



---

## BioTechCircle News®

February, 2006

---

Quote of the month:

A molecular computer that uses enzymes to perform calculations has been built. Researcher believes enzyme-powered computers could eventually be implanted into the human body and used to tailor the release of drugs to a specific person's metabolism.

<http://www.newscientist.com/channel/info-tech/dn8767.html>

---

**In this articles section: links to 63 free Web articles in 13 major categories.**

The major categories are in alphabetical order and further subdivided to make it easy for you to locate news and developments in technology, the business and the markets in the life science areas of interest to you.

*Note: if the links don't connect you directly, please copy and paste the entire URL into your web browser.*

Here are the major categories and the page where each category starts:

Agri-Biotech (1 article) – Page 2  
Biobusiness Management (3 articles) – Page 2  
Clinical Trials (1 article) – Page 2  
Contract Services (1 article) – Page 3  
Drug Delivery (1 article) – Page 3  
Industry (6 articles) – Page 3  
Investments/Government Support (4 articles) – Page 4  
Personalized Medicine (1 article) – Page 5  
Pharmaceuticals (1 article) – Page 6  
Platform Technologies (15 articles) – Page 6

Research Advancements (18 articles) – Page 9  
Research Tools (9 articles) – Page 13  
Therapeutic Category (4 articles) – Page 15

---

## AGRI-BIOTECH

### *Subcategory: Food*

#### **The Future of Nutritional Genomics is Collaboration**

Bio.com

09-Feb-06

More than 80 leading researchers in the fields of nutrition and genetics are collaborating to co-author a report outlining their strategy for maximizing the impact of nutrigenomics research on global poverty and health.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=16800004>

---

## BIOBUSINESS MANAGEMENT

### *Subcategory: Contract Research*

#### **Study: Cost Isn't Main Factor for Offshoring R&D**

Bizjournals.com

16-Feb-06

Intellectual capital and university collaboration, not just lower costs, are the main reasons companies have to move research and development activities to other countries, according to a study of more than 200 multinational companies in 15 industries.

[http://www.bizjournals.com/industries/health\\_care/biotechnology/2006/02/13/kansascity\\_dail](http://www.bizjournals.com/industries/health_care/biotechnology/2006/02/13/kansascity_dail)

---

## CLINICAL TRIALS

### *Subcategory: Bioinformatics*

#### **Pfizer Data Mining Focuses on Clinical Trials**

Bio-IT World

23-Feb-06

Pfizer is turning to sophisticated data mining techniques to help improve the design of new trials, to better understand possible new uses for existing drugs, and to help examine how drugs are being used after they have been approved.

<http://www.bio-itworld.com/newsitems/2006/february/02-23-06-news-pfizer>

---

## CONTRACT SERVICES

### *Subcategory: Industry, general*

#### **The Great Indian Outsourcing Store**

Express Pharma

15-Jan-06

As many global pharma giants turn to India for outsourcing their manufacturing, research, clinical trials, data management, Indian goliaths are themselves exploring outsourcing opportunities.

<http://www.expresspharmapulse.com/20060115/management01.shtml>

---

## DRUG DELIVERY

### *Subcategory: Gene Therapy*

#### **Scientists Force Viruses to Evolve as Better Delivery Vehicles for Gene Therapy**

EurekaAlert!

07-Feb-06

Researchers have shown that viruses can be forced to evolve in ways to benefit humans, by directing the change in a way that would allow the virus to slip past the body's immune defenses, making it a more viable vehicle for gene therapy.

[http://www.eurekaalert.org/pub\\_releases/2006-02/uoc--sfv020706.php](http://www.eurekaalert.org/pub_releases/2006-02/uoc--sfv020706.php)

---

## INDUSTRY

### *Subcategory: Academia/Laboratories*

#### **BDB Plans Bioscience Boot Camp**

Brian Bandell

Bizjournals.com

07-Feb-06

An educational class is geared to teach non-scientific people who want to learn the basics of biotech. Many attendees are in industries that want to work with biotech, such as real estate, law, venture capital or economic development

<http://southflorida.bizjournals.com/southflorida/stories/2006/02/06/daily19.html>

### *Subcategory: Bio Pharma*

#### **2 Maryland Biotech Firms Report Big Losses**

Bizjournals.com

09-Feb-06

The amount of money needed to get a drug to market is undeniable and extraordinary, evidenced by Advancis Pharmaceutical Human Genome Sciences reporting that they lost tens of millions of dollars in 2005.



