



BioTechCircle News®

February, 2005

Quote of the month:

”NIH is working to equip academic researchers with the same toolset available to most pharmaceutical companies. This Molecular Libraries Initiative is likely to have a profound influence on our understanding of biological pathways.”

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=CVS&PRODCODE=00000000&PRODLETT=L>

It is our sincere hope that this newsletter helps YOU get maximum use of the information presented here.

In this articles section: links to 67 free Web articles in 14 major categories.

Over the past several months, unfortunately a number of publications we’ve been covering have moved to paid subscription so links to their articles no longer appear in this newsletter. We are searching for replacements in order to alert you to a wide variety of advancements in the biotech area.

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: Government/ Approvals

US Regulation of Plant-made Biopharmaceuticals, Part 1

Sharon A. Berberich, Rebecca A. Devine BioPharm International 01-Jan-05

The evaluation, production, and distribution of therapeutic products derived from recombinant plants are regulated under existing laws administered by FDA, USDA, and EPA. A guide to the regulations.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=146232>

Subcategory: Research Advancements

Genetic 'Laws' May Need to Be Rewritten

myDNA.com 23-Mar-05

Some plants, apparently having hidden templates of genetic information from the preceding generation, revert to normal traits carried by their grandparents, bypassing genetic abnormalities carried by both parents.

http://www.mydna.com/resources/news/200503/news_20050323_genelawre.html

BIOBUSINESS MANAGEMENT

Subcategory: Government/ Approvals

US Regulation of Plant-made Biopharmaceuticals, Part 2

Sharon A. Berberich BioPharm International 01-Feb-05

The evaluation, production, and distribution of therapeutic products derived from recombinant plants are regulated under existing laws administered by FDA, USDA, and EPA. Provides guidance for industry.

<http://www.biopharm-mag.com/biopharm/article/articleDetail.jsp?id=146350>

CLINICAL TRIALS

Subcategory: Computing Systems

Tools for Clinical Trials Professionals

Applied Clinical Trials

01-Feb-05

A new database design is able to generate reports allowing for all information from a trial to be downloaded and crunched within moments, for up-to-the-minute relevance.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=145637>

Subcategory: Oncology

Gene for Marine Cancer Compound Cloned

Drug Discovery & Development

01-Feb-05

Bryostatins are a family of chemical compounds that are currently being evaluated in clinical trials for their potential in treating several forms of cancer, including leukemia, lymphoma, colon, breast, ovarian, and prostate.

<http://www.dddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=GNP&PRODCODE=00000000&PRODLETT=N>

DIAGNOSTIC TOOLS

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

Genomics Drives New Crop of IVDs

Robert Frederikson

Bio-IT World

11-Feb-05

In vitro diagnostic microarrays are an important tool in oncology. Discusses Affymetrix and the Molecular Profiling Institute's (MPI) prognostic test that helps identify how a breast cancer patient's tumor will behave.

<http://www.bioitworld.com/archive/021105/fullyequipped.html>

DNA Chip Could Help Doctors Decide Dosage

RedNova

01-Feb-05

When it comes to prescribing drugs, genetics and DNA are still mostly ignored. Researchers say Roche's DNA chip may usher in a new era, where genetics plays an increasingly important role in defining patient care.

<http://www.rednova.com/news/display/?id=123719>

New Era for Biotech?

RedNova

10-Feb-05

A newly approved gene chip test addresses part of a long-standing

mystery: why do some people suffer serious side effects from drugs that make most patients better.

<http://www.rednova.com/modules/news/tools.php?tool=print&id=126036>

Subcategory: Test Systems - In-vivo systems

New Tests Provide Clues to Fetal Health

HealthDay

16-Feb-05

New techniques, one using maternal blood and the other amniotic fluid, should give health-care providers new insight into the health of a baby before birth.

<http://www.healthcentral.com/news/NewsFullText.cfm?id=524015>

DRUG DELIVERY

Subcategory: Gene Therapy

UCLA Scientists Transform Hiv into Cancer-seeking Missile

EurekAlert!

