



BioTechCircle News®

June, 2005

Quote of the month:

Scientists have found mobile elements, pieces of DNA that can jump from one place in the genome to another. If enough of these jumps occur, they could allow individual brains, including those of identical twins, to develop in distinctly different ways.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=11400025>

In this articles section: links to 44 free Web articles in 10 major categories.

The major categories are in alphabetical order and further subdivided to make it easy for you to locate news and developments in technology, the business and the markets in the life science areas of interest to you.

Note: if the links don't connect you directly, please copy and paste the entire URL into your web browser.

Here are the major categories and the page where each category starts:

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BIOBUSINESS MANAGEMENT

Subcategory: General/ Administrative

A Groundbreaking Article from the Last Decade Is Just as Applicable

Paul Bleicher

Applied Clinical Trials

01-Jun-05

By "stapling themselves to an order" managers could begin to understand the complex process that each order (customer) travels in being fulfilled. By doing this, they will understand how and why the process needs to change.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=166555>

CLINICAL TRIALS

Subcategory: Subject Enrollment/Management

Genentech To Increase Diversity In Clinical Trials

Forbes.com

21-Jun-05

A \$5 million, 4-year research effort will aim to begin answering why some groups of people don't enter clinical trials often enough-- potentially sabotaging the research process.

http://www.forbes.com/healthcare/2005/06/21/genentech-race-based-trials-cx_mh_0621genentech.html?partner=yahootix&referrer=

INDUSTRY

Subcategory: General

Biotech's Hype and Hope Yielded Losses

Paul Elias

Boston Globe

01-Jun-05

Despite some very significant breakthroughs in treating cancer, diabetes and other widespread and deadly diseases, the biotech industry's combined losses continued to mount in 2004.

http://www.boston.com/business/articles/2005/06/01/biotechs_hype_and_hope_yielded_losse

ORGANIZATIONS

Subcategory: Genomics

Celera Releases Genome Data at Last

Bio-IT World

08-Jun-05

Reports on the decision by Celera Genomics to release its formerly proprietary human, mouse, and rat genome sequences to the public domain.

<http://www.bio-itworld.com/newsitems/2005/06-05/06-09-05-news-celera>

PHARMACEUTICALS

Subcategory: Pharmacogenomics

Medicine Gets a Personal Touch

Bio-IT World

30-May-05

Discusses why there so few examples of genomics-based drugs and presents examples of clinical pharmacogenomics used in cancer therapy.

<http://www.bio-itworld.com/newsitems/2005/05/05-30-05-news-dracopoli>

PLATFORM TECHNOLOGIES

Subcategory: Bioinformatics

Bioinformatics Reveals New Gene Regulation System

Bio.com

22-Jun-05

By comparing 140 sequenced bacterial genomes, researchers have uncovered a system for regulating genes essential to bacterial replication - and they did it solely by computer keystrokes and mouse clicks.

<http://www.bio.com/realms/research.jhtml?realmId=1&cid=11900001>

Discovering Regulatory Binding Sites

Bioscience Technology

20-Jun-05

Researchers report a new bioinformatics technique for systematically analyzing key regions in DNA that help control activity, revealing the combinatorial nature of gene regulation.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0506~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~P.html>

Subcategory: Genome Sequence

DNA of Ancient Bears Successfully Sequenced

New Scientist

03-Jun-06

Two cave bears which died in Austria more than 40,000 years ago have had their nuclear DNA sequenced. Suggests that Neanderthals could be next.

<http://www.newscientist.com/article.ns?id=dn7462>

Subcategory: Genomics

LSU Scientists Develop New Theory About Human Genome Evolution By Tracking 'Stealth' DNA Elements

Bio.com

30-Jun-05

Reports on study focused on the origin and spread of transposable elements in the genome, many of which are known to be related to certain genetic disorders, such as hemophilia.

