



---

## BioTechCircle News®

November 2007

---

Featured November article:

### Here Comes Pond Scum Power

Algae biodiesel isn't practical yet, but startups and giants are enthusiastically exploring the possibilities, as one of algae's great virtues is that the plant has so little in common with other sources of fuel.

[http://www.businessweek.com/globalbiz/content/nov2007/gb20071121\\_358781.htm](http://www.businessweek.com/globalbiz/content/nov2007/gb20071121_358781.htm)

---

**In this articles section: links to 53 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:

Agri-Biotech (5 articles) – Page 2  
Biobusiness Management (3 articles) – Page 3  
Clinical Trials (2 articles) – Page 3  
Contract Services (1 article) – Page 4  
Drug Delivery (2 articles) – Page 4  
Industry (5 articles) – Page 5  
Investments/Government Support (1 article) – Page 6  
Medical Devices (1 article) – Page 6  
Novel Applications (3 articles) – Page 6  
Organizations (2 articles) – Page 7  
Pharmaceuticals (3 articles) – Page 7  
Platform Technologies (11 articles) – Page 8



gases using energy crops vs. fossil fuels.  
<http://www.rsc.org/chemistryworld/News/2007/September/21090701.asp>

---

## BIOBUSINESS MANAGEMENT

### *Subcategory: Government/ Approvals*

#### **A History of the OOS Problem**

Steven Kuwahara                      BioPharm International                      01-Nov-07

Discusses the history of dealing with out-of-specification (OOS) test results and how rules incorporated into FDA guidance documents reflect a misunderstanding of important statistical principles.

<http://www.biopharminternational.com/biopharm/ArticleStandard/Article/detail/470169>

#### **'Inadequacies' at U.S. FDA Risk Lives, Report Says {Blog}**

Bloomgerg.com                      03-Dec-07

American lives are at risk because the U.S. Food and Drug Administration lacks the funding to keep up with scientific advances, agency advisers say, including a lack of scientists who understand new technologies.

<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=ampdOikmgaIA>

### *Subcategory: Personnel Issues*

#### **From Bench To Management**

William G. Schulz                      Chemical & Engineering News                      05-Nov-07

It's not wise to think about a transition to management until you understand research and the values of the company you are working for: be a scientist first, and pursue opportunities to be a research team leader.

<http://pubs.acs.org/cen/coverstory/85/8545cover4.html>

---

## CLINICAL TRIALS

### *Subcategory: Miscellaneous*

#### **Create a Successful Project Plan for Global Trials**

Diego Glancszpigel, Graciela Rácaro                      Applied Clinical Trials                      01-Nov-07

The globalization of clinical trials has resulted in changes to clinical research regulations around the globe. Addresses how global clinical trials can be successfully planned and managed within this increasingly complex environment.

<http://www.actmagazine.com/appliedclinicaltrials/ArticleStandard/Article/detail/468092>

### *Subcategory: Subject Enrollment/Management*

#### **The Changing Roles for Telemedicine**

Deborah Borfitz

Bio-IT World

13-Nov-07

Several institutions use telemedicine as a means to get clinical data from remote sites, including hospitals abroad. Pharmaceutical companies could encourage the use of telemedicine at community-based investigative sites and even in subjects' own homes.

<http://www.bio-itworld.com/issues/2007/nov/telemedicine-and-patient-recruitment/>

---

## **CONTRACT SERVICES**

### *Subcategory: Contract Research*

#### **Bioanalytical Outsourcing**

Anthony DeStefano and

Contract Pharma

01-Nov-07

Stephen Lowes

Companies considering outsourcing should consider how an outsourcing relationship with a CRO can match core competencies. CROs should strive to develop and provide capabilities to their clients that complement in-house capabilities.

<http://www.contractpharma.com/articles/2007/11/bioanalytical-outsourcing>

---

## **DRUG DELIVERY**

### *Subcategory: Genomics*

#### **Personal Genome Race Goes Into Overdrive**

Robert Langreth

Forbes.com

16-Nov-07

DeCODE will allow anyone to get one million points on his or her genome scanned from a cheek swab with DNA on it. A variety of gene data will be posted on the Web, including genes associated with various diseases, ancestra and physical traits.

