SPECIAL SECTION

Cancer Genomics

INTRODUCTION

1539  A Medical Renaissance?

NEWS

1540  Steering Cancer Genomics Into the Fast Lane
1543  The Downside of Diversity

EDITORIAL

1493  Grappling with Cancer
Edison T. Liu
>> Cancer Genomics section p. 1539

NEWS OF THE WEEK

1504  A roundup of the week’s top stories

NEWS & ANALYSIS

1507  Return of Unexpected DNA Results Urged
1508  A Midcourse Correction for U.S. Missile Defense System
1510  Congress Limits NSF Funding for Political Science
1511  U.S. Science Agencies Finally Have (Reduced) Budgets for This Year
1513  Universe’s High-Def Baby Picture Confirms Standard Theory

NEWS FOCUS

1514  Decade of the Monster
>> Science Podcast
1517  As Threats to Corals Grow, Hints of Resilience Emerge

LETTERS

1521  Misuse of Scientific Data in Wolf Policy
G. Chapron et al.
Biodiversity Depends on Logging Recovery Time
F. Michański and C. A. Peres
1522  TECHNICAL COMMENT ABSTRACTS
1523  CORRECTIONS AND CLARIFICATIONS
1524  Shaky Foundations
M. Solovey, reviewed by A. J. Wolfe
1525  Tibet Wild
G. B. Schaller, reviewed by H. W. Greene

REVIEWS

1546  Cancer Genome Landscapes
B. Vogelstein et al.
1559  Diagnostic Cancer Genome Sequencing and the Contribution of Germline Variants
O. Kilpivaara and L. A. Aaltonen
1563  Cancer Pharmacogenomics: Early Promise, But Concerted Effort Needed
H. L. McLeod
1567  Epigenetic Reprogramming in Cancer
M. L. Suá et al.
>> Science Podcast
>> Editorial p. 1493; Science Signaling; and Science Careers at www.sciencemag.org/special/cancergenomics

POLICY FORUM

1526  Measuring China’s Circular Economy
Y. Geng et al.

PERSPECTIVES

1528  Fungal Carbon Sequestration
K. K. Treseder and S. R. Holden
>> Report p. 1615
1529  A Protease for the Ages
S. Michaelis and C. A. Hrycyna
>> Reports pp. 1600 and 1604
1530  FRETting over the Spectroscopic Ruler
J. R. Winkler
>> Report p. 1586

BOOKS ET AL.

1524  Shaky Foundations
M. Solovey, reviewed by A. J. Wolfe
1525  Tibet Wild
G. B. Schaller, reviewed by H. W. Greene

COVER

Human colon cancer (at lower center) identified by a colored barium x-ray shown overlaid with a representation of a genetic sequence. Genome sequence analysis of human tumors has uncovered an array of genetic alterations that help drive tumor growth—information that may lead to more effective cancer therapies. See the special section beginning on page 1539.

Image: Mehau Kulyk/Science Source

www.sciencemag.org  SCIENCE  VOL 339  29 MARCH 2013
Published by AAAS
1590
The Global Plight of Pollinators
J. M. Gynanakis
>> Reports pp. 1608 and 1611

1533
Toward a Green Internet
D. Reforgiato Recupero

1534
Neural Stem Cells, Excited
J. Hsieh and J. W. Schneider

SCIENCE PRIZE ESSAY
1536 Integrating Inquiry-Based Teaching with Faculty Research
T. Fukami

RESEARCH ARTICLES
1572 Dust and Biological Aerosols from the Sahara and Asia Influence Precipitation in the Western U.S.
J. M. Crossman et al.
Dust and biological aerosols from the Sahara and Asia can act as ice nuclei for precipitation in California’s Sierra Nevada.

1578 Multiple Instances of Ancient Balancing Selection Shared Between Humans and Chimpanzees
E. M. Leffler et al.
Genome-wide shared genetic polymorphisms between humans and chimps mostly affect host-pathogen interactions.

REPORTS
1582 Topology-Driven Magnetic Quantum Phase Transition in Topological Insulators
J. Zhang et al.
Simultaneous topological and magnetic quantum phase transitions are observed in thin films of Bi$_2$(Se$_{1−x}$Te$_x$)$_3$ doped with chromium.

1586 Ultrafast Tryptophan-to-Heme Electron Transfer in Myoglobins Revealed by UV 2D Spectroscopy
C. Consani et al.
Relaxation in a photoexcited protein by electron transfer may limit the generality of a common energy transfer–based probe.
>> Perspective p. 1530

1590 Tuning Selectivity in Propylene Epoxidation by Plasmon Mediated Photo-Switching of Cu Oxidation State
A. Marimuthu et al.
In situ visible light irradiation reverses the oxidative degradation of a copper catalyst, thereby enhancing its viability.

1593 Photoredox Activation for the Direct β-Arylation of Ketones and Aldehydes
M. T. Pinot et al.
Two catalysts working in tandem form carbon-carbon bonds at a conventionally unreactive site.

1597 Direct Observations of the Evolution of Polar Cap Ionization Patches
Q.-H. Zhang et al.
Observations of ionospheric perturbations after a solar burst hit Earth show how a patch of ionization formed and evolved.

1600 Structure of the Integral Membrane Protein CAAX Protease Ste24p
E. E. Pryor Jr. et al.

1584 The Structural Basis of ZMPSTE24-Dependent Laminopathies
A. Quigley et al.
Structures of two transmembrane zinc proteases reveal a barrel of seven helices surrounding a large cavity.
>> Perspective p. 1529

1608 Wild Pollinators Enhance Fruit Set of Crops Regardless of Honey Bee Abundance
L. A. Garibaldi et al.
Flower visits by wild insects enhanced fruit production in crops worldwide, well beyond the effect of bees.

1611 Plant-Pollinator Interactions over 120 Years: Loss of Species, Co-Occurrence, and Function
L. A. Burkle et al.
>> Perspective p. 1532

1615 Roots and Associated Fungi Drive Long-Term Carbon Sequestration in Boreal Forest
K. E. Clemmensen et al.
Reservoirs of carbon in boreal forest soils are revisited in an island chronosequence, using modeling and molecular approaches.
>> Perspective p. 1528

1618 The Biological Underpinnings of Namib Desert Fairy Circles
N. Juergens
Termites alter local soil conditions to facilitate the growth of grasses, generating patterns in the desert.
>> Science Podcast
Editor's Summary

This copy is for your personal, non-commercial use only.

**Article Tools**
Visit the online version of this article to access the personalization and article tools:
http://science.sciencemag.org/content/339/6127

**Permissions**
Obtain information about reproducing this article:
http://www.sciencemag.org/about/permissions.dtl