13-Feb-05

Scientists report a new approach that makes it possible to develop an effective carrier for therapeutic genes and reprogram it to target specific cells in the body, thereby minimizing harmful side effects.

http://www.eurekalert.org/pub_releases/2005-02/uoc--ust020905.php

INDUSTRY

Subcategory: General

Can Life Sciences Go the IT Way?

Prashant Tyangi

Bio-IT World

11-Feb-05

Looks at the 8 factors contributing to the exponential growth in IT hardware and software, 4 of which have direct application to life sciences: advantages of novel technology, opportunity factor, fear factor and wide-scale application.

http://www.bioitworld.com/archive/021105/bs_way.html

Biotech Lower After Fed Decision

Richard Daverman

Centinet Biotech Investor

02-Feb-05

Reviews performance of various biotech stocks following the Federal Reserve's announcement of its decision to raise interest rates.

<http://centinetinvestor.com/articles.php?a=read&aid=412>

Subcategory: Privacy/ Records Management

Eight Pharmaceutical Leaders Initiate New Company to Manage and Promote Digital Identity Assurance Standard across the Biopharmaceutical Industry

Pharmaceutical Online 10-Feb-05

A not-for-profit limited liability company has been established to support widespread adoption of the global digital identity standard, Secure Access for Everyone - SAFE. Founding members include AstraZeneca, Bristol-Myers Squibb, GlaxoSmithKline.

<http://www.pharmaceuticalonline.com/content/news/article.asp?docid={EC8890C-AFB9-4D22-8CC6-7F152BAC9414}>

INVESTMENTS/ GOV. SUPPORT

Subcategory: Venture

Top 10 Reasons to Invest in B.C. Biotechnology

British Columbia Medical 08-Feb-05

British Columbia has seen a growth in partnership activity in the biotech field. The BC Medical Innovations Fund offers more reasons to consider investing in B.C's biotech sector.

http://www.bcmif.com/news_and_events/fullStory.asp?ID=33&From=home

NOVEL APPLICATIONS

Subcategory: Miscellaneous

Blinding' an Insect's Sense of Smell May Be the Best Repellent

EurekaAlert! 21-Feb-05

Odorant receptor proteins, even within one species, are very different from one another. Researchers think that each of these receptors binds a different set of smell molecules, helping the insect recognize a large number of odors in the environment.

http://www.eurekaalert.org/pub_releases/2005-02/ru-ai021805.php

ORGANIZATIONS

Subcategory: Bio Pharma

Power Tools for the Gene Age: Affymetrix Chips Digging Deeper into

Bernadette Tansey SFGate.com 07-Feb-05

Reviews the history of Affymetrix and its first mover advantage, as all the major drug companies have invested heavily in Affymetrix.

Explains how gene chips work.

<http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2005/02/07/BUGHCB5T2S1.DTL>

PHARMACEUTICALS

Subcategory: Proteomics

Bulking Up on Protein Drugs

JR Minkel

Drug Discovery & Development

01-Feb-05

The market for protein drugs is growing very quickly and pharmaceutical companies are discovering that the development of protein therapeutics involves determining the perfect processes to

<http://www.ddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=CVS&PRODCODE=00000000&PRODLETT=F>

PLATFORM TECHNOLOGIES

Subcategory: Cell Therapy

Scientists Identify Stem Cell On/Off Switch

HealthDay

23-Feb-05

scientists believe they've discovered a new class of gene signals that either prevent or permit stem cells to develop into specific cell types. This discovery could lead to new stem cell therapies.

<http://www.healthday.com/view.cfm?id=524154>

Subcategory: Epigenetics

Tissue-Specific Methylation Profiles

Drug Discovery & Development

01-Feb-05

Researchers completed a pilot study of the Human Epigenome Project that successfully demonstrated their approach for detecting DNA methylation, which could ultimately be correlated to diseases.

<http://www.ddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=GNP&PRODCODE=00000000&PRODLETT=M>

Subcategory: Genomics

Is Genomics Advancing Drug Discovery?

