



BioTechCircle News®

January, 2005

Quote of the month:

”To be successful, the biobanks must ensure that the information they collect gets maximum use by others, in the hopes of unlocking the genetic basis of diseases. Sharing all that data is a key challenge.”

http://www.bioitworld.com/archive/012105/itin_challenge.html

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

In this articles section: links to 46 free Web articles in 8 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:

Clinical Trials (1 articles) – Page 2
Industry (5 articles) – Page 2
Investments/Government Support (2 articles) – Page 3
Organizations (1 article) – Page 3
Platform Technologies (7 articles) – Page 4
Research Advancements (19 articles) – Page 5

CLINICAL TRIALS

Subcategory: Miscellaneous

Think of Teranode's Modeling Software Program as the World's Most Sophisticated Blackboard

Applied Clinical Trials 01-Jan-05

Reviews a tool to turn the sometimes-challenging protocol design into an easy-to-read flow chart that just happens to work as a data repository as well.

<http://www.actmagazine.com/appliedclinicaltrials/article/articleDetail.jsp?id=141867>

INDUSTRY

Subcategory: General

A Prescription for Information- Based Medicine

Salvatore Salamone Bio-IT World 21-Jan-05

Discusses with author, co-founder of IBM's life sciences division and current president of TurboWorx the state of the life sciences and the challenges facing information-based medicine.

http://www.bioitworld.com/archive/012105/itin_conversation.html

Subcategory: Geographic focus

3-State 'Biotech Corridor' Considered

J.L. MILLER Delawareonline 19-Jan-05

Looks at the plans of New Jersey, Delaware and Pennsylvania to collaborate on a "biotech corridor" to promote stem-cell research in this region.

<http://www.delawareonline.com/newsjournal/local/2005/01/173statebiotechco.html>

Subcategory: Investees

The Pipeline to Biotech Success

Stephen D. Simpson Motley Fool 26-Jan-05

Suggests that carefully examining a company's research-and-development pipeline is a sound method for avoiding quite a few investment pitfalls.

<http://www.fool.com/Server/FoolPrint.asp?File=/news/commentary/2005/commentary05012602>

Subcategory: Miscellaneous

Big Changes for Big Pharma
Amy Tsao Business Week 03-Jan-05

Offers 6 trends that will alter the industry in 2005, including more cautious regulation, new limits on consumer ads, more disclosure about possible side effects.

http://www.businessweek.com/bwdaily/dnflash/jan2005/nf2005013_7406_db037.htm

Subcategory: Privacy/ Records Management

Tackling the Biobank Data Challenge
Salvatore Salamone Bio-IT World 21-Jan-05

To be successful, the biobanks must ensure that the information they collect gets maximum use by others, in the hopes of unlocking the genetic basis of diseases. Sharing all that data is a key challenge.

http://www.bioitworld.com/archive/012105/itin_challenge.html

INVESTMENTS/ GOV. SUPPORT

Subcategory: Venture

The Other Guy's Shoes
Michael A. Greeley Bio-IT World 21-Jan-05

Explains that investors are trying to assess how customers will assess the vendor risk issue. Is this a product that will uniquely satisfy a meaningfully large number of customers, and not require extraordinary customization or support?

<http://www.bioitworld.com/archive/012105/nothingventured.html>

For Baby Biotechs, "a Dangerous Time"
Sarah Lacy Business Week 26-Jan-05

Veteran VC Bob Higgins explains why he expects failures among the crop of startups "caught at \$200 million and \$300 million valuations."

http://www.businessweek.com/technology/content/jan2005/tc20050126_3616_tc121.htm

ORGANIZATIONS

Subcategory: Bio Pharma

Biotech: A Big Future Behind It?
Sarah Lacy Business Week 07-Feb-05

Looks at stock performance of biotech companies with recent IPOs (initial public offerings).

Subcategory: Genomics

Defining 'Integrative Genomics'

Bio-IT World

21-Jan-05

Experts from academia and industry discuss the burgeoning field of integrative genomics, including multiple definitions.

