

## NEWS

### IN BRIEF

**1444** News at a glance

### IN DEPTH

#### **1447 CONGRESS GIVES SCIENCE A RECORD FUNDING BOOST**

Lawmakers largely reject deep cuts proposed by President Donald Trump for 2018 *By J. Mervis*

#### **1448 U.K. TRIALS OF AIRWAY TRANSPLANTS ARE IN LIMBO**

Studies are based on flawed evidence and could harm patients, scientists say *By M. Warren*

#### **1450 U.S. BLAMES 'MASSIVE' HACK OF RESEARCH DATA ON IRAN**

Targets included nearly 8000 professors in 22 countries *By J. Cohen*

#### **1451 METEORITE DIVIDE POINTS TO SOLAR SYSTEM CHAOS**

"Warren gap" validates models that suggest early wanderings for the giant planets *By P. Voosen*

#### **1452 X-RAY 'GHOST IMAGES' COULD CUT RADIATION DOSES**

Technique points to safer medical imaging done with cheap, single-pixel cameras *By S. Chen*

► PODCAST

#### **1453 NEW MISSIONS AIM TO MAKE A SHORT LIST OF EXO-EARTHS**

Ground- and space-based searches seek Earth-like targets for the next great space telescope *By D. Clery*

### FEATURE

#### **1454 PUTTING IMMUNE CELLS ON A DIET**

To treat immune illnesses, researchers are probing drugs that could starve troublemaker cells *By M. Leslie*

## INSIGHTS

### PERSPECTIVES

#### **1458 CHANGE IS KEY TO FROG SURVIVAL**

Changes in host traits help amphibian populations to survive chytrid infection *By J. P. Collins*

► REPORT P. 1517

#### **1460 NATURAL KILLERS JOIN THE FIGHT AGAINST CANCER**

An antibody overcomes cancer cell immune evasion and activates natural killer cells *By A. Cerwenka and L. L. Lanier*

► REPORT P. 1537

#### **1461 MAKING ROOM FOR NEW MEMORIES**

Clearing neuronal networks from transient memory engrams during sleep consolidates memories *By A. Draguhn*

► REPORT P. 1524

#### **1463 LI METAL BATTERY, HEAL THYSELF**

Intermittent high-current pulses prevent battery failure

*By A. Mukhopadhyay and M. K. Jangid*

► REPORT P. 1513

#### **1464 FORCE MATTERS IN HOSPITAL-ACQUIRED INFECTIONS**

Extremely strong forces help staphylococci to colonize biomaterials and infect humans

*By P. Herman-Bausier and Y. F. Dufrène*

► REPORT P. 1527

#### **1465 NEURONAL-IMMUNE SYSTEM CROSS-TALK IN HOMEOSTASIS**

Interactions between immune and neuronal cells are pillars in tissue homeostasis

*By H. Veiga-Fernandes and D. Artis*

#### **1467 MASHING UP METALS WITH CARBOTHERMAL SHOCK**

Many elements can be combined in the formation of high-entropy-alloy nanoparticles *By S. E. Skrabalak*

► RESEARCH ARTICLE P. 1489

### POLICY FORUM

#### **1468 ANATOMY OF STEM TEACHING IN NORTH AMERICAN UNIVERSITIES**

Lecture is prominent, but practices vary *By M. Stains et al.*

### BOOKS ET AL.

#### **1472 WHAT'S IN A NAME?**

A taxonomist contemplates the implications involved in naming new species *By G. R. Goldsmith*

#### **1474 QUESTIONING QUANTUM MECHANICS**

In a critique of the Copenhagen dogma, a physicist gives voice to "quantum dissidents" *By M. Frappier*

### LETTERS

#### **1475 MINING THREATENS COLOMBIAN ECOSYSTEMS**

*By O. A. Pérez-Escobar et al.*

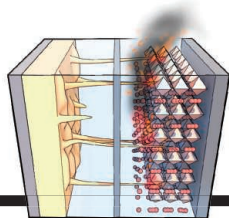
#### **1475 OCEAN DEOXYGENATION: TIME FOR ACTION**

