



BioTechCircle News®

November, 2005

Quote of the month:

Investment capital and proximity to talent are key ingredients to raise a herd of world-class biotechs. In the race for the next biotech hub, Developed countries don't always have all the advantages.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0511&RELTYPE=PR&ORIGRELTYPE=CVS&PRODCODE=00000000&PRODLETT=W>

In this articles section: links to 47 free Web articles in 12 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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AGRI-BIOTECH

Subcategory: Crops

GM Pea Causes Allergic Damage in Mice

New Scientist

21-Nov-05

A project to develop genetically modified peas with built-in pest-resistance has been abandoned after tests showed they caused allergic lung damage in mice when a protein capable of killing pea weevil pests is expressed.

<http://www.newscientist.com/channel/health/dn8347.html>

BIOBUSINESS MANAGEMENT

Subcategory: Bioethics

New Harvard Center to Study Legal Aspects of Biotechnology

Bio-IT World

30-Nov-05

Describes a new program that will touch on controversial subjects ranging from the definition of human life to the cost and quality of healthcare.

http://www.boston.com/news/science/articles/2005/11/30/new_harvard_center_to_study_legal_aspects_of_biotechnology/

CONTRACT SERVICES

Subcategory: Miscellaneous

Outsourcing Not out of Question for Bay Area Biotech Companies

Daniel S. Levine

Bizjournals.com

07-Nov-05

Levine complains about California companies outsourcing of preclinical drug development work to China, production and R&D of integrated fluidic circuit chips in Singapore.

http://www.bizjournals.com/industries/health_care/biotechnology/2005/11/07/sanfrancisco_newscolumn7.html

DIAGNOSTIC TOOLS

Subcategory: Computing Systems

Gene Network Sciences Breaks New Ground

Bio-IT World

30-Nov-05

Describes how biosimulation will be used to test treatments for actual cancer patients based on their individual gene expression data, which will be input into computer models.

<http://www.bio-itworld.com/newsitems/2005/nov2005/11-30-05-news-gns>

Subcategory: Test Systems - Chemistry/ Biochemistry

Biotechnology's Newest Chemical Tool

Howard Huges Medical

27-Nov-05

Researchers have developed a new technique that will allow them to modify specific sequences within a DNA molecule. The approach could have far-reaching implications for DNA-based medical diagnosis and nanobiotechnology.

<http://www.hhmi.org/news/klimasauskas20051127.html>

INDUSTRY

Subcategory: Education

HHMI Awards \$10 Million for Interdisciplinary Graduate Education

Bio-IT World

22-Nov-05

Biomedical science is becoming increasingly interdisciplinary, as reliant on the physical and computational sciences as on biology. Universities are initiating fundamental changes in the way Ph.D. scientists are trained.

<http://www.hhmi.org/news/112205.html>

Subcategory: Geographic focus

Life Sciences Short of Workers, Threatened by Rivals

Susan L. Thomas

Bizjournals.com

21-Nov-05

Cautions that the cost of living in California, government bureaucracy, tax codes and an inability to supply enough trained workers to meet demand could hamper the region's ability to deliver new treatments and could cause some firms to leave the area.

http://www.bizjournals.com/industries/health_care/biotechnology/2005/11/21/eastbay_story5

Biotech Breeding Grounds

JR Minkel

Genomics & Proteomics

01-Nov-05

Investment capital and proximity to talent are key ingredients to raise a herd of world-class biotechs. In the race for the next biotech hub, Minkel says developed countries don't always have all the advantages.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0511&RELTYPE=PR&ORIGRELTYPE=CVS&PRODCODE=00000000&PRODLETT=W>

INVESTMENTS/ GOV. SUPPORT

Subcategory: Federal

Getting a Hand from Uncle Sam: Small Biotechs Find Alternative

Gillian Robinson, Monika Oli, Ronald L. Hayes, and Kevin K.W. Wang

Genomics & Proteomics

01-Nov-05

Start-up life sciences companies have an alternative to venture capital by seeking small business grants from federal granting agencies. The money is available for riskier studies, but the requirements are no less strict than those of private investors.

