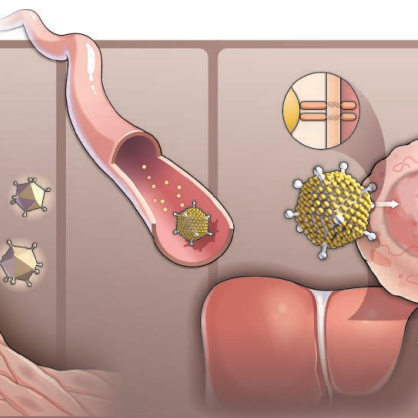
## COVER

Masks on the facade of the Codz Poop Palace (Kabah site, Yucatan, Mexico). Kabah and other Maya sites in the Puuc region flourished during the Terminal Classic Period (800 to 1000 C.E.), while cities to the south collapsed as the climate became drier. Political collapse was part of a complex two-stage societal response to global climate change. See page 788.

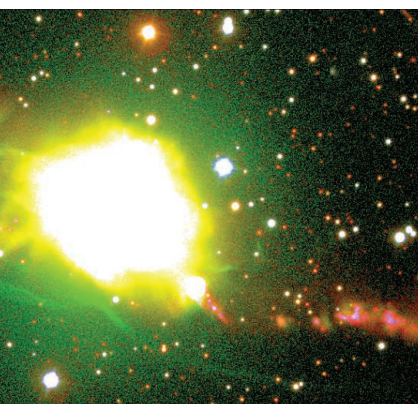
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## DEPARTMENTS

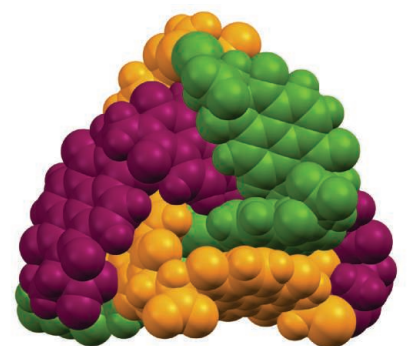
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- 815 **Intramitochondrial Transport of Phosphatidic Acid in Yeast by a Lipid Transfer Protein**  
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*J.-P. Upton et al.*  
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- 822 **Mitochondrial Network Size Scaling in Budding Yeast**  
*S. M. Rafelski et al.*  
Yeast cells produce buds with uniform mitochondrial content, even as the aging mother cell loses out.

## SCIENCEEXPRESS

[www.scienceexpress.org](http://www.scienceexpress.org)

Publication Ahead of Print

### Kinetic Responses of $\beta$ -Catenin Specify the Sites of Wnt Control

A. R. Hernandez et al.

10.1126/science.1228734

### Acute Inflammation Initiates the Regenerative Response in the Adult Zebrafish Brain

N. Kyriasis et al.

10.1126/science.1228773

### Cytoplasmic ATP Hydrolysis Powers Transport of Lipopolysaccharide Across the Periplasm in *E. coli*

S. Okuda et al.

10.1126/science.1228984

### Robust Photogeneration of H<sub>2</sub> in Water Using Semiconductor Nanocrystals and a Nickel Catalyst

Z. Han et al.

10.1126/science.1227775

## TECHNICALCOMMENTS

### Comment and Response on "Glacial Survival of Boreal Trees in Northern Scandinavia"

Comment: H. H. Birks et al.

<http://dx.doi.org/10.1126/science.1225345>

Response: L. Parducci et al.

<http://dx.doi.org/10.1126/science.1225476>

## SCIENCENOW

[www.sciencenow.org](http://www.sciencenow.org)

Highlights From Our Daily News Coverage

### The Innovative Cockatoo:

Figaro Invents, Makes, and Uses a Tool Even among birds, necessity is the mother of invention.

<http://scim.ag/Innovative-Cockatoo>

### The Eternal Youth of Asteroid Vesta

The Dawn spacecraft shows how Vesta's blemishes are removed, but why isn't space aging it?