[http://www.forbes.com/2007/11/16/personal-genome-services-tech-cx\\_rl\\_1116decode.html](http://www.forbes.com/2007/11/16/personal-genome-services-tech-cx_rl_1116decode.html)

### *Subcategory: Oral Liquid*

#### **Chemistry Turns Killer Gas into Potential Cure**

University of Sheffield

15-Oct-07

Small amounts of carbon monoxieds can reduce inflammation, widen blood vessels, increase blood flow and prevent unwanted blood clotting. Describes new CO-releasing molecules (CO-RMs) for delivering the right dose to patients.

<http://www.shef.ac.uk/mediacentre/2007/902.html>



## INVESTMENTS/ GOV. SUPPORT

### *Subcategory: Venture*

#### **Venture Funding Returns to Life Sciences**

Brian O'Connell

BioPharm International

01-Nov-07

In addition to interest in companies with large R&D funding, VCs seem willing to pour more money into promising biopharmaceutical firms to hopefully catch the eye of a big pharmaceutical company on the prowl for new M&A opportunities.

<http://www.biopharminternational.com/biopharm/ArticleStandard/Article/detail/470166>

---

## MEDICAL DEVICES

### *Subcategory: Miscellaneous*

#### **Medical Polymers Renaissance**

Marc S. Reisch

Chemical & Engineering News

05-Nov-07

An upsurge in medical device innovations is on the way, driven by the needs of an aging population. The demand for polymers will grow in tandem, offering opportunities to suppliers that can withstand the long-term risks of a health-care-related business.

<http://pubs.acs.org/cen/business/85/8545bus1.html>

---

## NOVEL APPLICATIONS

### *Subcategory: Energy/ Fuel*

#### **Microbes Churn Out Hydrogen at Record Rate**

National Science Foundation

12-Nov-07

Researchers have coaxed common bacteria to produce record amounts of hydrogen in a new, efficient way, with yields of 91% using vinegar and 68% using cellulose.

[http://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=110648&org=NSF](http://www.nsf.gov/news/news_summ.jsp?cntn_id=110648&org=NSF)

### *Subcategory: Nanotechnology*

#### **Make Way for the Real Nanopod: Berkeley Researchers Create First Fully Functional Nanotube Radio**

Lynn Yarris

Berkley Laboratory

30-Oct-07

A single carbon nanotube molecule serves simultaneously as all essential components of a radio; technology could prove especially valuable for biological and medical applications, as the entire radio could fit inside a living cell.

<http://www.lbl.gov/Science-Articles/Archive/MSD-nanoradio.html>

*Subcategory: Personal Care*

**Genetic Cosmetic Makes Old Skin Like New**

Alexis Madrigal

Wired

29-Nov-07

Recent advances in understanding the cellular and molecular basis of aging have raised hopes that treatments to significantly slow or reverse aging will soon be available for humans.

[http://www.wired.com/medtech/genetics/news/2007/11/genetic\\_cosmetic](http://www.wired.com/medtech/genetics/news/2007/11/genetic_cosmetic)

---

## ORGANIZATIONS

*Subcategory: Genome Sequence*

**Sequenom's Eye on the Future**

Bio-IT World

13-Nov-07

Long term, company believes it has the potential to provide a commercially viable, rapid, sub-thousand dollar human genome sequencing solution through nanopore technology.

<http://www.bio-itworld.com/issues/2007/nov/sequenom-nanopore-technology/>

*Subcategory: Miscellaneous*

**World's Best R&D Companies**

R & D Magazine

01-Nov-07

Lists the top 25 companies in global biopharmaceutical R&D spending in 2006, with total dollar amount spent and % of revenue. Top 3: Pfizer, Johnson & Johnson, GlaxoSmithKline.

[http://www.rdmag.com/pdf/RD0710\\_cos.pdf](http://www.rdmag.com/pdf/RD0710_cos.pdf)

---

## PHARMACEUTICALS

*Subcategory: Environment*

**Drugs That Are Easier on the Environment**

Kevin Bullis

Technology Review

05-Nov-07

Pharmaceuticals from natural sources could be easier to find and cleaner to make, thanks to a new, iron-based catalyst by selectively altering complex molecules to make them more bioactive and by helping reduce toxic waste.

