



BioTechCircle News®

August, 2005

Quote of the month:

Scientists have developed "smart" bio-nanotubes, "smart" because in the future they could be designed to encapsulate and then open up to deliver a drug or gene in a particular location in the body.

<http://www.bio.com/realm/research.jhtml?realmId=5&cid=12400279>

In this articles section: links to 47 free Web articles in 7 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

Honda Discovers Gene Which Improves Regeneration Ability in Rice

Japan Corporate News

09-Aug-05

Many leading varieties of rice in Japan can rarely be regenerated, resulting in a serious problem of efficient rice improvement.

Researchers hope the gene may be applicable to other crops which are difficult to improve due to low regeneration ability.

http://www.japancorp.net/Article.Asp?Art_ID=10655

BIOBUSINESS MANAGEMENT

Subcategory: Patent/Intellectual Property Issues

Introduction: An Overview of Intellectual Property

Frederick Brown, J.D., June
T. Tai, J.D.

BioPharm International

10-Aug-05

Understanding intellectual property laws concerning patent, trademark, copyright, and trade secret issues is critical to the success of biopharmaceutical companies. Reviews terms and concepts.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=174483>

Licensing

Jeff Stewart, J.D.

BioPharm International

10-Aug-05

Looks at the drawbacks of licensing and development deals between large pharmaceutical companies and smaller biotech companies.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=174011>

CLINICAL TRIALS

Subcategory: Government/ Approvals

The Critical Path Initiative: A Good Idea at a Bad Time?

Brian D. Bollwage, JD

Applied Clinical Trials

01-Aug-05

Bollwage says the FDA's Critical Path Initiative is an excellent idea, but

questions whether the time is right.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=172269>

DRUG DELIVERY

Subcategory: Nanotechnology

'Smart' Bio-nanotubes Developed; May Help in Drug Delivery

Bio.com

02-Aug-05

Scientists have developed "smart" bio-nanotubes, "smart" because in the future they could be designed to encapsulate and then open up to deliver a drug or gene in a particular location in the body.

<http://www.bio.com/realm/research.jhtml?realmId=5&cid=12400279>

INDUSTRY

Subcategory: Diagnostic Test Systems

Abbott Moves Unit to Des Plaines to Boost Genetic Test Development

Chicago Tribune

04-Aug-05

Industry analysts estimate that the worldwide market for molecular diagnostics is growing 15% to 20% annually; Abbott's business in this area is growing at more than 30% a year, thus spurring the move to more spacious facilities.

<http://www.chicagotribune.com/business/chi-0508040019aug04.1.2361278.story?coll=chi-business-hed&ctrack=1&cset=true>

Subcategory: Geographic focus

Biotech Growth Puts Life in Sleepy Market

Bizjournals.com

29-Aug-05

Reports on Genentech's expansion, both building its own office/R&D space and pre-leasing a 780,000-square-foot campus in the South San Francisco area is creating a building boom not seen since the go-go days of the late '90s.

http://www.bizjournals.com/industries/health_care/biotechnology/2005/08/29/sanfrancisco_foc

Efforts Advance Efforts Advance

Bizjournals.com

29-Aug-05

Pennsylvania state economic development officials are collaborating with industry and university representatives on an extensive follow-up effort to BIO 2005. "To be successful in this business, you have to have operations in America," they say.

http://www.bizjournals.com/industries/health_care/biotechnology/2005/08/29/philadelphia_st

Singapore Attracts Scientists for Brave New Biotech World

Channel News Asia

24-Aug-05

Describes Singapore's new US\$300 million suburban complex called Biopolis, which is the nerve centre of the city-state's campaign to become a global science hub.

http://www.channelnewsasia.com/stories/afp_asiapacific_business/view/164746/1.html

INVESTMENTS/ GOV. SUPPORT

Subcategory: Venture

Final Word: How to Attract Venture Capital – Successfully

Jeff Randall

BioPharm International

01-Aug-05

Tells how to develop an aggressive financial plan that takes your entity to an exit point and calculate a return for your VC investor.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=174048>

ORGANIZATIONS

Subcategory: Bio Pharma

Life Sciences Top 100 Includes 3 Triangle CEOs

Bizjournals.com

31-Aug-05

Executives from Etrials, Metabolon and Quintiles Transnational have been named to PharmaVoice magazine's list of the 100 Most Inspiring People in the life sciences field.

http://www.bizjournals.com/industries/health_care/biotechnology/2005/08/29/triangle_daily1

Subcategory: Hospitals/ Health Care

DeKalb Center Brings Digitized Healthcare to the Peach State

Health-It World

17-Aug-05

What is said to be the first hospital in Georgia planned from the beginning to be totally paperless is fully operational in Atlanta's southeast suburbs.