<http://www.bio-itworld.com/archive/012105/defining.html>

A DNA Leap, with Risks

Nicholas Wade

International Herald

13-Jan-05

Researchers have made an unexpectedly sudden advance in synthesizing long molecules of DNA, bringing them closer to the goal of redesigning genes and programming cells to make pharmaceuticals.

<http://www.iht.com/articles/2005/01/12/news/gene.html>

Subcategory: High Throughput Screening

Profiling Drugs via Microscopy

Mark D. Uehling

Bio-IT World

21-Jun-05

Describes an automated microscopy technique for high-throughput drug screening. The technique could help industry categorize new compounds with known mechanisms of action — or discover altogether new ways that drugs work.

http://www.bioitworld.com/archive/012105/st_drugs.html

RESEARCH ADVANCEMENTS

Subcategory: Bioterrorism

Super Microbe's Life Code Cracked

Paul Rincon

BBC News

10-Jan-05

Experts have deciphered the complete DNA sequence for one of the most infectious germs known to science, *Francisella tularensis*, speeding up the search for a vaccine against the potentially deadly bug.

<http://news.bbc.co.uk/2/hi/science/nature/4155803.stm>

Subcategory: Cardiology/ Vascular Diseases

Gene Mutation Linked to Heart Failure and Arrhythmia

Steven Reinberg

HealthDay

25-Jan-05

Researchers have discovered that a mutation in the SCN5A gene, which controls the cardiac sodium channel, can lead to dilated cardiomyopathy (DCM), a type of heart failure, and atrial fibrillation, a type of irregular heartbeat.

<http://www.healthday.com/view.cfm?id=523604>

Muscle Loss Can Point to Heart Failure

HealthDay

13-Jan-05

It's known that congestive heart failure is associated with elevated blood levels of angiotensin II, which causes blood vessel contraction, high blood pressure and muscle wasting. Study shows how angiotensin II leads to weight loss.

<http://www.healthday.com/view.cfm?id=523329>

Subcategory: Immunology/ Infectious Diseases

Gene Clue to HIV Origin in Humans

BBC News

10-Jun-05

Scientists have pinpointed crucial differences in a gene found in rhesus monkeys that can prevent HIV infection, and its human counterpart, that cannot.

<http://news.bbc.co.uk/2/hi/health/4160849.stm>

B.C. Team Maps Genome of Disease-causing Fungus

CBC Health & Science

13-Jan-05

Scientists have mapped the genome of a fungus that causes meningitis, which could lead to better treatments. People with AIDS and others with compromised immune systems are especially vulnerable to the Cryptococcus fungus.

<http://www.cbc.ca/story/science/national/2005/01/14/fungus-genome050114.html>

Genes a Key Factor in Avoiding HIV

Ed Edelson

HealthDay

07-Jan-05

The ability to avoid infection with the AIDS virus depends in part on how many copies of an HIV-fighting gene a person has, a new study says, and the number of those genes varies greatly between and even within racial and ethnic groups.

<http://www.healthday.com/view.cfm?id=523268>

Subcategory: Metabolism: Obesity, Diabetes

UCLA/VA Researchers Discover Fat Gene

University of California

18-Jan-05

Scientists have identified a new gene that controls how the body produces and uses fat. Called lipin, the gene may provide a new target for therapies to control obesity, diabetes and other weight-related disorders.

http://www.eurekalert.org/pub_releases/2005-01/uoc--urd011805.php

Subcategory: Musculoskeletal

Gene 'Raises Osteoarthritis Risk'

BBC News

10-Jan-05

Scientists have found a mutant form of a gene called asporin was more common in osteoarthritis patients. The more severe the disease, the more likely the mutant form of asporin was to be present.

