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## BioTechCircle News®

**September, 2004**

**In this articles section: links to 117 free Web articles in 15 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:.

Agri-Biotech (2 articles) – Page 1  
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### **AGRI-BIOTECH**

*Subcategory: Animal*

#### **Tenderness Gene Identified**

One News

23-Sep-04

Scientists have identified the gene that makes beef tender and they are confident it can be bred into cattle. Testing cattle hairs to identify

animals which have the tenderness gene has begun.

[http://tvnz.co.nz/view/news\\_rural\\_story\\_skin/449372%3fformat=html](http://tvnz.co.nz/view/news_rural_story_skin/449372%3fformat=html)

*Subcategory: Miscellaneous*

**Mississippi State Announces Biotech Education Initiative**

Mississippi State University

07-Sep-04

A team of prominent international scientists is helping guide production of a documentary series examining U.S. and international progress in agricultural biotechnology to help in understanding the benefits of the science and the issues being debated.

<http://www.newswise.com/articles/view/506925/>

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## **BIOBUSINESS MANAGEMENT**

*Subcategory: Bioterrorism*

**The Dark Side of Project BioShield**

Zachary Zimmerman Bio-IT World

16-Sep-04

Despite the uncertainties, an estimated 100 biopharma companies are developing anti-terror technologies. Reviews the benefits and concerns over Project BioShield.

<http://www.bio-itworld.com/archive/091604/insights.html>

*Subcategory: Data Integration*

**Growing Gains**

Paul King Bio-IT World

16-Sep-04

As a biotech company progresses from product concept to commercialization, it must implement the right IT systems at the right time. King offers a guide to the 4 growth stages, from startup to sales and manufacturing.

<http://www.bioitworld.com/archive/091604/gains.html>

## CLINICAL TRIALS

### *Subcategory: Miscellaneous*

#### **Protocol Appraisal: A Study Site's Viewpoint**

Winston Liauw, Kenneth Williams, Richard Day Applied Clinical Trials

01-Sep-04

Discusses how clinical sites can take a proactive role in the design and conduct of trial protocols, proposes a template for appraisal of trial protocols from the perspective of a clinical study site.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=121633>

### *Subcategory: Phase 2*

#### **Arakis' £28M Third Round Enough To Last Until 2007**

Nuala Moran BioWorld

08-Sep-04

Reviews portfolio of late-stage trials of company with products for treatment of cancer pain, rheumatoid arthritis and chronic obstructive pulmonary disease.

[http://www.bioworld.com/servlet/com.accumedia.web.Dispatcher?next=bioworldHeadlines\\_article&forceid=33580](http://www.bioworld.com/servlet/com.accumedia.web.Dispatcher?next=bioworldHeadlines_article&forceid=33580)

### *Subcategory: Subject Enrollment/Management*

#### **Clinical Trials in CEE: Harnessing the Potential**

Andy Richardson, Peter A.S. Motteram Applied Clinical Trials

01-Sep-04

With large patient populations and easy access to major European cities, Central and Eastern Europe is fertile territory for trial planners.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=121634>

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## DIAGNOSTIC TOOLS

### *Subcategory: Oncology*

#### **Analysis Of Gene Expression In Lymphoid Cells Can Determine Lymphoma Cancer**

Science Daily

02-Sep-04

Researchers found that by taking a sample of blood and doing immunohistochemical analysis for the expression of CDK9 and CYCLIN T1, they were able to accurately pinpoint the type of lymphoma, Hodgkins or non-Hodgkins, as well as its stage of advancement.

<http://www.sciencedaily.com/releases/2004/09/040901085855.htm>

### **Stanford Researcher Declares ‘Psa Era Is Over’ in Predicting Prostate Cancer Risk**

Stanford School of Medicine

10-Sep-04

A study of prostate tissues collected over 20 years reveals that as a screen, the test now indicates nothing more than the size of the prostate gland. The question remains as to the best course for detecting prostate cancer.

<http://mednews.stanford.edu/releases/2004/September/stamey.htm>

### *Subcategory: Pulmonary/ Respiratory Diseases*

### **Scientists Develop Avian Flu Test**

BBC News

14-Sep-04

Reports that a rapid test, called a polymerase chain reaction test, is capable of identifying if a person is infected with avian flu within hours. A second test identifies if people have been exposed to avian flu by measuring their antibody response.

<http://news.bbc.co.uk/1/hi/health/3655716.stm>

### *Subcategory: Reproduction*

### **Researchers Report New Gene Test for Isolated Cleft Lip and Palate**

Science Daily

13-Sep-04

Researchers found that mutations of the IRF6 gene are associated with an increased chance that a child would be born with a cleft lip

<http://www.sciencedaily.com/releases/2004/09/040913085051.htm>

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## **DRUG DELIVERY**

### *Subcategory: Miscellaneous*

## Heat-controlled Drug Implants Offer Hope for Future

David Terraso

Geogia Institute of

13-Sep-04

Researchers have developed a material that may one day allow patients to forgo daily injections and pills and receive prescriptions instead through micro-thin implantable films that release medication according to changes in temperature.

<http://www.gatech.edu/news-room/release.php?id=455>

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## INDUSTRY

### *Subcategory: Bioterrorism*

#### Information on Pathogens Should Flow Freely, Report Says

Kate Ruder

Genome News Network

10-Sep-04

A panel of scientists has concluded that the public and researchers should continue to have open access to the genome sequences of deadly pathogens such as anthrax and Ebola despite the risk that some might use the information in acts of bioterrorism.

<http://www.genomenewsnetwork.org/articles/2004/09/10/genomeinfo.php>

### *Subcategory: Disease Prevention*

#### NIH Director Maps Out Research Shift

Nancy Weil

Bio.com

16-Sep-04

Medicine is increasingly focused on treating patients before they show symptoms of diseases for which they are at risk. Filling in the missing pieces will lead to better drug discovery, with fewer failures late in the development process, director says.

