



BioTechCircle News®

April 2010

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In this articles section: links to 62 free Web articles in 9 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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For a brief explanation of how we categorize the articles, please see "Express Guide to Monthly Web Articles at: http://www.techmanage.net/expressguide_articles

AGRI-BIOTECH

Subcategory: Animal

Genetically Enhanced "Enviropig" Excretes 65 Percent Less Phosphorus

Clay Dillow

Popular Science

06-Apr-10

Much of the phosphorus contained in pig feed is indigestible, passing through to their urine and feces, an environmental hazard. Discusses controlled research of genetically engineered pigs that break down the phosphorus.

<http://www.popsoci.com/science/article/2010-04/genetically-enhanced-enviropig-excretes-65-percent-less-phosphorous>

Subcategory: Crops

Genetically Engineered Crops Benefit Many Farmers, but the Technology Needs Proper Management to Remain Effective

National Academy of Science

13-Apr-10

Many U.S. farmers who grow genetically engineered (GE) crops are realizing substantial economic and environmental benefits, but those GE crops could lose their effectiveness unless farmers also use other proven weed and insect management practices.

<http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12804>

Subcategory: Energy/ Fuel

Algae-Based Biofuels: Parity in Tax Code Could Encourage Investment

BIOtech Now

24-Mar-10

Industry groups are requesting the granting of algae-based biofuels tax treatment that are similar to other advanced biofuels. Incentives reduce the risk for would-be investors, as companies are ready to launch commercial facilities.

<http://www.biotech-now.org/2010/03/24/algae-based-biofuels-parity-tax-code-could-encourage-investment>

Viruses Harnessed to Split Water

MIT News

12-Apr-10

Discusses a novel way to mimic the process by which plants use the power of sunlight to split water and make chemical fuel to power their growth, using a modified virus as a kind of biological scaffold to assemble the nanoscale components.

<http://web.mit.edu/newsoffice/2010/belcher-water-0412.html>

Subcategory: Environment

INL Research Probes Microbes' Potential to Clean up Groundwater

Mike Wall

Idaho National Laboratory

16-Apr-10

Discusses the use of molecular techniques that both identify bacteria present in polluted groundwater and reveal if they're actively breaking the pollutants down. Naturally occurring microbes can help degrade contaminants cheaply and effectively.

https://inlportal.inl.gov/portal/server.pt?open=514&objID=1269&mode=2&featurestory=DA_546962

Subcategory: Environmental

Growing Grain for Food Is More Energy Efficient

Phil Robertson and Jamie Michigan State University 19-Apr-10
DePolo

Using productive farmland to grow crops for food instead of fuel is 36% more energy efficient, scientists conclude, after studying 17 years' worth of data. Ideal is to grow corn for food, use leftover stalks for field conservation and ethanol production.

<http://news.msu.edu/story/7750/>

Subcategory: Government/ Approvals

Definite Progress: European Commission Approves Amflora Potato

BIOtech Now 22-Mar-10

The European Commission approved cultivation of a biotech potato that can be used to produce industrial starch and also approved cultivation of three varieties of biotech maize for food and feed uses, and import and processing.

<http://www.biotech-now.org/2010/03/22/definite-progress-european-commission-approves-amflora-potato>

To the Top: Supreme Court to Review Ban on GE Alfalfa

BIOtech Now 02-Apr-10

An injunction banning the planting, sale of Roundup Ready alfalfa to come under the scrutiny of the U.S. Supreme Court is the first time the high court has agreed to hear oral arguments on genetically engineered crops. A decision is expected by June 2010.

<http://www.biotech-now.org/2010/04/02/top-supreme-court-review-ban-ge-alfalfa>

Subcategory: Materials

Rubber from Microbes

Katherine Bourzac Technology Review 25-Mar-10

Microbes including E. coli naturally make small amounts of isoprene as part of their metabolism. A plant gene coding for isoprene synthase, an enzyme that converts the precursor directly into isoprene, improves yield. A pilot plant may be built in 2011.

<http://www.technologyreview.com/biomedicine/24862/>

Subcategory: Microorganisms

Gut Bacteria Are What We Eat

Gut Bacteria Are What We The Scientist 07-Apr-10

The human digestive tract harbors trillions of bacteria, many of which establish lifetime, symbiotic relationships with their hosts. Diet is shown to influence the genetic diversity and functionality of the human gut microbiome.

