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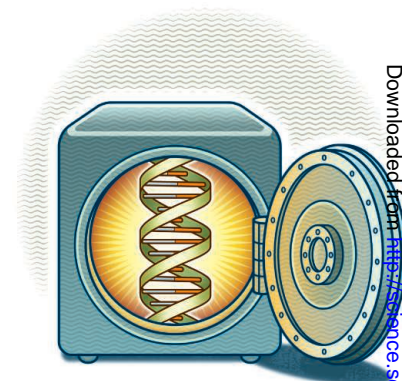
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## COVER

Schematic representations of DNA nanostructures with complex curvatures including two-dimensional arrangements of concentric rings and three-dimensional shapes, including a nanoflask 70 nanometers tall and 40 nanometers wide (DNA molecule is not shown to scale). On page 342, Han *et al.* describe the creation of these structures using a DNA origami folding technique in which double-helical DNA is bent to follow the rounded contours of the target object.

*Image: Dongran Han and Hao Yan, The Biodesign Institute and Department of Chemistry and Biochemistry, Arizona State University*

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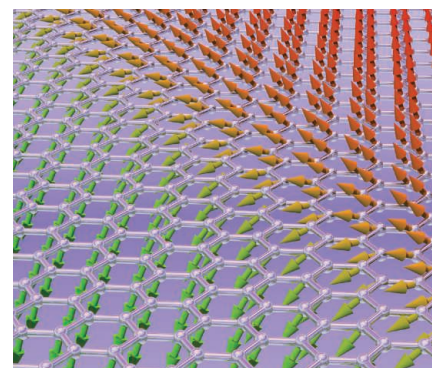
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- 346 **Phonemic Diversity Supports a Serial Founder Effect Model of Language Expansion from Africa**  
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Transforming growth factor- $\beta$  promotes aortic aneurysm formation through activation of its "noncanonical" signaling pathway.  
>> *News story p. 297*
- 365 **Sequential Synaptic Excitation and Inhibition Shape Readiness Discharge for Voluntary Behavior**  
*K. Kagaya and M. Takahata*  
In crayfish, specific neurons produce electrical activity in synchrony with different phases of the walking pattern.

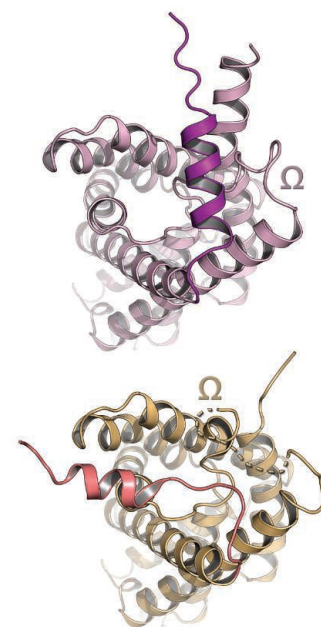
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## SCIENCEONLINE

## SCIENCEEXPRESS

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

### Nocturnality in Dinosaurs Inferred from Scleral Ring and Orbit Morphology

*L. Schmitz and R. Motani*

Comparison of eye structures between fossils and modern species suggests that Mesozoic archosaurs were active day and night.

10.1126/science.1200043

### Industrial Melanism in British Peppered Moths Has a Singular and Recent Mutational Origin

*A. E. van't Hof et al.*

The locus responsible for the dark form of the peppered moth is identified.

10.1126/science.1203043

### Chlorinated Indium Tin Oxide Electrodes with High Work Function for Organic Device Compatibility

*M. G. Helander et al.*

Closer matching of the energy levels of transparent electrodes and active materials in organic light-emitting diodes improves efficiency.

10.1126/science.1202992

### Probing Asthenospheric Density, Temperature, and Elastic Moduli Below the Western United States

*T. Ito and M. Simons*

Monitoring the response to ocean tidal loads reveals detailed variations in Earth's internal structure.

10.1126/science.1202584

### Ethical Framework for Biofuels

*A. Buyx and J. Tait*

10.1126/science.1206064

>> [Science Podcast](#)

## SCIENCENOW

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

Highlights From Our Daily News Coverage

### Melting Antarctic Ice Causing Penguins to Starve

As global warming kills off ice-loving krill, penguins may be losing food supply.