<http://www.technologyreview.com/Biotech/19660/>

*Subcategory: Personal Care*

**Science Friction with Bob Wolke**



### **A Novel Approach to DNA Analysis**

Alexandra M. Goho                      Technology Review                      08-Nov-07

A significant number of human genes have fruit-fly analogues. Comparing fruit flies reveals a new way to identify the functional elements of genomes: how genes influence what an animal will look like, what it will eat, what behavior it will exhibit.

<http://www.technologyreview.com/Biotech/19689/>

### **Duke Scientists Map 'Silenced Genes'**

Lauran Neergaard                      Wired                      30-Nov-07

Scientists have identified "silenced genes," those inherited from your parents that have been switched off, creating the first map of this unique group of about 200 genes believed to play a profound role in people's health.

[http://news.wired.com/dynamic/stories/S/SILENCED\\_GENES?CTIME=2007-11-30-06-49-06](http://news.wired.com/dynamic/stories/S/SILENCED_GENES?CTIME=2007-11-30-06-49-06)

### *Subcategory: Human Therapeutics*

### **Better Blood Vessels**

Amanda Schaffer                      Technology Review                      09-Nov-07

Researchers have developed artificial blood vessels that are derived from human cells but appear to have long shelf lives and are unlikely to provoke an immune response. Applications include heart-bypass operations, dialysis, or other procedures.

<http://www.technologyreview.com/Biotech/19693/>

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

### **Naked Proteomics**

Catherine Shaffer                      Drug Discovery & Development                      01-Oct-07

Label-free systems to studying protein structure and function, a pleasant alternative to traditional technologies, fall into 2 general categories: classic, such as column chromatography and novel, such as surface plasmon and acoustic wave.

<http://www.dddmag.com/label-free-proteomics.aspx>

### *Subcategory: Nanotechnology*

### **Imaging Carbon Nanotubes Inside a Living Organism**

NanoWerk                      07-Nov-07

Researchers are also looking at the unique biological properties of carbon nanotubes (CNTs) for potential biomedical uses such as nucleic acid sensors and as scaffolds for cells in tissue engineering.

<http://www.nanowerk.com/spotlight/spotid=3213.php>

### **The Challenge of Creating Visible and Nontoxic Nanomaterials for Sensing**

- NanoWerk 02-Nov-07
- A new class of nontoxic emissive nanocrystals is very promising for biological applications and is a strong candidate for future medical devices and materials.  
<http://www.nanowerk.com/spotlight/spotid=3158.php>
- Nanotechnology Water Pump Imitating Cell Pores** 09-Nov-07
- NanoWerk
- Describes a water nanopump, imitating cell pores, that would have important applications including the desalination of seawater, chemical separation, water purification, in vivo sensing and drug delivery.  
<http://www.nanowerk.com/spotlight/spotid=3246.php>
- Auto-induction Protein Production** 01-Nov-07
- Andrea Gawrylewski The Scientist
- Presents a method that produced up to 10 times the protein yields of conventional techniques and induced simultaneous expression in Escherichia coli cells.  
<http://www.the-scientist.com/article/home/53760/>
- 

## RESEARCH ADVANCEMENTS

### *Subcategory: Evolution Research*

#### **The Nature of Nurture**

- Economist 08-Nov-07
- Discusses the 2 varieties of the gene called FADS2, C and G, and increase in intelligence relating to breastfeeding.  
[http://www.economist.com/science/displaystory.cfm?story\\_id=10097684](http://www.economist.com/science/displaystory.cfm?story_id=10097684)

### *Subcategory: Immunology/ Infectious Diseases*

#### **Silencing Staph**

- Sarah Everts Chemical & Engineering News 05-Nov-07
- Many pathogens use a chemical language to assess whether enough similar bacteria are around to launch a coordinated attack on a host. A new antibody blocks Staph communication, giving the immune system time to sweep the bacteria away.  
<http://pubs.acs.org/cen/news/85/i45/8545notw2.html>

### *Subcategory: Obstetrics/ Gynecology*

#### **Cancer Cell Genes Can be Switched Off**

- University of Southern California 12-Nov-07
- New study identifies how genes are silenced in cancer cells through distinct changes in the density of nucleosomes within the cells.

<http://www.usc.edu/uscnews/stories/14531.html>

*Subcategory: Oncology*

**Immunologic Death Blow to Cancer Cells**

Howard Hughes Medical Institute

05-Nov-07

Scientists have engineered immune cells that target cells containing a protein found in up to 60% of ovarian tumors and 25% of breast tumors. In these patients, neurological symptoms usually become problematic before cancer has been detected.