<http://www.health-itworld.com/newsletters/2005/08/17/14816>

PERSONALIZED MEDICINE

Subcategory: Genome Sequence

A Step Toward The \$1,000 Personal Genome Using Readily Available Lab Equipment

Bio.com

04-Aug-05

The theoretical price of having one's personal genome sequenced fell from \$20 million dollars to about \$2.2 million, and the goal is to reduce the amount further--to about \$1,000--to make individualized prevention and treatment realistic.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=12700011>

PLATFORM TECHNOLOGIES

Subcategory: Collaboration

Telemedicine Helps Victims of Stroke

Health-It World

09-Aug-05

When stroke occurs, and one does every 45 seconds in the U.S., the first 3 hours are critical if a patient is going to survive and have a chance at a normal life. Case study on how videoconferencing can help.

<http://www.health-itworld.com/newsletters/2005/08/09/14671>

Subcategory: Genomics

Targeting Genes One siRNA at a Time

Bioscience Technology

08-Aug-05

Researchers are using a genome-wide, short-interfering RNA (siRNA) library, targeting genes across the entire human genome, to conduct unbiased high-throughput, gene silencing studies.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0508~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~G.htm>

Subcategory: Miscellaneous

In the Eye of the Be-Folder

Bio.com

15-Aug-05

Looks at RNA folding and the question: does the cellular environment contribute to how RNA molecules fold?

<http://www.bio.com/realm/features.jhtml?realmId=1&cid=13300013>

RESEARCH ADVANCEMENTS

Subcategory: Cardiology/ Vascular Diseases

New Gene Associated with Fanconi Anemia 'Explains' Hallmark Chromosomal Instability

EurekAlert!

21-Aug-05

Scientists found a gene mutation not previously known to be related to Fanconi anemia, and they say that BRIP1 is the first gene associated with the disease whose protein has a known function.

http://www.eurekalert.org/pub_releases/2005-08/ru-nga081705.php

Subcategory: Disease Prevention

In Some Cases, Genetic Resistance Takes On A Life Of Its Own

Bio.com

08-Aug-05

Researchers say that in some cases, mutations underlying resistance can actually offer an advantage to hosts, even in the absence of pesticide-- and such advantages can lead to the resistance trait spreading widely in natural populations.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=12800018>

Gene Controls Stem Cell Differentiation

Bioscience Technology

15-Aug-05

A protein, "TAZ," has been found to play an important role in determining whether adult mesenchymal stem cells found in bone marrow differentiate into bone or fat cells, influencing diseases ranging from cancer to osteoporosis to childhood obesity.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0508~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~L.html>

Subcategory: Evolution Research

Scientists Crack 40-Year-Old DNA Puzzle And Point To 'Hot Soup' At The Origin Of Life

Bio.com

02-Aug-05

A new theory that explains why the language of our genes is more complex than it needs to be also suggests that the primordial soup where life began on earth was hot and not cold, as many scientists believe.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=12400270>

