

## IN their words



**"It is often a dance between a giant and a pixie, locked in an embrace but with a tendency to move in opposite directions."**

Andrew Pollock, describing what it takes to develop a drug-companion diagnostic pair. (*New York Times*, 26 December 2011)

**"The sad thing is that lots of progress is being used in other parts of the world and they are using technology the UK hasn't been part of."**

Department for Environment, Food and Rural Affairs Secretary Mary Creagh, pointing out to a fringe groups of farmers that food prices in the UK increased in the last year faster than in other countries. (*Farmer's Weekly*, 4 January 2012)

**"Two years ago people were just walking around looking at their shoes."** James E. Brown, CEO of Durect of Cupertino, California, speaking of the improvement in the mood since the 2008 crash at the JP Morgan Annual Healthcare Conference, held in San Francisco. (*Fierce Biotech*, 12 January 2012)

## Life Technologies promises \$1,000 genome

On January 10, Life Technologies' CEO Gregory Lucier announced the latest breakthrough in sequencing technology with the launch of the Ion Proton Sequencer, a faster version of its Ion Personal Genome Machine (PGM). The machine is the brainchild of Jonathan Rothberg, former CEO of Ion Torrent, which was bought by Life Technologies of Carlsbad, California, in 2010. The new sequencer uses semi-conductor technology to read DNA sequences, coupled with a dramatic ramp-up in the chip's well density. "[With the old chip] if you took out a human hair and put it over a well, you would cover 400 wells. [On] our new chip, you'll cover 10,000 wells," says Rothberg. In addition, the new chip moves the hydrogen ion sensor (hydrogen is released when a nucleotide is incorporated into DNA) onto the chip. Unlike light detection technologies that slow down as density increases, with semi-conductors, the rate is faster. "The first chip did a million wells in two hours, the new one will do a billion," says Rothberg. Although data obtained from the chip won't be released until mid-February, the company reports that a human-sized genome can be sequenced in two hours, at a cost of \$1,000 in materials. The new machine will cost \$149,000. Within hours of Lucier's announcement, Life Technology's main competitor, Illumina of San Diego, announced an upgrade to their HiSeq 2000 that will sequence a human genome in a day.



Laura DeFrancesco

## Around the world in a month



### SCOTLAND

A new life science cluster for startups and growing companies is created at Merck's shuttered Newhouse research facility. Merck donated the site, which closed in July 2010, complete with purpose-built laboratories and offices, including equipment and a library of 100,000 compounds, to BioCity Scotland, a joint venture between BioCity Nottingham and Roslin BioCentre.



### GERMANY

Engineering firm M+W Group of Stuttgart and GE Healthcare of Buckinghamshire, UK, partner to help emerging countries to develop manufacturing capabilities for biopharmaceuticals, including vaccines, insulin and biosimilars. The companies will finance and construct manufacturing plants, as well as train staff.



### FRANCE

President Nicolas Sarkozy accepts new legislation to reform the French Health Products Safety Agency (AFSSAPS) and reorganize it into the new National Agency for the Safety of Medicines and Health Products (ANSM). The new law includes measures to increase postmarketing surveillance and pharmacovigilance and to prevent conflict of interest by requiring companies to disclose to ANSM payments to health professionals, medical students, patient and professional organizations, and the press.



### BRAZIL

Biotech investor Steve Burrill raises a \$125 million fund to invest in life science companies in Brazil, including those in therapeutics, diagnostics, medical devices, healthcare services, biofuels and digital health. The fund is aiming for a total size of \$200 million.



### MALAYSIA

A center dedicated to improving plants and seafood development will be established. The Centre for Marker Discovery and Validation will use marker-assisted selection and high-throughput genotyping platforms to advance Malaysia's agriculture and aquaculture industries. It is a joint venture between the Malaysian Agricultural Research and Development Institute and BiotechCorp, a government science agency.



### ARGENTINA

Local biotech companies forge a new entity aimed at representing industry's interests in policy discussions with government. The new body met with Science Minister Lino Barañao in December to discuss the implementation of regulations approved by Congress in 2007.