<http://www.the-scientist.com/blog/display/57272/>

Subcategory: Oncology

Sloppy Kisses from 'Man's Best Friend' Aid Cancer Research

Steve Yozwiak

EurekaAlert!

15-Apr-10

Researchers hope that by studying canine cancers they can pinpoint the causes of human cancers, as diseases in humans show up in dogs. The goal is to translate that knowledge into therapeutics useful to both veterinarians and clinical oncologists.

http://www.eurekaalert.org/pub_releases/2010-04/ttgr-skf041410.php

BIOBUSINESS MANAGEMENT

Subcategory: Bioethics

Pfizer Gave Docs \$35 Million in Last Half of 2009

Linda A. Johnson

Pharmaceutical Processing

31-Mar-10

Patients can search a new database to see whether their doctor has received payments for consulting services, giving speeches or participating in drug testing, as well as free meals or travel reimbursement. Not all companies comply fully with new law.

<http://www.pharmpro.com/News/FeedsAP/2010/03/pfizer-gave-docs-35-million-in-last-half-of-2009/>

Down with Reviews

Steven Wiley

The Scientist

01-Apr-10

Instead of referring to the original article that made a discovery, Wiley says that many authors cite a review that mentions the paper. Even better (or worse), a single review article can be used as a substitute for a half dozen original papers.

<http://www.the-scientist.com/2010/4/1/31/1/>

Subcategory: Government/ Approvals

Data Exclusivity: Final Health Care Bill OKs 12-Year Protection Period

BIOtech Now

05-Apr-10

The new health-care bill signed into law includes 12 years of data exclusivity for manufacturers of biologics and a tax credit that will help offset a portion of the resources spent on therapeutic development activities.

<http://biotech-now.org/2010/04/05/patent-exclusivity-final-health-care-bill-oks-12-year-protection-pe>

Subcategory: Patent/Intellectual Property Issues

A Total Knockout? Gene Patents Invalidate

W. Edward Ramage and

Bio-IT World

05-Apr-10

Claire Cowart Haltom

Reviews ACLU's successful challenge of the validity of Myriad's gene patents. A final decision on who ultimately owns the rights to genes will

provide the biotech industry, researchers, and patients with a level of certainty.

<http://www.bio-itworld.com/2010/04/05/myriad-suit.html>

Patent Reform: Lawmakers Take Significant Step

BIOtech Now

07-Apr-10

Changes to US patent law would include shortening the window of post-grant review from 12 to 9 months; transitioning to a first-inventor-to-file system; improving the current system of administrative challenges to the validity of patents.

<http://www.biotech-now.org/2010/04/07/patent-reform-lawmakers-take-significant-step>

DIAGNOSTIC TOOLS

Subcategory: Cardiology/ Vascular Diseases

Gold Nanosensors Can Be Implanted in the Body to Continuously Monitor for Blood Clots and Trace Proteins

Clay Dillow

Popular Science

12-Apr-10

Sensors contain a silica core wrapped in a thin gold shell outfitted with aptamers that bind to the biomarker thrombin. Injected into the bloodstream, they harmlessly wander the body seeking out blood clots, their target.

<http://www.popsci.com/science/article/2010-04/gold-nanosensors-continuously-monitor-blood-clots>

Subcategory: Oncology

Chip Checks for Oral Cancer

Mike Williams

Rice University

05-Apr-10

Diagnostic nano-bio-chip is found to be 97% "sensitive" and 93% specific in detecting which patients had malignant or premalignant lesions; miniaturized, noninvasive approach uses touch of a lesion on the tongue or cheek with a brush.

<http://www.media.rice.edu/media/NewsBot.asp?MODE=VIEW&ID=14023&SnID=1133428454>

INDUSTRY

Subcategory: Bioethics

Physicians' Groups to Curb Industry Sway

Marilynn Marchione

Drug Discovery & Development

22-Apr-10

Describes parts of new ethics code by Council of Medical Specialty Societies to limit influence that drug and device makers have over patient care. Addresses conflict of interest concerns as private industry funds increasing share of medical research.

<http://www.ddmag.com/news-Physicians-Groups-to-Curb-Industry-Sway-42210.aspx>

ORGANIZATIONS

Subcategory: People Profiles

High School Inventors Design for the Future: 2010 Conrad Awards Winners

Elizabeth Svoboda Popular Science 13-Apr-10

Describes winners of NASA Ames Research Center's Pete Conrad Spirit of Innovation Awards Summit in 4 categories: Aerospace, Renewable Energy, Green Building, and Space Nutrition. Links to videos of each winner's technology.