Lukas K. Buehler

Pharmaceutical Discovery

01-Feb-05

Genomics has opened new ways of scrutinizing genes, which as created immense enthusiasm because of the potential of finding new cures for

human diseases.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=144711>

Subcategory: Genotyping

The Galileo Code

Kevin Davies

Bio-IT World

11-Feb-05

Researchers are searching 400 years of French-Canadian history for genetic clues to diseases among Quebec's founding population. The greatest progress so far has been in Crohn's disease.

<http://www.bio-itworld.com/archive/021105/galileo.html>

Subcategory: Miscellaneous

Sweden Proposes 'Most Comprehensive Medical Project' since Human

Cordis News

26-Feb-05

Researchers are planning an international initiative to map the relationships between health, genes and lifestyle, in what they say could be one of 'the most comprehensive medical projects since the mapping of the human genome.'

http://dbs.cordis.lu/cgi-bin/srchidadb?CALLER=NHP_EN_NEWS&ACTION=D&SESSION=&RCN=EN_RCN_ID:23

Subcategory: Oncology

Tufts-NEMC Researchers Identify Enzyme That Activates Cancer Cell Growth and Invasion

Athan Kuliopulos

EurekaAlert!

11-Feb-05

Researchers have identified a long-sought-after enzyme that interacts with a specific protease-activated receptor, PAR1, on breast cancer cells. The study could provide a novel therapeutic approach for treating invasive cancers.

http://www.eurekaalert.org/pub_releases/2005-02/cp-tri021005.php

Iceland Genomics and Roche in Cancer Biomarker Collaboration

Genomeweb Daily News

17-Mar-05

The companies will jointly analyze patient samples to validate novel molecular markers for diagnostic tests to predict recurrence of cancer for selected tumor entities.

<http://www.genomeweb.com/articles/view-article.asp?Article=200531710711>

Validating Genetic Markers of Breast Cancer

Elizabeth Tolchin

Genomics & Proteomics

09-Feb-05

Work may give validation to Sequenom genetic markers predisposing

for breast and prostate cancer, and improve the understanding of the role of these genetic markers in disease onset, progression, and therapeutic response.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=050>

Subcategory: Proteomics

Examination of Internal 'Wiring' of Yeast, Worm, and Fly Reveals Conserved Circuits

Trey Ideker University of California 08-Feb-05

Researchers have compared three distantly related species: baker's yeast, a worm, and the fruit fly, and reported that protein "wiring" connections in one species are often conserved in all 3. This may lead to the design of more selective pharmaceuticals.

http://www.jacobsschool.ucsd.edu/news_events/release.sfe?id=339

RESEARCH ADVANCEMENTS

Subcategory: Cardiology/ Vascular Diseases

Hormone Test May Predict Heart Disease Deaths

WebMD 16-Feb-05

Researchers say that high BNP (B-type natriuretic peptide) levels may predict heart disease death in people with coronary artery disease, without heart failure. The findings could help doctors assess patients' risk and tailor treatment to their needs,

http://my.webmd.com/content/article/100/105881.htm?z=1728_00000_1000_tn_08

Subcategory: Genomics

New Bacterium Found in Old Data

Genomics & Proteomics 22-Feb-05

Researchers have discovered three previously unknown species of a bacterium by scanning the genome sequences of the fruit fly *Drosophila* stored in the Trace Archive.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=RLSN&PRODCODE=00000000&PRODLETT=P>

Subcategory: Immunology/ Infectious Diseases

Genetic Amplification (NAAT) Test Detects HIV More Effectively than Standard Tests in Urban Study

Medical News Today 26-Feb-05

Adding a new HIV screening method, called nucleic acid amplification

Scientists have regenerated a damaged optic nerve, from the eye to the brain, which offers new hope for victims of diseases that destroy the optic nerve, and for sufferers of central nervous system injuries.

http://www.eurekalert.org/pub_releases/2005-02/seri-ssr022305.php

Gene Defect Linked to Familial Nerve Disorder

HealthDay

31-Jan-05

A defect in a gene called dynamin 2 causes one form of the inherited nerve disorder Charcot-Marie-Tooth (CMT) disease, according to a new study.

