SPECIAL SECTION
Global health

INTRODUCTION
1256 Global health: What works

NEWS
1258 After the windfall By M. Enserink
1260 A hard look at global health measures By J. Cohen
1266 As cholera goes, so goes Haiti By S. Kean
1268 China tries to kick its salt habit By M. Hvistendahl
1270 Zambia fights to sustain its malaria success By K. Kupferschmidt

OPINION
1272 Halving premature death By R. Peto et al.

PERSPECTIVES
1273 Putting women and girls at the center of development M. F. Gates
1275 The state of global health in 2014 J. Sepúlveda and C. Murray
1279 Getting essential health products to their end users: Subsidize, but how much? P. Dupas
1281 Models of education in medicine, public health, and engineering P. Garcia et al.
1284 Prioritizing integrated mHealth strategies for universal health coverage G. Mehl and A. Labrique
1287 How to transform the practice of engineering to meet global health needs D. Niemeier et al.
1290 Strengthening the evidence base for health programming in humanitarian crises A. Ager et al.
1292 Emerging, evolving, and established infectious diseases and interventions M. E. Halloran and I. M. Longini Jr.
1295 Virus sharing, genetic sequencing, and global health security L. O. Gostin et al.

1297 Monitoring parasite diversity for malaria elimination in sub-Saharan Africa A. Ghansah et al.
1299 Antibiotic effectiveness: Balancing conservation against innovation R. Laxminarayan
1302 Creating a global observatory for health R&D R. F. Terry et al.

ON THE COVER
A woman cares for her 5-year-old grandson, who has malaria, in a hospital in northwestern Zambia. An upsurge in funding for global health over the past 15 years has brought dramatic declines in deaths and illness from malaria and other diseases of the poor. Countries like Zambia are now trying to preserve those gains while tackling new challenges. See page 1256.

Photo: © John Stanmeyer/VII/Corbis
NEWS

IN BRIEF
1224 Roundup of the week’s news

IN DEPTH
1228 EBOLA VACCINES RACING FORWARD AT RECORD PACE
Rushing them into widespread use without large-scale trials raises hopes and concerns By J. Cohen
► EDITORIAL P. 1221;
GLOBAL HEALTH SECTION P. 1256

1229 EBOLA: “WOW, THAT IS REALLY TOUGH”
WHO's Bruce Aylward says international action is needed right now By L. Roberts
► EDITORIAL P. 1221;
GLOBAL HEALTH SECTION P. 1256

1231 SECESSION VOTE ROCKS SCIENCE
Vying camps make bold claims about Scottish sovereignty as a blessing—or a curse—for science By D. Clery

1232 GIANT DINOSAUR WAS A TERROR OF CRETAEOUS WATERWAYS
Fossils offer first evidence that some dinosaurs could swim By M. Balter
► IBRAHIM ET AL. 10.1126/SCIENCE.1258750

1233 CHINA BLAMED FOR U.S. OZONE
Western states caught between rising background levels and more stringent federal limits By E. Hand

FEATURE
1234 YOUNG BLOOD
Young animals’ blood holds rejuvenating powers. Amy Wagers wants to know why
By S. S. Hall

INSIGHTS

PERSPECTIVES
1240 RNA AND DYNAMIC NUCLEAR ORGANIZATION
Long noncoding RNAs may function as organizing factors that shape the cell nucleus By J. Rinn and M. Guttman

1242 MORALITY BEYOND THE LAB
Much of moral life involves attending to our own good deeds and to the bad deeds of others By J. Graham
► REPORT P. 1340

1243 CHANGING BEHAVIORS TO PREVENT NONCOMMUNICABLE DISEASES
Altering physical and social environments can change behaviors to improve population health
By D. A. Chokshi and T. A. Farley
► REPORT P. 1356

1244 LEGISLATED LEARNING TO INTERPRET EVIDENCE FOR POLICY
Training for making health policy that has the best impact on a population
By A. Cockcroft et al.
► REPORT P. 1346

