



BioTechCircle News®

October, 2004

Quote of the month:

Biological information is “exploding,” with an estimated 1 terabyte of new information being unearthed each week.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i10/pdf/1004sites.pdf>

It is our sincere hope that this newsletter helps YOU sort through the ever-increasing amount of information being generated and find the valuable nuggets.

In this articles section: links to 111 free Web articles in 14 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.

This month, we’ve added a new category, Research Advancements, to differentiate between preliminary discoveries and therapies or practices that are current or nearly so.

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 (3 articles) – Page 2
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business model. Discusses the measurement of real-time R&D value.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=126135>

Subcategory: Genomics

Toxicology Biomarkers in Drug Development

Timothy P. Ryan, et. Al. PharmaGenomics 01-Oct-04

A new strategic direction is needed to bring decision-based toxicology to its full potential. Article focuses on short-term strategies to increase return-on-investment in applying genomic technologies to better identify candidate toxicology biomarkers.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=126133>

Subcategory: Patent/Intellectual Property Issues

Protecting Bioinformatics' Value

Michael A. Gollin Modern Drug Discovery 01-Oct-04

As the field matures, Gollin says intellectual property strategies must mature as well to capitalize on bioinformatics' wealth. Notes integration of information and data giving rise to new "omics" terms such as "clinomics" and "theragnostics."

<http://pubs.acs.org/subscribe/journals/mdd/v07/i10/pdf/1004business3.pdf>

CLINICAL TRIALS

Subcategory: Government/ Approvals

Cataloging Clinical Trials

David Filmore Modern Drug Discovery 01-Oct-04

Discusses appropriateness of secret clinical trial data known only to companies and regulatory agencies. By requiring trials to be registered at their inception, clinicians can at least be aware of what is being studied.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i10/pdf/1004rules.pdf>

Subcategory: Project Management

Online Degree Programs Provide Excellent Vehicles for Extending Clinical Research Skills.

Sherry Reuter and Rosalind Applied Clinical Trials 01-Oct-04
E. Schwartzberg

The ever-changing, specialized, and growing field of clinical research needs a supply of highly educated professionals to efficiently bring safe

and effective new drugs to market. Discusses advantages of Internet-based learning programs.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=127796&sk=&date=&&pageID=1>

The Quality Coach

Michael Weis Applied Clinical Trials 01-Oct-04

A person responsible for quality and compliance of clinical trials must be knowledgeable in the business process and system, the data itself, relevant regulations and the system development process.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=125724>

How Not To Do A Clinical Trial

Eric Topol Forbes.com 04-Oct-04

Describes the details of the "drug deception" process of clinical trials for a new drug being developed to prevent heart attacks in patients with cholesterol buildup in their coronary arteries.

http://www.forbes.com/2004/10/04/cx_et_1004topol.html

Subcategory: Subject Enrollment/Management

The Adherence Survival Kit

Jeffrey L. Probstfield, et.al. Applied Clinical Trials 01-Oct-04

Describes a standardized subject retention and adherence system that helps study staff focus on critical details during all phases of a large, simple trial.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=125623>

DIAGNOSTIC TOOLS

Subcategory: Animal

Mini Lab Offers on the Spot Tests

Jane Wakefield BBC News 04-Oct-04

Reports on a faster more reliable diagnosis of disease and infection to enable the veterinary profession to deal with disease outbreaks and health surveillance in a timely manner, improving animal welfare and ensuring reduced disease spread.

<http://news.bbc.co.uk/1/hi/technology/3659690.stm>

Subcategory: Cardiology/ Vascular Diseases

Simple Kidney Test Predicts Heart Death

Ed Edelson HealthDay 11-Oct-04
A new blood test, measuring blood levels of cystatin C, gave a highly accurate prediction of survival for patients who suffered heart attacks.

<http://www.healthday.com/view.cfm?id=521689>

Subcategory: Oncology

Protein Test May Detect Lung Cancer
HealthDay 22-Oct-04
Researchers have developed a new method to detect differences between normal and cancerous lung tissue. The technique could potentially be used for diagnosis and treatment of many different kinds of cancer.

<http://www.healthday.com/view.cfm?id=521926>

DRUG DELIVERY

Subcategory: Miscellaneous

Drugs Delivered by Robots in the Blood
New Scientist 04-Oct-04
A microscopic swimming robot could eventually be used for drug delivery or to clear arteries in humans, say researchers. A 3 millimeter-long triangular machine is propelled using an external magnetic field which controls its microscopic fins.

<http://www.newscientist.com/news/news.jsp?id=ns99996474>

INDUSTRY

Subcategory: Bio Pharma

Biotechnology Outpacing Pharmaceutical Growth
inpharma.com 08-Oct-04
The 7 largest biotechnology companies are growing at rates faster than the pharmaceutical industry's 9.1% average, according to a 2004 report.