[http://www.bio-itworld.com/news/091604\\_report6041.html](http://www.bio-itworld.com/news/091604_report6041.html)

### *Subcategory: Geographic focus*

#### German Biotech Sector Has Turned the Corner

Expatica

02-Sep-04

The head of an organization representing more than 200 German biotech companies reports a growing number of German biotech firms showing a profit and German firms improving from 10% to 16% share of the world total of biotech patents.

[http://www.expatica.com/source/site\\_article.asp?subchannel\\_id=26&story\\_id=11317](http://www.expatica.com/source/site_article.asp?subchannel_id=26&story_id=11317)

*Subcategory: Venture*

**Platforms for Pathways**

Michael A. Greeley                      Bio-IT World                      16-Sep-04

While investor interest in the next great blockbuster drug has been high, a vexing, unmet need is being able to more accurately measure gene-expression responses in cells.

<http://www.bio-itworld.com/archive/091604/ventured.html>

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## NOVEL APPLICATIONS

*Subcategory: Energy/ Fuel*

**Green, Leafy Spinach May Soon Power More than Popeye's Biceps**

Deborah Halber                      Massachusetts Institute of                      15-Sep-04

Researchers have incorporated a plant's ability to convert sunlight to energy into a solid-state electronic "spinach sandwich" device that may one day power laptops and cell phones.

<http://web.mit.edu/newsoffice/2004/spinach-0915.html>

*Subcategory: Miscellaneous*

**Faith-Boosting Genes**

Carl Zimmer                      Scientific American                      27-Sep-04

Reviews book linking a gene known as VMAT2 and self-transcendence or spirituality.

[http://www.sciam.com/print\\_version.cfm?articleID=000AD4E7-6290-1150-902F83414B7F4945](http://www.sciam.com/print_version.cfm?articleID=000AD4E7-6290-1150-902F83414B7F4945)

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## ORGANIZATIONS

*Subcategory: Bio Pharma*

**Boning Up On Biotech Value**

John Dobosz Forbes.com 09-Sep-04

Evaluates biopharmaceutical company specializing in discovering, developing and commercializing small-molecule drugs and recombinant proteins aimed at treatment of bone and mineral disorders, and gastrointestinal and central nervous system ailments.

[http://www.forbes.com/investmentnewsletters/2004/09/09/cz\\_id\\_0909gurusow.html?partner=rss](http://www.forbes.com/investmentnewsletters/2004/09/09/cz_id_0909gurusow.html?partner=rss)

*Subcategory: Research Centers/ Parks*

**RPI to Open \$80M Biotech Center Sept. 10**

Richard A. D'Errico Business Review 01-Sep-04

Research at the 216,000-square-foot Center for Biotechnology and Interdisciplinary Studies, opened with a 2-day biotechnology symposium Sept. 9-10, 2004, will be conducted in drug synthesis, biosensors and monitoring, and tissue repair and replacement.

<http://albany.bizjournals.com/albany/stories/2004/08/30/daily29.html>

**Boost for Biotech in S.F, Gladstone Institutes to Open Mission Bay Research Center**

Dan Levy San Francisco Chronicle 10-Sep-04

Describes the life-sciences building, open in October 2004, that is the first major nonresidential, non-University of California San Francisco enterprise to plant its flag at Mission Bay.

<http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2004/09/10/BUGVS8LR711.DTL&type=printable>

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## PHARMACEUTICALS

*Subcategory: Immunology/ Infectious Diseases*

**Legionnaire's Germ Yields Genetic Code**

Ed Edelson Health Day 22-Sep-04

Researchers say they've decoded the genome of the bacterium that causes Legionnaire's disease and are hunting for genes that can explain its occasional virulence and provide targets for better

<http://www.healthday.com/view.cfm?id=521362>

*Subcategory: Oncology*

## **Experimental Drug Shown To Block Mutant Protein Causing Blood Disease**

Science Daily

28-Sep-04

Reports study showing the potential utility of drugs that block mutant tyrosine kinases, and that these drugs are opening more doors to treating cancers

<http://www.sciencedaily.com/releases/2004/09/040922073844.htm>

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## **PLATFORM TECHNOLOGIES**

### *Subcategory: Assay Systems*

#### **Enhancing Analytical Access to Low-abundant Proteins in the Human Plasma Proteome**

Cory Szafranski, et.al.

PharmaGenomics

01-Sep-04

Describes a new system that provides more comprehensive depletion of high-abundant proteins in the human plasma proteome that often obscure lower-abundant proteins that could serve as important diagnostic markers.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=119062>

### *Subcategory: Bioterrorism*

#### **Researching the Weapons of the Future: Genetically Modified Bioweapons**

Andy Oppenheimer

Jane's

14-Sep-04

Advances in nanotechnology, genetics and nuclear isomers are permitting the production of a new generation of unconventional weapons. Notes that developments are blurring the dividing line between curing disease and causing it.

[http://www.janes.com/security/international\\_security/news/jcbw/jcbw040914\\_1\\_n.shtml](http://www.janes.com/security/international_security/news/jcbw/jcbw040914_1_n.shtml)

#### **Scientists Decipher Genetic Code of Biothreat Pathogen**

Robert Koenig

Medical News Today

21-Sep-04

The combination of virulence genes and genomic instability may explain why some scientists consider *Burkholderia mallei*, affecting mainly horses, mules and donkeys to be the ultimate bacterial

<http://www.medicalnewstoday.com/medicalnews.php?newsid=13780>

### *Subcategory: Cardiology/ Vascular Diseases*

### **Blood Vessel Clue to Heart Risk**

BBC News

07-Sep-04

Scientists say changes in small blood vessels in children could be used to predict the onset of heart disease in later life.