<http://www.healthday.com/view.cfm?id=523691>

Human Cloning Licence Awarded to Dolly Creator

Shaoni Bhattacharya

New Scientist

08-Feb-05

Researchers awarded a license to extract stem cells from cloned human embryos will take cells from patients with motor neuron disease (MND), and create cloned embryos using a standard technique called cell nuclear replacement.

<http://www.newscientist.com/article.ns?id=dn6980>

Subcategory: Oncology

Understanding Cell Motility

Genomics & Proteomics

02-Feb-05

A molecule called n-cofilin plays a key role in regulating cell movement, according to researchers, offering a potential target to treat diseases that result from uncontrolled cell migration, including cancer.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=RLSN&PRODCODE=00000000&PRODLETT=B>

Second Gene Mutation Explains Lung Cancer Drug Resistance

HealthDay

23-Feb-05

A second gene mutation explains why some lung cancer tumors become resistant to treatment with new cancer drugs meant to disrupt a molecular target that helps tumors grow.

<http://www.healthday.com/view.cfm?id=524150>

Gene Linked to Heavy Metal Poisoning

HealthDay

16-Feb-05

Identification and characterization of a gene responsible for the transportation of cadmium and other metals in mice is a significant breakthrough that will improve understanding of how heavy metals actually cause toxicity and cancer in humans.

<http://www.healthday.com/view.cfm?id=523998>

At the right time, the KiSS-1 gene sends out a molecular signal that activates a receptor in another gene called GPR54, and puberty is the end result.

<http://www.healthday.com/view.cfm?id=523720>

RESEARCH TOOLS

Subcategory: Computing Systems

Driving Linux Cluster Performance

Judith N. Mottl Bio-IT World 11-Feb-05

Planning early and choosing the right tools can boost performance 30%. Explains the steps involved in decreasing design, development, and test time.

http://www.bio-itworld.com/archive/021105/si_driving.html

No Researcher Left Behind

Salvatore Salamone Bio-IT World 11-Feb-05

A new crop of user-friendly cluster productivity tools targets the scientist. Addresses the challenge for researchers on how to make sure software is running efficiently on their systems.

http://www.bio-itworld.com/archive/021105/si_behind.html

Make Room for Microsoft

Salvatore Salamone Bio-IT World 11-Feb-05

Reports that Microsoft will soon launch a major effort into the high-performance computing (HPC) arena that combines new HPC cluster software and collaboration with Microsoft partners to develop life science-specific computing solutions.

http://www.bioitworld.com/archive/021105/itin_microsoft.html

Upgrading LIMS Technology Brings Strategic Decisions

Sean Keating Drug Discover & 01-Feb-05

A number of pharmaceutical companies are rethinking their laboratory information management system (LIMS) strategy, migrating away from systems developed in-house and toward vendor developed platforms.

<http://www.ddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=INFE&PRODCODE=00000000&PRODLETT=Q>

Subcategory: Databases

The 2005 Database Explosion

Kevin Davies Bio-IT World 11-Feb-05

A compendium of 700 freely available "open" life science databases from around the world, not requiring downloading of special software (because of firewall restrictions), is at nar.oupjournals.org/cgi/content/full/33/suppl_1/#TBL1.

http://www.bioitworld.com/archive/021105/itin_explosion.html

Worlds' Only Biotech Company Excel Database Completed

Bioresearch Online

10-Feb-05

Announces resource which includes biotech companies all over the world, both large and small, new and old in Excel format. Over 1,200 firms worldwide are included, with approximately 1,500 records, email and website addresses.

<http://www.bioresearchonline.com/content/news/article.asp?DocID={4C217D53-A1CB-4EFB-9CE6-4F76CBA03A3F}>

Rethinking Library Synthesis to Do More with Less

Patrick McGee

Drug Discovery & Development

01-Feb-05

Small, interfering RNA (siRNA) libraries can be used to investigate the mechanisms of siRNA-induced gene knockdown. People are now doing fewer total syntheses, but doing them around more skeletons so that they get a better coverage of chemical space.

