

*United Kingdom*

# Who is the wrongdoer?

Who brought death to over two hundred cows in a small village south west of London? It is becoming evident that a mysterious member of the Pirbright lab is responsible for spreading the virus.

England's beef farmers are breathing a sigh of relief. The recent outbreak of foot-and-mouth disease (FMD) in the community of Normandy, Surrey, appears to have stopped after two busy and fearful weeks of damage control. Due to strict government guidelines, which included creating prohibited areas and extensive cattle testing, the 2007 FMD crisis soon turned out to be a short-lived scare.

Now another question emerges: Who caused the scary, highly infectious FMD to return to the British mainland? In 2001, a far more serious outbreak of FMD resulted in the slaughter of six (other sources say seven) million sheep and cattle, the rescheduling of the general election, and the cancellation of big events such as the Isle of Man Tourist Trophy. The 2001 crisis, which



Highland cattle are also worried sick

happened between February 19 and September 30, was caused by the "Type O pan Asia" strain and was estimated to have cost Britain's economy about €12 billion. The source of the plague was never discovered. In another FMD case, which happened in Germany in 1988, rumours arose that the pathogenic germs leaked from a vaccine plant in Burgwedel near Hanover. The actual source, however, has still never been located.

## Outbreak from a high security lab?

Concerning the recent Normandy outbreak, striking evidence leads British observers to a similar conclusion: was there a major biosecurity failure? The 2007 virus strain was identified as "FMDV BFS 1860". This kind of virus last appeared in a 1967 FMD outbreak and then vanished for more than 40 years – with the sole exception of one location: the strain is used at a nearby laboratory site, called Pirbright, which houses high security units of the government-funded In-

stitute for Animal Health (IAH) and a separate private company, Merial Animal Health (a joint venture between Sanofi-Aventis and Merck & Co.). Merial's Pirbright laboratory develops vaccines for foot-and-mouth disease; the IAH lab members use the virus for research and diagnostic purposes.

It does indeed appear that history has repeated itself because Pirbright was probably the source of a previous FMD outbreak. In 1960, animals at a farm nearby the then Animal Virus Research Institute became in-

fectured with the virus. At that time it seemed obvious that it had escaped from the labs there.

Suffice to say that the Pirbright site, four kilometres from the outbreak, is once again strongly suspected as being the source of the infection. It is one of four European laboratories authorised

to handle the FMDV BFS 1860 strain of the FMD virus; the next nearest is hundreds of kilometres away (in Belgium).

## Enquiries moving on

At first, Merial stated that there was no evidence that the company played any role in the recent outbreak; IAH officials said they were unaware of any biosafety irregularities. It seems, however, that the British government disagrees. In contrast, initial speculation that the virus could have been waterborne seems to be off the mark, despite the possible role played by the flooding of nearby pastures.

The investigations are now focussing on the possibility that the outbreak was an act of sabotage. In any case, it is more likely that humans carried, either on purpose or unintentionally, the FMD virus from laboratories in Pirbright to pastures in Surrey. However, this is something, that shouldn't be possible at such highly secured Biosafety Level-3+ ('BSL-3+') facilities.

W. KOEPELLE

Luxembourg

# Grand Duchy goes Biotech

Money transactions were yesterday. Nowadays, the small state focuses on life sciences.

One of the richest nations on earth has discovered a novel field of activity: the Luxembourg Government is funding a biotech project. The attempt to develop molecules for the treatment of neurodegenerative diseases will be directed by Axoglia Therapeutics, the first true spin-off from the local University. In addition to the €795,000 raised by the tax-

