Better Latrines for Poor

The Bill & Melinda Gates Foundation announced a new program looking for a better way to build a toilet. The aim is to improve sanitation and save lives in poor countries. Research will focus on ways to redesign toilets and provide affordable latrines. Some projects also may turn waste into energy or fertilizer. UNICEF estimates that 1.1 billion people worldwide don’t have access to any kind of toilet or ways of eliminating waste. That, in turn, fouls drinking water and can cause diarrhea, which spreads quickly. http://www.businessinsider.com/bill-gates-toilet-2011-7

Glowing Dogs
South Korean scientists created a glowing dog using a cloning technique. The genetically modified female beagle has been found to glow fluorescent green under ultraviolet light if given a doxycycline antibiotic. [http://www.reuters.com/article/2011/07/28/us-korea-dog-idUSTRE76Q1MK20110728](http://www.reuters.com/article/2011/07/28/us-korea-dog-idUSTRE76Q1MK20110728)

**Animal Health**
As patents expire for branded pet drugs, more generics are finding their way into veterinarian's offices, where they offer the potential of big savings for owners of dogs, cats and other pets. In a nation where people have more than 86 million cats and 78 million dogs as pets, the savings are substantial. According to an estimate, 10 percent of animal health drugs are now generic varieties, up from an estimated 5 percent five years ago. Many believe generics will account for half of all pet medications within a decade. Veterinarians can prescribe any of four types of drugs for animals in need of medication - human-approved branded and generic drugs, or pet-approved branded and generics. [http://www.intelihealth.com/IH/ihtIH/EMIHC267/24479/21291/1404708.html?d=dmtICNNews](http://www.intelihealth.com/IH/ihtIH/EMIHC267/24479/21291/1404708.html?d=dmtICNNews)

**Stem Cell Research**

**Patent Cliff for Patients**
The next 14 months will bring generic versions of seven of the world's 20 best-selling drugs, including the top two: cholesterol fighter Lipitor and blood thinner Plavix. Between now and 2016, blockbusters with about $255 billion in global annual sales are set to go off patent, notes EvaluatePharma Ltd., a London research firm. Generic competition will decimate sales of the brand-name drugs and slash the cost to patients and companies that provide health benefits, and increase profits for pharmacies. Top drugs getting generic competition by September 2012 are taken by millions every day: Lipitor alone is taken by about 4.3 million Americans and Plavix by 1.4 million. Generic versions of big-selling drugs for blood pressure, asthma, diabetes, depression, high triglycerides, HIV and bipolar disorder also are coming by
then. The flood of generics will continue for the next decade or so, as about 120 brand-name prescription drugs lose market exclusivity, according to prescription benefit manager Medco Health Solutions Inc.

When a drug loses patent protection, one generic version maybe on sale for the first six months, so the price falls a little bit initially. Then, several other generic makers join the fray, driving prices down dramatically. Last year, the average generic prescription cost $72, versus $198 for the average brand-name drug, according to consulting firm Wolters Kluwer Pharma Solutions. The difference between the cost of generic version and branded version (average $126) is to recover the cost of developing a brand new drug by the branded company. As a result of patent loss, the branded drug company loses its monopoly and the monetary benefit, ultimately resulting in restructuring and layoffs.

Among the drugs that recently went off patent, Protonix, for severe heartburn, now costs just $16 a month for the generic, versus about $170 for the brand name. And of the top sellers that soon will have competition, Lipitor retails for about $150 a month, Plavix costs almost $200 a month and blood pressure drug Diovan costs about $125 a month. For those with drug coverage, their out-of-pocket costs for each of those drugs could drop below $10 a month. Most of the diseases involved are essentially lifestyle related and preventable diseases due to our eating and sedentary habits.

If you are looking to lower your blood pressure, simple changes to diet may be enough such as reduction of salt intake and addition of more soy or low-fat dairy to your diet. For example, the U.S. average consumption of salt is 5 grams, which results in higher incidence of heart attacks, according to a study published this month in the journal Archives of Internal Medicine. Two grams is the recommended daily maximum.