<http://news.bbc.co.uk/1/hi/health/4154579.stm>

Micromachine Grows its Own Muscles

Will Knight

New Scientist

17-Jan-05

Scientists grew a length of muscle about 100 microns long on the underside of a silicon frame measuring 200 microns. The cells were taken from a rat's heart and grown in a culture that mimics natural biological conditions.

<http://www.newscientist.com/article.ns?id=dn6887>

Subcategory: Neurology

Researchers Discover Genetic Variant That May Explain Why Women Develop M.S. More than Men

Mayo Clinic

27-Jan-05

How much of the protein known as 'interferon gamma' you produce appears to be a new key variable in understanding who gets MS and who doesn't, and especially why women develop MS more often than men.

http://www.eurekaalert.org/pub_releases/2005-01/mc-rdg012505.php

New Genetic Clues Provide Better Understanding of Epilepsy

News-Medical

05-Jan-05

Recent advances in the understanding of the human genome have helped to identify genes that can, when altered, lead to disruption of neurons' normal function and so predispose to epilepsy.

<http://www.news-medical.net/?id=7128>

Subcategory: Oncology

Third Pathway Found for DNA Damage

Bioscience Technology

11-Jan-05

New research, using RNA interference, suggests that blocking a particular protein (MAPKAP kinase-2) may make it possible to increase the sensitivity of cancer cells to chemotherapeutic agents,

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0501~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~G.htm>

- Genetic Profiling of Ovarian Cancer**
Drug Discover & 15-Jan-05
Using microarrays, researchers have come up with a genetic profile of ovarian cancer that they say is a useful prognostic tool. The profile, consisting of 115 genes, was found through a screen of 12,000 genes from 68 patient samples.
<http://www.dddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0501&RELTYPE=PR&ORIGRELTYPE=GNP&PRODCODE=00000000&PRODLETT=R>
- Genetic Technique Bolsters Immune Cells to Battle Cancer**
HealthDay 25-Jan-05
Using specialized genetic techniques, scientists redirected immune cells to aggressively attack and kill cancer cells, providing provides new understanding about how to prompt the immune system to specifically and efficiently target cancer cells.
<http://www.healthday.com/view.cfm?id=523579>
- New Colon Cancer Marker Found**
Serena Gordon HealthDay 20-Jan-05
During embryonic development and wound repair, the body undergoes epithelial-mesenchymal transition (EMT). A molecule was found to be expressed during EMT in cancer cells; elevated levels of the marker were associated with reduced survival time.
<http://www.healthday.com/view.cfm?id=523526>
- New Clues to Tumor Toughness**
HealthDay 20-Jan-05
Researchers discover how malignant cells develop resistance to treatment in the first study to show that a protein that moves between cells can retain its function long enough to let recipient cells survive chemotherapy and develop their own resistance.
<http://www.healthday.com/view.cfm?id=523502>
- Deficient DNA Repair Capacity Associated with Increased Risk of**
Innovations Report 19-Jan-05
Studies have suggested that deficiency in cells' capacity for DNA repair contributes to the accumulation of DNA damage and accelerates the genetic changes involved in carcinogenesis.
http://www.innovations-report.com/html/reports/life_sciences/report-39025.html
- U-M Scientists Find Genes That Control Growth of Common Skin**
University of Michigan 07-Jan-05
Scientists have uncovered a subset of tumor cells that were resistant to inhibition of the Hedgehog pathway. The new finding has important

implications for the treatment of this widespread disease.

<http://www.med.umich.edu/opm/newspage/2005/skincancer.htm>

Subcategory: Proteomics

New Gene Principle Changes the Rules

Ed Edelson

HealthDay

13-Jan-05

Researchners report the discovery of a process called alternative splicing, in which a single gene can make many different proteins. The finding could lead to new treatments for many diseases.

<http://www.healthday.com/view.cfm?id=523386>

RESEARCH TOOLS

Subcategory: Computing Systems

Software Supports High-Throughput Screening

Bioscience Technology

13-Jan-05

The National Institutes of Health's (NIH) Chemical Genomics Center (NCGC) will implement a software platform to improve collaboration among researchers.

