



PolicyPlayback

Jan
14

A federal judge ruled that the US Food and Drug Administration (FDA) overstepped its bounds in trying to regulate **electronic cigarettes**—battery-powered devices that emit a fine mist of nicotine but do not contain tobacco.

The judge also rejected the agency's claims that e-cigarettes should be considered a drug-device combination, which would also increase scrutiny.

Jan
19

Pfizer executives said they hope to add 900 representatives in **China** by the end of the year for a total of 3,200 marketing staff in that emerging market. The news followed Eli Lilly's announcement that it plans to hire hundreds in China, as well as Novartis's reported intentions to put nearly \$1.3 billion toward research and development in that country.

Jan
25

The AIDS Healthcare Foundation, which runs free clinics around the world, announced that it would no longer allow sales representatives from Merck to contact its staff because of what it views as unreasonable **drug pricing**—in particular, Merck's Isentress, a medication that costs about \$13,000 a year per person.

Jan
26

With concerns rising that the variations studied in **genome-wide association studies** (GWAS) are merely red herrings, a study suggested that researchers look for other possible disease-related mutations up to two million units of DNA beyond the single nucleotide polymorphisms (SNPs) they usually home in on (*PLoS Biol.* **8**, e1000294, 2010).

Jan
29

The US Department of Health and Human Services issued new rules for employer-provided insurance, requiring that **mental health** services be given equal standing—including similar deductibles—to other medical treatments. After a public comment period, the rules could take effect as early as 1 July.

Jan
29

The Bill & Melinda Gates Foundation said it would put a whopping **\$10 billion** toward vaccine development and delivery over the next ten years, up from \$4.5 billion in the past.

Feb
1

Leaders of an EU-funded project, called PREDICT (<http://www.predicteu.org/>), launched a charter to explore how the **elderly** are underrepresented in clinical trials for drugs, leading to less effective and less safe treatments.

Feb
1

US President Barack Obama announced his **2011 budget**. The proposals included a \$750 million boost for the FDA and a \$1 billion increase for the country's National Institutes of Health—its largest increase in eight years (aside from the economic stimulus funds it received).

Feb
2

The BBC reported on a small group of researchers who believe some of their colleagues are wrongly dissuading peer-reviewed journals from publishing innovative **stem cell research**. The scientists sent an open letter with these complaints to journal editors last July.

Feb
2

A US district court judge in New York heard statements from Myriad Genetics and the American Civil Liberties Union, the latter of which is suing over the **patents** on *BRCA1* and *BRCA2*, two genes linked to increased breast cancer risk. No decision had been made at the time *Nature Medicine* went to press.

Feb
4

News reports indicated that GlaxoSmithKline would move on from pain and depression research, instead looking at drugs for rare diseases, as well as for Alzheimer's, Parkinson's and multiple sclerosis. CEO Andrew Witty said the changes would affect **jobs** numbering in the hundreds, rather than the thousands previously reported. One week previously, AstraZeneca said it would be eliminating 1,800 positions in its own R&D program.

Feb
4

Arden Bement, director of the US National Science Foundation (NSF), announced that he would be stepping down from his post in June after serving in that role for nearly six years. The change comes at a time when the Obama administration is trying to make good on a 2006 promise by Bush to double the NSF's budget.

Feb
6

Russia's Prime Minister Vladimir Putin dismissed **Nikolai Yurgel**, director of the country's Federal Supervision Service for Healthcare and Social Development, after Yurgel criticized a new pharmaceutical law that many say will stifle the industry.

Feb
9

The FDA said it would increase oversight of **medical radiation**

devices, following on last year's discovery that several computed tomography scanners emitted up to eight times more radiation than intended.

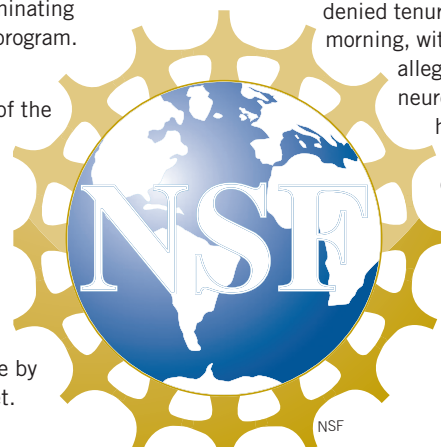
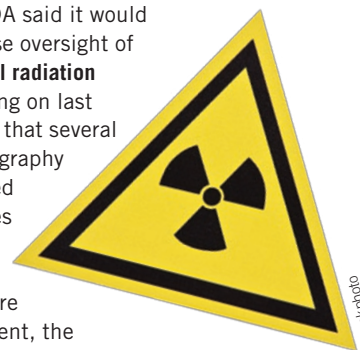
A few days before the announcement, the American Society for Radiation Oncology pushed for the creation of a centralized database to report errors involving such scans and radiation therapy.

Feb
9

The UK's National Institute for Health and Clinical Excellence (**NICE**) issued draft guidance that recommended against the use of two leukemia drugs—Bristol-Myers's Sprycel and Novartis's Tasigna—within the country's National Health Service. NICE expressed concerns about the cost effectiveness of the drugs, which are each priced at nearly \$50,000 per person per year.