<http://www.inpharma.com/news/printNewsBis.asp?id=55280>

Subcategory: Geographic focus

How Dublin Keeps Big Pharma Happy
Kerry Capell Business Week 27-Sep-04

With 13 of the top 15 drugmakers now in Ireland, the government hopes to persuade drugmakers to choose Ireland for everything from basic research to high-end manufacturing of biotech products.

http://www.businessweek.com/magazine/content/04_39/b3901077_mz054.htm

INVESTMENTS/ GOV. SUPPORT

Subcategory: Federal

Targeting ‘\$1000 Genome,’ NHGRI Awards \$38M in Grants

Bio-IT World

14-Oct-04

Lists grant recipients to develop technologies that, within 5 years, are expected to enable the sequencing of a mammalian-sized genome for ~\$100,000 and to develop breakthrough technologies enabling human-size genome sequencing for ~\$1,000.

http://www.bio-itworld.com/news/101404_report6336.html

Subcategory: Neurology

New Study to Explore Genetics of Autism

Cheryl Simon Silver

Genome News Network

15-Oct-04

Reports grant supporting a new effort to try to identify the genetic factors that contribute to autism. Researchers will study the genes of people from 465 families, including 979 individuals with autism.

<http://www.genomeneetwork.org/articles/2004/10/15/autism.php>

MEDICAL DEVICES

Subcategory: Misc. Medical Devices

Vein Camera Keeps Injections on Target

Celeste Biever

New Scientist

06-Oct-04

Describes a trial near-infrared camera that captures a real-time video image of a patient’s veins, aimed at preventing the discomfort and delay of botched attempts to pierce veins for injections and blood tests.

<http://www.newscientist.com/news/news.jsp?id=ns99996497>

ORGANIZATIONS

Subcategory: Bio Pharma

Genentech: Success and the Future of Biotechnology, An Interview with Louis Lavigne, EVP and CFO

Babson Insight

01-Nov-04

Interview with Genentech executive on issues ranging from financial tools and frameworks for evaluating investment opportunities to forming and managing alliances and insights into the future of the biotechnology industry.

<http://www.babsoninsight.com/contentmgr/showdetails.php/id/706>

PHARMACEUTICALS

Subcategory: Pharmacogenomics

Mapping a Route to Success

Krista Steger, et.al.

Modern Drug Discovery

01-Oct-04

Personalized medicine may still be years away, as genomic variants must first be identified and correlated with specific outcomes. Reports that kinase mutation mapping can be used to pinpoint responder populations.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i10/pdf/1004toolbox.pdf>

People Are Human-Bacteria Hybrid

Rowan Hooper

Wire News

11-Oct-04

Understanding the workings of the superorganism (highly complex conglomerations of human cells, bacteria, fungi and viruses), scientists say, is crucial to the development of personalized medicine and health

<http://www.wired.com/news/medtech/0,1286,65252,00.html?tw=rss.TOP>

PLATFORM TECHNOLOGIES

Subcategory: Cardiology/ Vascular Diseases

SNP Discovery in Bacteria for Coronary Artery Disease

Elizabeth Tolchin

Genomics & Proteomics

11-Oct-04

Describes a technique using bacteria that is equivalent to resequencing a hundred individuals multiple times and then comparing all of the data.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=041>

Subcategory: Cell Therapy

Stem Cells Mend Hearts at a Distance

Katharine Davis

New Scientist

07-Oct-04

Injecting embryonic stem cells (ESCs) into female mice partially corrects congenital heart defects in their future offspring, a new study has found, suggesting that stem cells may be able to cure genetic defects indirectly.

<http://www.newscientist.com/news/news.jsp?id=ns99996505>

Researchers Provide Road Map for Generating B Cells from Stem Cells

Univ. of Chicago

11-Oct-04

Before stem cells, of whatever origin, can be used to treat patients, scientists will need to learn how to coax them to develop into the desired cell types. Researchers describe 4 critical stages from a multi-potent precursor to a committed B-cell.

<http://www.uchospitals.edu/news/2004/20041011-bcells.php>

Subcategory: Genomics

Children's Hospital Boston Geneticist Awarded for Research on Muscular Dystrophy

EurekAlert!

25-Oct-04

Scientist covers the entire spectrum of genetics-based research, from identifying genes, to understanding how mutations of these genes cause disease, to finding new diagnostic techniques and new therapies and figuring out how to make them work.

http://www.eurekalert.org/pub_releases/2004-10/chb-chb102204.php

Subcategory: Nanotechnology

University Of Florida Scientists Have Bionanotechnology Recipe To Find Elusive Bacteria

Science Daily

14-Oct-04

Researchers have created tiny hybrid particles that can speedily root out even one isolated E. coli bacterium lurking in ground beef or provide a crucial early warning alarm for bacteria used as agents of bioterrorism and for early disease diagnosis.

<http://www.sciencedaily.com/releases/2004/10/041012083526.htm>

RESEARCH ADVANCEMENTS

Subcategory: Cardiology/ Vascular Diseases

Dartmouth Study Suggests Caution Against Using Certain Drugs to Unclog Heart Arteries

Dartmouth Medical School

11-Oct-04

Duality in how injured arteries grow smooth muscle could make both angiogenesis-promoting and angiogenesis-suppressing drugs ineffective in preventing narrowing of arteries following angioplasty or stenting.

http://www.dartmouth.edu/dms/news/2004_h2/11oct2004_arteries.shtml

Single Genetic Defect Links Many Risk Factors for Heart Disease and Stroke

Howard Huges Medical

22-Oct-04

Studies have shown that hypertension, high cholesterol, high triglycerides, low magnesium, diabetes, insulin resistance, and obesity tend to cluster with one another, but not in a simple way. Researchers hope to find clues through study of one family.