<http://www.bio.com/realms/research.jhtml?realmId=1&cid=12000031>

Genetic On-Off Switches Pinpointed In Human Genome

Bio.com

29-Jun-05

Scientists have discovered the location and sequence of over 10,000 DNA regions that function as genetic on-off switches, or "promoters" in human fibroblasts.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=12000028>

Genetic On-off Switches Pinpointed in Human Genome

Medical News Today

30-Jun-05

Understanding the genetic on-off control mechanisms of more than 10,000 DNA regions will further understanding of how a cell is programmed to perform specialized functions.

<http://www.medicalnewstoday.com/medicalnews.php?newsid=26847>

Subcategory: Neurology

Piecing Together How Amyloid Fibers Form

Bioscience Technology

16-Jun-05

Researchers found a way to piece together the configuration of amyloid fibers, the plaque that forms on neurons in people with neurodegenerative illnesses such as Alzheimer's disease and Creutzfeldt-Jakob disease.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0506~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~N.htm>

Subcategory: Pharmacogenomics

Pharmaceuticals and the Freshly Squeezed Genome

Alan Dove

Drug Discovery &

01-Jun-05

Because minute differences in a few genes can produce radically different responses to drugs, the pharmaceutical industry is now taking its first steps into the emerging field of pharmacogenomics.

<http://www.ddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0506&RELTYPE=PR&ORIGRELTYPE=GPF&PRODCODE=00000000&PRODLETT=C>

RESEARCH ADVANCEMENTS

Subcategory: Addiction

Gene Controlling Circadian Rhythms Linked to Drug Addiction, UT Southwestern Researchers Find

UT Southwestern Medical

13-Jun-05

Researchers showed that in mice, the "Clock" gene regulates the reward response to cocaine, suggesting that similar actions take place in humans.

<http://www8.utsouthwestern.edu/utsw/cda/dept37389/files/228047.html>

Subcategory: Gastroenterology

Gene Expression and the Search for Fountain of Youth

Genomics & Proteomics

01-Jun-05

Researchers have already made aging a “curable disease” in model organisms. If similar successes can be achieved in humans, science will once again confront an ethical barrier.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0506&RELTYPE=PR&ORIGRELTYPE=GPF&PRODCODE=00000000&PRODLETT=V>

Subcategory: Genomics

UW Genome Research Expands Understanding of Protein Function In

Bio.com

14-Jun-05

Explains how research will advance understanding of how proteins function in cells and will enhance the research capabilities of scientists worldwide who are studying corn genetics and functional genomics.

<http://www.bio.com/realm/research.jhtml?realmId=2&cid=11400014>

Punctuated' Evolution In The Human Genome

Bio.com

16-Jun-05

Long periods of genomic stasis, at least with regard to the accretion of duplicated DNA fragments, are "punctuated" by relatively brief episodes of duplicative activity, challenging the belief that continuous alterations occur during genome evolution.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=11600018>

Subcategory: Immunology/ Infectious Diseases

Johns Hopkins Team Finds 'Ancestral' Hepatitis-C Virus at the Root of Evolution in Infections

EurekaAlert!

09-Jun-05

Researchers have found that one-half of the virus' changes in its genome are in sites under attack by the body's immune system.

http://www.eurekaalert.org/pub_releases/2005-06/jhmi-jht060905.php

Gene Changes Linked to Deficient Immune Suppression in MS

EurekaAlert!

24-Jun-05

MS patients have lower expression of the FOXP3 gene found in a subset of T-cells that may regulate defense against MS and other autoimmune diseases, such as diabetes and arthritis.

http://www.eurekaalert.org/pub_releases/2005-06/ohs-gcl062405.php

Scripps Research Scientists Identify the Target of an Immune Suppression Molecule Called CD22—Itself

The Scripps Research

13-Jun-05

Reports on approach to studying human proteins that bind to sugar

molecules on the surface of human cells to discover how one crucial aspect of our immune system works.

<http://www.scripps.edu/news/press/061305.html>

Subcategory: Miscellaneous

Adulthood Triggered by 'Maturity Gene'

New Scientist

02-Jun-05

A newly-discovered “maturity gene” in fruit flies could help scientists understand the stormy process of growing up in all animals and maybe even generate ways to manipulate the length of childhood in higher vertebrates.

