



BioTechCircle News®

August, 2004

In this articles section: links to 129 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:.

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AGRI-BIOTECH

Subcategory: Crops

Biotech Bans Finally Arouse Farm Industry

Mike Lee

The Sacramento Bee

16-Aug-04

Presents issues surrounding laws proposed in California regulating genetically modified organisms. Some fear it would send an anti-technology message about California, and companies would hesitate to develop biotech varieties

<http://www.sacbee.com/content/business/story/10397422p-11317095c.html>

Subcategory: Miscellaneous

Genome Could Aid Fight against Tree Disease

Kate Ruder

Genome News Network

19-Aug-04

The genome sequence of the microbe that causes sudden oak death may not help scientists stop the disease in the short term, but some believe it may lead to better ways to test for infected trees.

<http://www.genomenetwork.org/articles/2004/08/19/oaktree.php>

Ritual Attracts Biologists Seeking Genomic Clues to Coral Bleaching

University at Buffalo

25-Aug-04

Scientists are obtaining samples as part of the first effort to use genomic methods to discover how symbiosis is established in hard corals and to learn about the molecular basis for the relationships which play a key role in the formation of coral reefs.

http://www.innovations-report.com/html/reports/life_sciences/report-32747.html

Subcategory: Pharmaceuticals

Green Plants as Biofactories for Drugs

James E. Flinn, Juliet A. Zavon BioPharm International

01-Aug-04

Examples of how you can custom-design a green plant to produce a desired product in its seed, leaves, fruit, root, or sap to yield a plant that functions as a miniature biofactory. A concern is keeping medical crops from contaminating food supplies.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=115117>

StreetTalk: PMPs: Easy as 1-2-3?

Brian O'Connell

BioPharm International

01-Aug-04

Looks at plant-made pharmaceuticals from an investment standpoint. A \$20 billion market, most PMP tool and technology projects are in either the field trial or clinical trial stages.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=114975>

BIOBUSINESS MANAGEMENT

Subcategory: Computing Systems

Tracking Better Lab Operations

Salvatore Salamone Bio-IT World 18-Aug-04

Presents a success case of a medical college deploying a laboratory information management system (LIMS) to help automate sample tracking and other processes.

<http://www.bio-itworld.com/archive/081804/baylor.html>

Subcategory: Government/ Approvals

StreetTalk: Hello, Mr. (Bio) Chips

Brian O'Connell BioPharm International 01-Jul-04

The protein biochip market is estimated to reach \$700 million in sales by 2006. Reports that the FDA has begun clearing the path for an expected flow of both diagnostic and therapeutic forms of biochip patents.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=104316>

Regulatory Beat: FDA Proposes New Systems and Procedures for E-filing Labeling and Other Data

Jill Wechsler BioPharm International 01-Aug-04

Wechsler says new document format will allow quicker updating and dissemination of information but presents some roll-out challenges.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=115113>

Regulation of Biotech Crops and Food in the United States and Canada

Council for Biotechnology 01-Aug-04

All biotech crops grown in North America must go through years of rigorous testing before they are brought to market. Presents the review process in the United States and Canada.

<http://www.whypiotech.com/index.asp?id=3993>

California Issues 14 Permits for Biotech Species; Nation's Only Such Law

Don Thompson SFGate.com 24-Aug-04

According to a report, wildlife regulators have issued 14 permits for genetically engineered species since California became the only state to require such licensing; 13 of the permits were for biomedical

<http://sfgate.com/cgi-bin/article.cgi?file=/news/archive/2004/08/24/state1736EDT0117.DTL&type=printable>

Subcategory: Miscellaneous

MU Researcher Shows Trust in Biotechnology Institutions Affects Public
Kathryn Jones Missouri University 10-Aug-04

The success of the commercial biotechnology industry depends on the degree to which society accepts the genetic modification of crop plants and the use of biotechnology in food production. Research has identified trust as an important factor.

<http://www.missouri.edu/~news/releases/biotechnologyjames.html>

Subcategory: Privacy/ Records Management

Signing On for Global Security
Laura Robinson Bio-IT World 14-Jul-04

As life science companies rely more on digital documents and increasingly provide access to these files electronically, meeting the rules governing information security is essential to doing business internationally. Reviews approaches.

http://www.bioitworld.com/archive/071404/horizons_global.html

CLINICAL TRIALS

Subcategory: Late Phase 3/Phase 4

Achieving Regulatory Success in Phases IIIb and IV
Alain Bouckenooghe Applied Clinical Trials 01-Aug-04

Well-planned studies designed to pinpoint additional data are increasingly important as a result of the EU's emphasis on added therapeutic value. Defines what Phase IIIa, IIIb, and IV constitute, although definitions vary by agency and company..