<http://www.hhmi.org/news/lifton5.html>

Study Suggests Host Environment Is the Critical Factor in Aneurysm

University of Michigan

12-Oct-04

Men account for 80% of all abdominal aortic aneurysms (AAA). Study has shown that estrogen protects male rats from aortic aneurysms, possibly leading to an effective therapy and identification of high-risk people who need regular diagnostic testing.

<http://www.med.umich.edu/opm/newspage/2004/estrogen.htm>

Subcategory: Evolution Research

A Virus For Life

Vivienne Baillie Gerritsen

Biospace

01-Oct-04

A viral protein, now known as syncytin, whose gene was probably integrated into the primate genome over 25 millions years ago, is discovered to be hugely expressed in placental tissue.

http://www.biospace.com/news_story.cfm?StoryID=17548420&full=1

Of Lice and Men; Parasite Genes Reveal Modern & Archaic Humans Made Contact

University of Utah

04-Oct-04

Analysis of lice genes confirms key developments in human evolution: 2 species of cavemen existed, of which one is extinct; how and when

various species branched off the family tree of primates and humans; "out of Africa" theory confirmed.

<http://www.utah.edu/unews/releases/04/oct/licemen.html>

Yale Scientists Find Cooperative RNA Switches in Nature

Yale University

08-Oct-04

Researchers, testing theories about how life began, identify a new riboswitch (RNA regulatory sequence) class in bacteria that operates as a rare "ON" switch for genetic regulation of the three proteins in a glycine processing system.

<http://www.yale.edu/opa/newsr/04-10-08-02.all.html>

Subcategory: Genomics

Extreme Meeting; Notes from the 2004 International Conference on

Kate Ruder

Genome News Network

01-Oct-04

Reports scientist discussions on their study of microbes that live in unusually harsh environments, such as the bottom of a lake in Antarctica where there is no oxygen and the average temperature is 1 degree Celsius.

<http://www.genomenewsnetwork.org/articles/2004/10/01/extconf.php>

Subcategory: Immunology/ Infectious Diseases

Scientists Resurrect Genes from 1918 Flu Pandemic

Richard Ingham

Mail & Gurdian

06-Oct-04

Using reverse genetic engineering, scientists took two key genes from the 1918 virus and slotted them into human flu viruses to which lab mice were known to be immune to find out why the strain was so extraordinarily

<http://www.mg.co.za/content/13.asp?cg=BreakingNews-InternationalNews&ao=123251>

Antibiotic-boosting Drug Kills Superbugs

New Scientist

15-Oct-04

Scientists claim to have discovered a compound that renders the MRSA superbug vulnerable to methicillin, the antibiotic it normally resists.

<http://www.newscientist.com/news/news.jsp?id=ns99996522>

Newly Discovered Gene Could Be a Significant Contributor to Diabetes in Americans

New-Medical Net

25-Oct-04

A gene involved in the action of insulin, PTPN1 (Protein Tyrosine Phosphatase N1), has been found to be associated with type 2 diabetes and the body's response to insulin.

<http://www.news-medical.net/?id=5792>

Researchers Identify a Protein That Could Banish Allergies

Science Daily

21-Oct-04

A study details how inactivating a key signalling molecule, called p110delta, in mast cells reduced the effect of allergies on mice.

<http://www.sciencedaily.com/releases/2004/10/041021075734.htm>

Stanford Scientists Help Bring Study of Smallpox Virus into ‘Molecular Age’

Stanford School of Medicine

05-Oct-04

In researching which genes were activated during smallpox infection and which ones were repressed, scientists found several key components of the immune system that appeared to respond differently to smallpox than to Ebola.

<http://mednews.stanford.edu/releases/2004/October/smallpox.htm>

T Cell’s Memory May Offer Long-Term Immunity to Leishmaniasis

University of Pennsylvania

07-Oct-04

Researchers have discovered a "central memory" form of "helper" T cells that can offer immunity to leishmaniasis, a global disease that has also been found in U.S. military personnel returning from Afghanistan and Iraq.

<http://www.upenn.edu/pennnews/article.php?id=686&print=1>

Genetically Modified Parasite Lets Researchers Probe Immune System's

Washington University

20-Oct-04

Researchers have found that an immune system cell can "remember" a parasite's attack and help the body mount a more effective defense against subsequent invasions by the same parasite.

http://www.eurekalert.org/pub_releases/2004-10/wuso-gmp102004.php

Subcategory: Metabolism: Obesity, Diabetes

Is Interleukin-6 The “Holy Grail” Of Exercise Mediation? Call To Rename Class Of Muscle-Derived IL-6 As “Myokines”

American Physiological

06-Oct-04

A cytokine, Interleukin-6, has been found to have many biologic roles, including activation/inhibition of metabolic genes, induction of lipolysis, inhibition of insulin resistance and suppression of tumor necrosis factor production.

