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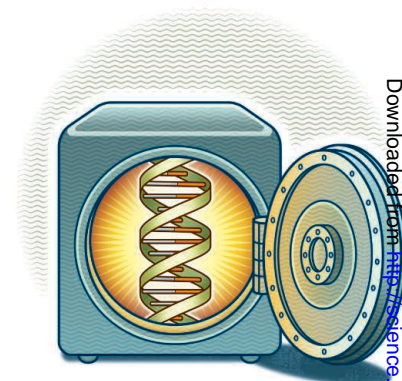
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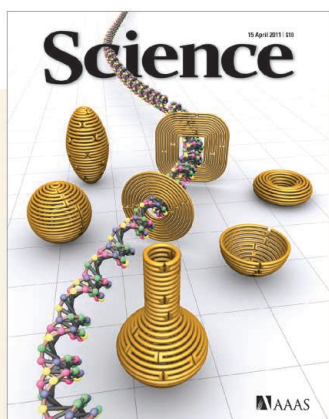


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COVER

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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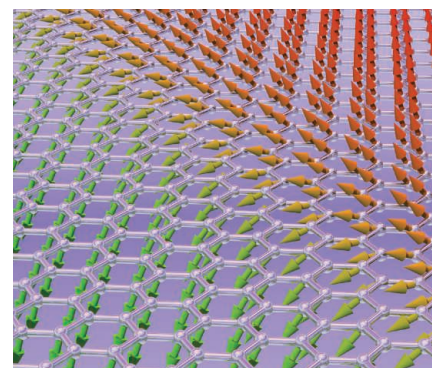
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- 365 **Sequential Synaptic Excitation and Inhibition Shape Readiness Discharge for Voluntary Behavior**
K. Kagaya and M. Takahata
In crayfish, specific neurons produce electrical activity in synchrony with different phases of the walking pattern.

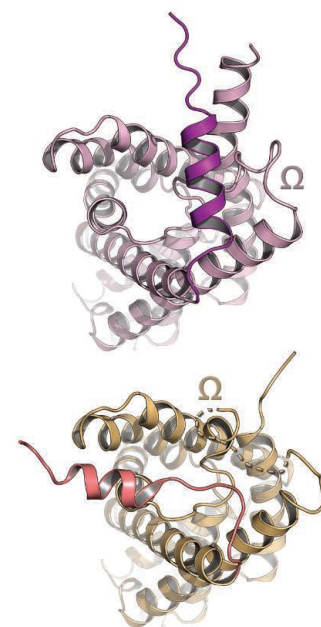
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SCIENCEONLINE

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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

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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](#)

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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

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 β and KLF5

Y. Nakajima et al.

PERSPECTIVE: Estrogen Receptor β —Switching to a New Partner and Escaping from Estrogen

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

ER β promotes apoptosis in prostate cancer cells through an estrogen-independent mechanism.

RESEARCH ARTICLE: PI3K β Plays a Critical Role in Neutrophil Activation by Immune Complexes

S. Kulkarni et al.

The β 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

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

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

SCIENCE TRANSLATIONAL MEDICINE

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

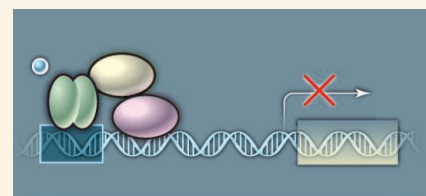
L. M. Perkins et al.

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

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Free Weekly Show

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

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Science

332 (6027)

Science **332** (6027), 281-369.

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