<http://www.popsci.com/technology/article/2010-04/brightest-high-school-inventors-2010-conrad-awards-winners>

PEOPLE PROFILES

Subcategory: Microorganisms

Recombinant Rhymer Encodes Poetry in DNA

Bryan Gardiner Wired 22-Mar-10

Poet wants his work to live on by injecting the DNA of the hardy bacteria *Deinococcus radiodurans* with a string of nucleotides to form a comprehensible poem; he wants the protein that the cell produces in response to form a second comprehensible poem.

http://www.wired.com/magazine/2010/03/st_dnapoetry

Subcategory: Miscellaneous

Father of Liposomes Dies

Jef Akst The Scientist 02-Apr-10

Alec Bangham is the researcher who in 1961 discovered liposomes -- tiny close-membraned vesicles. Since that time, the utility of liposomes has been recognized across a wide variety of fields, from medicine to cosmetics.

<http://www.the-scientist.com/blog/display/57269/>

PLATFORM TECHNOLOGIES

Subcategory: Cell Therapy

Mystery of Fragile Stem Cells

Keith McKeown Scripps Research Institute 20-Apr-10

Researchers discover 2 novel synthetic small molecule drugs that can be added to human stem cell culture that each individually prevent the death of these cells. The mechanisms by which the compounds promote stem

cell survival are also revealed.

<http://www.scripps.edu/news/press/20100412.html>

Subcategory: Epigenetics

Rats on Junk Food Pass Cancer down the Generations

Ewen Callaway

New Scientist

20-Apr-10

A fatty diet may cause "epigenetic" DNA modifications. If rat study results also apply to people, genes such as BRCA1 and BRCA2, which are linked with breast cancer, may not be the only reason why a family history of breast cancer puts a woman at risk.

<http://www.newscientist.com/article/dn18799-rats-on-junk-food-pass-cancer-down-the-generations.htm>

Wish You Were a Genius? Just Practice, Says Geneticist David Shenk

Hannah Devlin

The Times

20-Mar-10

Epigenetics study shows that environmental experiences during our lives leave imprints on our genome that are passed on to our children. By directing these environmental influences we can surpass what we may have thought of as our inherent limitations.

http://www.timesonline.co.uk/tol/life_and_style/health/article7069310.ece

Subcategory: Genomics

Genetic Patterns Rise from Huge Yeast Samples

Physorg.com

14-Apr-10

Reports a new way to identify the hidden genetic material responsible for complex traits; breakthrough could lead to a deeper understanding of how multiple genes interact to produce everything from blue eyes to blood pressure problems.

<http://www.physorg.com/news190479870.html>

When DNA Means Do Not Ask

Camilla Long

The Times

14-Mar-10

It is predicted that by 2019 DNA mapping will be routine for all newborn children. But knowing you are at risk of certain diseases could be damaging, Long explains. "The cost to our collective mental health is incalculable."

<http://www.timesonline.co.uk/tol/news/science/genetics/article7060870.ece>

Subcategory: Materials

Experimental Explanation of Supercooling : Why Water Does Not Freeze in the Clouds

ESRF

21-Apr-10

During growth of semiconducting nanowires, scientists observed that the metal-semiconductor alloy they used remained liquid at a much lower temperature than its crystallization point. Finding applicable to hail prevention, other uses.

<http://www.esrf.eu/news/general/supercooling/>

Subcategory: Nanotechnology

New Study on Carbon Nanotubes Gives Hope for Medical Applications

Bengt Fadeel

Karolinska Institute

05-Apr-10

Scientists find that carbon nanotubes can be broken down by an enzyme - myeloperoxidase (MPO) - found in white blood cells, into water and carbon dioxide. Hope is that this new understanding can be of significance to medicine.

<http://ki.se/ki/jsp/polopoly.jsp?d=130&a=98408&l=en&newsdep=130>

Subcategory: Oncology

New Discovery Is a Significant Boost to Cancer Research

University of Anglia

01-Apr-10

Synthetic derivatives of a natural product, UDP-Galactose, block the activity of a group of enzymes called glycosyltransferases. The potent enzyme inhibitor with new mechanism of action has therapeutic potential in cancer, inflammation and infection.