<http://www.the-aps.org/press/conference/ibe/5.htm>

Gene Linked to Greater Risk of Heart Disease in Type 2 Diabetes

Joslin Diabetes Center

20-Oct-04

Scientists have found variations in a gene that help explain why people with type 2 diabetes are at much greater risk for coronary artery disease. The gene governs a protein found in the membrane of blood vessel walls and other cells.

<http://joslin.org/news/GeneHeartDisease.shtml>

Scientists Identify New Cause of Obesity

University of California San

15-Oct-04

A brain protein already known to play a central role in the "feast or fast" signaling that controls the urge to eat has now been found to influence appetite in a second way. The discovery identifies a potential new target for drugs against obesity.

<http://pub.ucsf.edu/newsservices/releases/200410127/>

Canadian Researcher Discovers Possible Link Between Diabetes and Liver

University of Montreal

17-Oct-04

A new study of 3,288 cancer patients and 509 healthy individuals has shown that those with diabetes were 3 times more likely to have been struck with liver cancer and twice as likely pancreatic cancer.

http://www.umontreal.ca/english/presentation/press_releases/press_20041017.html

Ut Southwestern Researchers Uncover Process for Sugar-induced Fat

Kosaku Uyeda

University of Texas

18-Oct-04

A single protein called carbohydrate response element binding protein (ChREBP) has been shown to activate several genes that cause cells in the liver to turn sugar into fat.

<http://www8.utsouthwestern.edu/utsw/cda/dept37389/files/191784.html>

Subcategory: Musculoskeletal

Genetic Link to Down Syndrome Gets Murkier

Ed Edelson

HealthDay

21-Oct-04

Experiments with mice indicate that the genetics of Down syndrome aren't as simple as has been thought. There are over 80 things that a clinician looks for in Down syndrome, and only subsets of them are found in most

<http://www.healthday.com/view.cfm?id=521888>

Tiny Worm Yields Big Clues on Muscle Contraction

University of Illinois at Chicago

30-Sep-04

Researchers have discovered a new protein required for proper clustering of muscle receptors for the neurotransmitter acetylcholine. Applications include targets as diverse as nicotine cravings and treatment for myasthenia gravis.

<http://tigger.uic.edu/htbin/cgiwrap/bin/newsbureau/cgi-bin/index.cgi?from=Releases&to=Release&id=934&start=1089200064&end=1096976064&topic=0&dept=0>

Subcategory: *Neurology*

Brain Protein Halts Alzheimer's Progression, National Institute of Environmental Health Sciences Reports

Biospace

25-Oct-04

Researchers report that a protein, known as "transthyretin," protects brain cells from gradual deterioration by blocking another toxic protein, known as "beta-amyloid," that contributes to the disease process.

http://www.biospace.com/news_story.cfm?StoryID=17839920&full=1

Gene for Common Form of Parkinson's Pinpointed

EurekAlert!

22-Oct-04

A new gene that causes a common form of inherited Parkinson's disease (PD) has been identified, opening up novel avenues of research aimed at identifying and ultimately halting the molecular events that lead to PD.

http://www.eurekalert.org/pub_releases/2004-10/cp-gfc102004.php

Drug Treatment Keeps Multiple Sclerosis at Bay

HealthDay

22-Oct-04

Researchers found that interferon beta reduced the loss of brain tissue in early stage MS patients, reducing the risk that people with early symptoms of multiple sclerosis will progress to the full-blown disease within two

<http://www.healthday.com/view.cfm?id=521907>

Researchers Link Gene to Both Alcoholism and Depression

Karen Richardson

Medical Post

05-Oct-04

Scientists say having a gene appearing to be linked to both alcoholism and depression does not necessarily mean they will become an alcoholic or that it will cause depression, but does indicate good targets for the treatment of alcoholism or depression.

http://www.medicalpost.com/mpcontent/article.jsp;j?content=20041003_092210_3488

Iron imbalance linked to Parkinson's disease

Nutra Ingredients

14-Oct-04

A new animal study is the first to demonstrate that both iron deficiency and toxicity are linked to the specific genes and neuronal suicide that lead to dopamine shortages responsible for development of Parkinson's.

<http://www.nutraingredients.com/news/news-ng.asp?n=55383-iron-imbalance-linked>

UCLA Scientists Discover New Way to Fix Defective A-T Gene; Findings May Apply to Cancer, Other Genetic Diseases

University of California Los

18-Oct-04

Scientists have devised a novel way to repair one of the genetic mutations that causes ataxia-telangiectasia, (A-T), a life-shortening disorder that devastates the neurological and immune systems of one in 40,000 young children.