<http://news.bbc.co.uk/1/hi/health/3634080.stm>

### **Vanilla May Have A Future In Sickle Cell Treatment**

HealthDay

21-Sep-04

After specially bred mice, subjected to low oxygen pressure causing their red blood cells to form the hazardous sickle shape, received a compound that turns into vanilla in the body, they survived 5 times longer than mice not receiving the chemical.

<http://www.sciencedaily.com/releases/2004/09/040921075701.htm>

### *Subcategory: Cell Therapy*

### **Stem Cells 'Arrest Brain Damage'**

Paul Rincon

BBC News

09-Sep-04

According to scientists, newborn babies with brain damage could be treated by stem cell therapy using cells taken from their bone marrow.

<http://news.bbc.co.uk/1/hi/sci/tech/3638474.stm>

### *Subcategory: Computing Systems*

### **Integrative Tools for Data Analysis in Pharmaceutical R&D**

Stephan Prouty, et. Al.

PharmaGenomics

01-Sep-04

Describes an automated, integrated approach to microarray data generation and analysis based upon existing industrial high-throughput screening technologies.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=119060>

### *Subcategory: Diagnostic Test Systems*

### **Scientists Map DNA Sequences that Control Genes**

Edward R. Winstead

Genome News Network

17-Sep-04

Scientists have come up with a nearly comprehensive list of short DNA sequences involved in switching genes on and off to learn how problems with the regulation of genes leads to diseases such as cancer and diabetes.

<http://www.genomenetwork.org/articles/2004/09/17/yeastgene.php>

***Subcategory: Gastroenterology***

**Genetically Modified Bacterium as Remedy for Intestinal Diseases**

News-Medical.net

14-Sep-04

Researchers have shown that the genetically modified bacterium of (Lactococcus lactis is able to manufacture the potential medicine, Trefoil Factors, in the intestines of diseased mice.

<http://www.news-medical.net/?id=4740>

***Subcategory: Gene Therapy***

**Safer Route to Gene Therapy Found**

BBC News

22-Sep-04

Scientists say they have found a safer way of controlling genes to treat disease: inserting a special DNA sequence into the patient's own genes or into the therapeutic gene introduced by gene therapy.

<http://news.bbc.co.uk/1/hi/health/3679848.stm>

***Subcategory: Genomics***

**Computing the Genome**

Kevin Davies

Bio-IT World

16-Sep-04

Conversation with Charles DeLisi, who helped conceive the Human Genome Project. Discusses systems biology and an AIDS vaccine.

[http://www.bioitworld.com/archive/091604/horizons\\_genome.html](http://www.bioitworld.com/archive/091604/horizons_genome.html)

***Subcategory: Immunology/ Infectious Diseases***

**Gene Clue to Malaria Drug Failure**

BBC News

26-Sep-04

A gene in malaria parasites, called pfprt, could explain why drugs to treat the disease fail.

<http://news.bbc.co.uk/1/hi/health/3684616.stm>

**St. Jude Children's Research Hospital Release: Images Of Anthrax Enzyme Help Researchers Understand Antibiotic Resistance, Suggest Design For**

Biospace

23-Sep-04

Computer-generated images of a crucial anthrax bacterium enzyme are helping to solve the mystery of how slight mutations in the shape

of this protein can make it resistant to the antibiotics called sulfa

[http://www.biospace.com/news\\_story.cfm?StoryID=17467420&full=1](http://www.biospace.com/news_story.cfm?StoryID=17467420&full=1)

### **First Glimpse of DNA Binding to Viral Enzyme**

Karen McNulty Walsh

Brookhaven National

13-Sep-04

Scientists have produced the first molecular-scale images of DNA binding to an adenovirus enzyme, a step they believe is essential for the virus to cause infection.

<http://www.bnl.gov/bnlweb/pubaf/pr/2004/bnlpr091304.htm>

### **HIV Dementia Mechanism Discovered**

Dennis Tartaglia

Brookhaven National

20-Sep-04

The discovery that decreases in the neurotransmitter dopamine in those with HIV dementia may lead to new, more effective therapies.

<http://www.bnl.gov/bnlweb/pubaf/pr/2004/bnlpr092004.htm>

### **B Cells Gone Bad: Researchers Uncover How HIV Causes Abnormalities in Antibody-Producing Cells**

National institute of

07-Sep-04

Researchers have discovered new pathways that are perturbed during the course of HIV infection, but also illuminated how HIV affects a key B-cell survival system.

<http://www2.niaid.nih.gov/newsroom/releases/bcells.htm>

### **Scientists Discover Proteins Involved In Spread Of HIV-1 Infection**

Science Daily

02-Sep-04

A family of proteins involved in HIV-1 budding from host cells have been identified. Targeting these proteins and those they interact with could lead to therapies for HIV-1, other viruses using the same mechanism.

<http://www.sciencedaily.com/releases/2004/09/040902085725.htm>

### **Smart Antibiotics' May Result From New UCLA Research**

Stuart Wolpert

University of California Los

22-Sep-04

Reports the discovery of a new class of genetic elements, similar to retroviruses, that operate in bacteria, allowing them to diversify their proteins to bind to a large variety of receptors.

<http://newsroom.ucla.edu/page.asp?RelNum=5496>

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

**Geneballs: Barcoding DNA; Millions of Genetic Tests Using Just One Drop**

## of Blood.

Innovations Report

01-Sep-04

A student has invented a unique technology with the potential to test for hundreds of diseases, cancers and genes in one, cheap, test. It would also give an early warning for diseases like heart disease before any symptoms occur.

[http://www.innovations-report.com/html/reports/life\\_sciences/report-33410.html](http://www.innovations-report.com/html/reports/life_sciences/report-33410.html)

### **Microarrays: Not Just for Genomics Anymore**

Todd Martinsky

PharmaGenomics

15-Sep-04

Discusses the impact and implementation of ex situ miniaturization, parallelism and automation on systems biology. Looks at challenges of printing mechanisms, sample preparation, detection and other

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=119069>

### **From Genome Sequence to Genome Understanding**

Steve Lombardi

PharmaGenomics

14-Sep-04

Describes the manufacturing methods and probe set strategies required to develop microarrays that can be used successfully in whole-genome array studies of both gene expression and DNA analysis experiments.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=119070>

### *Subcategory: Metabolism: Obesity, Diabetes*

#### **Lizard Hormone Diabetes Drug Hope**

BBC News

08-Sep-04

A drug based on the lizard hormone could help people with type 2 diabetes, researchers suggest. The drug mimics the action of a hormone found in the venomous Gila monster lizard.