<http://www.newscientist.com/article.ns?id=dn7455>

Subcategory: Neurology

Jumping Genes' Contribute To The Uniqueness Of Individual Brains

Bio.com

15-Jun-05

Scientists have found mobile elements, pieces of DNA that can jump from one place in the genome to another. If enough of these jumps occur, they could allow individual brains, including those of identical twins, to develop in distinctly different ways.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=11400025>

Junk DNA Shapes Social Behavior

Bio.com

09-Jun-05

Why are some people shy while others are outgoing? A study of rodents has implications for understanding human social behavior and disorders, such as autism.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=11100008>

Gene Variant Linked to Chronic Kidney Disease

EurekAlert!

14-Jun-05

Reports on the role Apolipoprotein E (APOE) alleles play in chronic kidney disease. APOE is known to be associated with risk of Alzheimer's disease and heart disease but interestingly, the kidney disease association is in the opposite direction.

http://www.eurekalert.org/pub_releases/2005-06/jhub-gvl061405.php

'Molecular Zipper' May Hold Important Clues to Alzheimer's, Parkinson's and Mad Cow Disease

EurekAlert!

08-Jun-05

Researchers say amyloid fibrils, rope-like structures formed by linked protein molecules, may well hold important clues to two-dozen degenerative and fatal diseases.

http://www.eurekalert.org/pub_releases/2005-06/uoc--zm060805.php

Variant Prion Protein Causes Infection but No Symptoms

- EurekAlert! 02-Jun-05
- Research suggests that a variant form of abnormal prion protein, one lacking an "anchor" into the cell membrane, may be unable to signal cells to start lethal neurodegenerative disease processes.
http://www.eurekalert.org/pub_releases/2005-06/nioa-vpp053105.php
- Gene Linked to Epilepsy, Movement Disorder Identified, Cleveland Clinic-Led Research**
- Medical News Today 06-Jun-05
- Researchers have identified the first gene in patients who have epilepsy associated with a movement disorder called paroxysmal dyskinesia, providing the first direct genetic evidence that the co-existence of these conditions represents a new syndrome.
<http://www.medicalnewstoday.com/medicalnews.php?newsid=25702&nfid=mnf>
- Subcategory: Oncology*
- New Cancer-Causing Agent Revealed**
- BBC News 09-Jun-05
- Scientists have pinpointed a new cancer-causing agent - tiny pieces of genetic material called microRNAs. The findings suggest that identifying the fragments may help detect even hard-to-diagnose cancer.
<http://news.bbc.co.uk/1/hi/health/4072368.stm>
- True Cancer-Causing Genes Revealed By New Technique**
- Bio.com 13-Jun-05
- New research shows a novel and more effective way of testing which mutations cause cancer and which are mere research distractions.
<http://www.bio.com/realm/research.jhtml?realmId=1&cid=11300008>
- MicroRNAs Change the Cancer Landscape**
- Bio-IT World 08-Jun-05
- Discusses 3 studies linking the process of creating miRNAs, small, remarkably powerful molecules that appear to play a pivotal role in gene silencing, with aspects of the HIV life cycle and with tumor suppression.
<http://www.bio-itworld.com/newsitems/2005/06-05/06-08-05-news-microRNAs>
- True Cancer-causing Genes Revealed by New Technique, Say Stanford Researchers**
- EurekAlert! 12-Jun-05
- Discusses a novel and more effective way of testing which mutations cause cancer and which are mere research distractions.
http://www.eurekalert.org/pub_releases/2005-06/sumc-tcg061005.php
- Silenced Gene Suggests Greater Risk, Possible Marker for African-Americans with Prostate Cancer**
- EurekAlert! 17-Jun-05

In the African-American population, GSTP1 methylation is a particularly good biomarker for prostate cancer, since it is more likely to indicate the presence of the disease than in other ethnic groups.

http://www.eurekalert.org/pub_releases/2005-06/uoc--sgs061605.php

Genes Linked to Treatment Resistance in Children with Leukemia

Medical News Today

02-Jun-05

Several common genetic variations were found to predict the outcomes of leukemia patients, demonstrating that genotyping may become an important tool for tailoring treatment and improving an individual's chance of a cure.