<http://newsroom.ucla.edu/page.asp?RelNum=5572>

Gene for Joubert Syndrome with Excessive Brain Folds Discovered By UCSD Researchers and Harvard Team

University of California San

20-Oct-04

Mutations in a gene, AHI1, lead to the production of a protein named Joubertin. It is the first genetic defect clearly associated with Joubert Syndrome, a condition present before birth affecting an area of the brain controlling balance and coordination.

http://health.ucsd.edu/news/2004/10_20_Gleeson.html

Subcategory: Oncology

“Hedgehog” Proteins May Indicate Spread of Prostate Cancer

Cheryl Simon Silver

Genome News Network

01-Oct-04

Researchers report that activity of a protein signaling system known as Hedgehog may indicate which prostate cancer tumors are likely to metastasize and which are likely to remain localized.

<http://www.genomenewsnetwork.org/articles/2004/10/01/prostatecancer.php>

Cancer Gene Map Spans 22 Types of Tumors

Edward R. Winstead

Genome News Network

01-Oct-04

A new type of cancer gene map, that brings together a diverse collection of genomic information and identifies sets of genes that are active in a variety of tumors, may explain how some breast cancer tumors spread

<http://www.genomenewsnetwork.org/articles/2004/10/01/cancermicroarray.php>

- New Drugs Slow Metastatic Prostate Cancer**
 E.J. Mundell HealthDay 06-Oct-04
 After prostate cancer fails to respond to androgen ablation and starts growing again, a number of genes might be over-expressed, thus suggesting different therapies to target specific genes.
<http://www.healthday.com/view.cfm?id=521625>
- "Energy Blocker" Kills Big Tumors in Rats**
 Johns Hopkins Medicine 14-Oct-04
 Researchers have discovered that an apparently nontoxic cellular "energy blocker," 3-bromopyruvate, can eradicate large liver tumors grown in rats. Up to more than a year after treatment was stopped, the rats are still cancer free.
http://www.hopkinsmedicine.org/Press_releases/2004/10_14_04.html
- Manipulation of Epigenome Turns off as Many Genes as it Turns on**
 Johns Hopkins Medicine 18-Oct-04
 Agents believed to selectively "restart" genes that limit cancer's growth, a potential treatment option already in early clinical studies, instead turn off as many genes as they turn on, a team of researchers has discovered.
http://www.hopkinsmedicine.org/Press_releases/2004/10_18_04.html
- Switching off Gene Switches off Cancer**
 Katharine Davis New Scientist 11-Oct-04
 Cancer cells can revert to harmless cells by switching off a single gene, shows a study of liver cancer in mice. The gene, which produces a protein called MYC, is implicated in several human cancers.
<http://www.newscientist.com/news/news.jsp?id=ns99996511>
- Genetic Double-agents Unmasked**
 News-Medical Net 26-Oct-04
 Scientists have discovered that certain enzymes with a key activity in the immune system may be important in stem-cell development, but may also work against us by contributing to the occurrence of cancer.
<http://www.news-medical.net/?id=5861>
- Mechanism Found That 'Protects' Aggressive Melanoma From Angiogenesis Inhibitors**
 Science Daily 13-Oct-04

Researchers have discovered a mechanism that may help to explain how angiogenesis inhibitors work on normal, blood vessel-forming endothelial cells but not on insidious, aggressive melanoma cells that masquerade as endothelial cells.

<http://www.sciencedaily.com/releases/2004/10/041008024837.htm>

Newly Discovered Protein Suggests Novel Tumorigenic Pathway

Science Daily

25-Oct-04

Scientists have discovered a new protein, named PICT-1, that is involved in regulating PTEN, the second most commonly mutated tumor suppressor in human tumors.

<http://www.sciencedaily.com/releases/2004/10/041022102847.htm>

Dying Cells Encourage Neighbors To Grow

Science Daily

07-Oct-04

Scientists have uncovered specific mechanisms by which cells that are genetically programmed to commit suicide stimulate growth in surrounding cells. The finding may shed some light on a pathway that may contribute to tumor growth.

<http://www.sciencedaily.com/releases/2004/10/041007090053.htm>

Two Novel Agents Work Synergistically to Treat Lung Cancer in Animal Experiment

Science Daily

20-Oct-04

Combined, 2 agents (farnesyltransferase inhibitor SCH66336, and insulin-like growth factor binding protein-3, IGFBP-3) block 2 different pathways, by inhibiting cancer cell survival pathways in cancer while inducing cell death.

<http://www.sciencedaily.com/releases/2004/10/041020092722.htm>

DNA Sequence Controls Expression of Gene Involved in Cancer

Science Daily

01-Oct-04

Scientists have discovered a DNA sequence that causes the destabilization, and hence decay, of the protooncogene bcl-2 (B-cell lymphoma/leukemia-2). This discovery may lead to new therapeutic strategies for treating cancer.