<http://www.biosciencetechnology.com/ShowPR~PUBCODE~090~ACCT~9000000100~ISSUE~0501~RELTYPE~PR~ORIGRELTYPE~RLSN~PRODCODE~00000000~PRODLETT~J.html>

Subcategory: Metabolism: Obesity, Diabetes

Startling Results from New Biomedical Research International

Economic & Social

27-Jan-05

Researchers have discovered how to convert liver cells of mice into pancreatic cells using a single injection. This may eventually lead to a cure for diabetes.

http://www.eurekaalert.org/pub_releases/2005-01/esr-srf012705.php

Subcategory: Neurology

Allen Brain Institute Debuts 'Google for Gene Activity'

Levin Davis

Bio-IT World

21-Jan-05

Describes the first public release of the Allen Brain Atlas initiative - a set of gene-expression data in the brain for nearly 2,000 mouse genes, with relevance for the study of brain function, disease, and the role of genes in governing human behavior.

http://www.bioitworld.com/archive/012105/itin_google.html

THERAPEUTIC CATEGORY

Subcategory: Addiction

Protein Plays Key Role in Alcohol Abuse

Amanda Gardner HealthDay 04-Jan-05

A protein, tissue-plasminogen activator (tPA), that plays a critical role in dissolving blood clots also appears to have a role in alcohol addiction. This protein may play a role in dependence and on the sometimes violent withdrawal symptoms.

<http://www.healthday.com/view.cfm?id=523216>

Subcategory: Cardiology/ Vascular Diseases

The Race Prescription Card

Kevin Davies Bio-IT World 21-Jan-05

The FDA is on the verge of approving the first "ethnic medicine" — a heart disease drug called BiDil that is particularly effective in African-Americans.

<http://www.bioitworld.com/archive/012105/firstbase.html>

C-Reactive Protein a Red Flag for Heart Trouble

Ed Edelson HealthDay 06-Jan-05

Blood levels of a molecule called C-reactive protein are just as important as cholesterol readings when measuring cardiovascular risk, say two studies that looked at the issue in different groups of patients.

<http://www.healthday.com/view.cfm?id=523240>

New Insight into Link Between Homocysteine and Stroke

Medical News Today 16-Jan-05

People with high concentrations of homocysteine, an amino acid in the blood, may have an increased risk of stroke, suggests a study.

<http://www.medicalnewstoday.com/medicalnews.php?newsid=18934>

Urine Test May Predict Preeclampsia Risk

Jennifer Warner WebMD Health 04-Jan-05

Researchers found that reduced levels of a substance known as placental growth factor (PIGF) starting at weeks 25-28 of pregnancy were associated with a higher risk of developing preeclampsia later in the pregnancy.

http://my.webmd.com/content/article/99/105076.htm?z=1728_00000_1000_tn_04

Subcategory: Immunology/ Infectious Diseases

Inflammation Lets Prions Invade "Safe" Tissue

Emily Singer

New Scientist

20-Jan-05

Inflammation can cause the deformed proteins that cause prion diseases, such as BSE, to invade organs that normally resist infection. New research could mean that some organs previously thought to be safe to eat are not.

<http://www.newscientist.com/article.ns?id=dn6907>

Subcategory: Oncology

Melanoma Vaccine Triggers T-Cells to Attack Tumors

HealthDay

17-Jan-05

Vaccines that contain tumor proteins help fight deadly melanoma skin cancer by increasing the number of immune system killer T-cells that can attack the tumor.

<http://www.healthday.com/view.cfm?id=523254>

Oleic Acid Kills Breast Cancer Cells in Lab Study

Nutra Ingredients

10-Jan-05

New lab research offers strong support for the protective effect of the Mediterranean diet –rich in olive oil and other plant foods containing oleic acid - against cancer.

<http://www.nutraingredients.com/news/news-ng.asp?n=57167-oleic-acid-kills>

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