<http://news.bbc.co.uk/1/hi/health/3635414.stm>

### *Subcategory: Miscellaneous*

#### **Chromosome Research on Flies Yields Insights into Human Diseases**

Phoebe Dey

Univ of Alberta

27-Sep-04

Reports researcher's efforts to provide clues to treating the deadly degenerative disease called Ataxia-telangiectasia (A-T) by analyzing genes that are responsible for repairing DNA damage.

[http://www.expressnews.ualberta.ca/expressnews/articles/news.cfm?p\\_ID=6095&s=a](http://www.expressnews.ualberta.ca/expressnews/articles/news.cfm?p_ID=6095&s=a)

***Subcategory: Musculoskeletal***

**Researchers Illuminate Cause of Crippling Genetic Disease**

Innovations Report

09-Sep-04

Scientists are close to correcting an abnormal gene which causes one of the crippling muscle wasting diseases known as Charcot-Marie-Tooth (CMT) disease. Findings may lead to the development of gene therapy to treat patients with CMT disease.

[http://www.innovations-report.com/html/reports/life\\_sciences/report-33418.html](http://www.innovations-report.com/html/reports/life_sciences/report-33418.html)

**Stimulating the Production of Utrophin Protects Muscular Dystrophy Mice from Muscle Wasting**

University of Pennsylvania

20-Sep-04

Researchers report a novel strategy for stimulating the production of utrophin, an important muscle protein in young mice, for muscular dystrophy therapy.

[http://www.uphs.upenn.edu/news/News\\_Releases/sep04/utrophin.htm](http://www.uphs.upenn.edu/news/News_Releases/sep04/utrophin.htm)

***Subcategory: Nanotechnology***

**Spun from Bone**

Bill Cannon

Pacific Northwest National

24-Sep-04

A research team discovers how protein in teeth controls bone-like crystals to form steely enamel, a milestone for those who would wish to nano-engineer tissues, implants and synthetic coatings based on nature's rules.

<http://www.pnl.gov/news/2004/04-56.htm>

***Subcategory: Neurology***

**Cancer Gene Controls Nerve Growth**

BBC News

03-Sep-04

Scientists have discovered that a key cancer gene, which regulates a protein called c-Jun, also plays a role in repairing damaged nerve cells.

<http://news.bbc.co.uk/1/hi/health/3877829.stm>

**How Mutant Gene May Cause Inherited Forms of Parkinson's**

Cheryl Simon Silve

Genome News Network

03-Sep-04

Researchers have identified mutations in four genes in individuals

whose Parkinson's is inherited. New research suggests that one of the mutated genes disrupts the process by which certain proteins are degraded in dopamine neurons.

<http://www.genomenewsnetwork.org/articles/2004/09/03/parkinsons.php>

### **Human Cells Make Morphine**

Steven Reinberg

HealthDay

21-Sep-04

A research team has proven that morphine occurs naturally in human cells. The next step is to find out if it will interact with human morphine receptors.

<http://www.healthday.com/view.cfm?id=521292>

### **Proteins May Treat Parkinson's**

Robert Preidt

HealthDay

08-Sep-04

Researchers, using a genetically engineered virus to deliver two proteins into the brains of laboratory rats, prevented the progressive degeneration of nerve cells that cause Parkinson's disease.

<http://www.healthday.com/view.cfm?id=521071>

### **Spontaneous Mutation Produces New MAO A/B Knockout Mouse**

Science Daily

10-Sep-04

Researchers have produced a mouse lacking two isoenzymes, MAO A and MAO B, that have been linked to violent criminal behavior and Parkinson's disease.

<http://www.sciencedaily.com/releases/2004/09/040910075119.htm>

### **Protein Involved In Childhood Disorder Linked To Cancer**

Science Daily

01-Sep-04

A team of scientists has found that the protein microcephalin involved in microcephaly, a congenital neurological disorder, also plays a role in DNA damage repair and thus cancer prevention.

<http://www.sciencedaily.com/releases/2004/09/040901093216.htm>

### **Consortium Identifies Novel Potential Therapeutic Targets For Spinal Cord**

Science Daily

20-Sep-04

Reports findings of a study that used microarray technology to look at changes in gene expression after contusion injury in the adult rat spinal cord, identifying several promising avenues for new clinical

<http://www.sciencedaily.com/releases/2004/09/040920070325.htm>

### **New Way To Protect Brain From Stroke Damage**

Science Daily

23-Sep-04

Researchers have uncovered a new culprit behind the brain injury

suffered by stroke victims: a rise in brain acidity following the oxygen depletion, or ischemia, characteristic of stroke.

<http://www.sciencedaily.com/releases/2004/09/040920071355.htm>

### **UBC Discovery is Gateway to New Stroke Treatments**

Univ. of British Columbia

09-Sep-04

The discovery that astrocytes cause constriction upsets earlier theories that astrocytes might cause vessels to dilate. This discovery will serve as a gateway to new treatments to minimize stroke damage

<http://www.publicaffairs.ubc.ca/media/releases/2004/mr-04-091.html>

### **Androgen Loss May Lead to Alzheimer's**

Gia Scaffidi

University of Southern

21-Sep-04

Decreased testosterone levels in aging men may lead to Alzheimer's disease, according to a study. The findings could strengthen efforts to develop replacement therapy as a possible preventive measure.

