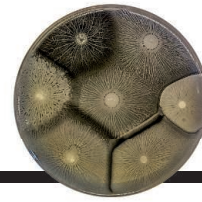


CONTENTS

12 MAY 2017 • VOLUME 356 • ISSUE 6338



583 & 638

Competition and sharing among biofilms



576

NEWS

IN BRIEF

564 News at a glance

IN DEPTH

568 PINPOINTING HIV SPREAD IN AFRICA POSES RISKS

Researchers hash out ethical, legal issues raised by large sequence database of AIDS virus *By J. Cohen*

569 WHO WILL WATCH THE AMAZON?

Brazil's move to hire private firm spurs criticism *By E. Stokstad*

570 IN A FIRST, NATURAL SELECTION DEFEATS A BIOCONTROL INSECT

Invasive weevil eludes parasitic wasp, shaking confidence in some uses of natural enemies to thwart pests *By E. Pennisi*

571 NEWEST MEMBER OF HUMAN FAMILY IS SURPRISINGLY YOUNG

Archaic species may have coexisted with our ancestors *By A. Gibbons*

572 POCKET-SIZED SEQUENCERS START TO PAY OFF BIG

"Very, very soon," says one researcher, "anyone could sequence a genome anywhere" *By E. Pennisi*

573 CHINA CRACKS DOWN ON COASTAL FISHERIES

Moratorium may not be enough to restore fish stocks *By D. Normile*

574 NIH TO CAP GRANTS FOR WELL-FUNDED INVESTIGATORS

New system would limit researchers to the equivalent of three R01 grants *By J. Kaiser*

575 FEARS OF EBOLA RESURGENCE QUICKLY DISPELLED IN LIBERIA

Post-Ebola surveillance system helped rapidly rule out that disease as investigators track cause of new outbreak *By K. Kupferschmidt*

FEATURE

576 WHERE HAVE ALL THE INSECTS GONE?

Surveys in German nature reserves point to a dramatic decline in insect biomass. Key members of ecosystems may be slipping away *By G. Vogel*

INSIGHTS

PERSPECTIVES

580 SAYING GOODBYE TO GLACIERS

Glacier volume is shrinking worldwide, with wide-ranging implications for society *By T. Moon*

582 CHARGE DELIVERY GOES THE DISTANCE

A holey graphene scaffold speeds electrons and ions into thicker nanomaterial electrodes *By H.-M. Cheng and F. Li*

► RESEARCH ARTICLE P. 599

583 COUPLING AND SHARING WHEN LIFE IS HARD

Bacterial colonies coordinate growth dynamics when nutrients are limited *By V. Gordon*

► REPORT P. 638

584 KEEPING IN TOUCH WITH THE ER NETWORK

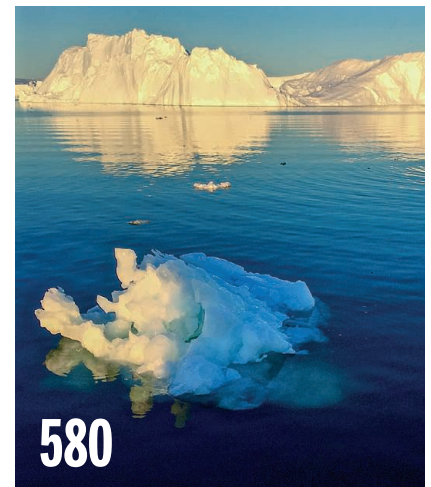
Growth factor receptor internalization occurs at sites of transient membrane contacts *By X. Tan and R. A. Anderson*

► RESEARCH ARTICLE P. 617

POLICY FORUM

586 MYRIAD TAKE TWO: CAN GENOMIC DATABASES REMAIN SECRET?

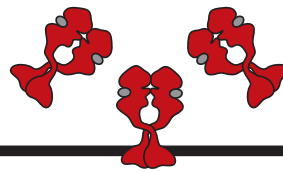
Trade-secrecy laws clash with a right to one's health data *By C. J. Guerrini et al.*



580

PHOTOS: (TOP) ANDRZEJ SKONIECZNY/F1 ONLINE/AURORA PHOTOS; (RIGHT) TWILA MOON

CONTENTS



584 & 617

Membrane contacts control receptor function

12 MAY 2017 • VOLUME 356 • ISSUE 6338

BOOKS ET AL.

588 BIODEFENSE IN THE 21ST CENTURY

Paradoxical and outmoded policies may be undermining our ability to safeguard against infectious diseases
By G. K. Gronvall

589 FAULTY LOGIC

Placing reasoning research in evolutionary context, a new book probes the haphazard ways we form opinions
By D. Frey

LETTERS

590 WHY SCIENCE? SCIENTISTS SHARE THEIR STORIES

RESEARCH

IN BRIEF

594 From *Science* and other journals

REVIEW

597 NEUROSCIENCE

Poor human olfaction is a 19th-century myth
J. P. McGann

REVIEW SUMMARY; FOR FULL TEXT:
[dx.doi.org/10.1126/science.aam7263](https://doi.org/10.1126/science.aam7263)

► PODCAST

RESEARCH ARTICLES

598 T CELL BIOLOGY

Visualizing dynamic microvillar search and stabilization during ligand detection by T cells
E. Cai et al.