<http://www.genpromag.com/ShowPR~PUBCODE~018~ACCT~1800000100~ISSUE~0511~RELTTYPE~PR~ORIGRELTYPE~FE~PRODCODE~00000000~PRODLETT~AD.html>

Subcategory: State

Twin Cities, Rochester Seek \$35 Million for Biotech Projects

Mark Reilly

Bizjournals.com

28-Nov-05

The state of Minnesota is seeking to raise its profile in the biotechnology industry through funding of biotechnology-industry districts by tying together multiple bioscience corridors into a cohesive whole.

http://www.bizjournals.com/industries/health_care/biotechnology/2005/11/28/twincities_stor

NOVEL APPLICATIONS

Subcategory: Miscellaneous

Student Scientists Create Living Bacterial Photographs

Bio.com

23-Nov-05

Bacterial photos were created by projecting light on "biological film"--billions of genetically engineered E. coli growing in dishes of agar. Each bacterium either produced black pigment or didn't, according to light or dark areas in the dish.

<http://www.bio.com/realm/research.jhtml?realmId=5&cid=14900015>

ORGANIZATIONS

Subcategory: Miscellaneous

W3C Forms Life Science Semantic Web Group

Bio-IT World

22-Nov-05

Announces the formation of a new group to help life scientists tap the potential benefits of using Semantic Web technology by developing use cases and applying standard Semantic Web specifications to healthcare and life sciences problems.

<http://www.bio-itworld.com/newsitems/2005/nov2005/11-22-05-news-w3c>

PLATFORM TECHNOLOGIES

Subcategory: Diagnostic Test Systems

Biotechnology's Newest Chemical Tool

Bio.com

29-Nov-05

Researchers have developed a new technique that will allow them to modify specific sequences within a DNA molecule. The technology could have far-reaching implications for DNA-based medical diagnosis and nanobiotechnology.

<http://www.bio.com/realm/research.jhtml?realmId=4&cid=15000017>

Patent Granted for Normal Ranges of Gene Expression

Bioscience Technology

10-Nov-05

There has to be an appropriate normals reference range for the appropriate disease, says researcher. Describes patent for diagnosing a biological condition using two or more genes linked to inflammation or immune response.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0511~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~K.htm>

Subcategory: Epigenetics

Discovering the First Steps in Transcription-Coupled Repair

Bio.com

08-Nov-05

Scientists have discovered new players in the first steps of transcription-coupled repair (TCR), an essential but still mysterious mechanism of DNA repair.

<http://www.bio.com/realm/features.jhtml?realmId=1&cid=14400125>

Subcategory: Genomics

Lateral Thinking Produces First Map Of Gene Transmission

Bio.com

10-Nov-05

Study shows how disease-causing bacteria can quickly become resistant to treatment: a bacterium with genes that confer drug resistance can, through lateral transfer, rapidly spread them to other bacteria, instead of just to their own offspring.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=14400138>

Subcategory: Miscellaneous

Characterizing Targets in Model Organisms

Alan Dove

Drug Discovery &

01-Nov-05

Dove reviews new strategies and technologies for getting useful data from model organisms, including improved MRI, large particle sorters and RNAi technology.

<http://www.dddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0511&RELTYPE=PR&ORIGRELTYPE=GPF&PRODCODE=00000000&PRODLETT=O>

Subcategory: Nanotechnology

Nanoparticles, Nanoshells, Nanotubes: How Tiny Specks May Provide Powerful Tools Against Cancer

Bio.com

17-Nov-05

Cancer researchers are exploring the potential of nanostructures to exquisitely target cancer cells without harming surrounding tissue, and to image the formation of tumors long before they have a chance to become life-threatening.

<http://www.bio.com/realm/research.jhtml?realmId=5&cid=14700002>

Subcategory: Proteomics

The Dynamic Personalities Of Proteins Reveal Key Traits

Bio.com

02-Nov-05

A study advances fundamental understanding of the dynamic personalities of proteins, important because drugs seek to bind, or dock, to target enzymes in the infrequent high-energy state.

<http://www.bio.com/realm/research.jhtml?realmId=2&cid=14400067>

RESEARCH ADVANCEMENTS

Subcategory: Databases

DNA Barcodes Put To The Test

Bio.com

29-Nov-05

Relying solely on DNA barcodes masks fine-tuned species boundaries not captured in DNA sequences, say experts, noting it is much more error prone when used to discover novel species than for identifying specimens in highly characterized groups.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=15000014>

Subcategory: Dermatology

'Fragile Skin Gene' Killed Baby

BBC News

21-Nov-05

Desmosomes are minute structures found in the skin and other body organs and tissues. Defective genes for desmoplakin, which links the desmosomes to the supporting structures and provides tissue strength, are the cause of epidermyolysis bullosa (EB).