<http://www.usc.edu/uscnnews/story.php?id=10569>

### **Discovery May Halt Progression of Alzheimer's**

University of Wisconsin-

02-Sep-04

Researchers have discovered that increased expression of a protein called transthyretin in the brain appears to halt the progression of Alzheimer's disease.

<http://www.news.wisc.edu/10088.html>

## ***Subcategory: Oncology***

### **Clue to 'Blocking' Bowel Cancer**

BBC News

20-Sep-04

The removal of a cell "switch" in mice stopped growth of lesions in the bowel that can turn cancerous with time. Researchers hope a drug that blocks this switch could have the same effect in humans.

<http://news.bbc.co.uk/1/hi/health/3673396.stm>

### **Optimizing Protein's "Death Domain" Halts Leukemia in Laboratory Study**

Dana-Farber Cancer

02-Sep-04

Reports that researchers were able to take the critical killer domain out of a pro-death molecule and chemically reinforced it, enabling them to get it into cancer cells and kill them.

<http://www.dfci.harvard.edu/abo/news/press/090204.asp>

### **Researchers Eliminate Leukemia in Mice, Demonstrating Potential New**

### **Approach to Cancer Drug Therapy**

Dana-Farber Cancer

20-Sep-04

Researchers confirm that a key anti-cell-death molecule called BCL-2 is required by many types of cancer cells to survive, and that silencing it with designer drugs may prove to be an effective new avenue for cancer therapy.

<http://www.dfci.harvard.edu/abo/news/press/092004.asp>

### **Fred Hutchinson Researchers Uncover a Key Driver Behind the Progression of Prostate Cancer**

Fred Hutchison Cancer

23-Aug-04

A protein called hepsin, found in high levels in human prostate and ovarian tumors, causes prostate-tumor cells to lose their grip from the surrounding tissue and to spread from the prostate to bone, lung and liver. Discovery could lead to new treatments.

[http://www.fhcrc.org/news/science/2004/08/23/prostate\\_cancer.html](http://www.fhcrc.org/news/science/2004/08/23/prostate_cancer.html)

### **Molecular Staples Shape a Cancer Killer**

Howard Hughes Medical

03-Sep-04

Researchers have designed a new type of cancer-killing compound by performing molecular surgery to stabilize the molecule so that it selectively triggers cell death, or apoptosis, a genetic program that executes cells that are no longer needed.

<http://www.hhmi.org/news/korsmeyer4.html>

### **Researchers Identify Distinctive Signature for Metastatic Prostate Cancer**

Howard Hughes Medical

12-Sep-04

Researchers have found that a cellular signaling molecule called Hedgehog, which drives normal development and regeneration of prostate tissue, is greatly activated in prostate cancers.

<http://www.hhmi.org/news/beachy3.html>

### **Scientists Discover Way to Slow the Progression of Prostate Cancer**

Imperial College London

02-Sep-04

Limiting the effects of the androgen hormone and the genes which are activated by it, scientists have developed a way to silence these genes using an androgen receptor (AR) repressor, delivered by gene

<http://www.ic.ac.uk/p5502.htm>

### **Novel Gene Therapy for Bladder Cancer Shows Strong Results in Animal**

M.D. Anderson Cancer

07-Sep-04

Gene therapy that causes the bladder to act like a “bioreactor” to produce and secrete the anti-cancer agent interferon-alpha has shown dramatic benefits in preclinical tests, according to researchers.

<http://www.mdanderson.org/departments/newsroom/display.cfm?id=1201876C-7C2D-4FFF-96121FA7463CFE44&method=displayFull&pn=00c8a30f-c468-11d4-80fb00508b603a14>

### **Vitamins Slowed down to Treat Prostate Cancer**

Nutra Ingredients

29-Sep-04

Scientists suggest they have found a way to slow down the metabolism of vitamins A and D, giving them the staying power to help men with advanced prostate cancer that no longer responds to

<http://www.nutraingredients.com/news/news-ng.asp?n=55031-vitamins-slowed-down>

### **Researchers Discover Why Mutant Gene Causes Colon Cancer**

Science Daily

10-Sep-04

Mutations in the adenomatous polyposis coli (APC) tumor suppressor gene have been found to cause 85% of colon cancers. APC controls the conversion of dietary vitamin A into retinoic acid. If this process is impaired, colon cancer can result.

<http://www.sciencedaily.com/releases/2004/09/040910075443.htm>

### **Double Dealing Receptor Protein On Tumors Promotes Cancer Development In Cell Nucleus**

Science Daily

28-Sep-04

Researchers show that receptors found on tumors that were believed to function only on the surface of cells can actually switch on genes inside a cell's nucleus, thus promoting cancer development in two distinct ways.

<http://www.sciencedaily.com/releases/2004/09/040921083321.htm>

### **Research Suggests New Avenue For Stopping, Preventing Colon Cancer**

Science Daily

21-Sep-04

Researchers report that blocking a cellular receptor can inhibit the development of pre-cancerous colon polyps in mice, suggesting a new avenue for stopping or preventing colon cancer.

<http://www.sciencedaily.com/releases/2004/09/040921084604.htm>

### **A New Protein Is Discovered to Play a Key Role In Cancer Progression**

Science Daily

09-Sep-04

Scientists explain the link between 2 proteins in the development of cancer and suggest that restoring their activity may provide a

possible cancer treatment.

<http://www.sciencedaily.com/releases/2004/09/040909075807.htm>

**Small, Smac-like Molecule Encourages Death Of Cancer Cells**

Univ. of Texas

02-Sep-04

Researchers have developed a small molecule that mimics the action of a key "death-promoting" protein in cells, a finding that could lead to more effective cancer therapies with fewer side effects.

<http://www.utsouthwestern.edu/utsw/cda/dept37389/files/186347.html>

**New Anti-Inflammatory Strategy For Cancer Therapy Identified by UCSD Medical Researchers**

University of California San

01-Sep-04

Study suggests a new strategy for cancer therapy, which converts the tumor-promoting effect of the immune system's inflammatory response into a cancer-killing outcome.