Bioinformatics Window on Evolution

- Bio-IT World 25-Jul-05
- Researchers have discovered that mammalian chromosomes have evolved over tens of millions of years by breaking at specific sites rather than randomly, as had been widely thought.
- <http://www.bio-itworld.com/newsitems/2005/07-05/07-25-05-news-evolution>
- Subcategory: Geriatrics*
- Master Gene for Skin May Hold Key to Youth** 17-Aug-05
New Scientist
- The gene p63, a sister gene to the cancer suppressing p53 gene, was found to accelerate ageing in adult mice when it was “switched off” by researchers.
- <http://www.newscientist.com/article.ns?id=dn7856>
- Subcategory: Immunology/ Infectious Diseases*
- Scientists Get Look At Genes' Defensive Playbook** 31-Aug-05
Bio.com
- Using a new method to identify networks of infection-fighting genes, scientists say more than 15% of our genes are mobilized to defend against microbial attacks.
- <http://www.bio.com/realm/research.jhtml?realmId=1&cid=13600050>
- Scientists Determine Structure of Enzyme That Disrupts Bacterial** 30-Aug-05
EurekAlert!
- Researchers report making a significant advance in understanding how an enzyme can prevent certain bacteria from becoming virulent. It targets a different pathway than current antibiotics.
- http://www.eurekalert.org/pub_releases/2005-08/bu-sds083005.php
- Defective Gene Linked to Two Inherited Immune Deficiencies** 04-Aug-05
EurekAlert!
- The discovery that defects in a single gene can result in two immune system disorders may lead to new diagnostic tests for these two inherited conditions--immunoglobulin A (IgA) deficiency and common variable immunodeficiency (CVID).
- http://www.eurekalert.org/pub_releases/2005-08/nioa-dgl080405.php
- Penn Study Finds a New Role for RNA in Human Immune Response** 23-Aug-05
EurekAlert!

Most RNA from human cells is recognized as being self and does not stimulate an immune response. If this self-recognition fails, then autoimmune diseases such as systemic lupus erythematosus could result.

http://www.eurekalert.org/pub_releases/2005-08/uops-psf081905.php

Subcategory: Metabolism: Obesity, Diabetes

New Diabetes Gene Discovered

Kathleen Doheny HealthDay 12-Aug-05

Defects in a gene called ARNT cause mice to develop abnormalities in insulin secretion. ARNT is the first gene identified to be abnormal in the pancreatic islet cells, the cells that make insulin, in people with the common type of type 2 diabetes.

<http://www.healthday.com/view.cfm?id=527369>

Subcategory: Miscellaneous

A Double Punch For Female Survival

Bio.com 25-Aug-05

Researchers have discovered a unique double-locking mechanism which prevents the production of a molecule that would be fatal for female cells.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=13500012>

New Look At DNA Hints At Origin Of Ultraviolet Damage

Bio.com 24-Aug-05

Researchers have gained new insight into how sunlight affects DNA, overturning ideas about genetic mutation that originated decades ago. The discovery can help explain the DNA repair process.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=13500002>

The Life Of A Whiff

Vivienne Baillie Gerritsen Biospace 05-Aug-05

A smell always has something to say. Discusses how living organisms of all forms and sizes make great use of scents in matters so crucial as reproduction or more down to earth as mere survival.

http://www.biospace.com/news_story.cfm?StoryID=20808020&full=1

Breakthrough: Structure of Membrane Protein Described by Hebrew University, German Researchers

- EurekAlert!
- 04-Aug-05
- The structure of the membrane protein NhaA has been revealed by researchers, with great potential consequences for development of new medicinal treatments and genetic engineering of plants.
- http://www.eurekalert.org/pub_releases/2005-08/thuo-bs080405.php
- PiggyBac Paves Way for Better Understanding of Human Genes**
- Howard Huges Medical
- 12-Aug-05
- Researchers have harnessed a mobile gene from the cabbage looper moth and modified it for routine use to determine the function of genes in mice and other vertebrates, potentially accelerating the search for effective new therapies.
- <http://www.hhmi.org/news/xu4.html>
- Subcategory: Neurology*
- Gene Fault Gives Alzheimer's Clue**
- BBC News
- 21-Aug-05
- Scientists have identified a gene error which causes faults in the brain's nerve and blood supply system in Alzheimer's disease.
- <http://news.bbc.co.uk/1/hi/health/4167010.stm>
- Montreal Researchers Probe The Genetic Basis Of Memory**
- Bio.com
- 29-Aug-05
- Research provides the first genetic evidence that protein synthesis is critical for the regulation of memory formation.
- <http://www.bio.com/realm/research.jhtml?realmId=1&cid=13600016>
- Biosensor Detects Alzheimer's Protein**
- Bioscience Technology
- 31-Aug-05
- Researchers developed a method to detect small, potentially disease-causing, proteins in cerebrospinal fluid using nanoscale optical biosensors.
- <http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0508~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~X.html>
- Scientists Discover the Molecular Switch for Nerve Cells' Insulating**
- EurekAlert!
- 31-Aug-05
- Scientists have identified the molecular switch that turns on the production of myelin, the fatty insulation around nerve cells. The findings may provide a new avenue for treating nervous system diseases such as multiple sclerosis.

