NEWS

IN BRIEF

986 Roundup of the week’s news

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

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“File drawer” study proposes registry for unpublished social science data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

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 GLIMPSED GLASS STRUCTURE UNDER PRESSURE
Nuclear magnetic resonance spectroscopy of a glass under pressure adds to our understanding of network structure
By R. E. Youngman

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

1001 ONE GOOD COSMIC MEASURE
Radio-wave interferometry provides an accurate measurement of cosmic distances
By L. Girardi

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

1002 MANY MODES OF MOTILITY
Cells use a piston-driven mechanism, among others, to migrate
By D. W. DeSimone and A. R. Horwitz

1004 STORIES OF ARCTIC COLONIZATION
Genetic data elucidate the population history of the North American Arctic
By R. W. Park

1005 REKINDLED HIV INFECTION
What does the “Mississippi baby” tell us about curing HIV-1 infection?
By J. D. Siliciano and R. F. Siliciano

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

Published by AAAS
1027 GLASS STRUCTURE
Observation of the transition state for pressure-induced $BO_3 \rightarrow BO_4$ conversion in glass T. Edwards et al.
▶ REPORT P. 1070

1029 STELLAR DISTANCES
A VLBI resolution of the Pleiades distance controversy C. Melis et al.
▶ PERSPECTIVE P. 998

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. Lux et al.
▶ PODCAST

1052 MICROBIAL METABOLISM
Growth of nitrite-oxidizing bacteria by aerobic hydrogen oxidation H. Koch et al.

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. Petrè 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

1032

1004 & 1020
Paleo-Eskimo population expansion

1002 & 1062
Different mechanisms for cell movement

1072

1085 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/ro677