Breast Cancer

INTRODUCTION
1451  A Race Still Unfinished

NEWS
1452  Breast Cancer: A World of Differences
1454  Dare to Do Less
1457  The ‘Other’ Breast Cancer Genes
1460  The Advocate

PERSPECTIVES
1462  “The Race” to Clone BRCA1
M.-C. King

LETTERS
1430  Australia’s Drought: Lessons for California
A. Aghakouchak et al.

1431  Drug Trafficking’s Effects on Coastal Ecosystems
K. Benessaiah and J. Sayles

BOOKS ET AL.
1433  Visions of Science
J. A. Secord, reviewed by B. Lightman

1434  Particle Fever
M. Levinson, director, reviewed by M. Reece

POLICY FORUM
1436  Next Steps for Citizen Science
R. Bonney et al.

PERSPECTIVES
1439  The Axis of Tolerance
T. Aycek and S. Jung

1440  A Different Class of Planets
A. Brandeker

1441  Why Mineral Interfaces Matter
A. Putnis

1443  The Resolution Revolution
W. Kühlbrandt

1444  Molecular Tuning of Quantum Plasmon Resonances
P. Nordlander

1445  Cholesterol and Cancer, in the Balance
S. Silvente-Poirot and M. Poirot

COVER
Detail of Wishing It Was Just A Bad Dream, a 1995 painting by Hollis Sigler. Sigler’s art was featured on the cover of the 7 October 1994 issue of Science, which reported the discovery of the breast cancer susceptibility gene BRCA1. She died of the disease in 2001. In this issue, Science examines breast cancer research 20 years after the cloning of BRCA1. See the special section beginning on page 1451 and at www.sciencemag.org/special/breastcancer.

Image: Courtesy of the Jean Howard and Joseph Virde collection, Salt Lake City, UT, and the Carl Hammer Gallery, Chicago, IL.
REPORTS

1477 Early Childhood Investments Substantially Boost Adult Health
F. Campbell et al.
Large investments in preschool children’s education, health care, and nutrition provide long-term health benefits.

1485 Structure of the Yeast Mitochondrial Large Ribosomal Unit
A. Amunts et al.
The mitochondrial ribosome structure has substantially diverged from that of bacterial and eukaryotic ribosomes.

1490 Molecular Gas Clumps from the Destruction of Icy Bodies in the β Pictoris Debris Disk
W. R. F. Dent et al.
An asymmetric disk of dust and carbon monoxide indicates a recent large-scale collision or shepherding by an unseen planet.

1493 Observation of Brownian Motion in Liquids at Short Times: Instantaneous Velocity and Memory Loss
S. Kheifets et al.
The motions of Brownian particles are tracked and evaluated on short time scales where solvent effects play a role.

1496 Quantum Plasmon Resonances Controlled by Molecular Tunnel Junctions
S. F. Tan et al.
The optical properties of silver plasmonic dimers depend on the selection of bridging molecules.

1499 Optical Broadband Angular Selectivity
Y. Shen et al.
A photonic crystal heterostructure is designed to provide optical selection based on propagation direction.

RESEARCH ARTICLES

1477 Microbiota-Dependent Crosstalk Between Macrophages and ILC3 Promotes Intestinal Homeostasis
A. Mortha et al.
Myeloid cells, innate lymphoid cells, and the cytokines they secrete cooperate to maintain immune tolerance in the gut.

1478 Contribution of NAC Transcription Factors to Plant Adaptation to Land
B. Xu et al.
Similarities are revealed in the generation of internal water transport systems in moss and Arabidopsis.

1480 Hydrologic Regulation of Chemical Weathering and the Geologic Carbon Cycle
K. Maher and C. P. Chamberlain
Consumption of carbon dioxide through silicate weathering is regulated by the intensity of the hydrologic cycle.

1485 A Bacterial Tyrosine Phosphatase Inhibits Plant Pattern Recognition Receptor Activation
A. P. Macho et al.
A plant pathogen and its host compete for control over a key phosphorylation site in an innate immune receptor.

1489 A Non–Cell Autonomous Role of E(z) to Prevent Germ Cells from Turning on a Somatic Cell Marker
S. H. Eun et al.
Somatic cells within the gonad produce a protein that stops Drosophila germ cells from becoming somatic.

1490 The Drosophila Circadian Clock Is a Variably Coupled Network of Multiple Peptidergic Units
Z. Yao and O. T. Shafer
Behavioral rhythms emerge from the interactions of many independent oscillators rather than from a group of master pacemakers.

1502 Quantifying Global International Migration Flows
G. J. Abel and N. Sander
Estimates are provided for the international flow of people over 5-year periods between 1990 and 2010.

1505 Weathering and the Geologic Carbon Cycle
K. Maher and C. P. Chamberlain
Consumption of carbon dioxide through silicate weathering is regulated by the intensity of the hydrologic cycle.

1509 Microbiota-Dependent Crosstalk Between Macrophages and ILC3 Promotes Intestinal Homeostasis
A. Mortha et al.
Myeloid cells, innate lymphoid cells, and the cytokines they secrete cooperate to maintain immune tolerance in the gut.

>> Perspective p. 1439

>> Perspective p. 1440

>> Perspective p. 1443