[http://health.ucsd.edu/news/2004/09\\_20\\_Karin.html](http://health.ucsd.edu/news/2004/09_20_Karin.html)

*Subcategory: Ophthalmology*

**Mouth Cells Coaxed to Repair Eye Damage**

Ed Edelson

HealthDay

15-Sep-04

Researchers say they have turned cells from the mouth into eye cells that have successfully been implanted in four patients to repair damage to the epithelium, the outermost of the four layers of the

<http://www.healthday.com/view.cfm?id=521219>

*Subcategory: Psychiatry/Psychology*

**Chemgenex Discovers Five New Depression Genes**

News-Medical.net

16-Sep-04

With the global anti-depressant market worth more than A\$24 billion, there is a strong push for novel leads and new therapeutic approaches. Company reports novel animal model, linked with validation technologies and human genetics analysis.

<http://www.news-medical.net/?id=4833>

**New Genetic Hypothesis For The Cause Of Autism**

Science Daily

08-Sep-04

Researchers propose that most cases of autism can be explained by a

complex model for genetic malfunction that may or may not include an altered DNA sequence.

<http://www.sciencedaily.com/releases/2004/09/040908082507.htm>

### ***Subcategory: Pulmonary/ Respiratory Diseases***

#### **Mayo Clinic Researchers Define Link Between Eosinophils and Asthma**

Mayo Clinic

16-Sep-04

Research shows that the presence of eosinophils, a rare type of white blood cell, is absolutely required for the development of asthma. Findings could lead to targeted therapeutic approaches previously dismissed or overlooked.

<http://www.mayoclinic.org/news2004-sct/2434.html>

#### **Stem Cell Breakthrough on Cystic Fibrosis**

Netdoctor.co.uk

09-Sep-04

Researchers had found a way of producing unlimited quantities of human cells carrying the genetic mutation for cystic fibrosis, aimed at leading to new drugs and treatments for the incurable disease.

<http://www2.netdoctor.co.uk/news/index.asp?id=114625&D=9&M=9&Y=2004>

#### **Pineapple Extract Could Help Asthma Patients**

Nutra Ingredients

15-Sep-04

The enzyme bromelain, extracted from the juice and stem of the pineapple plant, appears to reduce inflammation associated with

<http://www.nutraingredients.com/news/news-ng.asp?n=54717-pineapple-extract-could>

#### **Treatment For Pulmonary Fibrosis May Be Achieved By Blocking Cell Death In The Lung**

Science Daily

03-Sep-04

Researchers have found that blocking a kind of cell death called apoptosis in fibrotic diseases of the lung, also blocks the fibrosis, opening new ways of looking at treatment for lung diseases such as pulmonary fibrosis.

<http://www.sciencedaily.com/releases/2004/09/040903085626.htm>

### ***Subcategory: Reproduction***

#### **Sugar-coated Sea Urchin Eggs Could Have Sweet Implications for Human**

Vince Stricherz

University of Washington

13-Sep-04

Sea urchin study shows that just a small chemical change in a sugar

molecule can limit fertilization. Mammalian eggs have complex carbohydrate molecules on the surface that may attach to proteins in sperm cells to trigger reproduction.

<http://www.uwnews.org/article.asp?articleID=5498>

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## RESEARCH TOOLS

### *Subcategory: Computing Systems*

#### **Understanding Polyelectrolytes**

Robert S. DeWitte

Modern Drug Discovery

01-Sep-04

Careful treatment of electrolytes is critical for understanding the fate of an orally dosed compound as it passes through the gastrointestinal tract and eventually enters the bloodstream. Looks at software predicting the ionization states of molecules.

[http://pubs.acs.org/subscribe/journals/mdd/v07/i09/html/904feature\\_dewitte.html](http://pubs.acs.org/subscribe/journals/mdd/v07/i09/html/904feature_dewitte.html)

### *Subcategory: Genome Sequence*

#### **Human Chromosome 5 Is Complete**

Kate Ruder

Genome News Network

17-Sep-04

Scientists have completed the genome sequence of one of the largest chromosomes in the human genome, which also has relatively few genes. The newly sequenced human chromosome 5 is available

<http://www.genomeneetwork.org/articles/2004/09/17/c5.php>

#### **Scientists Map Chromosome 5**

The Courier-Mail

16-Sep-04

Scientists have mapped Chromosome 5 of the human genome, a coil of DNA linked to several rare but crippling disorders including spinal muscular atrophy.

[http://www.thecouriermail.news.com.au/common/story\\_page/0,5936,10782116%255E401,00.html](http://www.thecouriermail.news.com.au/common/story_page/0,5936,10782116%255E401,00.html)

### *Subcategory: Genotyping*

**Gene Codes: Still Searching**

Melissa Kruse

Bio-IT World

16-Sep-04

Looks at the slow progress in identifying the victims at Ground Zero of the Sept. 11 disaster through the application of the Mass Fatality Identification System (M-FISys) database. There is "nothing left but hard problems."

[http://www.bio-itworld.com/news/091604\\_report6045.html](http://www.bio-itworld.com/news/091604_report6045.html)

***Subcategory: Miscellaneous*****Key Cell-Death Step Found**

University of California

21-Sep-04

A fundamental cellular event related to programmed cell death has been decoded, which could provide insights on 2 inherited diseases: dominant optic atrophy, an inherited cause of blindness and Charcot-Marie-Tooth disease, reducing extremity sensation.

[http://www.news.ucdavis.edu/search/news\\_detail.lasso?id=7141](http://www.news.ucdavis.edu/search/news_detail.lasso?id=7141)

***Subcategory: Mouse/ Rat Models*****Of Rats and Men**

John Blau

Bio-IT World

16-Sep-04

The development of specific genetically modified rat models, unlike mouse knockout models, has posed a huge hurdle. Discusses company with technology for rodent models to be developed with gene-specific alterations.