<http://www.hhmi.org/news/darnell20071105.html>

---

## RESEARCH TOOLS

*Subcategory: Biomarker*

**'Cross-Omics' and Systems Toxicology**

Kurt Zingler

Bio-IT World

13-Nov-07

Toxicologists are surrounded by information that might bring them forward, yet they lack the means to make use of it, and derive informed decisions in compound profiling programs. Emerging solution is the creation of a common analytical system.

<http://www.bio-itworld.com/issues/2007/nov/cross-omics-and-systems-toxicology/>

**Back to Omics**

Bio-IT World

13-Nov-07

Omic tools are increasingly being used together to uncover valuable biomarkers to guide those now “must have” proof of concept studies bridging pre-clinical and clinical trials. Were previously deemed too expensive, too complicated, and unnecessary.

<http://www.bio-itworld.com/issues/2007/nov/biomarker-report-back-to-omics/>

*Subcategory: Computing Systems*

**OSINT and the Pharmaceutical Enterprise**

James Golden

Bio-IT World

13-Nov-07

Golden explains Deep Web resources, says creating a complete Open Source Intelligence (OSINT) picture for drug portfolio intelligence requires access to Deep Web content.

<http://www.bio-itworld.com/issues/2007/nov/insights-outlook-osint/>

**Cancer Research Gets Boost from World Community Grid Project**

Computer World

06-Nov-07

Harnessing the power of more than 795,000 computers around the world, a new research project will analyze human proteins in the fight against cancer. Analysis of 90 million images of crystallized proteins

will take 1-2 years instead of 162 years.

<http://www.computerworld.com/action/article.do?command=viewArticleBasic&articleId=90456>

### **Grids Work Like a CHARMM for Molecular Dynamics**

ISGTW

31-Oct-07

Chemistry at HARvard Macromolecular Mechanics (CHARMM) is helping researchers learn more about the interactions between proteins and water, an understanding of which can ultimately aid the design of medicinal drugs.

<http://www.isgtw.org/?pid=1000740>

### **Sight Independent—A Finger-friendly Polymer in the Works**

R & D Magazine

01-Nov-07

Researchers plan to create a dynamic electronic surface to allow blind or visually impaired people to “feel” mathematical graphs, diagrams and other visuals now displayed on computer screens.

<http://www.rdmag.com/ShowPR.aspx?PUBCODE=014&ACCT=1400000100&ISSUE=0711&RELTYPE=LST&PRODCODE=00000000&PRODLETT=AA>

### **I.B.M. Blue Gene Still the Fastest Computer**

John Markoff

The New York Times

12-Nov-07

The relatively low-power I.B.M. Blue Gene supercomputer located at the Lawrence Livermore National Laboratory still holds the title of the world’s fastest supercomputer. Top 500 supercomputer list:

<http://www.top500.org/lists/2007/11>.

<http://bits.blogs.nytimes.com/2007/11/12/ibm-blue-gene-still-the-fastest-computer/>

### *Subcategory: Neurology*

### **A Wiring Diagram of the Brain**

Emily Singer

Technology Review

19-Nov-07

The emerging field of connectomics could help researchers decode the brain's approach to information processing and they could shed light on disorders thought to originate from faulty wiring, such as autism and schizophrenia.

<http://www.technologyreview.com/Biotech/19731/>

---

## **STRATEGIC RELATIONSHIPS**

### *Subcategory: Collaboration*

### **Can Academics Save Pharma?**

Kevin Davies

Bio-IT World

13-Nov-07

Reviews Pfizer, GlaxoSmithKline and Genentech's partnering with academic groups and incubating startups with innovative technologies.

<http://www.bio-itworld.com/issues/2007/nov/first-base-can-academics-save-pharma/>

## **Suits and Lab Coats**

Marc S. Reisch

Chemical & Engineering News

19-Nov-07

Reports on examples of how industry draws on academic know-how to help develop specialty chemicals and other new materials.

<http://pubs.acs.org/cen/coverstory/85/8547cover.html>

---

Copyright 2007, Technology Management Associates, Inc.. All rights reserved. Please do not reprint or host on your Web site without explicit permission.