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A nutritional control on GM organisms should clear the way for research

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##### Down to earth

It's time for scientists to get their hands dirty and investigate mud

#### 412 SPACE EXPLORATION

##### Lost and found

The discovery of Beagle 2 on Mars offers hope for other misplaced artefacts

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#### 413 Risk analysis is key to an effective terror response

*Erwann Michel-Kerjan*

Leaders must collaborate with risk strategists to strengthen our resilience to terrorism

### RESEARCH HIGHLIGHTS

#### 414 SELECTIONS FROM THE SCIENTIFIC LITERATURE

Muscle model / Where nitrogen is from / Turtles' magnetic compass / Happy days at 'uni' / Forests

undermined / A history of tuberculosis / More ice loss

### SEVEN DAYS

#### 416 THE NEWS IN BRIEF

Obesity tool wins approval / European Parliament strikes GM deal / Nuclear blast pitched as start of Anthropocene / Economic risks of extreme weather

## CAREERS

#### 517 TIME MANAGEMENT

##### Seize the moment

When making the leap from postdoc to principal investigator don't forget to make some time for yourself

#### 519 TURNING POINT

Chemistry and fashion are inextricably linked, says chemist-turned-fashion designer Swati Padmaraj

## NEWS IN FOCUS

#### 419 TERRORISM

Lack of data hampers attempts to model the risk of terrorist attacks

#### 420 TERRORISM

Psychologists seek ways to undo radicalization



#### 422 COSMOLOGY

Is the most popular theory on dark matter about to WIMP out?

#### 423 SYNTHETIC BIOLOGY

Artificial amino acid acts as biocontainment for GM microbes

#### 424 METEOROLOGY

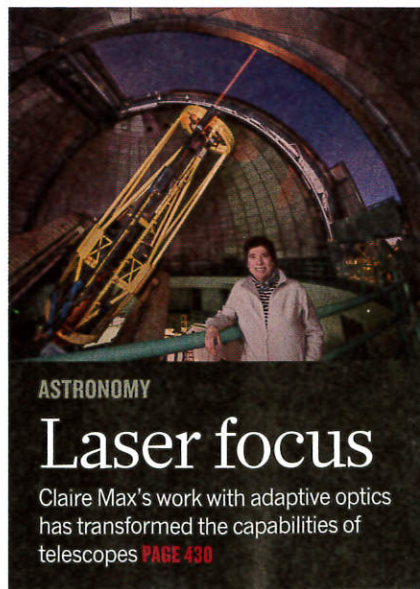
Major drive aims to catch data on atmospheric rivers

### FEATURES

#### 426 AGEING RESEARCH

##### Blood to blood

How young blood can help rejuvenate old tissue



### ASTRONOMY

## Laser focus

Claire Max's work with adaptive optics has transformed the capabilities of telescopes [PAGE 430](#)

## COMMENT

#### 433 POLICY

##### Four gaps in China's new environmental law

*Bo Zhang & Cong Cao*

The new law was a necessary first step — now comes the challenging task of making it effective

### BOOKS & ARTS



### BIG DATA

## Stealth control

Steven Aftergood examines the hidden impacts of personal data collection [PAGE 435](#)

#### 436 AGEING

##### Eternal obsession

*Monya Baker*

#### 437 BOOKS IN BRIEF

### CORRESPONDENCE

438 Europe's regions still lag in research / Role of indirect costs in US funding / Limitations of citizen science / Boosting transitional research



### FUTURES

#### 522 Treatment naive

*Steve Zisson*

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## RESEARCH

### NEW ONLINE

439 Papers published this week at nature.com

### NEWS & VIEWS

#### 440 CATALYSIS

##### Gold unleashes the power of three

A mild method for making gold(III) catalysts

Christopher M B K Kourra & Nicolai Cramer **SEE ARTICLE P.449**

#### 441 CELL DIVISION

##### Hold on and let go

An evolutionarily conserved role for MEIKIN protein during meiosis I

Kikuë Tachibana-Konwalski

**SEE ARTICLE P.466**

#### 442 ANTIBIOTICS

##### An irresistible newcomer

The lipid-targeting antibiotic teixobactin induces no detectable resistance

Gerard Wright **SEE ARTICLE P.455**

#### 444 ASTRONOMY

##### Cosmic fog and smog

Evidence that most 'metals' reside far from galaxies

Molly S Peeples

#### 445 PALAEOCLIMATE

##### Monsoon matters

How the Asian summer monsoon has varied during the past 150,000 years

Bronwen Konecky

#### 446 CELL BIOLOGY

##### On the endocytosis rollercoaster

Characterization of a fast, clathrin-independent mode of endocytosis

Volker Haucke

**SEE ARTICLE P.460 & LETTER P.493**

### ARTICLES

#### 449 ORGANIC CHEMISTRY Stable gold(III) catalysts by oxidative addition of a carbon-carbon bond

C-Y Wu, T Horibe, C B Jacobsen & F D Toste **SEE N&V P.440**

#### 455 DRUG DISCOVERY A new antibiotic kills pathogens without detectable resistance

L L Ling et al. **SEE N&V P.442**

#### 460 CELL BIOLOGY Endophilin marks and controls a clathrin-independent endocytic pathway

E Boucrot et al. **SEE N&V P.446**



ON THE COVER

## Glittering prize

The Esquel pallasite — arguably the most beautiful meteorite known — consists of gem-quality olivine crystals embedded in a metallic matrix. High-resolution magnetic imaging of the iron-nickel matrix of the Esquel and Imilac pallasites provides a time series that captures the dying moments of the magnetic field generated as the liquid core of the parent body solidified. **PAGE 472**

#### 466 CELL BIOLOGY Meikin is a conserved regulator of meiosis-I-specific kinetochore function

J Kim et al. **SEE N&V P.441**

### LETTERS

#### 472 PLANETARY SCIENCE Long-lived magnetism from solidification-driven convection on the pallasite parent body

J F J Bryson et al.

#### 476 OPTICS AND PHOTONICS Compositional engineering of perovskite materials for high-performance solar cells

N J Jeon et al.

#### 481 CLIMATE SCIENCES Probabilistic reanalysis of twentieth-century sea-level rise

C C Hay, E Morrow, R E Kopp & J X Mitrovica

#### 485 PALAEOONTOLOGY A basal ichthyosauriform with a short snout from the Lower Triassic of China

R Motani et al.

#### 489 CANCER The mutational landscapes of genetic and chemical models of Kras-driven lung cancer

P M K Westcott et al.

#### 493 CELL BIOLOGY Endophilin-A2 functions in membrane scission in clathrin-independent endocytosis

H-F Renard et al. **SEE N&V P. 446**

#### 497 CANCER mTORC1-mediated translational elongation limits intestinal tumour initiation and growth

W J Faller et al.

#### 501 IMMUNOLOGY IgG1 protects against renal disease in a mouse model of cryoglobulinaemia

R T Strait et al.

#### 505 VIROLOGY Structure of the immature HIV-1 capsid in intact virus particles at 8.8 Å resolution

F K M Schur et al.

#### 509 BIOCHEMISTRY Structure and mechanism of the tRNA-dependent lantibiotic dehydratase NisB

M A Ortega et al.

#### 513 STRUCTURAL BIOLOGY Reductive dehalogenase structure suggests a mechanism for B12-dependent dehalogenation

K A P Payne et al.

### VIROLOGY

## Going viral

The structure of the protein shell of immature HIV-1 — very different from the mature virus. **PAGE 505**



ESQUEL IMAGE: NATURAL HISTORY MUSEUM, LONDON