USA Department of  
Reports on the Oncology Biomarker Qualification Initiative (OBQI) –  
an agreement to collaborate on improving the development of  
cancer therapies and the outcomes for cancer patients through biomarker  
development and evaluation.  
<http://www.fda.gov/bbs/topics/news/2006/NEW01316.html>

14-Feb-06

***Subcategory: Geographic focus***

**Murdock Breaks Ground on Biotech Hub**

Bizjournals.com

23-Feb-06

A 350-acre biotech complex is to be built at the former Pillowtex  
Corp. headquarters site in downtown Kannapolis, North Carolina.

<http://charlotte.bizjournals.com/charlotte/stories/2006/02/20/daily41.html>

**Businessman Offers \$100 Million for Biotech if State Will Match Funds**

Mike Sunnucks

Bizjournals.com

28-Feb-06

A Scottsdale real estate developer is pledging \$100 million to help  
attract biotechnology investments and research to Arizona but wants  
the state government to match that private gift with a \$150 million  
investment.

[http://www.bizjournals.com/industries/health\\_care/biotechnology/2006/02/27/phoenix\\_daily8](http://www.bizjournals.com/industries/health_care/biotechnology/2006/02/27/phoenix_daily8).

***Subcategory: State***

**Three Grant Funds to Illuminate Triad's Biotech Opportunities**

Chris Gigley

Bizjournals.com

20-Feb-06

The academy that is being coordinated by the Greensboro chamber will  
essentially help local leaders in business, politics and economic  
development gain a better grasp of the broad implications of biotech.  
Tells of other area activities.

<http://triad.bizjournals.com/triad/stories/2006/02/20/focus2.html>

---

## **PERSONALIZED MEDICINE**

***Subcategory: Human Therapeutics***

**Enzyme Computer Could Live Inside You**

New Scientist

23-Feb-06

A molecular computer that uses enzymes to perform calculations has  
been built. Researcher believes enzyme-powered computers could  
eventually be implanted into the human body and used to tailor the  
release of drugs to a specific person's metabolism.

## PHARMACEUTICALS

### *Subcategory: Bio Pharma*

#### **TOP 20 Biologics Now with Sales of US\$ 37.7 Bln in 2005**

Biospace

13-Feb-06

The strongest growth rates were found for therapeutic antibodies (Avastin: + 141%; Humira: +64 %; Herceptin: +48 %) which made out 6 of the 20 biologics.

[http://www.biospace.com/news\\_story.aspx?StoryID=9700&full=1](http://www.biospace.com/news_story.aspx?StoryID=9700&full=1)

---

## PLATFORM TECHNOLOGIES

### *Subcategory: Cell Therapy*

#### **Findings Advance Use of Adult Stem Cells for Replacement Bone**

EurekAlert!

13-Feb-06

Researchers have discovered a new way to culture adult stem cells from bone marrow such that the cells themselves produce a growth matrix that is rich in important biochemical growth factors.

[http://www.eurekalert.org/pub\\_releases/2006-02/ru-fau021306.php](http://www.eurekalert.org/pub_releases/2006-02/ru-fau021306.php)

#### **UCI Researchers Discover Key Factor for Survival of Human Embryonic Stem Cells**

University of California

16-Feb-06

Scientists have discovered a way to keep large quantities of human embryonic stem cells (hES) cells alive, a finding that could potentially lead to mass production of hES cells for therapeutic use at lower cost.

[http://today.uci.edu/news/release\\_detail.asp?key=1435](http://today.uci.edu/news/release_detail.asp?key=1435)

### *Subcategory: Diagnostic Test Systems*

#### **Rochester Scientists Develop Fast-Working Biosensor**

Bio.com

23-Feb-06

Scientists have demonstrated a new technology that accurately, rapidly detects the meat-spoiling, sometimes dangerous E. coli bacteria. It uses a protein from the bacteria as part of the sensing system, also includes a silicon chip, digital camera.

<http://www.bio.com/realm/research.jhtml?realmId=3&cid=17400008>

### *Subcategory: Genomics*

#### **Chromosome Rearrangements Not as Random as Believed**

Bio.com

16-Feb-06

Scientists are finding some genetic events, such as rearrangements in chromosomes, are less random than they had previously thought. Abnormal chromosomes may, rarely, result in a disabling genetic disease one or two generations later.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=17000077>

#### **Study Finds 60 New Genes Controlled by DNA Snippet**

Bio.com

01-Feb-06

A new wave of research is concerned with, not how genes work, but how small regulatory DNA sequences tell genes where, when and to what degree to "turn on."