<http://www.medicalnewstoday.com/medicalnews.php?newsid=25565&nfid=mnf>

Subcategory: Ophthalmology

A Protein In The Eye May Prevent Immune Response And Protect Eyes From Disease

Bio.com

21-Jun-05

Scientists report discovery that may ultimately help in the development of therapies for blinding eye diseases such as macular degeneration and autoimmune diseases that occur when the immune system goes awry.

<http://www.bio.com/realm/research.jhtml?realmId=2&cid=11700026>

Subcategory: Reproduction

Geneticists ID 'Master Switch' That Causes Female Flies To Behave

Bio.com

15-Jun-05

Turning on a single male-specific gene produces a female fruit fly that displays male courtship behaviors, showing that a single gene can determine how females and males detect and respond differently to sexual clues.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=11400024>

Unique Genetic Profile Helps Over-45s Conceive Naturally

EurekaAlert!

20-Jun-05

Research work to identify a specific gene expression profile linked to later fertility would help understanding of the ageing process, as well as enabling the development of better treatments for infertility in older patients.

http://www.eurekalert.org/pub_releases/2005-06/esfh-ugp062005.php

RESEARCH TOOLS

Subcategory: Assay Systems

University Researchers Apply Assay Automation

Bioscience Technology

13-Jun-05

Describes an easy-to-deploy, flexible assay design with assay automation and real-time analytics to be used to help better elucidate the disease mechanisms for Alzheimer's disease, Parkinson's disease, and other neurodegenerative diseases.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0506~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~J.html>

Subcategory: Computing Systems

Genomic Sequences Processed In Minutes, Rather Than Weeks

Bio.com

21-Jun-05

A sophisticated "sequence alignment tool" can divide the work of analyzing biological data into manageable fragments so large data sets can run on many processors simultaneously so that large-scale problems can be solved in minutes, rather than weeks.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=11700024>

Subcategory: Databases

DogBox Aims to Take a Bite Out of Discovery Time

Salvatore Salamon

Bio-IT World

21-Jun-05

Introduces DogBox, a self-updating bioinformatics warehouse, that is a hardware/software appliance that includes the Blueprint SeqHound and other public bioinformatics databases.

<http://www.bio-itworld.com/newsitems/2005/06-05/06-21-05-news-dogbox>

Subcategory: Genome Sequence

Scientists Construct a Physical Map of the Drosophila Buzzatii

EurekaAlert!

29-Jun-05

The species *Drosophila buzzatii* is widely used in studies of genome evolution, ecological adaptation and speciation. The detailed maps will allow the international research community will find it easier to compare the genomes of this and related species.

http://www.eurekaalert.org/pub_releases/2005-06/uadb-sca062905.php

THERAPEUTIC CATEGORY

Subcategory: Cardiology/ Vascular Diseases

Gene May Affect Blood-Clot Drug's Effects

HealthDay

01-Jun-05

Testing for variations of a gene that helps control blood clotting could one day help doctors write better prescriptions for warfarin, a clot-preventing drug that is taken by millions and is difficult to manage.

<http://www.healthday.com/view.cfm?id=526073>

Subcategory: Musculoskeletal

Gene Therapy for Arthritis Is Both Feasible and Safe

News-Medical

06-Jun-05

Research indicates that introducing a new gene has the potential to block the destructive inflammation process that takes place within arthritic joints.

<http://www.news-medical.net/?id=10761>

Subcategory: Oncology

Harmless Virus Kills Some Cancers

EurekaAlert!

21-Jun-05

Six days is all it takes for a common, non-disease-causing virus to kill cervical, breast, prostate and squamous cell cancer cells in laboratory cultures, according to researchers.

http://www.eurekaalert.org/pub_releases/2005-06/ps-shv062105.php

Subcategory: Pain Management

Blocking Pain by Gene Transfer

Bioscience Technology

01-Jun-05

Describes the first study to demonstrate the successful use of gene transfer technology using a herpes viral vector to treat peripheral neuropathic pain in animals.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0506~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~A.htm>

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