<http://scim.ag/Eternal-Youth>

### Many-Eyed Monsters Prove the Eyes Have It

People seek out others' eyes, even when they are not centered on the face.

[http://scim.ag/Seek\\_Eyes](http://scim.ag/Seek_Eyes)

## SCIENCE SIGNALING

[www.sciencesignaling.org](http://www.sciencesignaling.org)

The Signal Transduction Knowledge Environment

**6 November issue: <http://scim.ag/ss110612>**

### RESEARCH ARTICLE: Key Roles for the Lipid Signaling Enzyme Phospholipase D1 in the Tumor Microenvironment During Tumor Angiogenesis and Metastasis

Q. Chen et al.

### PODCAST

M. A. Frohman and A. M. VanHook

Tumor growth and metastasis are attenuated in mice lacking a lipid signaling enzyme.

### RESEARCH ARTICLE: Proliferative and Antiapoptotic Signaling Stimulated by Nuclear-Localized PDK1 Results in Oncogenesis

C. K. Kikani et al.

PDK1 in the nucleus drives oncogenesis in mice and correlates with human prostate tumor grade.

### PERSPECTIVE: Sexy DEG/ENaC Channels Involved in Gustatory Detection of Fruit Fly Pheromones

C. W. Pikielny et al.

DEG/ENaC channels allow male fruit flies to "taste" their mates.

### PERSPECTIVE: Grb2, A Double-Edged Sword of Receptor Tyrosine Kinase Signaling

A. A. Belov and M. Mohammadi

The adaptor Grb2 plays both positive and negative roles in FGF receptor signaling.

## SCIENCE TRANSLATIONAL MEDICINE

[www.sciencetranslationalmedicine.org](http://www.sciencetranslationalmedicine.org)

Integrating Medicine and Science

**7 November issue: <http://scim.ag/stm110712>**

### RESEARCH ARTICLE: A Human Disease Model of Drug Toxicity-Induced Pulmonary Edema in a Lung-on-a-Chip Microdevice

D. Huh et al.

A human lung-on-a-chip model of human pulmonary edema predicts the efficacy of a new drug being tested in animals.

### RESEARCH ARTICLE: An Orally Active TRPV4 Channel Blocker Prevents and Resolves Pulmonary Edema Induced by Heart Failure

K. S. Thorneloe et al.

Blocking TRPV4 ion channels expressed in the lung in vivo and in vitro resolves pulmonary edema induced by heart failure.

### PERSPECTIVE: Improving Risk Assessment

D. M. Dambach and H. Uppal

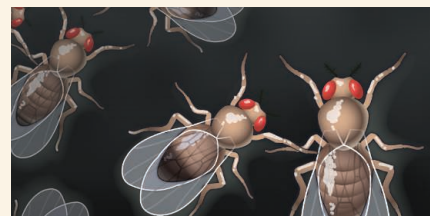
A collaborative effort to build human organs-on-a-chip may strengthen drug-related adverse-event prediction.

>> [News story p. 731](#)

### RESEARCH ARTICLE: Human Melanoma Metastasis in NSG Mice Correlates with Clinical Outcome in Patients

E. Quintana et al.

The ability of melanomas to produce circulating tumor cells and metastasize in immunocompromised mice correlates with their ability to form distant metastases in patients.



## SCIENCE SIGNALING

Courting fruit flies.

### COMMENTARY: Research Results—Preserving Newborn Blood Samples

M. H. Lewis et al.

The debate about retention of dried blood samples from newborns should include their value to biomedical research.

## SCIENCE CAREERS

[www.sciencereers.org/career\\_magazine](http://www.sciencereers.org/career_magazine)

Free Career Resources for Scientists

**<http://scim.ag/SciCareers9November2012>**

### Alternative Research Metrics

L. Laursen

Researchers are seeking faster, better ways to measure research output and impact.

### Content Collection: Talking to the Public

E. Pain

The benefits of public engagement justify the effort required to develop the necessary skills.

## SCIENCE PODCAST

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