<http://scim.ag/ice-penguins>

### How Distractions Cause 'Senior Moments'

A new study shows why the brains of older adults sometimes struggle to switch between tasks.

<http://scim.ag/senior-moments>

### Double the Genes, Double the Flora

Ancient genome duplications fueled seed plant diversity.

<http://scim.ag/genes-flora>

## SCIENCE SIGNALING

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

The Signal Transduction Knowledge Environment

12 April issue: <http://scim.ag/ss041211>

### RESEARCH ARTICLE: Estrogen Regulates Tumor Growth Through a Nonclassical Pathway that Includes the Transcription Factors ER $\beta$ and KLF5

*Y. Nakajima et al.*

### PERSPECTIVE: Estrogen Receptor $\beta$ —Switching to a New Partner and Escaping from Estrogen

*Y.-K. Leung and S.-M. Ho*

ER $\beta$  promotes apoptosis in prostate cancer cells through an estrogen-independent mechanism.

### RESEARCH ARTICLE: PI3K $\beta$ Plays a Critical Role in Neutrophil Activation by Immune Complexes

*S. Kulkarni et al.*

The  $\beta$  isoform of phosphoinositide 3-kinase may be an effective therapeutic target in inflammatory diseases.

## GLOSSARY

Find out what c-Yes, Lyn, and R-Smad mean in the world of cell signaling.

## SCIENCE CAREERS

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

Free Career Resources for Scientists

### Tooling Up: Two Choke Points

*D. Jensen*

When moving away from the bench and into industry, it is important to realize that there is not just one gaping chasm to cross, but two.

<http://scim.ag/chokepoints>

### A Very Visual Scientist

*S. Webb*

Nickolay Hristov is building a career at the intersection of science and visual art.

[http://scim.ag/hristov\\_visual](http://scim.ag/hristov_visual)

### Content Collection: Careers in Clinical and Translational Research

*Science Careers Staff*

Articles on clinical and translational science careers, produced with generous support from the Burroughs Wellcome Fund.

[http://scim.ag/translational\\_collection](http://scim.ag/translational_collection)

## SCIENCE TRANSLATIONAL MEDICINE

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

Integrating Medicine and Science

13 April issue: <http://scim.ag/stm041311>

### COMMENTARY: One Foundation's Strategy to Accelerate Drug Discovery Through Genomics

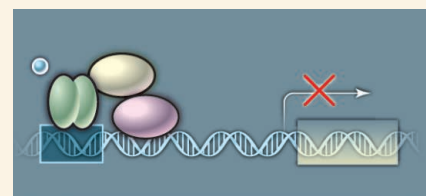
*L. M. Perkins et al.*

The founder of the Multiple Myeloma Research Foundation discusses ways to accelerate drug discovery for a rare disease.

### PERSPECTIVE: Community Health Care—Therapeutic Opportunities in the Human Microbiome

*J. L. Sonnenburg and M. A. Fischbach*

The human microbiome harbors tremendous untapped therapeutic potential.



## SCIENCE SIGNALING

Estrogen receptors in a prostate tumor.

### RESEARCH ARTICLE: IL-25 Causes Apoptosis of IL-25R-Expressing Breast Cancer Cells Without Toxicity to Nonmalignant Cells

*S. Furuta et al.*

Mammary epithelial cells secrete an anticancer cytokine, suggesting a new therapeutic approach for breast cancer.

### RESEARCH ARTICLE: Targeting Nrf2 Signaling Improves Bacterial Clearance by Alveolar Macrophages in Patients with COPD and in a Mouse Model

*C. J. Harvey et al.*

Lung macrophages take up bacteria better after stimulation of the Nrf2 antioxidant signaling pathway.

## SCIENCE PODCAST

[www.sciencemag.org/multimedia/podcast](http://www.sciencemag.org/multimedia/podcast)  
Free Weekly Show

On the 15 April *Science* Podcast: budgeting for science, an ethical framework for biofuels, re-exploring bicycle stability, and more.

## SCIENCE INSIDER

[news.sciencemag.org/scienceinsider](http://news.sciencemag.org/scienceinsider)  
Science Policy News and Analysis

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