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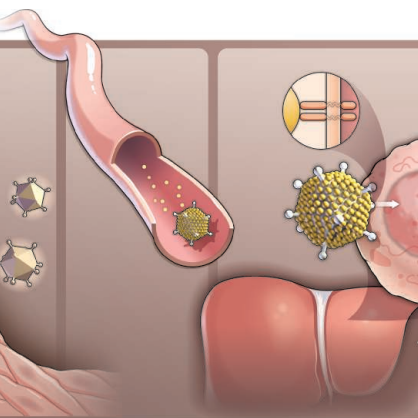
COVER

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.

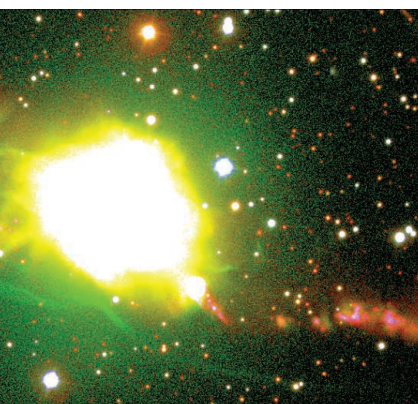
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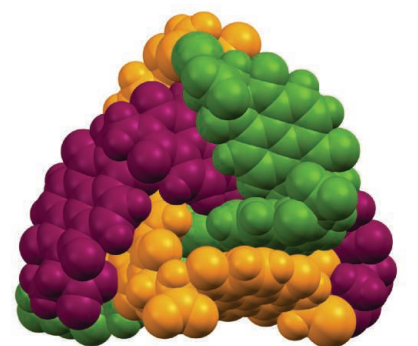
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A. R. Hernandez et al.

10.1126/science.1228734

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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 H₂ in Water Using Semiconductor Nanocrystals and a Nickel Catalyst

Z. Han et al.

10.1126/science.1227775

TECHNICAL COMMENTS

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>

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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.

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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

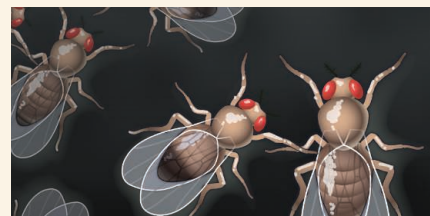
A collaborative effort to build human organs-on-a-chip may strengthen drug-related adverse-event prediction.

>> [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.

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