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=109173>

Subcategory: Miscellaneous

The Issue of Placebo-controlled Trials Remains an Enigma.
Toby Jane Hindin Applied Clinical Trials 01-Aug-01

The question of whether to include placebo control groups in a treatment trial continues to raise issues of ethics and justice as the nature of drug therapy changes due to the development of new biologic and biogenetic therapies.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=105347>

Subcategory: Subject Enrollment/Management

Sex and Race in Clinical Trials

Jill Weschler Applied Clinical Trials 01-Aug-04

New standards and research methods aim to provide more useful information on population subgroups. The aim is to reduce disparities in health care for racial and ethnic minorities, thus heightening the need to include these populations in clinical trials.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=105342>

CONTRACT SERVICES

Subcategory: Clinical Trials

Improved Organization and Management of Clinical Trials

Frederick L. Olmstead Applied Clinical Trials 02-Aug-04

Offers a historical perspective from 13 yeares ago on concerns about outsourcing issues at the time.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=105359>

Subcategory: Contract Research

Progress and Potential: Evolution of the CRO Industry

Dennis Gillings Applied Clinical Trials 02-Aug-04

Gillings reports that the CRO industry is on a course for continued rapid growth with the rise of genetics and genomics, as well as the push toward partnering and more postapproval research.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=105356>

Subcategory: Industry, general

Looking Back, Moving Forward: A CRO Retrospective

Toby Jane Hindin, EdD Applied Clinical Trials 02-Aug-04

Presents thoughts and insights of CRO indsutry leaders who have been involved in the transformation taking place. Covers challenges, relationships and collaborations, information technology and outlook for the future.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=109371>

Reviews a number of methods used in transdermal drug delivery to bypass the barrier of skin preventing things entering the body. The annual U.S. market for transdermal patches alone is more than \$3 billion.

http://pharmalicensing.com/features/disp/1093618153_412f49e9743e6

INDUSTRY

Subcategory: General

Mention ACRP or SoCRA, and CRO professionals fondly think of forums to network, learn, and grow.

Applied Clinical Trials

10-Sep-04

Provides background and information on the Association of Clinical Research Professionals (ACRP) and the Society of Clinical Research Associates (SoCRA)

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=105351>

Subcategory: Geographic focus

Japanese R&D: Branching Out

Faiz Kermani

Applied Clinical Trials

01-Aug-04

In-depth look at Japanese R&D investment, partnering, international clinical research and other activities. Multiple graphs and extensive bibliography.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=109174>

Indian Biotech Industry to Touch \$9 B by 2008

CIOL

30-Jul-04

Already the 2nd largest manufacturer of children vaccines, reports that India is slated to become a major center for custom research, and clinical/biological services.

<http://www.ciol.com/content/news/2004/104073003.asp>

Biotech Alley

Henry J. Waters III

Columbia Daily News

13-Aug-04

Reports on growth plans of the University of Missouri Life Sciences Center and those of Kansas City.

<http://www.showmenews.com/2004/Aug/20040813Comm001.asp>

University Steps up Biotech Emphasis

Bradley J. Fikes

North County Times

15-Aug-04

California State San Marcos is taking on a new mission: to train the thousands of laboratory technicians, supervisors and executives needed for the region's growing life sciences and biotechnology

http://www.nctimes.com/articles/2004/08/17//special_reports/science_technology//8_15_0420_5_5_15.txt

New Scheme Will Train GPs to Be Genetic Experts

Scotsman.com

05-Aug-04

As part of the Scottish government's drive to make sure genetics knowledge and treatments are widely available to patients, GPs from across England will be invited to apply for funding to become the first wave of GPs with a special interest in genetics.

<http://news.scotsman.com/latest.cfm?id=3298211>

Under the Microscope; Biotechnology Jobs in California

Janet Peters

State of California

01-Jun-04

Report looks into the factors driving growth in the biotechnology industry, economic effects, tables comparing occupations and provides career guidance. Appendices.

<http://www.calmis.ca.gov/file/occmisc/Biotech-Part1.pdf>

State, Region and City Look to Biotech for Economic Recovery

Morgan Kanninen

The California Aggie

09-Aug-04

Looks at efforts by local leaders to benefit from growing biotech industry. California has four biotech "clusters" throughout the state: San Diego, Los Angeles and Orange counties, the San Francisco Bay Area, and Sacramento.

<http://www.californiaaggie.com/article/?id=5206>

Government To Fund Biotech Research Projects

Sudhir Chowdhary

The Financial Express

26-Aug-04

Reports that the Indian government will provide funding and infrastructure support for public-private partnership programs for crops, biofertilizers, medicinal and aromatic plants, animal and plant biotechnology, aquaculture and marine biotechnology.

http://www.financialexpress.com/fe_full_story.php?content_id=66930

Subcategory: Government/ Approvals

Opportunity to Gain or Lose

Anthony Strattner

Bio-IT World

18-Aug-04

Industry expert calls on drug discovery companies to review and participate in the FDA's new Critical Path Initiative, designed to offer solutions to "the pipeline problem."

<http://www.bio-itworld.com/archive/081804/opportunity.html>

INVESTMENTS/ GOV. SUPPORT

Subcategory: State

Biotech Community Discouraged That State Budget Offers No Life Sciences

Biospace

01-Aug-04

While California is home to 2 of the largest clusters of life science companies in the world, there is increasing competition from regions around the world and the state budget will not include tax incentives for life science companies.

http://www.biospace.com/news_story.cfm?StoryID=16954320&full=1

Subcategory: Venture

Biotech Returning to Favor Companies Strive to Woo VC Investors

William Patalon III

San Francisco Chronicle

13-Aug-04

Reviews status of financing for biotechnology ventures, noting that the active IPO market at the start of 2004 freed up money that can be used to invest in another biotech startup.