<http://www.ddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=CEM&PRODCODE=00000000&PRODLETT=E>

The BIOS Initiative - Open Source Biotechnology Is Born

EurekaAlert!

11-Feb-05

The world's first 'explicit open source' biotechnology tools are provided under a new licensing paradigm that ensures that they are improved, shared and retained as a public resource.

http://www.eurekaalert.org/pub_releases/2005-02/c-tbi021105.php

Big Plans for Small Molecules

Bill Schu

Genomics & Proteomics

01-Feb-05

NIH is working to equip academic researchers with the same toolset available to most pharmaceutical companies. This Molecular Libraries Initiative is likely to have a profound influence on our understanding of biological pathways.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0502&RELTYPE=PR&ORIGRELTYPE=CVS&PRODCODE=00000000&PRODLETT=L>

Getting More out of Public Microarray Data

Joel Parker

Pharmaceutical Discovery

01-Feb-05

Discuss successful methods for mining information on the transcriptome from various data sets derived from technologies used to

to complement the green fluorescent protein (GFP). Potential applications include the discrimination of multiple cell types, transcriptional activities, and fusion proteins.

http://www.bioitworld.com/archive/021105/st_color.html

THERAPEUTIC CATEGORY

Subcategory: Cardiology/ Vascular Diseases

MIT Student Invents Promising Treatments for Stroke and Cancer

MIT press release

16-Feb-05

If given within 24 hours of a stroke, a new protein can limit the amount of brain tissue that is damaged. If given after 24 hours, it can substantially improve the patient's rate of functional recovery, which the current treatment does not.

http://biz.yahoo.com/bw/050216/165120_1.html

Subcategory: Disease Prevention

Potatoes Deliver Hepatitis Vaccine in Human Trials

Scientific American

15-Feb-05

Results from human trials of edible vaccines delivered in potatoes offer new encouragement, as vaccines that can be administered orally stand a better chance of being successful in poorer countries that have high death rates from treatable maladies.

http://www.sciam.com/print_version.cfm?articleID=0009ABBD-14FF-1211-

Subcategory: Immunology/ Infectious Diseases

Cancer Drugs May Fight Smallpox

Debora MacKenzie

New Scientist

02-Feb-05

Scientists have shown an experimental cancer drug to block smallpox's erb-B1 receptor, and found that this stopped the smallpox virus from propagating.. The approach targets the signalling pathway of the host cell, which the virus hijacks.

<http://www.newscientist.com/article.ns?id=dn6960>

Subcategory: Metabolism: Obesity, Diabetes

Clue to Controlling Appetite Found

HealthDay

21-Feb-05

Injecting an enzyme that blocks fatty acid synthase (FAS) into the brains of mice acts on certain brain chemicals and results in decreased appetite, thereby reducing body weight, researchers report.

<http://www.healthday.com/view.cfm?id=524112>

Subcategory: Oncology

Scientists Identify Gene Signature That Predicts Cancer Spread

Cordis News

19-Feb-05

Scientists have discovered a genetic protein marker that could save breast cancer patients from undergoing unnecessary chemotherapy treatment, as no reliable diagnostic tools exist to predict which breast cancer patients are most likely to relapse.

http://dbs.cordis.lu/cgi-bin/srchidadb?CALLER=NHP_EN_NEWS&ACTION=D&SESSION=&RCN=EN_RCN_ID:23

Gene May Spur Childhood Brain Cancer

HealthDay

09-Feb-05

A study found that multiple extra copies of this gene, called OTX2, had been switched back on in tumor cells taken from children with medulloblastoma, the most common form of pediatric brain cancer.

<http://www.healthday.com/view.cfm?id=523793>

Subcategory: Pulmonary/ Respiratory Diseases

DNA Vaccine Offers Hope Against Tuberculosis

Shaoni Bhattacharya

New Scientist

03-Feb-05

One third of the world population carries TB without developing symptoms. Many who develop TB relapse and about 2 million people die of TB yearly. A researcher has developed a vaccine which significantly reduced rates of relapse or reinfection in mice.

<http://www.newscientist.com/article.ns?id=dn6966>

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