



## NEWS

### IN BRIEF

986 Roundup of the week's news



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### IN DEPTH

#### 988 ANIMAL WELFARE ACCREDITATION CALLED INTO QUESTION

PETA study finds violations more often in approved labs *By D. Grimm*

#### 989 GENOMES REVEAL START OF EBOLA OUTBREAK

Viral sequences demonstrate how the disease spread in Sierra Leone *By G. Vogel*

► SCIENCE EXPRESS REPORT BY S. K. GIRE ET AL.

#### 990 AS VOLCANO RUMBLES, SCIENTISTS PLAN FOR AVIATION ALERTS

Ash sensors ready to deploy on ground, planes *By C. Gramling*

#### 991 A CHOCOLATE HABIT IN ANCIENT NORTH AMERICA

Residues on pottery suggest close ties between Mesoamerica and cultures to the north *By M. Bawaya*

#### 992 WHY NULL RESULTS RARELY SEE THE LIGHT OF DAY

"File drawer" study proposes registry for unpublished social science data *By J. Mervis*

► SCIENCE EXPRESS REPORT BY A. FRANCO ET AL.

#### 993 SUPERNOVA BREAKS THE MOLD

A massive explosion in a nearby galaxy both confirms and confounds astronomers' expectations *By D. Clery*

### FEATURE

#### 994 IN SEARCH OF GREEN ARABIA

Researchers are scouring the now-barren Arabian Peninsula to uncover its hidden role in ancient human migration *By A. Lawler*

## INSIGHTS

### PERSPECTIVES

#### 998 GLIMPING GLASS STRUCTURE UNDER PRESSURE

Nuclear magnetic resonance spectroscopy of a glass under pressure adds to our understanding of network structure *By R. E. Youngman*

► REPORT P. 1027

#### 1000 ON THE ORIGIN OF PETER RABBIT

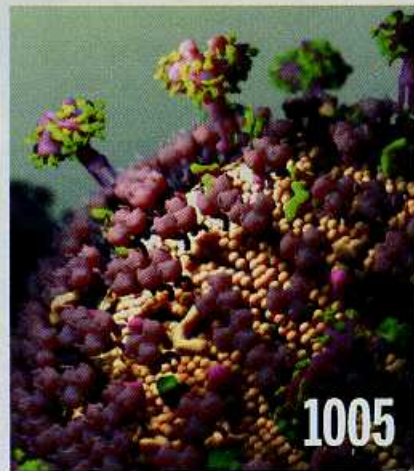
Domestication of rabbits led to changes across the genome, particularly in regions related to brain development *By K. E. Lohmueller*

► REPORT P. 1074

#### 1001 ONE GOOD COSMIC MEASURE

Radio-wave interferometry provides an accurate measurement of cosmic distances *By L. Girardi*

► REPORT P. 1029



1005

#### 1002 MANY MODES OF MOTILITY

Cells use a piston-driven mechanism, among others, to migrate *By D. W. DeSimone and A. R. Horwitz*

► REPORT P. 1062

#### 1004 STORIES OF ARCTIC COLONIZATION

Genetic data elucidate the population history of the North American Arctic *By R. W. Park*

► RESEARCH ARTICLE P. 1020

#### 1005 REKINDLED HIV INFECTION

What does the "Mississippi baby" tell us about curing HIV-1 infection? *By J. D. Siliciano and R. F. Siliciano*

#### 1006 DEMYSTIFYING CENTRAL GOVERNMENT R&D SPENDING IN CHINA

Should funding focus on scientific research? *By Y. Sun and C. Cao*

### BOOKS ET AL.

#### 1009 AMERICAN PLAINS BISON

*By J. A. Bailey, reviewed by J. A. DeWoody*

### LETTERS

#### 1010 IS IT TIME TO DESTROY THE SMALLPOX VIRUS?

*By I. Arita and D. Francis*

#### 1010 GENE DRIVES RAISE DUAL-USE CONCERNS

*By D. Gurwitz*

#### 1010 RESPONSE

*By K. A. Oye and K. M. Esvelt*

#### 1011 TECHNICAL COMMENT ABSTRACTS

## RESEARCH

### IN BRIEF

1016 From *Science* and other journals

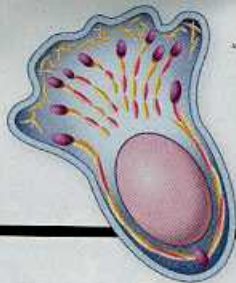
### RESEARCH ARTICLES

#### 1020 ARCTIC GENETICS

The genetic prehistory of the New World Arctic *M. Raghavan et al.*

RESEARCH ARTICLE SUMMARY; FOR FULL TEXT: [dx.doi.org/10.1126/science.1255832](http://dx.doi.org/10.1126/science.1255832)