A new study offers some of the strongest evidence yet that replacing carbohydrates with protein from low-fat dairy and soy can help reduce blood pressure. The study is the first to directly compare the effects of vegetable protein, dairy protein, and carbohydrates on hypertension. Study participants who took low-fat protein supplements derived from either milk or soy had lower blood pressure readings than

Taking care of your body just might save your mind, body and health, without prescription drugs. For example, millions of cases of Alzheimer's disease worldwide could be prevented by commonsense, i.e., curbing risk factors such as high blood pressure, smoking, obesity and lack of exercise, new research suggests. Seven conditions or behaviors account for up to half of the 35 million cases of Alzheimer's around the world, it found. With no cure or treatment to reverse the mind-robbing disease, preventing new cases is crucial. The study was presented this month (July) at the Alzheimer's Association International Conference in France, where sessions on prevention have been drawing crowds for several days. [http://www.intelihealth.com/IH/ihtIH/EMIHC267/24479/20833/1406469.html?d=dmtICNNews](http://www.intelihealth.com/IH/ihtIH/EMIHC267/24479/20833/1406469.html?d=dmtICNNews)

A study, which was released in the Journal of the American Medical Association in June, sheds light on the dangers of sedentary lifestyles. Statistics show that 40 to 50 million Americans have sedentary jobs, which don't allow them to get the recommended 30 minutes of exercise five days a week. Whether it be taking the stairs instead of the elevator, walking a few blocks instead of driving or simply making an effort to get out of your chair every few hours may make the need for Lipitor less likely.

While more neighborhood grocery stores and less fast food restaurants may be useful steps toward stemming the nation’s obesity epidemic, no single approach will be effective in doing so. The federal government has made one of its priorities reducing “food deserts,” areas in which healthy food is difficult to find. The policy stems from limited evidence that food resources are related to obesity and are inequitably allocated according to neighborhood wealth, according to a study published in the journal Archives of Internal Medicine. The policy initiatives imply that reduced access to fast food and increased access to supermarkets will translate into improvements in diet behavior and health. [http://www.futurity.org/health-medicine/no-magic-bullet-to-curb-obesity/](http://www.futurity.org/health-medicine/no-magic-bullet-to-curb-obesity/)

One way to avoid overeating is to go at it with a big fork, a new study suggests. When eating out, people who used a large fork for bigger bites ate less than those who used a smaller utensil, according to findings

However, all the above-listed and unlisted tricks and commonsense ideas have failed in the US. Hopefully, generic Lipitor may help Americans as the obesity is on the rise despite the educational efforts by the government. At least 30 percent of people in 12 states were obese in 2010, an increase of three states from a year earlier, according to the U.S. Centers for Disease Control and Prevention. No state reported that less than 20 percent of adults were obese. That means no state met the national Healthy People 2010 goal to lower the prevalence to 15 percent. The South had the highest rate of obesity, with 29.4 percent, and the West had the lowest, of 24.1 percent, the CDC report said. Medicare and Medicaid, the government health plans, each spend more than 20 percent of their budgets to treat illnesses related to obesity and smoking, avoidable health risks, according to the Trust for America’s Health and the Robert Wood Johnson Foundation. In 2000, no states had obesity rates higher than 25 percent or more of the adult population. In 2009, there were nine states with an obesity prevalence of 30 percent or more. [http://www.bloomberg.com/news/2011-07-19/third-of-citizens-obese-in-12-states-agency-says.html](http://www.bloomberg.com/news/2011-07-19/third-of-citizens-obese-in-12-states-agency-says.html)

**Pfizer to Breakup**

Pfizer, the world’s biggest drugmaker, said it plans to sell or spin off its animal health and baby food divisions. The units may command a price of $22 billion. Divesting the units, which generate $5.5 billion in annual sales, or 8 percent of the New York-based company’s revenue, also lets Pfizer sharpen its focus on developing the three drugs, which analysts surveyed by Bloomberg estimate may reach $3 billion in annual sales by 2015. Pfizer loses patent exclusivity in November for its biggest product, the Lipitor cholesterol pill with $10.7 billion in sales last year. The drugmaker forecasts sales may fall as much as 8.3 percent in two years as the company’s new medicines fail to offset lower sales of Lipitor. [http://www.bloomberg.com/news/2011-07-08/pfizer-unit-sales-add-payoff-to-pipeline-drugs-in-deal-seen-at-22-billion.html](http://www.bloomberg.com/news/2011-07-08/pfizer-unit-sales-add-payoff-to-pipeline-drugs-in-deal-seen-at-22-billion.html)
Big Pharma
The Big Pharma has been trying to reinvent itself as nimble Biotech, in order to be perceived as being innovative R&D-driven companies. Despite the restructure (massive layoffs), Big Pharma is struggling with that transition. Since corporate change has to start from the top, a lack of biotech-savvy corporate governance may be at the heart of the issue: the reality is there are few if any biotech voices in Big Pharma boardrooms. To have less than 2% of the voices in the board room from biotech while trying to become more biotech-like seems like an absurdity.... http://blogs.forbes.com/brucebooth/2011/07/19/change-starts-at-the-top-imperative-to-bring-biotech-voices-to-pharma-boardrooms/