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=16500047>

#### **Study Finds 60 New Genes Controlled by DNA Snippet**

EurekAlert!

01-Feb-06

Knowledge of how regulatory sequences control gene behavior has the potential to create new classes of treatment for nerve disorders and heart failure, may help to explain why humans are so complex, despite having 1/5 as much genetic material as wheat.

[http://www.eurekalert.org/pub\\_releases/2006-02/uorm-sf6020106.php](http://www.eurekalert.org/pub_releases/2006-02/uorm-sf6020106.php)

#### **Researchers Assemble Second Non-human Primate Genome**

EurekAlert!

09-Feb-06

Because of its genetic, physiologic and metabolic similarities with humans, the rhesus macaque is the major, non-human primate used for the study of human disease, and also serves as an important system in drug development.

[http://www.eurekalert.org/pub\\_releases/2006-02/nhgr-ras020906.php](http://www.eurekalert.org/pub_releases/2006-02/nhgr-ras020906.php)

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

#### **Berkeley Researchers Lay Groundwork for Cell Version of DNA Chip**

Lowrence Berkeley

06-Feb-06

Single strands of synthetic DNA are used to firmly fasten biological cells to non-biological surfaces, holds promise for applications including biosensors, drug-screening technologies, growing of artificial tissues and design of neural networks.

<http://www.lbl.gov/Science-Articles/Archive/PBD-DNA-chip.html>

### **Critical Biomarkers Revealed Through Novel Expression Profiling of miRNAs**

David Brown, Emmanuel Pharmaceutical Discovery 31-Mar-06  
Labourier, Sapna Chacko

The expression levels of all known miRNAs are evaluated using a proprietary microarray detection system. These high-throughput analysis tools are critical to identifying miRNA function both in normal tissues and during tumorigenesis.

<http://www.pharmagenomicsonline.com/pharmagenomics/article/articleDetail.jsp?id=154153>

### ***Subcategory: Nanotechnology***

### **Cornell Scientists Build 'Nano-keys' to Bind Cell Receptors and Trigger Allergic Reactions**

Bio.com 16-Feb-06

Nanotechnology gives researchers new tools to understand the role of cell membranes in activating responses within cells. Scientists might use them to develop new drug therapies for allergies and other immune responses, high cholesterol, viral infections.

<http://www.bio.com/realm/research.jhtml?realmId=5&cid=17000075>

### **Detection of DNA on Nanotubes Offers New Sensing, Sequencing Technologies**

University of Illinois, 17-Feb-06

Researchers have found that DNA-wrapped nanotubes can be used to target specific DNA sequences. Potential applications for the new sensors range from rapid detection of hazardous biological agents to simpler and more efficient forensic identification.

<http://www.news.uiuc.edu/news/06/0217dna.html>

### ***Subcategory: Oncology***

### **First Disease-specific (Breast Cancer) Protein Library Opens New Drug Paths**

EurekAlert! 08-Feb-06

The systematic approach enabled and demonstrated will allow researchers to track cancer-causing proteins in simulated environments, with the goal of learning how to impede them.

[http://www.eurekalert.org/pub\\_releases/2006-02/hms-fd020806.php](http://www.eurekalert.org/pub_releases/2006-02/hms-fd020806.php)

### *Subcategory: Proteomics*

#### **WOWing the Crowds**

Bio.com

03-Feb-06

Scientists have developed a method, called WOW for water-oil-water, that could speed up the process of identifying novel protein molecules for medical or biological research hundreds of times over.

<http://www.bio.com/realm/research.jhtml?realmId=2&cid=16700025>

#### **Computer Tutoring for Protein Origami**

Catherine Shaffer

Genomics & Proteomics

01-Feb-06

Globular proteins fold very quickly, but little is known about how they do it. Improvements in computing power and novel approaches are whittling away at the mysteries of protein movement.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0602&RELTYPE=PR&ORIGRELTYPE=BIO&PRODCODE=00000000&PRODLETT=BI>

### *Subcategory: Virology*

#### **New Images Capture Virus in Extraordinary Detail**

MIT News Office

08-Feb-06

The photographs clearly show a long coil of DNA dangling inside the viral shell, waiting to be ejected via a protein channel just inside the shell exterior.