[http://www.bioitworld.com/archive/091604/horizons\\_rats.html](http://www.bioitworld.com/archive/091604/horizons_rats.html)

***Subcategory: Oncology*****Researchers Develop Fast Track Way To Discover How Cells Are Regulated**

Science Daily

21-Sep-04

Researchers report developing a unique computational approach to investigate a regulatory network for gene expression that is implicated in cell growth and development.

<http://www.sciencedaily.com/releases/2004/09/040920064049.htm>

## STRATEGIC RELATIONSHIPS

### *Subcategory: Metabolism: Obesity, Diabetes*

#### **For Some Ex-Smokers, Drug May Help Keep Pounds Off**

Kate Ruder

Genome News Network

17-Sep-04

Scientists have discovered that smokers who have a specific variant of a gene may be more likely to overeat after quitting and that the drug Zyban curbs their urge to eat too much.

<http://www.genomenewsnetwork.org/articles/2004/09/17/exsmokers.php>

### *Subcategory: Oncology*

#### **Anti-cancer Compound Found to Block Late-stage Breast-cancer Cell Growth**

Molly McElroy

University of Illinois at

31-Aug-04

A compound in broccoli and other cruciferous vegetables, sulforaphane, has been found to be effective in disrupting late stages of cell growth in breast cancer.

<http://www.news.uiuc.edu/news/04/0831cancer.html>

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## THERAPEUTIC CATEGORY

### *Subcategory: Bioterrorism*

#### **USF Microbiologists Can Detect Smallpox and Anthrax Asap**

Daniel Lim

University of Southern

16-Sep-04

Using throat swab samples seeded with Vaccinia virus, a surrogate of smallpox, and a fiber-optic biosensor, researchers could detect the virus in 20 minutes. Moderate concentrations of anthrax could be detected in less than an hour no false positives.

<http://usfnews.usf.edu/page.cfm?link=article&aid=613>

### *Subcategory: Cardiology/ Vascular Diseases*

#### **Common Antibiotic Tied to Rare, Fatal Heart Effect**

Serena Gordon

HealthDay

08-Sep-04

Erythromycin, a commonly prescribed antibiotic, can cause a potentially fatal heart rhythm abnormality, especially if it is used in combination with other medications, such as some antidepressant, antifungal and heart medications.

<http://www.healthday.com/view.cfm?id=521111>

### ***Subcategory: Disease Prevention***

#### **House Cats Can Carry the Virus for Bird Flu**

Cheryl Simon Silver

Genome News Network

02-Sep-04

New research adds cats to the list of animals that can contract and potentially spread bird flu. Some pigs in China were recently reported to be infected with the virus H5N1.

<http://www.genomenewsnetwork.org/articles/2004/09/02/birdflu.php>

#### **Light at Night Might Be a Cancer Risk**

Ed Edelson

HealthDay

09-Sep-04

Turning on the lights after dark may affect a small number of "clock genes" that play a major role in controlling how cells live, die and function, researchers report. Night light suppresses the body's production of melatonin, thus increasing cancer risk.

<http://www.healthday.com/view.cfm?id=521114>

#### **Women with Certain Genes May Benefit More from Fish Oils**

Nutra Ingredients

22-Sep-04

Research suggests that fish oils may especially benefit women with particular genetic makeups, namely those whose bodies do a poor job of getting rid of the fish oils' byproducts.

<http://www.nutraingredients.com/news/news-ng.asp?n=54869-women-with-certain>

#### **Walk Away From Dementia**

Daniel DeNoon

WebMD Health

21-Sep-04

Elderly people who walk the most have the best mental function, according to two new studies. However, walking did not overcome the bad health effects of smoking.

[http://my.webmd.com/content/article/94/102755.htm?z=1728\\_00000\\_1000\\_nb\\_02](http://my.webmd.com/content/article/94/102755.htm?z=1728_00000_1000_nb_02)

### ***Subcategory: Geriatrics***

#### **In the Elderly, a Link between Diabetes and Heart Disease**

Kate Ruder

Genome News Network

03-Sep-04

A study reports that people with diabetes are more likely to develop heart disease as they get older than people without diabetes. The reason may involve abnormal levels of two proteins in their hearts .

<http://www.genomenewsnetwork.org/articles/2004/09/03/diabetes.php>

### **Punching the Timeclock of Life**

Usha Sutliff

University of Southern

28-Sep-04

Discusses theory that aging is programmed so that the majority of a population dies prematurely to provide nutrients for the sake of a few individuals who have acquired the genetic mutations that increase their chances of reproduction.

<http://www.usc.edu/uscnews/story.php?id=10582>

### *Subcategory: Immunology/ Infectious Diseases*

### **Hepatitis B Vaccine May Be Linked to MS**

Salynn Boyles

WebMD Health

13-Sep-04

Researchers report that vaccination with the recombinant hepatitis B vaccine is associated with a threefold increased risk of multiple sclerosis, although the benefits of the vaccine still appear to outweigh the risks.

[http://my.webmd.com/content/article/94/102604.htm?z=1728\\_00000\\_1000\\_nd\\_02](http://my.webmd.com/content/article/94/102604.htm?z=1728_00000_1000_nd_02)

### *Subcategory: Metabolism: Obesity, Diabetes*

### **Further Evidence Vitamin E Fights Diabetes**

Nutra Ingredients

24-Sep-04

A daily dose of vitamin E may help delay the onset of type 2 diabetes in overweight adults at high risk of the disease, according to preliminary research.

<http://www.nutraingredients.com/news/news-ng.asp?n=54927-further-evidence-vitamin>

### **'Obesity' Gene at Work in Some People**

Miranda Hitti

Web Md Helath

29-Sep-04

Research has shown that people with abnormalities, or mutations, in certain genes are more likely to be obese. But these abnormal genes are rare and are found in only 2%-5% of obese people, according to new research.