Cost of Clinical Trials
As drugmakers scramble to replenish their pipelines, they are encountering all sorts of difficulties, including rising costs for clinical trials. And this is happening across all phases. Why? There is increasing competition for trial sites and clinical research organizations that can yield reliable, high quality data, according to a recent survey. And so, 32 percent of those surveyed pointed to higher costs for enrolling patients and 25 percent cited vendor fees. Expenses for recruiting trial sites was named by 14 percent, followed by 12 percent who fingered technology costs, according to Cutting Edge Information, which surveyed 21 drugmakers, 12 biotechs, nine device makers and 23 contract research organizations. http://www.pharmalot.com/2011/07/clinical-trial-costs-for-each-patient-rose-rapidly/

The growing number of clinical drug trials in developing countries is associated with a well-known list of attributes. Drug companies hope to do studies for less money, gaining a big population of treatment naïve patients to choose from. Developing countries hope for better access to meds and a shot at gaining some cutting-edge technologies for their economies. But the dark side of this is a loose regard for ethics and a chance at spinning the data by overlooking side effects.
India has been debating the issue and is working on a new streamlined approach to overseeing clinical trials in the subcontinent. One new bill is expected to identify one government agency to handle the monitoring work. As of now there is confusion between various government agencies on who exactly should be monitoring the clinical trials on human subjects. Though the Drugs Controller General of India (DCGI) is the body which does the monitoring now, other government agencies also have a role to play. http://timesofindia.indiatimes.com/city/hyderabad/Tough-checks-on-clinical-trials-mooted/articleshow/9105546.cms

Many countries have set ethical standards for clinical trials. But, there is no guarantee that they will be respected by those who perform the trials. In India, a recent trial of two vaccines against cervical cancer exposed ethical irregularities in the Indian system. http://www.guardian.co.uk/global-development/2011/jul/04/ethics-left-behind-drug-trials-developing

Super Mouse
A poison resistant super mouse was discovered, reported in the journal *Current Biology*, which demonstrates how hybridization can occur naturally among animals, yielding non-sterile individuals with beneficial attributes. In this case, the result is a mouse that is resistant to warfarin, a toxic and, usually, deadly ingredient in many rodent poisons. Interbreeding has likely resulted in a hybrid house mouse that is resistant to a common rodent toxin, although hybrids often cannot reproduce.

Stinking Trap
The odor of stinky socks is repulsive to humans, but an African inventor has discovered it's as sweet and seductive as roses to mosquitoes. Canadian tax dollars are helping a young Tanzanian scientist build a sophisticated mosquito trap that is poised to play a major role in the global war on *malaria*. Before developing a synthetic compound to lure mosquitoes, Okumu baited his traps with dirty old socks collected from locals in Isakara, in Southeast Tanzania. If you didn’t know, Okumu's research found that...
mosquitoes are drawn to humans by the scent of ammonia, lactic acid, carbon dioxide and other substances released by skin, sweat and breath. The stink trap using the tench is called called “the odour-baited mosquito landing box.” Read more: [http://www.canada.com/health/Inventor+uses+stinky+socks+fight+malaria/5095013/story.html#ixzz1TXR64Gf5](http://www.canada.com/health/Inventor+uses+stinky+socks+fight+malaria/5095013/story.html#ixzz1TXR64Gf5)

**Gene Patenting**

As hoped by many patent attorneys, the Court of Appeals for the Federal Circuit has rejected the Southern District of New York's court's decision and held that the district court *ered in holding* that Myriad's claims directed to isolated DNA were invalid and that Myriad's claims directed to screening potential cancer therapeutics via changes in cell growth rates were invalid. Judge Lourie wrote the opinion. [http://www.cafc.uscourts.gov/images/stories/opinions-orders/10-1406.pdf](http://www.cafc.uscourts.gov/images/stories/opinions-orders/10-1406.pdf)

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Om! Asatoma Sadgamaya, Tamasoma Jyotirgamaya, Mrityorma Amritamgamaya, Om Shantih, Shantih, Shantih!
(Aum! Lead the world from wrong path to the right path, from ignorance to knowledge, from mortality to immortality, and peace!)