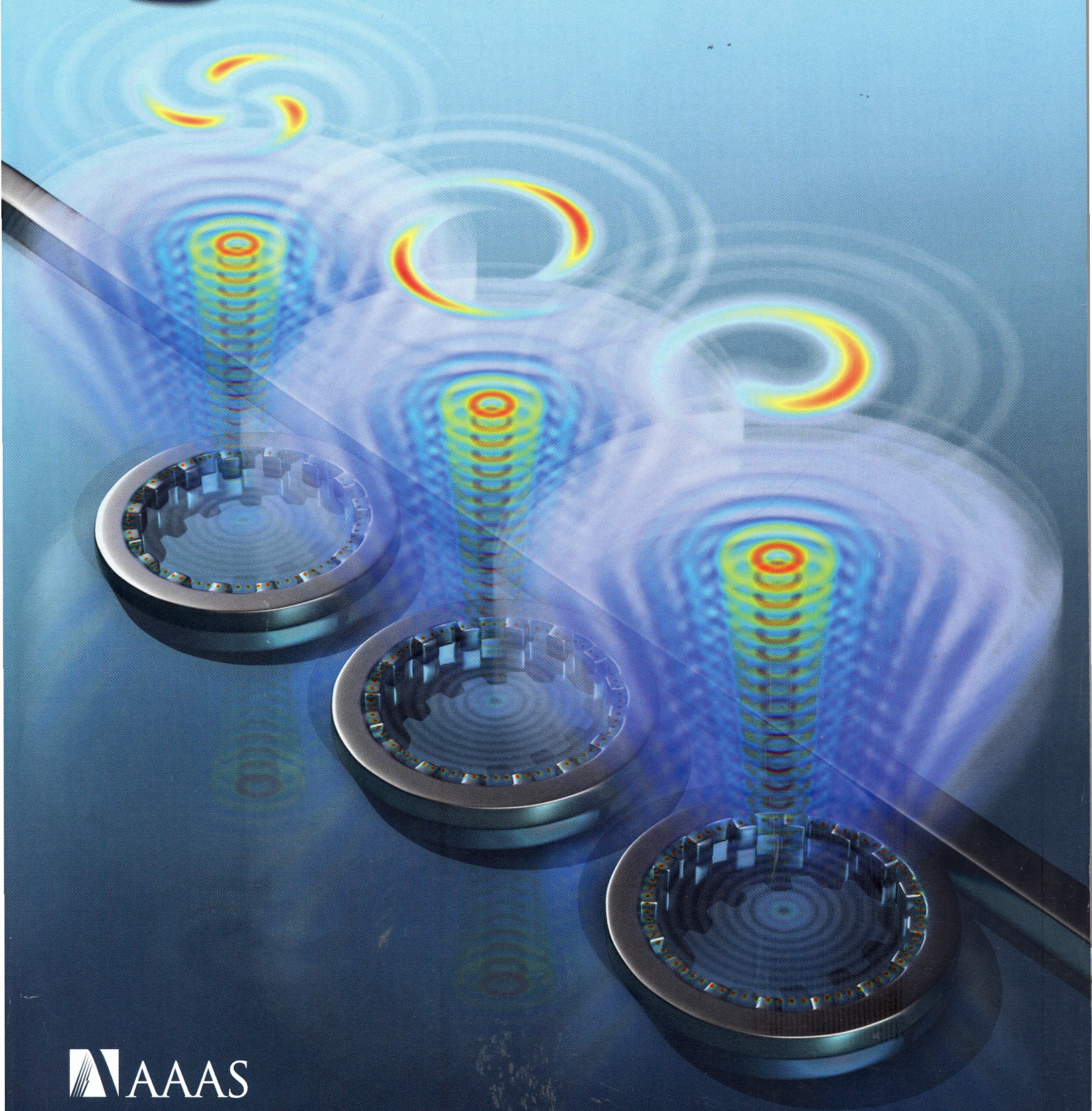


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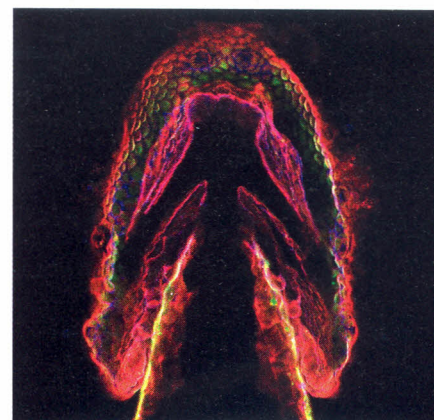
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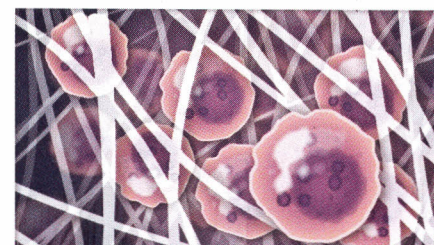
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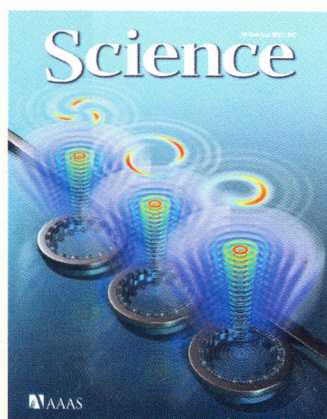
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## COVER

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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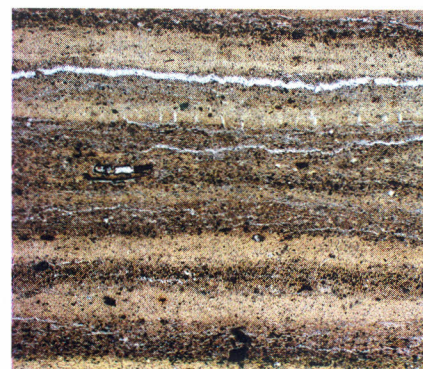
When the balance of branched-chain amino acids transported into the brain goes awry, neurological deficits can ensue.

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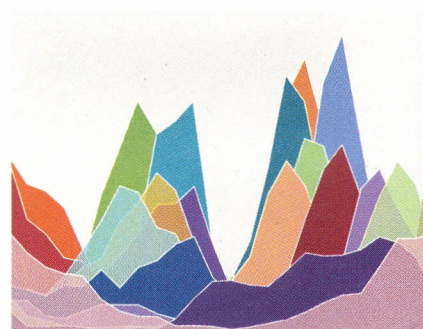
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## ONLINE HIGHLIGHTS

## SCIENCEEXPRESS

www.sciencexpres.org

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  
by Oncogenes Can Induce Gliomas in Mice**

*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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**SAICAR Stimulates Pyruvate Kinase Isoform  
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## TECHNICAL COMMENTS

**Comment and Response on "Restoring  
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*Comment: U. Stawinska et al.*<http://dx.doi.org/10.1126/science.1226082>*Response: G. Courtine et al.*<http://dx.doi.org/10.1126/science.1226274>

## SCIENCE NOW

www.sciencenow.org

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](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](http://scim.ag/Dance_PhD)

## SCIENCE SIGNALING

www.sciencesignaling.org

The Signal Transduction Knowledge Environment

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

**RESEARCH ARTICLE: TWEAK and cIAP1 Regulate  
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*E. Enwere et al.*

Muscle fiber formation from progenitor cells  
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**RESEARCH ARTICLE: The Temporal Pattern of  