RESEARCH ARTICLE SUMMARY; FOR FULL TEXT:
[dx.doi.org/10.1126/science.aal3118](https://doi.org/10.1126/science.aal3118)

599 ENERGY STORAGE

Three-dimensional holey-graphene/niobia composite architectures for ultrahigh-rate energy storage
H. Sun et al.

► PERSPECTIVE P. 582

605 PALEOGENOMICS

Neandertal and Denisovan DNA from Pleistocene sediments
V. Slon et al.



590

608 CHEMICAL BIOLOGY

Restored iron transport by a small molecule promotes absorption and hemoglobinization in animals
A. S. Grillo et al.

► VIDEO

617 ENDOCYTOSIS

Reticulon 3-dependent ER-PM contact sites control EGFR nonclathrin endocytosis
G. Caldieri et al.

► PERSPECTIVE P. 584

REPORTS

624 FRAMEWORK CHEMISTRY

Bottom-up construction of a superstructure in a porous uranium-organic crystal
P. Li et al.

628 EXOPLANET ATMOSPHERES

HAT-P-26b: A Neptune-mass exoplanet with a well-constrained heavy element abundance
H. R. Wakeford et al.

631 PLANT SCIENCE

Holliday junction resolvases mediate chloroplast nucleoid segregation
Y. Kobayashi et al.

635 FOREST ECOLOGY

The extent of forest in dryland biomes
J.-F. Bastin et al.

638 SYSTEMS BIOLOGY

Coupling between distant biofilms and emergence of nutrient time-sharing
J. Liu et al.

► PERSPECTIVE P. 583

642 SEX DETERMINATION

Male sex in houseflies is determined by *Mdmd*, a paralog of the generic splice factor gene *CWC22*
A. Sharma et al.

DEPARTMENTS

563 EDITORIAL

Academia under fire in Hungary
By Albert-László Barabási

654 WORKING LIFE

Lucking into science
By Lamis Yehia

ON THE COVER



Sunset at the Avenue of the Baobabs (Granddier's baobab trees *Adansonia grandidieri* Baill.) near Morondava, western Madagascar. High-resolution satellite mapping reveals that

the extent of forest cover in drylands such as this, where potential evapotranspiration substantially exceeds precipitation, is globally more than 40% higher than previously reported. See page 635.

Photo: Wolfgang Kaehler/LightRocket via Getty Images

Science Staff	562
New Products	649
Science Careers	650

SCIENCE (ISSN 0036-8075) is published weekly on Friday, except the last week in December, by the American Association for the Advancement of Science, 1200 New York Avenue, NW, Washington, DC 20005. Periodicals mail postage (publication No. 484460) paid at Washington, DC, and additional mailing offices. Copyright © 2017 by the American Association for the Advancement of Science. The title SCIENCE is a registered trademark of the AAAS. Domestic individual membership and subscription (51 issues): \$165 (\$74 allocated to subscription). Domestic institutional subscription (51 issues): \$1659; foreign postage extra: Mexico, Caribbean (surface mail) \$55; other countries (air assist delivery) \$89. First class, airmail, student, and emeritus rates on request. Canadian rates with GST available upon request, GST #R1254-88122. Publications Mail Agreement Number 1069624. Printed in the U.S.A. Change of address: Allow 4 weeks, giving old and new addresses and 8-digit account number. Postmaster: Send change of address to AAAS, P.O. Box 96178, Washington, DC 20090-6178. Single-copy sales: \$23.00 current issue, \$28.00 back issue prepaid includes surface postage; bulk rates on request. Authorization to photocopy material for internal or personal use under circumstances not falling within the fair use provisions of the Copyright Act is granted by AAAS to libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that \$35.00 per article is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923. The identification code for Science is 0036-8075. Science is indexed in the Reader's Guide to Periodical Literature and in several specialized indexes.

Science

356 (6338)

Science **356** (6338), 563-654.

ARTICLE TOOLS

<http://science.sciencemag.org/content/356/6338>

PERMISSIONS

<http://www.sciencemag.org/help/reprints-and-permissions>

Use of this article is subject to the [Terms of Service](#)

Science (print ISSN 0036-8075; online ISSN 1095-9203) is published by the American Association for the Advancement of Science, 1200 New York Avenue NW, Washington, DC 20005. 2017 © The Authors, some rights reserved; exclusive licensee American Association for the Advancement of Science. No claim to original U.S. Government Works. The title *Science* is a registered trademark of AAAS.