<http://www.sfgate.com/cgi-bin/article.cgi?file=/chronicle/archive/2004/08/13/BUG9P87DJ11.DTL&type=business>

NOVEL APPLICATIONS

Subcategory: Energy/ Fuel

OSU Scientists Able to Harness "Plankton Power"

Clare Reimers

Oregon State University

26-Jul-04

Scientists, having successfully tapped the chemical reactions from decomposing organic matter on the ocean floor to create fuel cells that provide low levels of electrical power for months, now have harnessed power from plankton in the upper water column.

<http://oregonstate.edu/dept/ncs/newsarch/2004/Jul04/planktonpower.htm>

Top 20 Pharma

Gil Y. Roth Contract Pharma 01-Aug-04

Lists the top 20 pharmaceutical companies based on revenues and provides their 2003 R&D expenditures.

<http://www.contractpharma.com/pdfs/JulyAug04Top20Pharmaceuticals/PHARMA.pdf>

Subcategory: Bio Pharma

Top 10 Biopharma

Gil Y. Roth Contract Pharma 01-Aug-04

Lists the top 10 biopharmaceutical companies, their R&D expenditures and royalty revenues. The companies are: Amgen, Genentech, Biogen IDEC, Serono, Millennium, Chiron, Genzyme, Gilead, MedImmune, Intermune.

<http://www.contractpharma.com/pdfs/JulyAug04Top10Biopharmaceuticals/BIO.pdf>

Subcategory: Bioinformatics

Interactive Decision Making

Salvatore Salamone Bio-IT World 18-Aug-04

Company applies instrument and informatics technologies to biomarker discovery in clinical research studies to better understand drug mechanisms of action, discover root causes of disease, and discern the molecular basis of personalized medicine.

<http://www.bio-itworld.com/archive/081804/surromed.html>

Subcategory: Miscellaneous

Special Report: 2004: A Best Practices Odyssey

John Russell Bio-IT World 18-Aug-04

Presents winners of the publication's Best Practices Awards program in drug discovery and development, IT infrastructure and informatics, knowledge management and collaboration, regulatory compliance and clinical research and trials.

<http://www.bio-itworld.com/archive/081804/odyssey.html>

Subcategory: Patent/Intellectual Property Issues

Pharming Group Acquires PPL's Protein Production IP

Cormac Sheridan BioWorld 25-Aug-04

Reports purchase of 57 issued patents, plus a large number of patent applications, covering a variety of recombinant protein production and purification technologies by Pharming Group NV from PPL Therapeutics PLC.

http://www.bioworld.com/servlet/com.accumedia.web.Dispatcher?next=bioworldHeadlines_article&forceid=33483

Subcategory: *Research Centers/ Parks*

Small Molecules with Big Promise

Deborah Janssen Bio-IT World 18-Aug-04

Reports the launch of the NIH Chemical Genomics Center (NCGC), marking a major first step in the creation of a nationwide network that aims to provide researchers with innovative chemical tools for use in biomedical research.

http://www.bio-itworld.com/news/081804_report5856.html

Subcategory: *Startups*

Desert Storm

Nancy Weil Bio-IT World 18-Aug-04

Looks at High Throughput Genomics (HTG), a company offering array-based gene-expression assay technology, which enables faster high-throughput measurement of many genes simultaneously with a high (and reproducible) degree of accuracy.

http://www.bioitworld.com/archive/081804/horizons_desert.html

Young Biotechs Need Help Driving Up the Field To Victory, 'Coach' Wallace

Allan Maurer Local Tech Wire 06-Aug-04

Discusses entrepreneur's search to improve the changes of biotech startup firms succeeding. "The margin between success and failure is thin. There are forces you can't control no matter how hard you work or how smart you are."

<http://www.localtechwire.com/article.cfm?u=8941>

Funding Accelerates Startup

Alicia Wallace The Daily Camera 05-Aug-04

Tells of a company that hopes to shorten to 18 to 36 months from the normal 5 to 7 years it takes to research, develop and launch a product. The nutrition and health and wellness areas are targeted.

http://www.dailycamera.com/bdc/tech_plus/article/0,1713,BDC_2463_3087577,00.html

PHARMACEUTICALS

Subcategory: *Cell Therapy*

Jaw Transplant Allows Man to Chew after Nine Years

Gaia Vince

New Scientist

27-Aug-04

Doctors have grown bone a mixture of recombinant human bone morphogenic protein (BMP) powder (a genetically engineered protein that causes cells to ossify or become bone) and liquid bone marrow containing the patient's own stem cells.

