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Mechanical forces acting on a cell-surface receptor affect the activation of a signaling pathway involved in breast cancer.

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Skin wounds can be repaired by primitive stem cells into fully differentiated tissue, complete with hairs and sebaceous glands.

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An enzyme that chops up RNA can be switched to DNA fragmentation and can trigger programmed cell death in worms.
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Analysis of Genetic Inheritance in a Family Quartet by Whole-Genome Sequencing
J. C. Roach et al.
Genomic sequencing of an entire family reveals the rate of spontaneous mutations in humans and identifies disease genes.
10.1126/science.1186802

Sequentially

Pain's in the Genes

A Peroxidase/Dual Oxidase System Modulates Midgut Epithelial Immunity in Anopheles gambiae
S. Kumar et al.
Bonding between cell-surface proteins forms a physical barrier in mosquito guts to prevent microbe invasion.
10.1126/science.1184008

Detection of a Large-Scale Structure of Intrachain Globular Clusters in the Virgo Cluster
M. G. Lee et al.
Extensive regions of mass have been located between the galaxies of the Virgo cluster.
10.1126/science.1186496

A Fast Soluble Carbon-Free Molecular Water Oxidation Catalyst Based on Abundant Metals
Q. Yin et al.
Bulky polytungstate ligands stabilize a cobalt-based catalyst highly active for splitting water.
10.1126/science.1185372

And the Winners of Our Blogging Contest Are …

Expectant moms’ bad eating habits may hurt boys more than girls.

For Pregnant Mice, Eating Matters More for Their Sons
M. G. Lee et al.
Extensive regions of mass have been located between the galaxies of the Virgo cluster.
10.1126/science.1186496

A Fast Soluble Carbon-Free Molecular Water Oxidation Catalyst Based on Abundant Metals
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Audacity, Part 4: Taking Liberties With Research Grants?
A. Sasso
Should you propose safe research and then use the money for riskier work?
10.1126/science.1186496

New Opportunities and Jobs Coming in Comparative Effectiveness Research
K. Hede
Recovery Act funding will boost a field focused on health care costs and quality.
10.1126/science.1182374

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RESEARCH ARTICLE: Pin1 and PKMζ Sequentially Control Dendritic Protein Synthesis
P. R. Westmark et al.
Memory storage requires the inhibition of a peptidyl-prolyl isomerase to enable synthesis of the kinase PKMζ.
10.1126/science.1186802

PERSPECTIVE: PiNing for Things Past
T. C. Sacktor
The oxidative stress response is an attractive target for treating human diseases and extending the healthy life span.

NETWATCH: PhosphoSitePlus
Explore a database of posttranslational protein modifications; In Protein Databases.

NETWATCH: The Caspase Substrate database Homepage (CASBAH)
Search and browse a collection of caspase substrates; In Protein Databases.

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COMMENTARY: The Road We Must Take—Multidisciplinary Team Science
M. L. Disis and J. T. Slattery
Solutions to today’s complex health problems will require multidisciplinary innovative thinking and collaboration.

PERSPECTIVE: Bladder Cancer—Optimal Application of Preclinical Models to Suitable Translational Questions
D. Raghavan
New reagents tested in bladder cancer xenografts allow for better economy and focus in clinical cancer trials.

MHC Heterozygote Advantage in Simian Immunodeficiency Virus-Infected Mauritian Cynomolgus Macaques
S. L. O’Connor et al.
Heterozygote advantage in macaque monkeys reveals that HIV vaccine should elicit broad CD8+ T cell responses.
10.1126/science.1186496

Scienetranslationalmedicine.org: 10.1126/science.1186802

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