*By S. A. Earle et al.*

#### **1476 AMAZON SUGAR CANE: A THREAT TO THE FOREST**

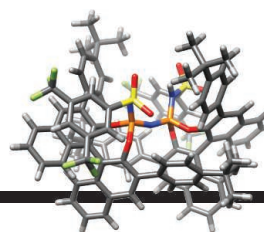
*By L. Ferrante and P. M. Fearnside*

#### **1476 TECHNICAL COMMENT ABSTRACTS**



# 1463 & 1513

Dendrite demolition



# 1501

Asymmetric acid for alkenes

## RESEARCH

### IN BRIEF

**1480** From *Science* and other journals

### RESEARCH ARTICLES

#### 1483 BIOCHEMISTRY

Structure of the nucleotide exchange factor eIF2B reveals mechanism of memory-enhancing molecule

*J. C. Tsai et al.*

RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: [dx.doi.org/10.1126/science.aag0939](http://dx.doi.org/10.1126/science.aag0939)

► REPORT P. 1533

#### 1484 NITROGEN FIXATION

A bound reaction intermediate sheds light on the mechanism of nitrogenase

*D. Sippel et al.*

#### 1489 NANOMATERIALS

Carbothermal shock synthesis of high-entropy-alloy nanoparticles

*Y. Yao et al.*

► PERSPECTIVE P. 1467



# 1458 & 1517

#### 1495 MATERIALS SCIENCE

Adaptive infrared-reflecting systems inspired by cephalopods

*C. Xu et al.*

### REPORTS

#### 1501 ORGANIC CHEMISTRY

Activation of olefins via asymmetric Brønsted acid catalysis

*N. Tsuji et al.*

#### 1505 APPLIED PHYSICS

Nanofluidic rocking Brownian motors

*M. J. Skaug et al.*

#### 1509 MATERIALS SCIENCE

Chameleon-like elastomers with molecularly encoded strain-adaptive stiffening and coloration

*M. Vatankehah-Varnosfaderani et al.*

#### 1513 BATTERIES

Self-heating-induced healing of lithium dendrites

*L. Li et al.*

► PERSPECTIVE P. 1463

#### 1517 AMPHIBIAN DISEASE

Shifts in disease dynamics in a tropical amphibian assemblage are not due to pathogen attenuation

*J. Voyles et al.*

► PERSPECTIVE P. 1458

#### 1520 IRON HOMEOSTASIS

Erythrocytic ferroportin reduces intracellular iron accumulation, hemolysis, and malaria risk

*D.-L. Zhang et al.*

#### 1524 NEUROSCIENCE

Hippocampal ripples down-regulate synapses

*H. Norimoto et al.*

► PERSPECTIVE P. 1461

#### 1527 BIOPHYSICS

Molecular mechanism of extreme mechanostability in a pathogen adhesin

*L. F. Milles et al.*

► PERSPECTIVE P. 1464

#### 1533 BIOCHEMISTRY

Binding of ISRIB reveals a regulatory site in the nucleotide exchange factor eIF2B

*A. F. Zyryanova et al.*

► RESEARCH ARTICLE P. 1483

#### 1537 CANCER IMMUNOLOGY

Antibody-mediated inhibition of MICA and MICB shedding promotes NK cell-driven tumor immunity

*L. Ferrari de Andrade et al.*

► PERSPECTIVE P. 1460

#### 1542 VIRAL EVOLUTION

Destabilizing mutations encode nongenetic variation that drives evolutionary innovation

*K. L. Petrie et al.*

### DEPARTMENTS

#### 1443 EDITORIAL

Keeping science honest

*By Josefin Sundin and Fredrik Jutfelt*

#### 1558 WORKING LIFE

Figuring out how I belong

*By Malin L. Nording*

### ON THE COVER



A diverse array of multimetallic alloy nanoparticles (large multicolored spheres) can be achieved via high-temperature shocking of metal salts on carbon nanofibers (small spheres represent individual metal atoms). This method enables homogeneous mixing of up to eight different metals to form single-phase solid solutions and presents a viable platform for nanometallurgical studies with a wide range of applications. See pages 1467 and 1489. *Image: Jiaqi Dai*

Science Staff .....	1442
AAAS News & Notes .....	1478
New Products .....	1549
Science Careers .....	1550

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