[http://my.webmd.com/content/article/94/102988.htm?z=1728\\_00000\\_1000\\_nb\\_02](http://my.webmd.com/content/article/94/102988.htm?z=1728_00000_1000_nb_02)

*Subcategory: Musculoskeletal*

**Heart Drugs May Also Strengthen Bone**

E.J. Mundell HealthDay 23-Sep-04

A study found patients taking the beta blocker propranolol (Inderal) were at 23% lower risk for bone fractures, compared with patients not on the drug.

<http://www.healthday.com/view.cfm?id=521211>

*Subcategory: Neurology*

**Gene May Boost Dementia Risk in Drinkers**

Steven Reinberg HealthDay 02-Sep-04

If you're one of the estimated 20% of people with a gene that has been linked to Alzheimer's disease, a new study suggests that drinking alcohol even infrequently may increase your risk of dementia.

<http://www.healthday.com/view.cfm?id=521011>

**Parkinson's Disease**

Julie L. McDowell Modern Drug Discovery 01-Sep-04

While many drugs treat Parkinson's disease, curing this progressive neurological disorder remains challenging. Looks at protein and other potential treatments for halting the disease's progression.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i09/pdf/904diseases.pdf>

*Subcategory: Oncology*

**Asking Why Breast Cancer Drug Herceptin Works**

Kate Rude Genome News Network 02-Sep-04

Scientists have discovered that a specific protein, called PTEN, in tumors may be a good predictor of whether Herceptin will be effective against breast cancer.

<http://www.genomenewsnetwork.org/articles/2004/09/03/breastcancerdrug.php>

**Cancer Drug Stalls Rare Skin Cancer**

Steven Reinberg Health Day 29-Sep-04

The anti-cancer drug Gleevec, highly touted for slowing the progression of chronic myeloid leukemia, also appears to stall a rare kind of skin cancer, a new study finds.

<http://www.healthday.com/view.cfm?id=521452>

### **Chemo OK for Early-Stage Ovarian Cancer**

Amanda Gardner

HealthDay

28-Sep-04

Women with early ovarian cancer may benefit from chemotherapy in addition to surgery. It's not clear, however, which women would most benefit, or which exact treatment would be most beneficial.

<http://www.healthday.com/view.cfm?id=521420>

### **New Research Suggests Link Between Maternal Diet and Childhood Leukemia Risk**

National Institute of Health

08-Sep-04

A new study suggests that eating more vegetables, fruit and protein before pregnancy may lower the risk of having a child who develops leukemia, the most common childhood cancer in the U.S.

<http://www.niehs.nih.gov/oc/news/matdiet.htm>

### **New Technique For Thyroid Cancer Therapy Eliminates Many Side Effects**

Science Daily

20-Sep-04

Researchers have used a genetically engineered version of the natural hormone (recombinant human thyroid stimulating hormone [rhTSH]) instead of thyroid medication withdrawal to stimulate the cancerous cells to quickly take up the radioactive iodine.

<http://www.sciencedaily.com/releases/2004/09/040920063817.htm>

### **Dogs May Sniff Out Bladder Cancer**

Jennifer Warner

Web MD Health

23-Sep-04

Study shows that dogs' exceptional sense of smell may allow them to detect bladder cancer by merely smelling a person's urine. The dogs had a 41% accuracy rate, which is nearly 3 times the success rate expected by chance alone.

[http://my.webmd.com/content/article/94/102880.htm?z=1728\\_00000\\_1000\\_nb\\_03](http://my.webmd.com/content/article/94/102880.htm?z=1728_00000_1000_nb_03)

### **New Breast Cancer Vaccine Passes First Hurdle**

Jennifer Warner

WebMD Health

14-Sep-04

Researchers found that vaccination against the protein mammaglobin-A reversed tumor growth in mice bred to have breast cancer. The results show that vaccination with the protein may provide a new alternative for breast cancer treatment and prevention.

[http://my.webmd.com/content/article/94/102645.htm?z=1728\\_00000\\_1000\\_nb\\_06](http://my.webmd.com/content/article/94/102645.htm?z=1728_00000_1000_nb_06)

### **The New Way to Fight Deadly Tumors Is to Gum up Their Many Growth Engines, in Several Ways, All at Once.**

Robert Langreth

Yahoo

01-Sep-04

Reports on a new way to fight deadly tumors by deactivating 2, 3 or even 4 tumor-promoting proteins at once. Table of companies, drug name, molecular targets and clinical trial status of drugs that attack multiple bad genes simultaneously.

[http://biz.yahoo.com/fo/040901/296bea61bcb65738a618b6c937f739eb\\_3.html](http://biz.yahoo.com/fo/040901/296bea61bcb65738a618b6c937f739eb_3.html)

***Subcategory: Pulmonary/ Respiratory Diseases***

**Deep-sea Diving Gas Helps Asthma**

BBC News

12-Sep-04

A mixture of helium and oxygen, a breathing mixture commonly used by deep-sea divers, shows promise for treating asthma attacks. Replacing the nitrogen component of air with helium makes it 4 times easier to breathe, so it can be inhaled with less effort.

<http://news.bbc.co.uk/1/hi/health/3638384.stm>

***Subcategory: Reproduction***

**Appetite Hormone Restores Fertility**

William J. Cromie

Harvard University Gazette

17-Sep-04

Studies suggest that levels of the hormone leptin, which rise in response to an increase in body fat, are letting the body know that there's enough energy available to sustain a pregnancy.

<http://www.news.harvard.edu/gazette/daily/2004/09/17-leptin.html>

***Subcategory: Wound/Tissue Repair***

**Fish to Help Stem Severe Bleeding**

BBC News

09-Sep-04

A blood clotting agent, known as factor VII, from genetically modified tilapia, could be used to produce a treatment for people with haemophilia and gunshot wounds, scientists believe.

<http://news.bbc.co.uk/1/hi/health/3638200.stm>

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