<http://www.uea.ac.uk/mac/comm/media/press/2010/april/cancerboost>

Key Protein Aids In DNA Repair

Ellen de Graffenreid

University of North Carolina

10-Apr-10

Researchers have shown that a particular protein called Ku is particularly adept at healing damaged strands of DNA because it employs a unique mechanism to repair a broken chromosome, a particularly drastic form of DNA damage.

<http://www.unhealthcare.org/site/newsroom/news/2010/April/key-protein-aids-in-dna-repair>

Subcategory: Proteomics

New Method To Study Key Targets In Alzheimer's And Prostate Cancer

red Orbit

08-Apr-10

Lack of "photographs" hinders the design of drugs against diseases involving proteins that are structurally "evasive," such as those in Alzheimer's disease and in prostate cancer. Discusses new method combining lab measurements and computation.

http://www.redorbit.com/news/health/1847251/new_method_to_study_key_targets_in_alzheimers_and_prostate/index.html

Master of the Cell

Judy Lieberman

The Scientist

01-Apr-10

RNA interference has been found to be much more than just a cell's antiviral technique. This mechanism acts as a master regulator of gene expression, directing a cell's response to developmental and environmental cues.

RESEARCH ADVANCEMENTS

Subcategory: Geriatrics

Perhaps a Longer Lifespan, Certainly a Longer 'Health Span'

Bioscience Technology

15-Apr-10

Certain nutrients, as well as lower calorie intake, influence disease pathways. It may be possible to develop less drastic interventions or medicines that influence pathways affected by calorie restriction, help keep people healthy as they get older.

<http://www.biosciencetechnology.com/News/Feeds/2010/04/products-molecular-biology-perhaps-a-longer-lifespan-certainly-a-longer-heal/>

Subcategory: Immunology/ Infectious Diseases

New Vaccines May Come from Forcing Giardia Parasite to Display Its Many Disguises

Howard Hughes Medical Institute

26-Apr-10

Giardia's hardy surface proteins—which help the parasite thrive in the harsh, acidic environments of the stomach and upper intestine—might eventually be used to deliver vaccines not just against Giardia but other parasites too, including malaria.

<http://www.hhmi.org/news/lujan20100426.html>

People Pick up Pepper Virus

Bob Holmes

New Scientist

14-Apr-10

Researchers found RNA from the pepper mild mottle virus in the feces of 7% of the 304 adults they tested. Those with the virus were more likely to report fever, abdominal pain and itching than those without it.

<http://www.newscientist.com/article/dn18771-people-pick-up-pepper-virus.html>

Nanotech Vaccine Successfully Cures Type-1 Diabetes in Mice

Alessandra Calderin

Popular Science

08-Apr-10

The nanoparticles making up the vaccine are coated with protein fragments that suppress the autoimmune response characteristic of diabetes. Unlike existing treatments for autoimmune disorders, the particles do not compromise the rest of the immune system.

<http://www.popsci.com/science/article/2010-04/nanotech-vaccine-successfully-cures-type-1-diabetes-mi>

Key Molecular Step to Fighting off Viruses

Aline McKenzie

University of Texas

21-Apr-10

Researchers determine how a certain form of the “death” protein ubiquitin that normally latches onto molecules inside cells, marking them for

destruction, binds to and activates RIG-I, known to trigger the body's immune system when a virus invades a cell.

<http://www.utsouthwestern.edu/utsw/cda/dept353744/files/585716.html>

Subcategory: Metabolism: Obesity, Diabetes

How Genetic Mutations May Cause Type 1 Diabetes

Medical News Today

20-Apr-10

Diabetes-causing mutations change the charge at one end of a "diabetogenic" MHC molecule's peptide-binding groove. Points to a way of breaking 'tolerance' - the mechanism where the immune system doesn't respond to self.

<http://www.medicalnewstoday.com/articles/185973.php>

Fatness' Gene May Thin Your Brain

Celeste Biever

New Scientist

19-Apr-10

Elderly obese people are more likely to develop dementia and their brains tend to be smaller than those of people of normal weight. A gene variant called FTO, linked to obesity may harm the brain directly, increasing the risk of obesity by two-thirds.

<http://www.newscientist.com/article/dn18791-fatness-gene-may-thin-your-brain.html>

Metabolic Fingerprints Offer Path toward Personalized Medicine

R&D Magazine

12-Apr-10

Conditions such as diabetes or cardiovascular disease that stem from metabolic disorders be fully understood and more effectively treated once the fundamental mechanisms of metabolomics are uncovered. Describes experiments. Link to You Tube video.