1246 MICROBES RIDE THE CURRENT
Biogeographical diversity in bacterial populations can arise without need for natural selection By S. Giovannoni and D. Nemergut
► REPORT P. 1346

1247 DIAMOND DYNAMICS UNDER CONTROL
Ultrafast spectroscopy is used to control and manipulate quantum states in diamond By L. Childress
► REPORT P. 1333

1248 INNATE LYMPHOID CELLS SWEETEN THE POT
Immune cells prompt gut epithelial cells to produce carbohydrate nutrients for resident bacteria By L. V. Hooper
► RESEARCH ARTICLE P. 1310

1250 A GLOBAL STRATEGY FOR PROTECTING VULNERABLE COASTAL POPULATIONS
Short-term emergency response and long-run investments are needed
By E. B. Barbier

BOOKS ET AL.
1252 THE DYSLEXIA DEBATE
By J. G. Elliott and E. L. Grigorenko, reviewed by L. E. Cutting

1253 THE IMPROBABILITY PRINCIPLE
By D. J. Hand, reviewed by E. Limbrick-Oldfield

LETTERS
1254 RETRACTION
By T. Okada et al.

1254 LIVESTOCK CRUCIAL IN HUNGER EQUATION
By M. F. Rothschild and H. Steinfeld

1255 ANCIENT TRADE BETWEEN INDIA AND INDONESIA
By A. Calo

1255 ERRATA

1250
misaligned hot Jupiters in binaries and the production of Chaotic dynamics of stellar spin

1317 PLANETARY DYNAMICS

apparatus in far-red light cyanobacterial photosynthetic

Extensive remodeling of a Cyanobacterial photosynthetic apparatus in far-red light. F. Gan et al.

1312 PHOTOACCLIMATION

Chaotic dynamics of stellar spin in binaries and the production of misaligned hot Jupiters. N. I. Storch et al.

LOCAL DENSITY MATERIALS

Strong, lightweight, and recoverable three-dimensional ceramic nanolattices. L. R. Meza et al.

1322 LOW-DENSITY MATERIALS

Decoupled catalytic hydrogen evolution from a molecular metal oxide redox mediator in water splitting. B. Rauw et al.

1326 WATER SPLITTING

Rapid growth of seed black holes in the early universe by supra-exponential accretion. T. Alexander and P. Natarajan

1330 BLACK HOLE PHYSICS

Ultrafast optical control of orbital and spin dynamics in a solid-state defect. L. C. Bassett et al.

1333 QUANTUM INFORMATION

All-optical control of ferromagnetic thin films and nanostructures. C. H. Lambert et al.

1337 MAGNETISM

Loss of avian phylogenetic diversity in neotropical agricultural systems. L. O. Prishkoff et al.

1343 BIODIVERSITY LOSS

Biogeographic patterns in ocean microbes emerge in a neutral agent-based model. F. L. Hellweger et al.

1346 MICROBIAL ECOLOGY

Morality in everyday life. W. Hofmann et al.

1340 SOCIAL PSYCHOLOGY

A memory of errors in sensorimotor learning. D. J. Herzfeld et al.

1349 ERROR MEMORY

Thyroid hormone–dependent adult pigment cell lineage and pattern in zebrafish. S. K. McMenamin et al.

1362 Local reorganization of anthophores fine-tunes and colors the striped pattern of zebrafish. P. Mahawar et al.

1365 ORIGIN OF NOTOCHORD

Development of the annelid axochord: Insights into notochord evolution. A. Lauri et al.

1369 VIRAL EVOLUTION

Genomic surveillance elucidates Ebola virus origin and transmission during the 2014 outbreak. S. K. Gire et al.

DEPARTMENTS

1221 EDITORIAL

Ebola’s perfect storm

By Peter Piot

1414 WORKING LIFE

The career I dreamed of?

By Gale Rhodes

Science Staff........................................1218
New Products........................................1373
Science Careers.................................1374
Science 345 (6202), 1221-1414.