Feb
12

Amy Bishop, a biology professor, was charged with fatally shooting three colleagues at the University of Alabama—Huntsville. Reports said she was denied tenure that morning, with others alleging the neuroscientist also had a history of violent conduct.





ResearchRewind



Istockphoto

Jan
14

Three esophageal cancer cell lines were found to have been **contaminated** with cells from bowel and lung tumors. Two of the three lines were used in more than 100 published papers, 11 US patents and at least three US National Institutes of Health research grants (*J. Natl. Cancer Inst.* doi:10.1093/jnci/djp499, 2010).

Jan
15

Researchers published the first genetic map of *Artemisia annua*, the plant behind the widely used **malaria drug** artemisinin. The genome sequence, which revealed loci that affect the crop's yield, could help farmers meet the growing need for artemisinin combined therapy (*Science* **327**, 328–331, 2010).

Jan
19

Despite their lack of cell nuclei, blood **platelets** can propagate themselves, with progeny budding off the original cell. The finding might yield new treatments for those with low platelet counts (*Blood* doi:10.1182/blood-2009-08-239558, 2010).

Jan
21

Researchers found that **llama antibodies** can detect all seven forms of highly dangerous botulinum neurotoxin. The llamas' flexible antibodies work well as markers and could potentially lead to treatment against the toxin in the event of a terrorist attack (*PLoS One* doi:10.1371/journal.pone.0008818, 2010).



Istockphoto

Jan
26

Researchers enhanced the immune memory of mice by blocking interleukin-10 (IL-10), a cytokine that normally dampens the immune response. A similar IL-10 inhibitor might one day improve the efficacy of human vaccines (*Proc. Natl. Acad. Sci. USA* doi:10.1073/pnas.0914500107, 2010).

Jan
27

Researchers turned mouse skin cells directly into **functional neurons**, skipping the intermediate step of induced pluripotent stem cells. The work holds promise for treating disorders such as Parkinson's disease, as well as for converting skin cells into other helpful cell types (*Nature* doi:10.1038/nature08797, 2010).

Jan
28

The **rotavirus vaccine** showed promise in Mexico, where diarrhea-related deaths dropped from nearly 20 per 100,000 children in 2003 down to fewer than 12 per 100,000 in 2008 (*N. Engl. J. Med.* **362**, 299–305, 2010). Meanwhile, an African study with over 3,000 infants found that the same vaccine reduced severe gastroenteritis incidence by more than 60% (*N. Engl. J. Med.* **362**, 289–298, 2010).

Feb
1

Researchers linked inflammation of the placenta to **childhood asthma** in a study of nearly 510,000 births. Premature children exposed *in utero* to a chorioamnionitis infection—caused by *Escherichia coli* and other bacteria—had at least a 20% greater chance of developing asthma by age 8 than premature children not exposed to the infection (*Arch. Pediatr. Adolesc. Med.* **164**, 187–192, 2010).

Feb
1

Implanted **stem cells** in mice were shown to send signals to neighboring neurons, reviving them before cell death. The findings might lead to a therapy for human neurodegenerative disorders (*Proc. Natl. Acad. Sci. USA* doi:10.1073/pnas.0915134107, 2010).

Feb
1

Patients given the antidepressant **Lexapro** after stroke, within three months of injury, showed significantly higher scores on two psychological tests for memory (*Arch. Gen. Psychiatry* **67**, 187–196, 2010).

Feb
2

A study of 53 infants found that the 35 who died of **sudden infant death syndrome (SIDS)** had, on average, 26% lower serotonin levels in the brain stem. The findings support the theory that SIDS is a result of lost respiratory function, which is normally stimulated by serotonin (*J. Am. Med. Assoc.* **303**, 430–437, 2010).

Feb
3

In a study of 54 people with severe brain injury, four individuals in a **'vegetative state,'** as well as one minimally conscious, showed willful changes in brain activity during functional magnetic resonance imaging scans. Of the vegetative patients, one was able to use activation patterns associated with thinking about tennis or his house to answer 'yes' or 'no' questions, respectively (*N. Engl. J. Med.* **362**, 579–589, 2010).

Feb
7

At a meeting of the Association for Research in Otolaryngology, researchers announced that they were able to revive hair cells in the inner ear of guinea pigs by exposing the cells to the *math-1* gene, which could have implications for treating **hearing loss**.

Feb
7

In a study of more than 10,000 people, those with certain variations in the *TERC* gene were, on average, 3.6 years older in terms of **biological age** than their chronological age. Researchers determined people's biological age on the basis of the length of telomeres, the bits of DNA at the end of chromosomes that shorten with each replication. *TERC* seems to influence how quickly these telomeres shorten (*Nat. Genet.* doi:10.1038/ng.532, 2010).

Feb
8

A study of more than 85,000 people showed that nonhospitalized individuals with **inflammatory bowel disease (IBD)** were 16 times more likely to suffer a blood clot. Although the mechanism isn't fully understood, the inflammation in IBD has previously been tied to abnormally high coagulation, probably increasing the risk of clotting (*Lancet* doi:10.1016/S0140-6736(09)61963-2, 2010).

Feb
10

By tracing the genealogy of **HIV**, researchers found evidence that the virus was transmitted among male sexual partners through viral RNA in seminal plasma, rather than viral DNA in white blood cells in the semen (*Sci. Trans. Med.* **2**, 18re1, 2010).