<http://www.rdmag.com/News/2010/04/Life-Science-Genomics-Metabolic-fingerprints-offer-path-toward-personalized-medicine//>

Common Copy Number Variations Unlikely to Contribute Significantly Towards Common Diseases

Wellcome Trust

01-Apr-10

About 30 genetic variants influence susceptibility to type 2 diabetes, but these only account for about 10% of the known inherited risk. Research "is as much about ruling out possible disease-causing suspects as it is about identifying new ones."

<http://www.wellcome.ac.uk/News/Media-office/Press-releases/2010/WTX059053.htm>

Gene Provides a Link Between Lower Birth Weight and Type 2 Diabetes

Wellcome Trust

07-Apr-10

Individuals who inherit 2 risk copies of variant in a gene called ADCY5 are at a 25% higher risk of developing type 2 diabetes in adulthood than those who inherit 2 non-risk copies. Study shows that they also weigh less at birth.

<http://www.wellcome.ac.uk/News/Media-office/Press-releases/2010/WTX059086.htm>

Subcategory: Musculoskeletal

Gene Bandage Rejuvenates Wasted Muscle

Wendy Zukerman

New Scientist

06-Apr-10

AN RNA "bandage" that masks genetic mutations has prompted boys with Duchenne muscular dystrophy (DMD) to make dystrophin, a missing, muscle-strengthening protein throughout their bodies for the first time.

<http://www.newscientist.com/article/mg20627544.700-gene-bandage-rejuvenates-wasted-muscle.html>

Subcategory: Neurology

Caltech-led Team Uncovers New Functions of Mitochondrial Fusion

Lori Oliwenstein

California Institute of Technology

14-Apr-10

Fusion (the merging of two mitochondria) is highly protective, allowing the mitochondria to tolerate very high loads of mitochondrial DNA mutations. sheds light on mitochondrial encephalomyopathies, neuromuscular diseases caused by mutations in mtDNA.

http://media.caltech.edu/press_releases/13337

Mice Missing Gene Become Anxious and Obsessed

Howard Hughes Medical Institute

25-Apr-10

By switching off a single gene in mice, researchers create rodents that behave anxiously and fixate on grooming. The genetically altered mice, which behave much like people with obsessive-compulsive disorder, could help scientists design new therapies.

<http://www.hhmi.org/news/rafi20100425.html>

Study: Brain Exercises Don't Improve Cognition

Eben Harrell

Time

20-Apr-10

People who practice a certain mental task improve dramatically on that task, but the improvement does not carry over to cognitive function in general, study confirms. Undermines some excessive claims of brain-boosting websites and digital games.

<http://www.time.com/time/health/article/0,8599,1983306,00.html>

Subcategory: Oncology

Too Much HOTAIR Helps Breast Cancer Cells Migrate

Howard Hughes Medical Institute

15-Apr-10

Research on genetic mismanagement by RNA offers insights into how cancer progresses, and reveals a potential new marker that could be used to predict whether breast cancer is likely to spread to other parts of the body.

<http://www.hhmi.org/news/chang20100415.html>

Clinical Trial to Test Whether Vaccine Can Effectively Treat Melanoma

Rush University

06-Apr-10

OncoVEX melanoma vaccine includes an oncolytic virus, a reprogrammed

virus that has been converted into a cancer-fighting agent that attacks tumor cells, leaves healthy cells undamaged. Also carries biological agents that boost melanoma immune response.

<http://www.rush.edu/webapps/MEDREL/servlet/NewsRelease?id=1373>

RNA-Loaded Nanoparticles Fight Cancer

Alla Katsnelson

Technology Review

22-Mar-10

A specialized nanoparticle filled with an RNA-based cancer therapy can successfully target human cancer cells and silence the target gene. Specialized particles protect the RNA while in the bloodstream and target it directly to cancer cells.

<http://www.technologyreview.com/biomedicine/24841/>

Three New Paradigms

Sarah Greene

The Scientist

01-Apr-10

The way we research cancer and present our data to the world is undergoing a major revolution, writes Greene. Discusses 3 new trends: participatory medicine, pharmacogenomics, and the open science movement.

<http://www.the-scientist.com/2010/4/1/13/1/>

Subcategory: Ophthalmology

Gene Therapy Cures Canines of Inherited Form of Day Blindness

Jordan Reese

University of Pennsylvania

21-Apr-10

Gene therapy has been used to restore retinal cone function and day vision in two canine models of congenital achromatopsia, also called rod monochromacy or total color blindness. Results hold promise for future clinical trials in humans.