http://www.eurekalert.org/pub_releases/2005-08/nyum-sdt082905.php

Subcategory: Oncology

New Role For Gene That Counteracts Formation Of Tumors

Bio.com

25-Aug-05

Using a mouse model, researchers have shown that absence of a mediator makes the mice susceptible to the development of cancer.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=13500008>

Personalized Cancer Vaccine Tested

Bioscience Technology

25-Aug-05

Researchers tested an experimental cancer vaccine in patients, in combination with a drug designed to completely wipe out diseased (as well as healthy) B cells. The vaccine was able to mount an immune response, even in the absence of B cells.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0508~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~T.html>

Cornell Researcher Uncovers Details of How Cancer Spreads

Cornell University

01-Aug-05

A study reveals how connective tissue holding a cancer cell in place might degrade, unmooring the diseased cell and allowing it to spread to other parts of the body.

<http://www.news.cornell.edu/stories/Aug05/CancerSpread.kr.html>

New Role for Gene That Counteracts Formation of Tumors

EurekAlert!

25-Aug-05

After exposure to carcinogens, researchers have found that mice lacking the protein Ptp^{rv} develop cancer much more readily than normal mice do.

http://www.eurekalert.org/pub_releases/2005-08/vfii-nrf082505.php

Master Regulatory Gene Found That Guides Fate of Blood-producing

EurekAlert!

01-Aug-05

Knowing the details of a protein called NF- κ B that activates several genes may lead to new treatments for leukemia, as well as a better understanding of how HSCs work in the context of bone-marrow and peripheral-stem-cell transplantation.

http://www.eurekalert.org/pub_releases/2005-08/uops-mrg080105.php

Scientists Discover Genetic Pathway Responsible for Breast Cancer

EurekaAlert!

09-Aug-05

Researchers have identified 153 genes that respond to estrogen and one in particular that can be used to halt the growth of breast cancer cells.

http://www.eurekalert.org/pub_releases/2005-08/mu-sdg080905.php

New Drug Weakens Cancer Cells

HealthDay

30-Aug-05

Researchers say they're making headway towards a drug that weakens cancer cells by manipulating the host's immune system, without exposing the body to the destructive effects of chemotherapy and radiation.

<http://www.healthday.com/view.cfm?id=527706>

Molecular Probe Could Spot Cancers Early

HealthDay

15-Aug-05

Researchers created a molecule that's able to label proteases -- enzymes whose activity is greatly increased in cancerous cells. This molecule contains a fluorescent tag that only lights up when proteases are active.

<http://www.healthday.com/view.cfm?id=527372>

Scientists ID Possible Cancer-Causing Gene

Ed Edelson

HealthDay

11-Aug-05

Looking at genes in the lowly fruit fly, researchers say they've found one that might play a role in human cancer and could become a target of treatment or prevention.

<http://www.healthday.com/view.cfm?id=527346>

Subcategory: Ophthalmology

Gene Therapy Works in Mice to Prevent Blindness That Strikes Boys

EurekaAlert!

02-Aug-05

Researchers describe how they successfully used gene therapy in mice to treat retinoschisis, a rare genetic disorder that is passed from mothers, who retain their sight, to their sons.

http://www.eurekalert.org/pub_releases/2005-08/uof-gtw080205.php

Subcategory: Otolaryngology

UCLA Researchers Identify Key Enzyme Linked to Childhood
EurekAlert! 11-Aug-05

Researchers have found that RPE65, a gene missing in infants born with the blinding disease Leber congenital amaurosis, is also a key enzyme in the visual cycle.

http://www.eurekalert.org/pub_releases/2005-08/uoc--uri080805.php

Subcategory: Pulmonary/ Respiratory Diseases

Scientists Discover Gene That Controls Speed of Tuberculosis
EurekAlert! 16-Aug-05