<http://web.mit.edu/newsoffice/2006/virus.html>

---

## **RESEARCH ADVANCEMENTS**

### *Subcategory: Bioterrorism*

#### **Bioterrorists Beware: Biotech Is Not Your Friend**

John Schneide

Genomics & Proteomics

01-Feb-06

Describes the development of the next generation of early-warning sensors, noting that the technical challenges confronting people working to advance environmental detection technology for biodefense are monumental.

<http://www.genpromag.com/ShowPR.aspx?PUBCODE=018&ACCT=1800000100&ISSUE=0602&RELTYPE=PR&ORIGRELTYPE=CVS&PRODCODE=00000000&PRODLETT=BB>

### *Subcategory: Immunology/ Infectious Diseases*

#### **'DNATtarget' to Block HIV Found**

BBC News 26-Feb-06  
Scientists have discovered how a molecule called LEDGF controls HIV's ability to hijack the genetic machinery of human cells, giving experts a new target for blocking the virus.

<http://news.bbc.co.uk/1/hi/health/4746926.stm>

### **Genomics in Antibacterial Drug Discovery**

Krishnanand Kumble Drug Discovery & Development 01-Feb-06

There is a need for new classes of antibacterials with novel modes of action. Using pathogen genomes to focus on pathogenesis machinery allows for the design of antibacterials less prone to antibiotic resistance.

<http://www.ddmag.com/ShowPR.aspx?PUBCODE=016&ACCT=1600000100&ISSUE=0602&RELTYPE=PR&ORIGRELTYPE=RR&PRODCODE=00000000&PRODLETT=AI>

### **Flesh-eating Bacteria Escape Body's Safety Net**

EurekAlert! 20-Feb-06

Scientists have discovered that so-called flesh-eating "Strep" bacteria use a specific enzyme to break free of the body's immune system, a finding which could potentially lead to new treatments for serious infections in human patients.

[http://www.eurekalert.org/pub\\_releases/2006-02/uoc--fbe021306.php](http://www.eurekalert.org/pub_releases/2006-02/uoc--fbe021306.php)

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

### **Removing DNA Repair Gene Causes Metabolic Syndrome**

Bio.com 08-Feb-06

Scientists have found that generating mice that lack the gene encoding the DNA repair enzyme NEIL1 causes them to develop severe obesity and reach nearly twice the weight of their normal counterparts.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=16600003>

### *Subcategory: Musculoskeletal*

### **Sydney Scientists Discover and License Breakthrough Anti-inflammatory Treatment**

EurekAlert! 08-Feb-06

Scientists have developed what could be the next big blockbuster treatment for inflammatory diseases such as rheumatoid arthritis and asthma; the antibody acts at a different and earlier point in the inflammatory process.

[http://www.eurekalert.org/pub\\_releases/2006-02/ra-ssd020706.php](http://www.eurekalert.org/pub_releases/2006-02/ra-ssd020706.php)

**Subcategory: Nephrology/ Urology**

**Engineering Nerve Jumper Cables for Spinal Cord Repair in Animal Model**

Bio.com

16-Feb-06

Scientists have created a three-dimensional neural network, a mini nervous system in culture, which can be transplanted en masse. Proof-of-principle research has implications for eventually becoming a new method to repair spinal cord injury in humans.

<http://www.bio.com/realm/research.jhtml?realmId=4&cid=17000056>

**Subcategory: Neurology**

**UCLA Scientists Find Male Gene in Brain Area Targeted by Parkinson's**

Bio.com

20-Feb-06

Scientists have discovered that a sex gene responsible for making embryos male and forming the testes is also produced by the brain region targeted by Parkinson's disease, which may explain why more men than women develop the disease.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=17100008>

**Alzheimer's Found to Be Mostly Genetic**

Bio.com

06-Feb-09

Alzheimer disease has a genetic cause in up to 80% of cases, according to a study of nearly 12,000 twin pairs. The study raises doubts about the widely held view that Alzheimer's has 2 forms: the familial (genetic) and the sporadic (environmental) causes.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=16800015>

**Researchers Discover a Natural Defence Mechanism for Alzheimer's**

Canadian Institute of Health Research

16-Feb-06

Researchers have demonstrated that bone marrow-derived microglia infiltrate amyloid plaques and succeed in destroying them most efficiently. These immune cells are specifically attracted by the amyloid proteins that are the most toxic to nerve cells.