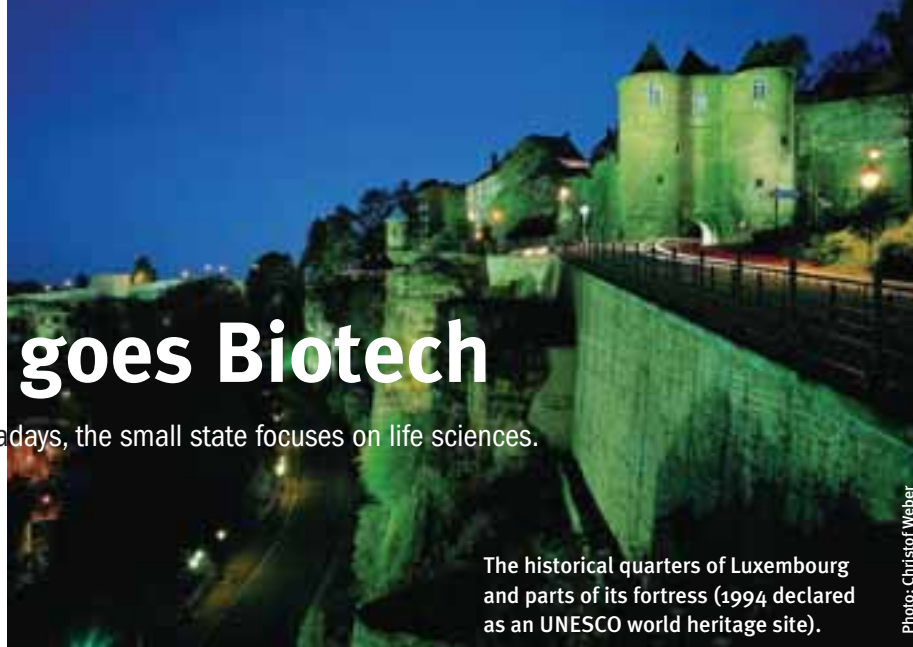


Photo: LuxGov

Luxembourg's Minister for Economic Affairs, Jeannot Krecké (left), with Jean-Paul Scheuren from biotech start-up Axoglia Therapeutics.

payer, private investors are expected to provide a further €300,000.

They should be able to do this: the economy of Luxembourg is in fine form, featur-



The historical quarters of Luxembourg and parts of its fortress (1994 declared as an UNESCO world heritage site).

Photo: Christof Weber

ing low inflation and low unemployment and giving its citizens the highest GDP per capita in the world. But it has one great drawback: until now, it has largely been dependent on the capital sector. The Minister for Economic Affairs, Jeannot Krecké (see photo), who took office in 2004, aims to alter this situation to foster more independence. To this end, the politician favours two sectors: logistics and health technology.

### Luxembourg's biotech outrider

The emerging Axoglia Therapeutics (located at the border of Luxembourg's centre) is one of Krecké's showpieces. The company was founded after the discovery of a novel molecule with properties that could be used to treat Multiple Sclerosis, Alzheimer's and Parkinson's. So far there exists no cure for these illnesses, which affect the central nervous system. According to the company, the new molecule has the potential to stop the worsening of these diseases, and even to re-

pair damaged parts of the nervous system.

However, the competition never sleeps. Numerous biotech companies are seeking a cure against neurological diseases, such as Enkam Pharmaceuticals (Denmark), Elan (Ireland), or Cytos (Switzerland). In addition, Big Pharma aren't sleeping either. Companies like Pfizer or Sanofi-Aventis have lots of experimental drugs against age-related diseases in the pipeline.

But Luxembourg doesn't count on Axoglia alone. Another future showpiece will be the Duedelingen biotech park, which is under construction at the French-Luxembourg border in the south of the small duchy. This new facility shall augment the existing number of high tech locations in Luxembourg, including the Henri Tudor Public Research Centre (CRP), whose aim is to promote innovation in both the private and public sectors, and the newly-founded University of Luxembourg, established in 2003. WINFRIED KOEPELLE

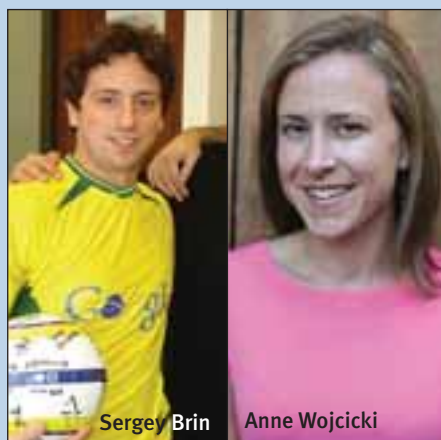
USA

## Google Founder Backs Wife

New gene testing enterprise, founded by billionaire's bride, talks big and gives rise to rumours.