<http://www.newscientist.com/news/news.jsp?id=ns99996333>

PLATFORM TECHNOLOGIES

Subcategory: Bioinformatics

Pharma and the Seven Keys

Randall C. Willis

Modern Drug Discovery

01-Aug-04

Critical informatics technologies are predicted to revolutionize the drug industry over the next decade. The 7 keys include petaflop and grid computing, predictive biosimulation, pervasive computing and advanced storage solutions.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i08/pdf/804sites.pdf>

Subcategory: Biomanufacturing

From the Laboratory to the Patients

Nadine Pavloff

Modern Drug Discovery

01-Aug-04

Looks at strategies for the rapid development of cell-culture manufacturing processes for human enzymes and discusses issues to consider for large-scale production of clinical material that may be needed for Phase II and Phase III studies.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i08/pdf/804applications.pdf>

Subcategory: Cell Therapy

Biosafety Considerations for Cell-Based Therapies

Darin J. Weber, Ph.D.

BioPharm International

01-Jul-04

Provides an overview of biosafety issues facing cell- and tissue-based products and discusses a systematic, practical approach for addressing them.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=104336>

Blood Stem Cell Gives Rise to Bone in Laboratory Models, Points to Therapies for Bone Disease, Injuries

St Jude Childre's Research

11-Aug-04

A single type of primitive stem cell transplanted from donor mice gave rise to both blood-forming and bone-forming cells in recipient mice, suggesting suggests that this primitive cell could to replace bone that has been lost to disease or injury.

http://www.stjude.org/media/0,2561,453_2816_11990,00.html

Subcategory: Cloning Techniques

UK Approves Human Cloning for Research

Business World

11-Aug-04

The Human Fertilisation and Embryology Authority (HFEA) in the UK has granted the first licence to create human embryonic stem cells using cell nuclear transfer - a technique also known as therapeutic

<http://www.businessworld.ie/livenews.htm?a=973902;s=rollingnews.htm>

Malignant Cancer Cells Generate Mice Through Cloning

David Cameron.

Whitehead Institute

04-Aug-04

Nature can reset the clock in certain types of cancer and reverse many of the elements responsible for causing malignancy, reports a research team that successfully cloned mice from an advanced

http://www.wi.mit.edu/nap/features/nap_feature_jaenisch_0804.html

Subcategory: Drug Discovery

In Praise of Chemical Diversity

Kevin Davies

Bio-IT World

18-Aug-04

Taking a dynamic approach to chemical synthesis, sometimes called target-oriented synthesis, a group has created a catalog of compounds in a matter of months, using suites of immobilized

<http://www.bio-itworld.com/archive/081804/firstbase.html>

Rutgers-Newark Biologist Links Presence of Protein to Spread of Cancerous

Rutger University

11-Aug-04

Researchers have identified a new link between a specific protein and its role in determining how cancerous cells divide, spread and form new tumors in other parts of the human body.

<http://www.sciencedaily.com/releases/2004/08/040812051833.htm>

Genes' Effects on Drugs Revealed by New Screening Process

Michael C. Purdy

Washington University in

02-Aug-04

The new approach to help scientists look for genes that change patients' responses to cancer drugs and other medications lets nature and a robotic screening system do the majority of the hunting for

<http://mednews.wustl.edu/medadmin/PAnews.nsf/0/1530EF3A9565766B86256EE400669393>

Subcategory: Genomics

Large-Scale Differences Discovered in DNA of Healthy People

Kate Ruder Genome News Network 06-Aug-04

Reports that two groups of scientists working independently have discovered that healthy people have huge chunks of DNA that are repeated over and over, for no known reason, and also huge chunks of DNA that are missing, also for no known reason.

<http://www.genomenewsnetwork.org/articles/2004/08/06/humangenome.php>

Single Gene Removes Sex Differences in Mice Brains

Peter Farley New Scientist 31-Aug-04

Significant structural differences in the brains of males and females may result from selective cell death orchestrated by just a single gene during early development, according to a new study.

<http://www.newscientist.com/news/news.jsp?id=ns99996337>

Subcategory: Genotyping

Researchers Report New Gene Test for Isolated Cleft Lip and Palate

Theresa M. Zucchero et al. National Institutes of Health 30-Aug-04

Experts have identified a genetic trait which triples the risk of a baby having a cleft palate in families where a child is already affected.

<http://www.nih.gov/news/pr/aug2004/nidcr-18.htm>

Subcategory: Human Therapeutics

Closing the Loop on Information

David Filmore Modern Drug Discovery 01-Aug-04

IBM's life sciences manager offers some words of advice regarding development of systems where genotypic and phenotypic data seamlessly flow and inform back and forth throughout (and between) organizations to support individualized therapies.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i08/pdf/804people1.pdf>

Subcategory: Monofluidics

Addressing "The Three Rs"

Christina Bur Tsoff Asp Modern Drug Discovery 01-Aug-04

Microfluidics can help reduce the number of animals used in research and preclinical studies. Shows how a compact disk (CD) microlaboratory cut assay times, reduced sample and reagent consumption and other benefits.

<http://pubs.acs.org/subscribe/journals/mdd/v07/i08/pdf/804toolbox.pdf>

Subcategory: *Nanotechnology*

RNA Could Form Building Blocks For Nanomachines

Bio.com

11-Aug-04

Researchers report that microscopic scaffolding to house the tiny components of nanotech devices could be built from RNA, the same substance that shuttles messages around a cell's nucleus, reports

<http://www.bio.com/realm/research.jhtml?realmId=5&cid=3200034>

Subcategory: *Pharmacogenomics*

Clinical Pharmacogenomics: Almost a Reality?