<http://www.cihr-irsc.gc.ca/e/30601.html>

**Subcategory: Oncology**

**Researchers Unlock New Information About How Cells Determine Their Functions**

Bio.com

27-Feb-06

Researchers have discovered a molecular mechanism that directs the fate and function of cells during animal development. The findings could hold promise for the advancement of cancer and stem-cell research.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=17500017>

### **When Good DNA Goes Bad**

Bio.com

10-Feb-06

When otherwise normal DNA adopts an unusual shape called Z-DNA, it can lead to the kind of genetic instability associated with cancers such as leukemia and lymphoma, according to a study.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=17000008>

### **A Cancer Promoting Protein Shows Up in an Unexpected Place in the Cell**

Bio.com

16-Feb-06

Researchers have discovered a protein widely known to cause the out-of-control growth of cells can actually be manipulated to induce those cells to commit suicide, providing a novel target for the development of anti-cancer drugs.

<http://www.bio.com/realm/research.jhtml?realmId=2&cid=17000055>

### **Researchers Break Chain of Biochemical Events That Brain Cancer Cells Use to Evade Therapy**

EurekAlert!

03-Feb-06

Researchers have found a way to decrease cells resistance to therapies that are designed to trigger cell death. The research centers on a protein called TRAIL (tumor necrosis factor related apoptosis inducing ligand).

[http://www.eurekalert.org/pub\\_releases/2006-02/cmc-rbc020306.php](http://www.eurekalert.org/pub_releases/2006-02/cmc-rbc020306.php)

### *Subcategory: Otolaryngology*

### **Hormone Linked to Good Hearing as We Age**

EurekAlert!

10-Feb-06

Researchers are looking at the possibility of using gene therapy to try to correct the problem of hearing loss due to aging. Such an approach might also address the biggest cause of congenital deafness.

[http://www.eurekalert.org/pub\\_releases/2006-02/uorm-hlt021006.php](http://www.eurekalert.org/pub_releases/2006-02/uorm-hlt021006.php)

### *Subcategory: Proteomics*

**Preterm Birth Risk Quickly and Accurately Detected with Proteomic**  
EurekAlert! 01-Feb-06

By profiling specific proteins in amniotic fluid for inflammation, researchers can quickly and accurately detect potentially dangerous infections in pregnant women, and also predict the possibility of premature birth.

[http://www.eurekalert.org/pub\\_releases/2006-02/yu-pbr020106.php](http://www.eurekalert.org/pub_releases/2006-02/yu-pbr020106.php)

*Subcategory: Reproduction*

**Male-specific Gene SRY Directly Controls Neuronal Function in the**  
Bio.com 21-Feb-06

Researchers show that the mammalian gene SRY, which is the key sex-determination gene that directs gonads to develop as testes rather than ovaries, is also required in males for the normal function of a particular set of neurons in the adult mouse brain.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=17100013>

**A Surprising Pair of Proteins Help Make Healthy Eggs**  
Brown University 15-Feb-06

Without granulosa cells, eggs cannot mature and be successfully fertilized. Researchers have found that 2 proteins team up to turn on about 2 dozen genes inside the nuclei of granulosa cells.

[http://www.brown.edu/Administration/News\\_Bureau/2005-06/05-075.html](http://www.brown.edu/Administration/News_Bureau/2005-06/05-075.html)

---

## RESEARCH TOOLS

*Subcategory: Computing Systems*

**Tech Accelerates Drug Discovery with Supercomputer**  
Georgia Institute of 08-Feb-06

The Center for the Study of Systems Biology at Georgia Institute of Technology will use one of the world's most powerful supercomputing clusters to advance research into new drugs for the treatment of life-threatening diseases, including cancer.

<http://www.gatech.edu/news-room/release.php?id=854>

**'Artificial' Genes Design Simplified, Automated and Speeded up, by Gene Design Program from Johns Hopkins**  
Medical News Today 23-Feb-06

Researchers have announced the development of a Web-based, automated computer program that they say greatly simplifies the time-consuming and error-prone process of manually designing artificial

pieces of DNA.

<http://www.medicalnewstoday.com/medicalnews.php?newsid=37882&nfid=rssfeeds>

### *Subcategory: Databases*

#### **Argonne's Structural Biology Center First to Produce 1,000 Structures That Improve Understanding of Human and Environmental Health**

Argonne Natinal

27-Jan-06

Reports on the latest addition to the data bank that houses the molecular structures of all proteins characterized so far and makes them available to researchers worldwide to study.