<http://news.bbc.co.uk/1/hi/health/4448934.stm>

Subcategory: Evolution Research

Novel Protein Complex Enables Survival In Hostile Environment

Bio.com

16-Nov-05

Scientists have discovered a novel enzyme that represents an ancient detoxification system and provides a clue to the development of early metabolism on earth.

<http://www.bio.com/realm/research.jhtml?realmId=2&cid=14600006>

Subcategory: Geriatrics

New Technique Multiplies Life Span In Simple Organisms

Bio.com

17-Nov-05

Deleting the SIR2 gene results in a dramatically extended life span, up to 6 times longer than normal, when the SIR2 deletion was combined with caloric restriction and/or a mutation in 1 or 2 genes that control nutrient storage and cell damage resistance.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=14700004>

Subcategory: Immunology/ Infectious Diseases

Genes Involved In Biofilms

Bio.com

10-Nov-05

A researcher has identified 2 new genes that operate as regulators in the formation process of the biofilm of *Staphylococcus aureus*, one of the

bacteria most frequently involved in infections following medical implants.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=14400140>

Researchers Develop New Method to Help Find Deadly Malaria Parasite's Achilles Heel

EurekAlert!

02-Nov-05

The most deadly malaria parasite has protein 'wiring' that differs markedly from the cellular circuitry of other higher organisms, a finding which could lead to the development of antimalarial drugs that exploit that difference.

http://www.eurekalert.org/pub_releases/2005-11/uoc--rdn103105.php

Subcategory: Neurology

Study Links Progressive Aphasia Syndrome to Prion Gene

EurekAlert!

28-Nov-05

Most people with a rare type of dementia called primary progressive aphasia (PPA) have a specific combination of prion gene variants, according to research.

http://www.eurekalert.org/pub_releases/2005-11/nion-slp112305.php

Scientists Crack Code for Motor Neuron Wiring

Howard Huges Medical

04-Nov-05

A code which involves members of the family of transcription factors encoded by the Hox genes could govern the establishment of other spinal cord circuits in people whose spinal cords have been damaged by trauma or disease.

<http://www.hhmi.org/news/jessell5.html>

Subcategory: Oncology

Normal Chromosome Ends Elicit A Limited DNA Damage Response

Bio.com

23-Nov-05

Researchers demonstrate the importance of telomeres in preserving genome integrity and preventing cancer development.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=14900018>

Researchers Discover New Form Of Cancer Gene Regulation

Bioresearch Online

08-Nov-05

The Quaking gene, a mutation in mice that causes rapid tremor, likely suppresses tumor growth by inhibiting production of a protein associated with GLI1, a cancer-causing oncogene highly associated with severe birth defects and several childhood cancers.

<http://www.bioresearchonline.com/content/news/article.asp?DocID={A394FB9D-356B-43D5-BBCC-4AEF948A7E03}&Bucket=Current+Headlines>

Targeted Drug Delivery Achieved with Nanoparticle-Aptamer

EurekAlert!

01-Nov-05

Nucleic acid ligands (aptamers) have the potential to direct the delivery of nanoparticles to tumor-antigens. Proof of concept nanoscale targeted drug delivery vehicles were developed which can target prostate cancer cells.

http://www5.eurekalert.org/pub_releases/2005-11/foec-tdd110105.php

Plant Gene Related to Cancer Treatment May Foster New Oncology

Purdue News

22-Nov-05

Two proteins involved in the process that controls plant growth may help explain why human cells reject chemotherapy drugs.

<http://news.uns.purdue.edu/html4ever/2005/051122.Murphy.roots.html>

Subcategory: Psychiatry/ Psychology

Mental Illness Genetic Risk Found

BBC News

18-Nov-05

Researchers found that damage to a gene involved in how the brain thinks increases risk of schizophrenia and manic depression, although environmental factors also influence the odds of developing mental illness.

<http://news.bbc.co.uk/1/hi/health/4445636.stm>

Loss of Fear Factor Makes Timid Mouse Bold

Bio.com

21-Nov-05

Researchers have found that the protein stathmin is critical for both innate and learned fear. Eliminating the gene that encodes this factor makes a fearful mouse courageous. The findings suggests new approaches for phobia and other drugs.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=14800004>

RESEARCH TOOLS

Subcategory: Computing Systems

Scientists Develop Protein-Sequence Analysis Tool

Bio.com

30-Nov-05

Scientists have written a computer program that makes comparisons of groups of related proteins and flags individual amino acid positions that are likely to control function.

<http://www.bio.com/realm/research.jhtml?realmId=2&cid=15200007>

Indian and Japanese Companies Co-Develop Drug Discovery Tool

Bio-IT World

29-Nov-05

Describes statistical analysis software that will help pharmaceutical companies to identify the properties of a drug and predict its efficiency even before its synthesis.