David Filmore

Modern Drug Discovery

01-Aug-04

Reports that overcoming the challenge of carrying out well-designed pharmacogenomics-based clinical trials and using the information to drive drug development and approval are at the heart of making personalized medicine a reality.

http://pubs.acs.org/subscribe/journals/mdd/v07/i08/html/804feature_filmore.html

Subcategory: *Proteomics*

Automated science speeds solution of Human Genome data

Evelyn Brown

Argonne National Laboratory

09-Aug-04

Because proteins control everything from breathing to digestion and sweating, there is a world-wide scientific race to convert data from the Human Genome Project into three-dimensional images that reveal how proteins function.

http://www.anl.gov/Media_Center/News/2004/biosciences040719.html

Trojan Horses, Xenon Imaging and Remote Controlled Genes: Chemical Cages Deliver Drugs and Peer into Cells

Greg Lester

University of Pennsylvania

24-Aug-04

Researchers are developing techniques to control and study biomolecules within cells and living systems. Near-term benefit is learning how proteins interact in real time inside living organisms and how diseases such as cancer progress through the body.

<http://www.upenn.edu/pennnews/article.php?id=666>

Subcategory: Tissue Engineering

Space Lends Hand to Stem Cell Study

BBC News

12-Aug-04

UK tissue engineering experts are teaming up with NASA on a series of space experiments which could boost stem cell research - and protect astronauts from cosmic rays.

<http://news.bbc.co.uk/1/hi/health/3559612.stm>

RESEARCH TOOLS

Subcategory: Biomarker

Hopkins Scientists Use Blood Proteins to Detect Ovarian Cancer

Daniel W. Chan

Johns Hopkins Medicine

15-Aug-04

Researchers have designed a blood test to detect ovarian cancer using three proteins found in common in the blood of women with the

http://www.hopkinsmedicine.org/Press_releases/2004/08_15_04.html

Subcategory: Computing Systems

Grid Computing: Turning Hype into Reality

Chris Dwan

Bio-IT World

18-Aug-04

Defines grid computing and advises: look with suspicion at anyone who tries to sell you a grid, but jump at the chance to join a team that's building one.

<http://www.bio-itworld.com/archive/081804/box.html>

Do ASPs Work for Life Science?

Bio-IT World

18-Aug-04

Application service providers (ASPs) have had success in areas such as clinical trials and laboratory information management systems(LIMS), but less so with bioinformatics tools.

<http://www.bio-itworld.com/archive/081804/insights.html>

Master of the EDC Universe

Mark D. Uehling

Bio-IT World

18-Aug-04

Executive at Novartis discusses how electronic data capture (EDC) technology could be transformative in clinical trials. Costs in data management is reduced 82% over traditional paper-based data.

http://www.bioitworld.com/archive/081804/horizons_master.html

Bioreason Finds New Reason for Being: Analysis Tools

Malorye A. Branca

Bio-IT World

18-Aug-04

Looks at the transformation of a collaborative drug discovery company into a cheminformatics software company for high-throughput screening analysis.

http://www.bio-itworld.com/news/081804_report5860.html

Mayo Builds Toward Customized Medicine

Marianne Kolbasuk McGee

Information Week

09-Aug-04

Hoping to customize medical treatments to individual patients, Mayo Clinic and IBM are applying pattern recognition and data mining to 4.4 million electronic records of Mayo patients.

<http://www.informationweek.com/story/showArticle.jhtml?articleID=26806448>

Mayo Clinic Researcher Uses Supercomputer to Model a SARS Viral Enzyme for Developing Anti-SARS Drug

Yuan-Ping Pang

Mayo Clinic

16-Aug-04

A genomic sequence is quickly and correctly converted into the 3D structures of a protein that encodes the blueprint for an anti-SARS drug, using a low-cost, "homemade" computers for large-scale simulations of biological systems.

<http://www.mayoclinic.org/news2004-rst/2391.html>

Subcategory: Databases

Oncomine of Information

Deborah Janssen

Bio-IT World

18-Aug-04

Scientists have identified a common "meta-signature" of 67 genes that appears to be required to change normal human cells into cancerous ones, based on statistical analysis of a cancer microarray database called Oncomine.

http://www.bio-itworld.com/news/081804_report5864.html

Curbing a Killer

John Russell

Bio-IT World

18-Aug-04

Describes a database of expression data consisting of more than 13,000 microarray experiments in which rats were treated with more than 400 FDA-approved drugs, 60 drugs approved in Europe and Japan, 25 withdrawn drugs, and 100 toxicants.

<http://www.bio-itworld.com/archive/081804/iconix.html>

Scientists Establish Database of Genes Associated With Cancer Drug
Szakács G and Gottesman National Cancer Institute 23-Aug-04

Researchers have created a database of information about a group of genes associated with multidrug resistance in cancerous tumors. The study details the gene expression of a 48-member family of proteins called ABC transporters.

<http://www.nci.nih.gov/newscenter/pressreleases/ABCtransporterproteins>

Subcategory: Genome Sequence

The Human Genome Sequence Measures Up
Kate Ruder Genome News Network 19-Aug-04

Researchers report that all sequences of the human genome deposited are of high-quality, meeting standards for “finished” sequences established in 1997. Finished sequences are nearly perfect and have less than 1 error per 10,000 letters of genetic code.