<http://www.upenn.edu/pennnews/article.php?id=1900>

Subcategory: Pediatrics/ Neonatology

Height and Death

The Visible Embryo

08-Apr-10

Mothers shorter than 4 ft, 9 in in low- to middle-income countries had about a 40% higher risk of their children dying within the first 5 years of life than mothers who were 5 ft, 3 in or taller. Greatest risk in first 30 days after birth.

<http://www.visembryo.com/>

RESEARCH TOOLS

Subcategory: Databases

Big Science: the Cancer Genome Challenge

Heidi Ledford

Nature News

14-Apr-10

Databases could soon be flooded with genome sequences from 25,000 tumors. Reviews obstacles in searching for meaning in the data, such as figuring out how to use the information to help people rather than to just catalog lots and lots of mutations.

<http://www.nature.com/news/2010/100414/full/464972a.html>

Subcategory: Drug Discovery

New Tool Developed for DNA Research

Jes Andersen

University of Copenhagen

06-Apr-10

While luminescent markers are an indispensable tool for researchers working with DNA, some present problems. Discusses FRET (Fluorescence Resonance Energy Transfer) as a molecular gauge tool. May be used to examine exactly how new drugs work.

http://news.ku.dk/all_news/2010/2010.4/dnatool/

Subcategory: Genome Sequence

New Methods Identify Thousands of New DNA Sequences Missing from Reference Map of the Human Genome

Leila Gray

University of Washington

19-Apr-10

Researchers discover 2,363 new DNA sequences corresponding to 730 regions on the human genome. Findings suggest that new genome assemblies based solely on next-generation sequencing might miss many

<http://uwnews.org/article.asp?articleID=57148>

Subcategory: Genomics

Movies for the Human Genome

Bioscience Technology

31-Mar-10

Name a human gene, and you'll find a movie online showing you what happens to cells when it is switched off. All the movies and all the analysis data are freely available online. Almost 200,000 time-lapse movies of mitosis in 48 hours of film.

<http://www.biosciencetechnology.com/News/Feeds/2010/03/products-instrumentation-movies-for-the-human-genome/>

Yeast: Angiogenesis Model? Yup

Alla Katsnelson

The Scientist

23-Mar-10

Yeast may not have blood vessels, but it could be a powerful model organism for studying angiogenesis. Systems-biology approach for identifying surprising model organisms for human diseases. May provide insight into seemingly unrelated human diseases.

<http://www.the-scientist.com/blog/display/57252/>

Subcategory: High Throughput Screening

Isolating and Analyzing Therapeutic Oligonucleotides from Biological Matrices

Michael McGinley Drug Discovery & Development 01-Apr-10

New technique isolates oligonucleotides from biological fluids in less than 15 minutes and is easily automated and multiplexed in a 96-well plate, making it practical for a clinical trial where hundreds of samples may need to be analyzed.

<http://www.ddmag.com/article-Isolating-and-Analyzing-Therapeutic-Oligonucleotides-from-Biological-Matrices-41510.aspx>

Subcategory: Human Therapeutics

Chip in a Pill Tells Your Doctor When You Swallow Your Medicine -- and When You Don't

Clay Dillow Popular Science 31-Mar-10

Discusses a prototype “smart pill” which should help reduce patient noncompliance with prescriptions, responsible for over 200,000 deaths each year. Could also reduce clinical trial time and cost by assuring that participants take the drugs as scheduled.

<http://www.popsci.com/science/article/2010-03/chip-equipped-pill-tells-your-doctor-when-you-dont-take-your-medicine>

Subcategory: Mouse/ Rat Models

Building a Better Mouse

Edyta Zielinska The Scientist 01-Apr-10

Engineered mice develop cancers that carry mutations similar to those seen in cancer patients—mutations that may explain why some patients respond to a particular treatment and some don't. Goal: predict how a human will respond to an experimental drug.

<http://www.the-scientist.com/2010/4/1/34/1/>

Subcategory: Privacy/ Records Management

Keeping Medical Data Private

Katharine Gammon Technology Review 13-Apr-10

Algorithm is designed to protect privacy of patients while maintaining researchers' ability to analyze vast amounts of genetic, clinical data to find links between diseases and specific genes or understand why patients respond differently to treatments.

<http://www.technologyreview.com/biomedicine/25061/?a=f>

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