[http://www.anl.gov/Media\\_Center/News/2006/SBC060127.html](http://www.anl.gov/Media_Center/News/2006/SBC060127.html)

#### **Study Suggests Publicly Available Genome Data May Contain Small But Significant Errors**

Bio.com

16-Feb-06

Researchers describe a high throughput microarray technique that involves testing many samples simultaneously and which can be used to assemble physical maps and validate genomic sequence assemblies.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=17000057>

#### **Searching for Answers: NCBI's David Lipman**

Juan Carlos Perez

Bio-IT World

01-Feb-06

Director of the National Center for Biotechnology Information discusses the emergence of Google and Yahoo as scientific research tools, as well as major improvements on tap to PubMed's search functionality.

<http://www.bio-itworld.com/newsitems/2006/february/02-01-06-news-lipman?page=1>

#### **Web Program Simplifies Artificial Gene Design**

New Scientist

17-Feb-06

The cost of gene synthesis is rapidly falling with dozens of companies around the world now offering to create genes to order from the chemical components of DNA. Software suites should make it easier for researchers to modify and study DNA.

<http://www.newscientist.com/channel/health/dn8737.html>

### *Subcategory: Evolution Research*

#### **Cancer Researchers Found a New Mechanism Potentially Explaining Evolution of Signalling Pathways**

EurekaAlert!

07-Feb-06

The finding is the first clear demonstration of a major difference in the function of conserved signalling pathways between species.

[http://www.eurekaalert.org/pub\\_releases/2006-02/uoh-crf020706.php](http://www.eurekaalert.org/pub_releases/2006-02/uoh-crf020706.php)

*Subcategory: Genomics*

**Abundance of New MicroRNAs Not a Mirage**

Bio.com

28-Feb-06

Researchers have discovered 133 new microRNAs in the largest analysis of human microRNAs to date. This increases the number of experimentally verified microRNAs by almost 50%, providing new tools for understanding how genes are regulated.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=17500032>

*Subcategory: Oncology*

**Genes Involved In Cell Growth And Cell Division Identified**

Science Daily

23-Feb-06

A study shows that hundreds of genes contribute to cell growth and cell division. For the first time these genes, many of which are potential contributors to cancer, have been mapped in a single systematic study.

<http://www.sciencedaily.com/releases/2006/02/060223083212.htm>

---

## THERAPEUTIC CATEGORY

*Subcategory: Disease Prevention*

**Broccoli Compound Has ‘Lasting Effect on Offspring’**

Nutra Ingredients

03-Feb-06

Eating 200 grams of broccoli sprouts every other day during pregnancy could protect the next generation from heart disease, suggest results of an animal study. Sprouts contain up to 50 times more Grn+ (glucoraphanin) than mature broccoli.

<http://www.nutraingredients.com/news/ng.asp?n=65597>

*Subcategory: Food*

**Veggies Contain Chemicals that Boost DNA Repair and Protect Against Cancer**

Bio.com

09-Feb-06

Researchers show that in laboratory tests, indole-3-carinol (I3C), a compound found in broccoli, cauliflower and cabbage, and genistein, a chemical found in soy beans, can increase the levels of BRCA1 and BRCA2 proteins that repair damaged DNA.

<http://www.bio.com/realm/research.jhtml?realmId=1&cid=16800007>

*Subcategory: Oncology*

**A Cancer Treatment You Can't Get Here**

Business Week

06-Mar-06

Tells of foreign patients from 22 countries seeking gene-therapy treatment in Beijing China for a Chinese gene-therapy drug, Gendicine, the world's first commercially available gene-therapy drug in 2003, that's said to kill tumor cells.

[http://www.businessweek.com/magazine/content/06\\_10/b3974104.htm](http://www.businessweek.com/magazine/content/06_10/b3974104.htm)

**Grapefruit Flavonoid May repair DNA, Protect Against Cancer**

Nutra Ingredients

17-Feb-06

Researchers have reported that one specific flavonoid found in grapefruit and oranges, naringenin, has anti-cancer effects beyond that of an antioxidant.

<http://www.nutraingredients.com/news/ng.asp?n=65906-grapefruit-flavonoids-naringenin>

---

Copyright 2006, Technology Management Associates, Inc.. All rights reserved. Please do not reprint, e-mail or host on your Web site, without explicit permission. This newsletter is for your use only.