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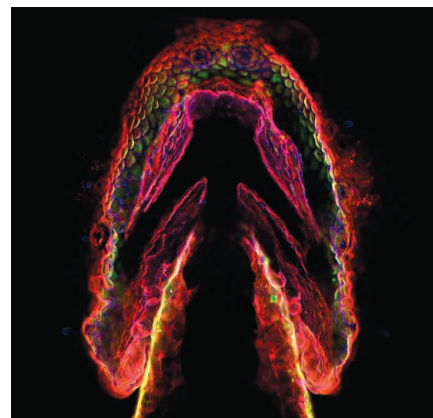
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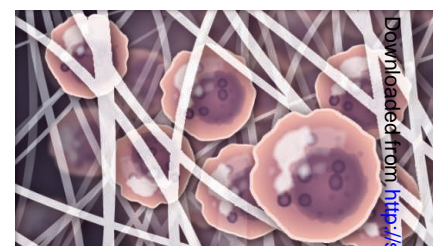
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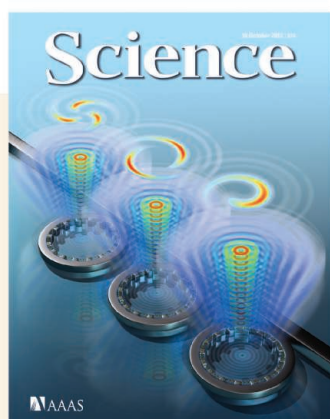


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COVER

Optical vortices emitted by an array of silicon ring resonators. The helical phase fronts, indicated by spirals, denote photons with orbital angular momentum. Emission results from the embedded angular gratings that extract the light waves traveling around the ring. The small emitters (diameter: 8 micrometers) can be integrated on a large scale into photonic integrated circuits, enabling new applications in optical communications and sensing, quantum photonics, and lab-on-a-chip. See page 363.

Image: Yue Zhang (ciel924@126.com), based on data from Xinlun Cai, Jiangbo Zhu, and Siyuan Yu

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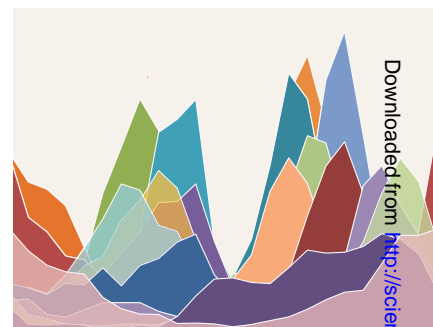
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SCIENCEEXPRESS

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Publication Ahead of Print

**Making the Moon from a Fast-Spinning Earth:
A Giant Impact Followed by Resonant Despinning**
M. Čuk and S. T. Stewart

10.1126/science.1225542

>> [Science Podcast](#)

**Forming a Moon with an Earth-like Composition
via a Giant Impact**

R. M. Canup

10.1126/science.1226073

**Dedifferentiation of Neurons and Astrocytes
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D. Friedmann-Morvinski et al.

10.1126/science.1226929

Structural Basis of Transcription Initiation

Y. Zhang et al.

10.1126/science.1227786

**Tricking the Guard: Exploiting Plant Defense
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10.1126/science.1226743

**SAICAR Stimulates Pyruvate Kinase Isoform
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10.1126/science.1224409

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**Comment and Response on "Restoring
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Comment: U. Sławińska et al.

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Response: G. Courtine et al.

<http://dx.doi.org/10.1126/science.1226274>

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Highlights From Our Daily News Coverage

Baby Back, Waaaay Back, Ribs

The remains of an ancient meal suggest that early humans may have hunted meat.

http://scim.ag/Ancient_Meal

Vesta: The Mini-Planet That Could Magnetize

A 4-billion-year-old meteorite reveals evidence that an asteroid had a dynamo-driven magnetic field.

<http://scim.ag/Mini-Planet>

Dance Your Ph.D.: And the Winner Is...

An Australian materials scientist takes the top honor for translating his thesis into a burlesque performance.

http://scim.ag/Dance_PhD

SCIENCE SIGNALING

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The Signal Transduction Knowledge Environment

16 October issue: <http://scim.ag/ss101612>

**RESEARCH ARTICLE: TWEAK and cIAP1 Regulate
Myoblast Fusion Through the Noncanonical
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E. Enwere et al.

Muscle fiber formation from progenitor cells is dependent on noncanonical NF- κ B signaling.

**RESEARCH ARTICLE: The Temporal Pattern of
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Sensory Neuron**

T. Tomida et al.

Imaging kinase activity in neurons of living worms reveals the complexity in the response.

**PERSPECTIVE: The Response of Cancers to BRAF
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Targeting the receptor and a mutant component may be an effective colon cancer treatment.

**REVIEW: The Hedgehog Signal Transduction
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Canonical and noncanonical Hedgehog signaling modules are important in health and disease.

**PRESENTATION: Neurosteroids and
Microneurotrophins Signal Through NGF
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A. Gravanis et al.

Synthetic DHEA analogs promote neuronal survival without estrogenic or androgenic side effects.

SCIENCE TRANSLATIONAL MEDICINE

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Integrating Medicine and Science

17 October issue: <http://scim.ag/stm101712>

**RESEARCH ARTICLE: A Preclinical Evaluation
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**PERSPECTIVE: Pancreas Cancer Meets
the Thunder God**

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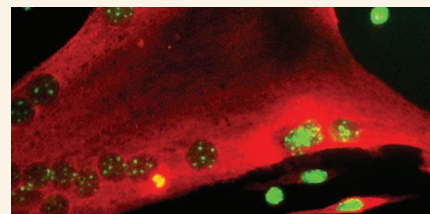
**RESEARCH ARTICLE: A Translational Paradigm
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**PERSPECTIVE: Sisyphus and Translational
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Primates treated with a neuroprotectant after stroke showed outcomes that mimicked those of a human trial.



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Stimulating myoblast fusion.

**RESEARCH ARTICLE: Methylation Subtypes and
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A survey of epigenetic alterations in gastric cancer identifies clinically relevant subgroups.

SCIENCE CAREERS

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Free Career Resources for Scientists

<http://scim.ag/SciCareers19October2012>

No Starry-Eyed Astronomer

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Jane Luu just won the Shaw Prize for astronomy—so why is she working as an engineer?

Tooling Up: Resume Wisdom

D. Jensen

To go beyond "good enough," think hard about the needs of the hiring manager and the position.

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