► PERSPECTIVE P. 1004



## 1002 & 1062

Different mechanisms  
for cell movement



## 1004 & 1020

Paleo-Eskimo population  
expansion

### 1021 ION CHANNEL STRUCTURE

X-ray structures of AMPA receptor-cone snail toxin complexes illuminate activation mechanism *L. Chen et al.*

► REPORT P. 1070

### REPORTS

#### 1027 GLASS STRUCTURE

Observation of the transition state for pressure-induced  $BO_3 \rightarrow BO_4$  conversion in glass *T. Edwards et al.*

► PERSPECTIVE P. 998

#### 1029 STELLAR DISTANCES

A VLBI resolution of the Pleiades distance controversy *C. Melis et al.*

► PERSPECTIVE P. 1001

#### 1032 CIRCUMSTELLAR DISKS

Large impacts around a solar-analog star in the era of terrestrial planet formation *H. Y. A. Meng et al.*

#### 1035 SUPERFLUIDITY

A mixture of Bose and Fermi superfluids *I. Ferrier-Barbut et al.*

#### 1038 EARTHQUAKE DYNAMICS

Strength of stick-slip and creeping subduction megathrusts from heat flow observations *X. Gao and K. Wang*

#### 1041 CONSERVATION ECONOMICS

Using ecological thresholds to evaluate the costs and benefits of set-asides in a biodiversity hotspot *C. Banks-Leite et al.*

#### 1045 PALEOCEANOGRAPHY

Holocene history of ENSO variance and asymmetry in the eastern tropical Pacific *M. Carré et al.*

#### 1048 HUMAN MICROBIOTA

Longitudinal analysis of microbial interaction between humans and the indoor environment *S. Lax et al.*

► PODCAST

#### 1052 MICROBIAL METABOLISM

Growth of nitrite-oxidizing bacteria by aerobic hydrogen oxidation *H. Koch et al.*



# 1032

#### 1054 MEMORY ENHANCEMENT

Targeted enhancement of cortical-hippocampal brain networks and associative memory *J. X. Wang et al.*

#### 1058 GERMINAL CENTERS

Dynamic signaling by T follicular helper cells during germinal center B cell selection *Z. Shulman et al.*

#### 1062 CELL MIGRATION IN 3D

Generation of compartmentalized pressure by a nuclear piston governs cell motility in a 3D matrix *R. J. Petrie et al.*

► PERSPECTIVE P. 1002

#### 1065 CHROMATIN REGULATION

Histone H3 lysine-to-methionine mutants as a paradigm to study chromatin signaling *H.-M. Herz et al.*

#### 1070 ION CHANNEL STRUCTURE

Structure of an agonist-bound ionotropic glutamate receptor *M. V. Yelshanskaya et al.*

► RESEARCH ARTICLE P. 1021

#### 1074 EVOLUTIONARY GENOMICS

Rabbit genome analysis reveals a polygenic basis for phenotypic change during domestication *M. Carneiro et al.*

► PERSPECTIVE P. 1000

### DEPARTMENTS

#### 985 EDITORIAL

Australia needs a strategy  
*By Ian Chubb*

#### 1090 WORKING LIFE

Having it all  
*By Jyoti Mishra*

### ON THE COVER



The Pleiades, also known as the Seven Sisters, is a cluster of stars easily seen in fall and winter that is critical for our understanding of stars throughout the universe.

For decades, there has been considerable debate over the distance from our solar system to the Pleiades. Very long baseline radio interferometry now provides a "gold standard" distance measurement. See pages 1001 and 1029. *Photo: Roberto Colombari/astrobin.com/users/rob77*

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