<http://www.sciencedaily.com/releases/2004/10/041001083512.htm>

Plant Chemical May Fight Skin Cancer

Miranda Hitti

WebMd

15-Oct-04

A compound called cyclopamine, found in the corn lily, appears to break down a single link in the biochemical reactions that lead to basal cell skin

cancer, causing tumor cells to die.

http://my.webmd.com/content/article/95/103291.htm?z=1728_00000_1000_nb_04

Subcategory: Otolaryngology

Long-Sought Key to Hearing May Be Found in Protein Discovery

Harvard University Medical

13-Oct-04

Researchers have identified a protein deep in the inner ear that they believe translates sound into the nerve impulses used by the brain. The discovery could help scientists investigate normal hearing and inherited forms of deafness.

http://134.174.17.106/news/releases/10_04Corey.html

Study Lays Down Genetic Basis For Sinus Disease And Nasal Polyps

Science Daily

08-Oct-04

Scientists have found a starting point to establishing the genetic basis for sinus disease and the growth of nasal polyps, which could lead to development of targeted gene therapies or other treatments to control these conditions.

<http://www.sciencedaily.com/releases/2004/10/041008022029.htm>

Subcategory: Pulmonary/ Respiratory Diseases

Stanford/Packard Researchers Identify T Cell That Relieves Asthma in Mice

Stanford School of Medicine

26-Sep-04

Scientists have discovered a new type of regulatory T cell that reduces asthma and airway inflammation in mice, bolstering the theory that a deficiency of such cells is a prime cause of the breathing disorder as well as allergies.

<http://mednews.stanford.edu/releases/2004/September/umetsu.html>

Subcategory: Reproduction

Timothy Syndrome Is Caused by Defective Calcium Channels

Cheryl Simon Silve

Genome News Network

15-Oct-04

Scientists have identified a genetic mutation causing Timothy syndrome, a rare childhood disorder that leads to developmental problems involving many organs, including the heart. The mutation is the sole cause of the

<http://www.genomeneetwork.org/articles/2004/10/15/timothysyndrome.php>

Scientists Seek to Create 'Three-parent' Babies
New Scientist 19-Oct-04

By fertilizing a woman's egg outside the body and transplanting the fertilized nucleus to an egg from another woman which has had its nucleus removed, scientists hope to prevent children from inheriting genetic diseases caused by mutations in DNA.

<http://www.newscientist.com/news/news.jsp?id=ns99996547>

'Junk' DNA May Be Very Valuable To Embryos
Science Daily 12-Oct-04

Researchers have discovered that expression of genes in mouse eggs and very early embryos is activated in part by regions of DNA called retrotransposons ("junk DNA"). This expression may be a prerequisite for normal development.

<http://www.sciencedaily.com/releases/2004/10/041012085830.htm>

RESEARCH TOOLS

Subcategory: Bioinformatics

The Information Gold Rush
David Bradley Modern Drug Discovery 01-Oct-04

Biological information is “exploding,” with an estimated 1 terabyte of new information being unearthed each week. Bradley reviews modes of information management, including biolinguistics.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i10/pdf/1004sites.pdf>

Subcategory: Computing Systems

Open-Source' Initiative Aims to Save Biotech
Graeme O'Neill Bio-IT World 14-Oct-04

Describes a public-domain toolkit and associated patents aimed at freeing researchers worldwide to innovate without restriction or being forced into partnerships or unfavorable royalty agreements currently dominating pharmaceutical and agbiotech.

http://www.bio-itworld.com/news/101404_report6304.html

Grid Storage
Russell Kay Bio-IT World 18-Oct-04

Universities and research facilities are using grids to build what amounts to

http://www.bio-itworld.com/news/101804_report6341.html

New Method Identifies Chromosome Changes in Malignant Cells

Princeton University

11-Oct-04

Combining computer science and biology, researchers used advanced statistical techniques to analyze data from genomics tools that identify thousands of genes at once and accurately detect deletions and additions among tens of thousands of genes.

<http://www.princeton.edu/pr/news/04/q4/1011-cells.htm>

Subcategory: Genome Sequence

International Human Genome Sequencing Consortium Describes Finished Human Genome Sequence

Geoff Spencer

NIH News

20-Oct-04

Consortium published its scientific description of the finished human genome sequence, reducing the estimated number of human protein-coding genes from 35,000 to only 20,000-25,000, a surprisingly low

<http://www.genome.gov/12513430>

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

The Future of Microarray Readers

Julian White

PharmaGenomics

01-Oct-04

Reviews the various elements of current microarray reader technology, noting that readers will become far more numerous than printers. Predict the composition of readers for diagnostics and screening. Diagrams.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=126134>

Subcategory: Neurology

Automated Microscope Solves Neuronal Death in Huntington's

Genomics & Proteomics

14-Oct-04

By using a unique robotic microscope system, researchers were able to dispel a popular misconception regarding the cause and effect of the neurodegeneration associated with Huntington's disease and other neurodegenerative diseases.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0410&RELTYPE=RLSN&PRODCODE=00000000&PRODLETT=U>

Subcategory: Reagents

Playing Proteomic Tag

William Barrett, et.al.

Modern Drug Discovery

01-Oct-04

Explains that new peptide-modifying reagents should increase experimental accuracy and reproducibility.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i10/pdf/1004applications.pdf>

THERAPEUTIC CATEGORY

Subcategory: Bioterrorism

Wisconsin Scientists Develop Quick Botox Test

UW Medicine

28-Sep-04

Scientists have developed a pair of rapid-fire tests for botulinum toxin; the tests could underpin new technologies to thwart bioterrorism and spur the development of agents to blunt the toxin's action.