<http://www.bio-itworld.com/newsitems/2005/nov2005/11-29-05-news-panax>

Gene Expression Analysis Using Methods of Computational

Gary B. Fogel

Pharmaceutical Discovery

01-Oct-05

Investigates the use of evolutionary computation and artificial neural networks for pattern recognition of microarray data. The combination of these methods said to hold great promise for automated feature selection and data analysis.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=187436>

Subcategory: Evolution Research

The Earliest Animals Had Human-Like Genes

Bio.com

28-Nov-05

Species evolve at very different rates, and the evolutionary line that produced humans seems to be among the slowest, according to DNA sequencing that now permits scientists to make comparisons of the genetic code and read evolutionary history from it.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=15000003>

MicroRNAs Have Shaped The Evolution Of The Majority Of Mammalian Genes

Bio.com

20-Nov-05

Researchers show evidence that one third of human genes are regulated by microRNAs. An emerging idea is that microRNAs often act to reduce the quantity of protein a gene produces without shutting it off all together.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=15100006>

Development Genes Evolve New Functions

Howard Hughes Medical

15-Nov-05

Researchers have shown how proteins that control an animal's physical development can evolve new functions while retaining their old ones—enabling new animal forms to arise.

http://www.hhmi.org/news/hittinger_carroll.html

Subcategory: Imaging

New And Sharper X-rays Of Cell's Ribosome Could Lead To Better Antibiotics

Bioresearch Online

04-Nov-05

A new, sharper picture of the nano-machine that translates our genetic program into proteins promises to help researchers explain how some types of antibiotics work and could lead to the design of better ones.

<http://www.bioresearchonline.com/content/news/article.asp?DocID={41DEF4BD-40C9-4287-B012-5C899AF8A451}&Bucket=Current+Headlines>

Subcategory: Oncology

Model Identifies Genes That Induce Normal Skin Cells to Become Abnormal

EurekaAlert!

15-Nov-05

A novel, three-dimensional model allows scientists to observe how interacting with the microenvironment of metastatic melanoma cells induces normal skin cells to become similar to aggressive cancer cells that migrate and spread throughout the body.

http://www.eurekaalert.org/pub_releases/2005-11/nu-mig110705.php

Subcategory: Privacy/ Records Management

Boy Tracks His Sperm Donor Father

BBC News

02-Nov-05

Tells of a 15-year-old boy who has tracked down his anonymous sperm donor father using a swab test and an online genealogy DNA-testing service, creating concerns for men who have donated sperm in the past with promises of anonymity.

<http://news.bbc.co.uk/1/hi/health/4400778.stm>

THERAPEUTIC CATEGORY

Subcategory: Cardiology/ Vascular Diseases

Heart Risk Gene Hits African Americans Hardest

New Scientist

11-Nov-05

Reports on a gene variant, commonly found in Americans of European descent, more than triples the risk heart attack in African American populations.

<http://www.newscientist.com/channel/health/dn8300.html>

Subcategory: Disease Prevention

Nutrient Alters Gene Activity in Animals

Nutra Ingredients

17-Nov-05

Many diseases are caused by DNA damage. Emerging nutrigenomics

work suggests that supplements could be taken to halt the genetic effects that predispose people to certain diseases.

<http://www.nutraingredients.com/news/ng.asp?n=63968-nutri-genomics-dna>

Subcategory: Metabolism: Obesity, Diabetes

Exercise Gene

ScienCentral News

28-Nov-05

Scientists have found that physical exercise doesn't just burn fat, it also stimulates a gene that make our fat burning machinery work better. Observes that it's unlikely that a drug could ever replace a good workout.

http://www.sciencentral.com/articles/view.php3?article_id=218392693&cat=1_all

Subcategory: Oncology

UF Scientists Say Stem Cells May Trigger Bone Cancer

EurekAlert!

22-Nov-05

Scientists have identified a population of cells with characteristics of adult and embryonic stem cells in cultures derived from biopsies of patients' bone tumors.

http://www.eurekalert.org/pub_releases/2005-11/uof-uss112205.php

Protein Test Points to Early Lung Cancer

HealthDay

21-Nov-05

A promising new antibody profiling technique offers a high degree of accuracy in the early diagnosis of non-small cell lung cancer. Only 25% of new lung cancer cases are diagnosed when it's possible to perform curative surgery.

<http://www.healthday.com/view.cfm?id=529172>

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