<http://www.genomenetwork.org/articles/2004/08/19/humangenome.php>

Subcategory: Imaging

Viruses on the Attack
Parag Chitnis National Science Foundation 20-Aug-04

Using a combination of imaging techniques, researchers have determined the mechanics that allow some viruses to invade cells by piercing their outer membranes and digesting their cell walls. Link to high-resolution video.

<http://www.nsf.gov/od/lpa/newsroom/pr.cfm?ni=1500000000103>

Method To Visualize Gene Activity May Provide Important Insight Into Normal Development And Genome Function
Sherry Seethaler University of California San 05-Aug-04

A technique which uses bright fluorescent dyes to reveal the activity of genes in individual cells of an organism, promises to be a boon to developmental biologists, and may provide new insight into how cancerous tumors begin and grow.

<http://ucsdnews.ucsd.edu/newsrel/science/sfluoresce.asp>

Subcategory: Miscellaneous

Self-Assembling And Biologically Active Artificial Pores May Lead To A Future Full Of Holes
Bio.com 11-Aug-04

Discusses applications for pore-forming molecules, including

developing an entirely new class of antibiotics by creating pores that poke holes in harmful bacteria.

http://www.bio.com/newsfeatures/newsfeatures_research.jhtml?cid=3200027

Bright Idea Could Doom Cancer and Viruses, Say Purdue Scientists

Harry Morrison

Purdue News

23-Aug-04

A team of scientists has developed a group of rhodium-based compounds that, when exposed to light, can kill tumor cells and deactivate a virus closely related to the West Nile and yellow fever viruses.

<http://news.uns.purdue.edu/UNS/html4ever/2004/040824.Morrison.rhodium.html>

New "Clock Gene" Uncovered

Keith McKeown

Scripps Research Institute

18-Aug-04

Scientists have been investigating how the genes in the human genome actually contribute to the biology of health and disease. Discusses research that recently revealed a new genetic component of the mammalian clock.

<http://www.scripps.edu/news/press/081804.html>

Subcategory: Mouse/ Rat Models

Mouse Model of Rare Disease Offers Clues to Aging and Cancer

Ronald DePinho

University of Texas

19-Aug-04

Researchers report a mouse model showing a suspected strong link between aging and cancer, suggesting that a single cellular protein can play a role in both processes.

<http://www.mdanderson.org/departments/newsroom/display.cfm?id=1DEF863F-029D-4799-A2ECF5ADE93523AE&method=displayFull&pn=00c8a30f-c468-11d4-80fb00508b603a14>

STRATEGIC RELATIONSHIPS

Subcategory: Musculoskeletal

Newly Discovered Protein May Be Key to Muscular Dystrophy

Wallace Ravven

University of California San

18-Aug-04

Researchers discovered in an animal model of the disease that during periods of intense muscle activity, muscles remain excited too long and degenerate if a protein fails to transport the neurotransmitter acetylcholine away from the nerve-muscle synapse.

<http://pub.ucsf.edu/newsservices/releases/200408162/>

Subcategory: Oncology

Gene Therapy Trial for Tumors

BBC News

02-Aug-04

Approval has been given for a large clinical trial of a new treatment for patients with glioma, an aggressive brain tumor. The first patient to receive the treatment 7 years ago is still alive, despite being told he had just 4 months to live.

<http://news.bbc.co.uk/1/hi/scotland/3528326.stm>

Subcategory: Psychiatry/ Psychology

Hormone Levels Turn Mouse Mums Fearless

Anna Gosline

New Scientist

01-Aug-04

In response to stressful situations, the brain secretes corticotropin-releasing hormone (CRH), which triggers a complex cascade of hormones that ready the body for action. Reports that CRH receptor blockers could be used as a treatment for stress.

<http://www.newscientist.com/news/news.jsp?id=ns99996226>

THERAPEUTIC CATEGORY

Subcategory: Bioterrorism

Catching The Bad Bug

Robert Lenzner and Nathan Vardi Forbes.com

16-Aug-04

Looks at U.S. government funding of research activity by small and large firms to develop vaccines and antidotes for potential treatments for anthrax.

http://www.forbes.com/business/free_forbes/2004/0816/070.html

Subcategory: Cardiology/ Vascular Diseases

'Smart' Gene Therapy Limits Heart Attack Damage

Victor J. Dzau

Duke University

02-Aug-04

Researchers report the first successful demonstration of a therapeutic gene with a built-in sensor that detects and responds to oxygen deprivation in heart tissue caused by reduced blood flow

resulting from heart attack or coronary artery disease.

<http://www.dukehealth.org/news/7958>

Subcategory: Geriatrics

The Secrets of Aging

Sophie L. Rovner

Chemical & Engineering

23-Aug-04

Reviews scientist attempts to understand the triggers, timing, and molecular basis for aging as they try to stave off humanity's most intractable scourge.