<http://www.news.wisc.edu/releases/10188.html>

Subcategory: Cardiology/ Vascular Diseases

One Cup of Coffee a Day 'Risky'

BBC News

20-Oct-04

Drinking more than one cup of coffee a day increases the risk of heart disease, a study shows. People with high blood pressure are advised to reduce their intake of coffee.

<http://news.bbc.co.uk/1/hi/health/3759948.stm>

Folate Lowers Risk of High Blood Pressure

Jeanie Lerche Davis

WebMD

11-Oct-04

A folate-rich diet cuts a young woman's risk of high blood pressure by almost one-third, new research shows. Folate also reduces older women's risk of high blood pressure to a lesser degree.

http://my.webmd.com/content/article/95/103216.htm?z=1728_00000_1000_nb_01

Subcategory: Disease Prevention

Panel Urges States to Screen Newborns for 30 Disorders

Cheryl Simon Silver Genome News Network 01-Oct-04

For each of the 30 genetic disorders that are detectable through a blood test, there currently are things that parents and doctors can do to correct or avoid health and developmental problems later in life.

<http://www.genomenewsnetwork.org/articles/2004/10/01/screening.php>

Vitamin Supplements May Boost Cancer Risk

Ed Edelson HealthDay 30-Sep-04

People who take vitamin and antioxidant supplements in the hope they're reducing their risk of gastrointestinal cancer are more likely to die of the disease than those who don't take the supplements, a new study finds.

<http://www.healthday.com/view.cfm?id=521506>

Malaria Vaccine Success Hailed as Breakthrough

E.J. Mundell HealthDay 15-Oct-04

Reports study of a vaccine that reduced the risk of children in Africa developing malaria by 29.9%, while cutting the incidence of severe, life-threatening malaria episodes by 58%. Malaria kills 1-3 million people each year, mostly young children.

<http://www.healthday.com/view.cfm?id=521796>

New Risks for Bladder Cancer Identified by Mit Team

Elizabeth A. Thomson Massachusetts Institute of 07-Oct-04

Researchers have identified 3 new chemical risk factors for bladder cancer, all of which are found in cigarette smoke.

<http://web.mit.edu/newsoffice/2004/bladdercancer.html>

Subcategory: Metabolism: Obesity, Diabetes

Gene Passed by Mom Tied to Metabolic Syndrome

E.J. Mundell HealthDay 21-Oct-04

Genetic mutations passed down from mother to child may increase the chances for metabolic syndrome, characterized by traits such as excessive belly fat, high cholesterol, insulin resistance and normal-high to high blood pressure, in adulthood.

<http://www.healthday.com/view.cfm?id=521903>

Subcategory: Musculoskeletal

Inactive Childhood 'Can Cause Me'

BBC News 05-Oct-04

Children who do little exercise risk developing the chronic fatigue syndrome ME (myalgic encephalomyelitis) in later life, say researchers.

<http://news.bbc.co.uk/1/hi/health/3716576.stm>

Smokers with Gene Mutation Risk Rheumatoid Arthritis

Cheryl Simon Silver

Genome News Network

15-Oct-04

Analyzing the interaction between the major genetic risk factor for rheumatoid arthritis, researchers show that people who are at risk for rheumatoid arthritis are much more likely to develop the disease if they smoke cigarettes.

<http://www.genomenewsnetwork.org/articles/2004/10/15/arthritis.php>

Beer, Wine May Make Bones Stronger

Peggy Peck

WebMD

04-Oct-04

Researchers say drinking one to two beers a day helps build strong bones because it contains silicon. For women, a glass or two of wine has the same positive effect because wine is rich in phytochemicals, which also may benefit bones.

http://my.webmd.com/content/article/95/103072.htm?z=1728_00000_1000_nd_04

Subcategory: Neurology

Alcohol helps older women's grey cells

Nutra Ingredients

01-Oct-04

In a 5-year study, moderate drinkers reported less depression, had higher self-reported health, performed better on instrumental everyday tasks and had improved memory performance.

<http://www.nutraingredients.com/news/news-ng.asp?n=55098-alcohol-helps-older>

Compounds Found in Wine Could Inhibit Alzheimer's

Nutra Ingredients

06-Oct-04

Research could explain why drinking wine appears to prevent the onset of Alzheimer's. Scientists have found small peptides in both red and white wines that inhibit an enzyme implicated in the disease.

<http://www.nutraingredients.com/news/news-ng.asp?n=55204-compounds-found-in>

Testosterone Deprivation Makes Men Forget

Oregon Health & Science

21-Oct-04

Researchers studying how testosterone deprivation affects verbal memory found that men undergoing the prostate cancer therapy forget things faster than their healthy counterparts. The therapy disrupts the brain's hippocampal memory system.