Researchers provide a new view of the mechanisms underlying the development of tuberculosis. One-third of the world's population harbors the bacteria responsible for tuberculosis.

http://www.eurekalert.org/pub_releases/2005-08/mu-sdg081605.php

Nighttime Dying Linked to Sleep Apnea from Brain Cell Loss
EurekAlert! 07-Aug-05

Researchers injected adult rats with a cell-specific compound to target and kill more than half of the specialized preBötC neurons. Breathing completely stopped when the rat entered REM sleep, forcing the rat to wake up in order to start breathing again.

http://www.eurekalert.org/pub_releases/2005-08/uoc--dis080205.php

Subcategory: Reproduction

Researchers Probe How An Ancient Microbe Thrives And Evolves
Bio.com 04-Aug-05

A group of diminutive aquatic animals called bdelloid rotifers have evolved for tens of millions of years without sexual reproduction because they handle DNA transposons more efficiently than other asexual species.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=12700009>

RESEARCH TOOLS

Subcategory: Bioinformatics

High-Content Screening Data Clogs Information Flow
Alan Dove Drug Discovery & 01-Aug-05

The flood of data from new high-throughput techniques is pushing the limits of information analysis, but software companies are working on

the bottleneck.

<http://www.ddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0508&RELTYPE=PR&ORIGRELTYPE=CEL&PRODCODE=00000000&PRODLETT=K>

Subcategory: Databases

EBI and Ghent University Launch PRIDE, An Open Source Database of Protein Identifications

Bio.com

29-Aug-05

PRIDE allows researchers who work in the field of proteomics to share information much more readily. This will allow them to exploit the growing mass of information on how the body's complement of proteins is altered in many disease states.

<http://www.bio.com/realm/research.jhtml?realmId=3&cid=13600014>

Clinical Genomics Project at Mayo Enters Next Phase

Genomics & Proteomics

30-Aug-05

Other work that remains to be done is expanding the data to include additional sources and improving the interface to make it more user-friendly to be used by clinicians who want to use this as a decision support system for their practice.

<http://www.genpromag.com/ShowPR~PUBCODE~018~ACCT~1800000100~ISSUE~0508~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~V.html>

Subcategory: Lab-on-a-chip/ DNA Chips/

Customized Gene Chip Provides Rapid Detection Of Genetic Changes In Children's Cancer

Bio.com

01-Aug-05

Rather than covering the entire genome, the microarray focuses on suspect regions of chromosomes for signs of deleted genetic material known to play a role in the cancer.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=12400262>

Machine Sequences DNA on a Chip

Genomics & Proteomics

03-Aug-05

A new DNA sequencing instrument was used to resequence the genome of a small bacterium in four hours with 96% coverage and 99.96% accuracy.

<http://www.genpromag.com/ShowPR~PUBCODE~018~ACCT~1800000100~ISSUE~0508~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~C.html>

STRATEGIC RELATIONSHIPS

Subcategory: Collaboration

Biopartnering: Keys to Success

Jennifer A. Filbey, Ph.D

BioPharm International

01-Aug-05

Better alliance practices could salvage 85% of the value now lost to failed partnerships — a potential savings of \$2.7 billion. Filbey tells

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=174043>

THERAPEUTIC CATEGORY

Subcategory: Addiction

'Hangover Gene' Is Key to Alcohol Tolerance

New Scientist

10-Aug-05

A gene that helps fruit flies develop alcohol tolerance also controls the flies' response to stress. The findings may explain why people who have been in a stressful situation often have a blunted response to alcohol.

<http://www.newscientist.com/article.ns?id=dn7830>

Subcategory: Oncology

Australian Researchers Hail New Cancer-killing Technique

Yahoo

29-Aug-05

researchers say that they had developed an extremely accurate technique for killing cancer cells with radiation without affecting surrounding health tissues, using antibodies and DNA attached to a radioactive atom.

http://news.yahoo.com/s/afp/20050829/hl_afp/healthcanceraustralia_050829202416:_ylt=AinC2JHUtqr0fCGWTD1hij.JOrgF:_ylu=X3oDMTBiMW04NW9mBHNIYwMIJVRPUCUI

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