FEATURES

364 THE VACCINE WARS
Debunking myths, owning real risks, and courting doubters
By M. Wadman and J. You
▶ EDITORIAL P. 353

366 THE SCIENCE OF PERSUASION
Vaccines save lives. But what is the most effective way to convince worried parents?
By K. Kupferschmidt
- Vaccine myth: Vaccination can cause autism By L. Wessel
- Vaccine myth: Mercury in vaccines acts as a neurotoxin
  By L. Wessel

368 VACCINES ON TRIAL
The U.S. vaccine court weighs real versus bogus risks
By M. Wadman
- Vaccine myth: Countering mercury from vaccines can make children better By L. Wessel
- Vaccine myth: Spreading out vaccines can be safer for kids
  By L. Wessel

ON THE COVER
Vaccines are our best defenses against many infectious diseases, having saved millions of lives and prevented immeasurable suffering. Yet today, these defenses are fraying as parents, swayed by persistent untruths about the risks, hesitate to vaccinate their children. This special package sizes up the actual, rare risks of vaccines and what is known about how to overcome groundless fears. See page 364. Illustration: Ben Wiseman

IN BRIEF
354 News at a glance

IN DEPTH
356 AN UNPRECEDENTED MARCH FOR SCIENCE
As hundreds of thousands joined some 600 gatherings around the globe, local concerns blended with a unifying message of support for science
By T. Appenzeller and the Science News Staff

358 MEET THE SCIENCE MARCHERS
Participants as varied as high school students and science leaders turned out, for reasons personal and political
By the Science News Staff

360 PRIVATE FUSION MACHINES AIM TO BEAT MASSIVE GLOBAL EFFORT
Startups avoid ITER's path with new prototype reactors
By D. Clery

361 CLAIM OF VERY EARLY HUMANS IN AMERICAS SHOCKS RESEARCHERS
Skepticism greets report of smashed mastodon bones
By L. Wade

362 IN SURPRISE, TOOTH DECAY AFFLICTS HUNTER-GATHERERS
Paleo diet, thought to be protective, can be worse for teeth than farmed food
By A. Gibbons

363 DNA FROM CAVE SOILS REVEALS ANCIENT HUMAN OCCUPANTS
Technique may help open a new era in paleoanthropology
By L. Wade

INSIGHTS

374 THE NATURAL CAPITAL OF CITY TREES
City trees can help to reduce pollution and improve human health
By K. J. Willis and G. Petrokofsky

376 A CROSSROAD OF NEURONAL DIVERSITY TO BUILD CIRCUITRY
Clustered protocadherin genes control convergence and divergence of neurons
By S. Yoshinaga and K. Nakajima
▶ RESEARCH ARTICLE P. 406; REPORT P. 411

378 LINKING STEM CELLS TO GERM CELLS
A factor that specifies stem cells in plants also triggers germ cell production
By J.-P. Vielle-Calzada
▶ RESEARCH ARTICLE P. 396
379 EXTRACTING THE CONTENTS OF LIVING CELLS
Alumina “nanostraws” enable longitudinal intracellular monitoring of live cells By S. G. Higgins and M. M. Stevens

381 H. BOYD WOODRUFF (1917–2017)
Pioneer in antibiotics and industrial microbiology By J. W. Bennett et al.

POLICY FORUM
382 DOCUMENTING DECLINE IN U.S. ECONOMIC MOBILITY
Median incomes stagnate as inequality increases By L. F. Katz and A. B. Krueger

BOOKS ET AL.
384 WHAT LIES BENEATH
A veterinarian pens a lyrical love letter to the imperiled freshwater mussel By J. S. Weis

385 A STATE OF DENIAL
Case studies of climate censorship in Wyoming reveal the insidious nature of modern science suppression By G. Wong-Parodi

LETTERS
386 MEXICO’S INVASIVE SPECIES
PLAN IN CONTEXT
By J. Golubov et al.

386 COMMUNITY NETWORK FOR DEAF SCIENTISTS
By H. J. Adler et al.

387 NATURE’S TREASURE HUNT
By S. Boyer

RESEARCH

IN BRIEF
392 From Science and other journals

REVIEW
395 NEURODEVELOPMENT
Intersection of diverse neuronal genomes and neuropsychiatric disease: The Brain Somatic Mosaicism Network M. J. McConnell et al.

RESEARCH ARTICLES
396 PLANT BIOLOGY
RETINOBlastoma RELATED1 mediates germline entry in Arabidopsis X. Zhao et al.

397 CANCER THERAPY
Anticancer sulfonamides target splicing by inducing RBM39 degradation via recruitment to DCAF15 T. Han et al.

398 ECONOMICS
The fading American dream: Trends in absolute income mobility since 1940 R. Chetty et al.

406 NEURODEVELOPMENT
Pcdh2c is required for axonal tiling and assembly of serotonergic circuitries in mice W. V. Chen et al.

415 BATTERIES
Rechargeable nickel–3D zinc batteries: An energy-dense, safer alternative to lithium-ion J. F. Parker et al.

INTERGALACTIC MEDIUM
Measurement of the small-scale structure of the intergalactic medium using close quasar pairs A. Rorai et al.

422 ATOMIC GASES
Formation of matter-wave soliton trains by modulational instability J. H. V. Nguyen et al.

426 ORGANIC CHEMISTRY
A multifunctional catalyst that stereoselectively assembles produgs D. A. DiRocco et al.

430 RENEWABLE RESOURCES
Water harvesting from air with metal-organic frameworks powered by natural sunlight H. Kim et al.

434 MATERIALS SCIENCE
Direction-specific van der Waals attraction between rutile TiO2 nanocrystals X. Zhang et al.

438 CRISPR TECHNOLOGY
Nucleic acid detection with CRISPR-Cas13a/C2c2 J. S. Gootenberg et al.

442 PALEOGENOMICS
Ancient genomic changes associated with domestication of the horse P. Librado et al.

DEPARTMENTS
353 EDITORIAL
Syria, slums, and health security By Seth Berkley

458 WORKING LIFE
Standing up to fear By Ali Khaledi-Nasab

Science Staff ..............................................352
AAAS News & Notes .................................388
New Products ........................................446
Science Careers ....................................447

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): $185 (bulk rates on request). Canadian rates with GST available upon request, GST #1254 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 prices 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 others 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.

Published by AAAS

28 APRIL 2017 • VOL 356 ISSUE 6336 349
Science 356 (6336), 353-458.

ARTICLE TOOLS http://science.sciencemag.org/content/356/6336

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.