<http://www.ohsu.edu/news/2004/102104forget.html>

Alzheimer's Breakthrough 'Excites' Scientists

Leigh Dayton

The Australian News

30-Sep-04

Research indicates that 2 existing drugs, one used to treat prostate cancer and another that boosts female fertility, could slow or even halt the destruction Alzheimer's because they interfere with the protein-boosting

<http://www.theaustralian.news.com.au/printpage/0,5942,10922717,00.html>

Subcategory: Oncology

More Telling Tests for Prostate Cancer

Amy Tsao

Business Week

30-Sep-04

Elevated levels of prostate-specific antigen, a protein made by the prostate gland, can often signify the presence of cancer, but not always. Sometimes a high PSA level simply indicates that the prostate is swollen. Discusses new tests.

http://www.businessweek.com/technology/content/sep2004/tc20040930_8208_tc119.htm

Aspirin May Increase Prostate Cancer Survival

cancerfacts.com

04-Oct-04

After taking into account other variables such as age, Gleason score and radiation dose, a new study indicates the use of anti-inflammatory drugs remained a predictor for improved overall survival of men with prostate cancer.

http://www.cancerfacts.com/Home_News.asp?NewsId=1738&CB=14&CancerTypeId=4

New Drugs for Alzheimer's May Work for Leukemia

Kate Ruder

Genome News Network

07-Oct-04

Research indicates that drugs being developed to treat Alzheimer's disease may help children who have an uncommon but aggressive form of leukemia and may be less toxic for these children than their current chemotherapy treatments.

<http://www.genomenewsnetwork.org/articles/2004/10/07/leukemia.php>

Breast Cancer Drug Could Work for Some Lung Cancers

Kate Ruder

Genome News Network

01-Oct-04

Scientists have identified a small group of patients who have genetic mutations in their lung cancers that could make them sensitive to the drug Herceptin, which has been used with success in many patients with breast cancer.

<http://www.genomenewsnetwork.org/articles/2004/10/01/herceptin.php>

Breast Cancer Risk Tied to Early Growth Patterns

Amanda Gardner

HealthDay

14-Oct-04

Study of more than 117,000 Danish girls showed: high birth weight, rapid growth around the time of mammary-gland development, high stature, and

low body mass index at age 14 were all independent risk factors for breast cancer.

<http://www.healthday.com/view.cfm?id=521766>

New 'Superaspirin' Prevents Colon Cancer in Mice

E.J. Mundell

HealthDay

19-Oct-04

Nitric oxide-donating aspirin, or nitroaspirin, appears to help prevent colon cancer in mice without raising the incidence of gastrointestinal bleeding. The drug may also help protect against cardiovascular disease and ease arthritis pain.

<http://www.healthday.com/view.cfm?id=521847>

Toothpaste Ingredient Guards Against Skin Cancer

HealthDay

19-Oct-04

Sanguinarine, used for the prevention of inflammatory conditions such as gingivitis, has been shown to enhance production of proteins that induce the death of cells damaged by ultraviolet-B radiation.

<http://www.healthday.com/view.cfm?id=521824>

Genetic Mechanism Explains Omega-6 Link to Breast Cancer

Nutra Ingredients

19-Oct-04

An excess of omega-6 fats in the diet appears to accelerate breast cancer by altering the activity of a group of genes. The findings could explain the link between diet, and particularly certain fats, and breast cancer.

<http://www.nutraingredients.com/news/news-NG.asp?n=55498-genes-explain-omega>

Strong-flavored Onions Show Promise for Fighting Cancer

Nutra Ingredients

21-Oct-04

Researchers have found that members of the onion family with the strongest flavor, such as New York Bold, Western Yellow and shallots, are the best varieties for inhibiting the growth of liver and colon cancer.

<http://www.nutraingredients.com/news/news-ng.asp?n=55592-strong-flavoured-onions>

U.S. Researchers Show Cottonseed Drug Is Cancer Treatment Booster

Science Daily

04-Oct-04

Research indicates that gossypol, a drug refined from cottonseed oil and previously tried and abandoned as a male contraceptive, could boost the effectiveness of treatment for prostate tumours and possibly other common cancers as well.

<http://www.sciencedaily.com/releases/2004/10/041001091115.htm>

Subcategory: Reproduction

Insulin Drugs Help Treat Polycystic Ovary Syndrome

HealthDay

20-Oct-04

Ovulation frequency was 6 to 8 times greater among women who took an insulin-sensitizing drug for improving fertility by increasing the frequency of ovulation.

<http://www.healthday.com/view.cfm?id=521850>

Survival of Genetic Homosexual Traits Explained

Andy Coghlan

New Scientist

13-Oct-04

Researchers discovered that women tend to have more children when they inherit the same genetic factors linked to homosexuality in men. This fertility boost more than compensates for the lack of offspring fathered by

<http://www.newscientist.com/news/news.jsp?id=ns99996519>

Subcategory: Wound/Tissue Repair

Nanofibers to Deliver Drugs to Wounds

inpharma.com

14-Oct-04

Researchers have reported the initial development of a biodegradable polymeric nanofiber-based antibiotic delivery system, which promotes the healing process even in hard-to-treat wounds.

<http://www.inpharma.com/news/news-NG.asp?n=55401-nanofibres-to-deliver>

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