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*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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Systems Biology**

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Targeting the receptor and a mutant component  
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**REVIEW: The Hedgehog Signal Transduction  
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*D. J. Robbins et al.*

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**PRESENTATION: Neurosteroids and  
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*A. Gravanis et al.*

Synthetic DHEA analogs promote neuronal survival  
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## SCIENCE TRANSLATIONAL MEDICINE

www.sciencetranslationalmedicine.org

Integrating Medicine and Science

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

**RESEARCH ARTICLE: A Preclinical Evaluation  
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*R. Chugh et al.*

**PERSPECTIVE: Pancreas Cancer Meets  
the Thunder God**

*S. R. Hingorani and J. D. Potter*

Minnelide is a new potential treatment  
for pancreatic cancer.

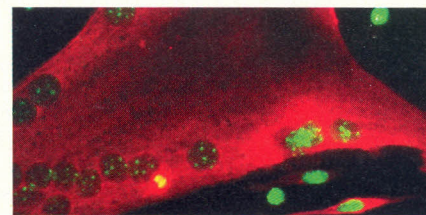
**RESEARCH ARTICLE: A Translational Paradigm  
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*D. J. Cook et al.*

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*P. Lyden and P. Lapchak*

Primates treated with a neuroprotectant after stroke  
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Stimulating myoblast fusion.

**RESEARCH ARTICLE: Methylation Subtypes and  
Large-Scale Epigenetic Alterations in Gastric  
Cancer**

*H. Zouridis et al.*

A survey of epigenetic alterations in gastric cancer  
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## SCIENCE CAREERS

www.sciencereers.org/career\_magazine

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—  
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**Tooling Up: Resume Wisdom**

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

## SCIENCE PODCAST

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