<http://pubs.acs.org/cen/coverstory/8234/8234aging.html>

Subcategory: Immunology/ Infectious Diseases

Clue to Stopping Killer Viruses

BBC News

15-Aug-04

Scientists believe they may have found a new way to fight diseases like Aids and some forms of leukemia using a harmless retrovirus.

<http://news.bbc.co.uk/1/hi/health/3906339.stm>

In Mouse Model, Weill Cornell Researchers Use Gene Therapy To Correct Deadly Inherited Immune Disorder

Jonathan Weil

Cornell University

02-Aug-04

Attempts in mice to correct a rare inherited immune disorder have failed because standard gene therapy raised risks for cancer. Researchers believe they've found a way around that problem, using trans-splicing.

http://www.med.cornell.edu/news/press/2004/08_02_04.html

New Allergy Vaccine Shows Promise

Amanda Gardner

Forbes.com

09-Aug-04

Reports that researchers have come up with a genetically modified version of the major birch pollen allergen and used it to inoculate patients who were allergic to this particular pollen.

<http://www.forbes.com/lifestyle/health/feeds/hscout/2004/08/09/hscout520539.html>

Viruses in Strep Bacteria May Worsen Outbreaks

Cheryl Simon Silver

Genome News Network

06-Aug-04

In a study comparing the genomes of more than 250 bacteria that had been collected from Ontario, Canada patients over 10 years, scientists found many of the most virulent strains in the study carried genes from viruses, some for harmful toxins.

<http://www.genomenewsnetwork.org/articles/2004/08/06/strep.php>

Rogue Proteins Give Yeast an Edge

BBC News

16-Aug-04

Scientists found that yeast uses prions to develop beneficial traits that give them an evolutionary advantage. The research has revealed new insights into the way genetic traits can be passed down from parent to offspring. Implications for Alzheimer's.

<http://news.bbc.co.uk/2/hi/science/nature/3569210.stm>

New Genetic Research Demonstrates Possible Cause of Inherited Form of Parkinson's Disease

Dr. Ana Maria Cuervo

Columbia University

26-Aug-04

While the cause of most cases of Parkinson's disease is unknown, a few cases are inherited and can be traced to mutations in four different genes. Study may pinpoint the mechanism by which one mutant gene initiates a cascade of events causing the disease.

http://www.cumc.columbia.edu/news/press_releases/PD_geneticstudy.html

Profile Now! NeuroNews: Top Ten Therapeutic Trends

Gail Schechter, Ph.D.

Pharmalicensing

17-Aug-04

The field of neurology is progressing rapidly and intelligently on several fronts, including targeting Alzheimer's, seeking biomarkers, personalized medicine, statins and neurotrophic factors.

http://pharmalicensing.com/features/disp/1092739031_4121dfd76758f

Subcategory: Oncology

Genes Linked to Failure of Leukemia Drugs in Children

Edward R. Winstead

Genome News Network

06-Aug-04

Researchers have identified 124 genes that behave differently depending on whether a patient's leukemia cells are sensitive or resistant to a drug. The findings may lead to determining why some children do not respond to certain drugs.

<http://www.genomenewsnetwork.org/articles/2004/08/06/leukemia.php>

DNA Mutations Help Lung Cancer Drug Work

Kate Ruder

Genome News Network

29-Jul-04

Drugs such as Iressa and Gleevec are part of a relatively new class of drugs that target a specific receptor in tumors called the epidermal growth factor receptor (EGFR). Some patients on these drugs can live months or years longer than expected.

<http://www.genomenewsnetwork.org/articles/2004/07/29/lungcancerdrug.php>

Gene Tied to Lung Cancer in Nonsmokers

Steven Reinberg HealthDay 24-Aug-04

Researchers think that never-smokers may have a distinct form of lung cancer compared with 90% of lung cancers associated with smoking. Implication is that never-smokers should be treated differently with drugs to help those specific patients.

<http://www.healthday.com/view.cfm?id=520798>

Further Evidence of Vitamin D's Role Against Breast Cancer

Nutra Ingredients

09-Aug-04

Women with certain versions of the vitamin D receptor gene are almost twice as likely to develop breast cancer than women with other versions of the gene, suggesting the vitamin's protective effect against the disease.

<http://www.nutraingredients.com/news/news-NG.asp?id=54052>

Jefferson Scientists Find Gene Expression Pattern May Predict Behavior Of Leukemia

Thomas Jefferson University Science Daily

16-Aug-04

The expression pattern of certain genes may someday help doctors to diagnose and predict whether or not an individual has an aggressive form of B-cell chronic lymphocytic leukemia (CLL), Jefferson cancer researchers have found.

<http://www.sciencedaily.com/releases/2004/08/040811081034.htm>

Leukemia Stem Cells Identified by Stanford Researchers

Amy Adams Stanford School of Medicine

11-Aug-04

A handful of leukemia cells constantly replenish the supply of cancerous cells, according to a study. These cancer stem cells are the ones chemotherapy must wipe out in order to eliminate the

<http://mednews.stanford.edu/releases/2004/august/cancer-stem.htm>

UCSD Medical Researchers are First to Demonstrate Molecular Link between Inflammation and Cancer

Sue Pondrom University of California San

05-Aug-04

Because recurrent inflammation and chronic infections contribute to a large number of different cancers, researchers selected colitis associated cancer (CAC) as a model for study.

http://ucsdnews.ucsd.edu/newsrel/health/08_05_Karin.asp

Researchers Identify New Gene Related to Breast Cancer

Webindia News

31-Aug-04

Beta1-integrin, has been shown to be critical in the initiation of

tumour growth and development of breast cancer. Researchers show that blocking the function of this gene halts tumour proliferation.

