



NEWS

IN BRIEF

850 News at a glance

IN DEPTH

853 HOW AN OCEAN CLIMATE CYCLE FAVORED HARVEY

Human factors may prolong storm-boosting Atlantic Multidecadal Oscillation phase *By J. Rosen*

854 Hurricane Harvey provides lab for U.S. forecast experiments

By P. Voosen

855 ANTI-INFLAMMATORY PREVENTS HEART ATTACKS

By vindicating theory, antibody result points to new approaches to protecting the heart *By J. Couzin-Frankel*

856 SCIENCE SUFFERS AS CHINA PLUGS HOLES IN GREAT FIREWALL

New restrictions hamper access to sites useful for research *By D. Normile*

857 TOXIC ALGAE MAY BE CULPRIT IN MYSTERIOUS DINOSAUR DEATHS

Harmful blooms may explain 70-million-year-old deathbed of birds and dinosaurs *By C. Gramling*

857 INDIA'S DARK MATTER QUEST

Underground physics laboratory opens this week *By P. Bagla*

858 REPORTS RAISE CONCERNS ABOUT FRANCE'S NUCLEAR WASTE TOMB

Major roadblocks remain for a massive underground storage site in the works since 1991 *By E. Pain*

FEATURES

859 THE CASE OF THE MACHO CROCS

Something is changing the sex of Costa Rican crocodiles. The suspect: a synthetic hormone *By M. Leslie*

► VIDEO

862 ATOMIC BONDING

A U.S.-China project to secure bomb-grade reactor fuel is rekindling ties between the two countries' nuclear scientists *By R. Stone*

► PODCAST



INSIGHTS

PERSPECTIVES

866 A MOLECULAR DANCE TO CLEANER AIR

Pairs of mobile copper ions intercept oxygen molecules in diesel-exhaust catalysts *By T. V. W. Janssens and P. N. R. Vennestrom*

► RESEARCH ARTICLE P. 898

867 GLIA PUT VISUAL MAP IN SYNC

Sequential intercellular signals synchronize neuronal differentiation to assemble a visual map

By J. Isaacman-Beck and T. R. Clandinin

► RESEARCH ARTICLE P. 886

869 FINDING A NEW PURPOSE FOR OLD DRUGS

Drugs used for the treatment of asthma might prevent Parkinson's disease

By E. Y. Snyder

► RESEARCH ARTICLE P. 891

871 THE ARCHITECTURE OF TRANSCRIPTION ELONGATION

A crystal structure explains how transcription factors enhance elongation and pausing *By T. Fouqueau and F. Werner*

► REPORT P. 921

872 ENZYMES MAKE LIGHT WORK OF HYDROCARBON PRODUCTION

An algal enzyme that uses visible light to catalyze hydrocarbon formation may find use in biotechnology *By N. S. Scrutton*

► RESEARCH ARTICLE P. 903

873 SOUNDING OUT OPTICAL PHONONS

Phonon-based analogs of electronic devices offer potential for future technologies *By D. M. Juraschek and N. A. Spaldin*

875 HOWARD EICHENBAUM (1947–2017)

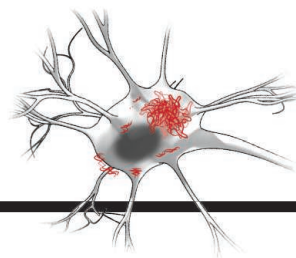
A neuroscientist who was fascinated by the nature and mechanisms of memory *By M. Hasselmo and C. Stern*

POLICY FORUM

876 INFLUENCE, INTEGRITY, AND THE FDA: AN ETHICAL FRAMEWORK

Evaluate external influences on scientific deliberations *By S. P. Hey et al.*

CONTENTS



869 & 891

A potential treatment for Parkinson's disease

1 SEPTEMBER 2017 • VOLUME 357 • ISSUE 6354

BOOKS ET AL.