<http://www.webindia123.com/news/showdetails.asp?id=46785&cat=Health>

Urinary Virus Linked to Prostate Cancer

WebMD

10-Aug-04

A virus that normally lurks within the urinary system without causing problems may contribute to the development of prostate cancer, according to a study, which found that 71% of the prostate samples contained gene segments of the BK virus.

<http://my.webmd.com/content/Article/92/101767.htm>

Subcategory: Ophthalmology

New Clues to Hereditary Blinding Disease Found

John Hwa

Dartmouth Medical School

18-Aug-04

Researchers have discovered a critical role for zinc in retinitis pigmentosa. The amount of zinc, a trace metal naturally absorbed by the body, can determine whether a key protein for vision functions normally or misfolds.

http://www.dartmouth.edu/dms/news/2004_h2/18aug2004_hwa.shtml

New Discovery May Help Transplants Survive; Blocking Growth Factor Stops Rejection Process

Schepens Eye Research
Institute

Science Daily

05-Aug-04

Scientists have found that a growth factor controls how immune cells traffic within the eye and also stimulates the immune system to reject corneal transplants. When this growth factor is blocked, corneal transplants survive

<http://www.sciencedaily.com/releases/2004/08/040805091500.htm>

Subcategory: Otolaryngology

Taken from Teeth, Stem Cells Regenerate Tissue

Michele Garfinkel

Genome News Network

13-Aug-04

Researchers have isolated stem cells from the ligament that holds human teeth in place and shown that, in laboratory mice, these cells are able to grow new ligament cells, in particular a type needed for a tooth to attach to its socket.

<http://www.genomeneetwork.org/articles/2004/08/13/stemcell.php>

Listen Up! Mice May Hold Key to Restoring Human Hearing Loss

Jeffrey Corwin and Stefan Heller Marine Biological Laboratory 12-Aug-04

Researchers are working to make large numbers of mouse stem cells "grow" into inner ear sensory hair cells; humans are born with 16,000 in each ear. These are easily damaged by various factors including age, and do not easily grow back.

http://www.mbl.edu/inside/what/news/press_releases/2004_pr_8_12b.html

Subcategory: Pediatrics/ Neonatology

'Breathing Gene' Cot Death Link

BBC News 19-Aug-04

Like those previously discovered in babies with sudden infant death syndrome (SIDS), the errors lie in genes involved with involuntary body functions like heart beat and breathing.

<http://news.bbc.co.uk/2/hi/health/3575798.stm>

Genome Scan Yields SIDS Clue

Malorye A. Branca Bio-IT World 18-Aug-04

The gene underlying a rare, fatal inherited disorder, which may shed light on the mystery of sudden infant death syndrome (SIDS), has been identified.

http://www.bio-itworld.com/news/081804_report5857.html

Subcategory: Psychiatry/ Psychology

Gene Makes Women Prone to Anxiety

BBC News 10-Aug-04

Researchers have pinpointed a variation in a gene which controls regulation of a key brain chemical linked to mood. People with this variant produce less of a protein that is involved in regulating levels of serotonin in the brain.

<http://news.bbc.co.uk/1/hi/health/3548064.stm>

Brain Anti-anxiety Switch Found

Rainer Reinscheid BBC News 18-Aug-04

Scientists have found a switch in the brain that appears to control anxiety and wakefulness. This switch could be a target for drugs to treat sleep and anxiety disorders and attention deficit hyperactivity

<http://news.bbc.co.uk/2/hi/health/3573822.stm>

Separate Genes Responsible for Drinking, Alcoholism

Randy Doty HealthDay 18-Aug-04

Alcoholism and alcohol consumption may appear to be similar, but researchers are increasingly studying them separately, explaining that separate genes appear to be responsible, as some people can drink a lot of alcohol without becoming addicted.

<http://www.healthday.com/view.cfm?id=520693>

Subcategory: Pulmonary/ Respiratory Diseases

Physicians Recommend Gene Test for Families with Hypertension

Cheryl Simon Silver

Genome News Network

23-Jul-04

About 50% of individuals with familial pulmonary arterial hypertension (PAH) have a mutation in a gene. Not all carriers of the mutation develop PAH, but once carriers are identified they can be monitored to begin treatment when the first signs occur.

<http://www.genomeneetwork.org/articles/2004/07/23/hypertension.php>

Subcategory: Reproduction

LBP-1a Gene Mutation Linked to Disruption of Normal Fetal Development

St Jude Children's

06-Aug-04

The lack of a gene in the mouse embryo prevents normal growth of blood vessels in the placenta. The finding suggests that a similar defect in humans could play a role in fetal growth retardation, infant mortality and spontaneous abortion.

http://www.stjude.org/media/0.2561.453_2816_11959.00.html

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