878 ADAPTING TO THE ANTHROPOCENE

A provocative treatise argues that, for many species, the era of extinction may be all right *By A. Mooers*

879 TUBERCULOSIS TODAY

A researcher provides a firsthand look at a prolific killer *By H. Bynum*

LETTERS

880 INTELLIGENT DESIGN ENDANGERS EDUCATION

By H. M. Silva

880 SCIENTISTS NEED SOCIAL MEDIA INFLUENCERS

By M. Galetti and R. Costa-Pereira

881 YACHAY'S PROMISE

By C. Castillo-Chavez et al.

881 TECHNICAL COMMENT ABSTRACTS

RESEARCH

IN BRIEF

882 From *Science* and other journals

REVIEW

885 BIOGEOGRAPHY

Island biogeography: Taking the long view of nature's laboratories *R. J. Whittaker et al.*

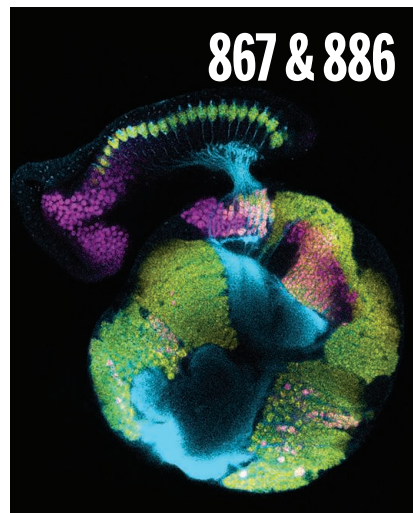
REVIEW SUMMARY; FOR FULL TEXT: dx.doi.org/10.1126/science.aam8326

RESEARCH ARTICLES

886 NEURODEVELOPMENT

Glia relay differentiation cues to coordinate neuronal development in *Drosophila* *V. M. Fernandes et al.*

► PERSPECTIVE P. 867



891 PHARMACOGENOMICS

β2-Adrenoreceptor is a regulator of the α-synuclein gene driving risk of Parkinson's disease *S. Mittal et al.*

► PERSPECTIVE P. 869

898 CATALYSIS

Dynamic multinuclear sites formed by mobilized copper ions in NO_x selective catalytic reduction *C. Paolucci et al.*

► PERSPECTIVE P. 866

903 PLANT SCIENCE

An algal photoenzyme converts fatty acids to hydrocarbons *D. Sorigué et al.*

► PERSPECTIVE P. 872

REPORTS

908 ORGANIC CHEMISTRY

Hydrogenation of fluoroarenes: Direct access to all-*cis*-(multi)fluorinated cycloalkanes *M. P. Wiesefeldt et al.*

912 MICROBIOTA

The intestinal microbiota regulates body composition through NFIL3 and the circadian clock *Y. Wang et al.*

917 PLANT ECOLOGY

Global climatic drivers of leaf size *I. J. Wright et al.*

921 TRANSCRIPTION

Structure of the complete elongation complex of RNA polymerase II with basal factors *H. Ehara et al.*

► PERSPECTIVE P. 871

925 DEVELOPMENT

A microtubule-organizing center directing intracellular transport in the early mouse embryo *J. Zenker et al.*

928 STRUCTURAL BIOLOGY

Structural basis of the redox switches in the NAD⁺-reducing soluble [NiFe]-hydrogenase *Y. Shomura et al.*

932 REPROGRAMMING

Fertile offspring from sterile sex chromosome trisomic mice *T. Hirota et al.*

DEPARTMENTS

849 EDITORIAL

Measuring and managing bias *By Jeremy Berg*

942 WORKING LIFE

The stories behind a CV *By Wei Ji Ma*

ON THE COVER



A woman grips a giant *Monstera* leaf, a common plant genus of the American tropics. Leaf size varies enormously with differences in air temperature, light, and soil moisture, which

affect the possibility of leaves overheating during the day or suffering frost damage at night. Thus, hot deserts and cold high-elevation sites are characterized by small-leaved species, whereas plants in warm rainforests tend to have larger leaves. See page 917. *Photo: Mark Notari/Getty Images*

Science Staff	846
New Products	936
Science Careers	937

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 #R125488122. 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

357 (6354)

Science **357** (6354), 849-942.

ARTICLE TOOLS

<http://science.sciencemag.org/content/357/6354>

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.