Genetic testing for the common consumer: doesn't sound like the biotech business plan of the century. In any case, the US gene testing enterprise "23andMe" has attracted enormous attention in the media, with the stir created by Anne Wojcicki.

Never heard of her? Well, Mrs. Wojcicki is the wife of multi-billion Google co-founder Sergey Brin. She co-founded 23andMe in 2006 and has now received, after an initial €1.9m loan, an additional €2.8m in funding from her husband. Other investors in 23andMe are biotech giant Genentech and two investment banks, Mohr Davidow Ventures



Sergey Brin

Anne Wojcicki

(MDV) und New Enterprise Associates.

The start-up describes itself as "developing new ways to help make sense of people's genetic information", a sentence which says little more than nothing (some say 23andMe simply wants to create a search engine for human genetic information). Chief executive Eric Schmidt told the *Financial Times*: "Our goal is to enable Google users to be able to ask the question such as 'What shall I do tomorrow?' and 'What job shall I take?'" At the moment, 23andMe is hiring life scientists and computer personnel like crazy. Beyond that, there is little information available. -WK-

Germany/USA

## Careless or Criminal?

Is it important to inform people about risks such as heart failure, kidney damage and, well, death? In October last year, Bayer officials didn't think so. The German drug giant 'forgot' to transmit alarming study data on its controversial heart surgery drug Trasyolol to the U.S. Food and Drug Administration (FDA). Recently, an outside investigator cleared Bayer. He stated that those responsible did not try to mislead the FDA when retaining frightening safety findings about the blood-clotting drug.

What had been happening until then? In 2006, a retrospective study revealed that Trasyolol, which has been very profitable for Bayer for many years, doubles the risk of stroke or kidney failure and increases the risk of heart failure by 55%, compared to alternative drugs. The FDA did not even know that such a study had been arranged, nor was it informed after it had been completed. Possibly, the frightening safety findings would not have become public knowledge had a participant scientist not alerted FDA officials.

The 'not guilty' verdict should not be overestimated. The investigator who concluded that there was no malicious intent, just a series of bad decisions at the German pharmaceutical giant, was hired by – yes, Bayer itself. In any case, the ill-famed drug could cost Bayer a lot of money. Trasyolol (also known as Aprotinin or BPTI) slows down fibrinolysis by inhibiting the formation of factor XIIIa. It is designed to prevent bleeding and thus to decrease the need for blood transfusions during heart surgery where the drug has been used since the 1990s. So far, the highly priced Trasyolol has been a money-spinner for Bayer. It is 20 times more expensive than competitive products, according to the Bayer-critical CBG network. In 2005, Trasyolol yielded €230 million. By expanding its area of indication, Bayer aspires to steadily multiply its profits from the drug to €500 million per annum. -WK-

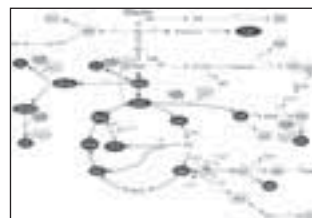


Finland

## Metabo-what?!

VTT Technical Research Center of Finland, a state-run, non-profit-making research organisation, has spun-off its fifth company since 2006. Zora Biosciences, as the new business has been called, was founded by Matej Orešic, a native-born Slovenian and systems biologist, and Catherine Bounsaythip, a bioinformatics scientist of French origin. Zora intends to develop systems biology-based diagnostics, such as biomarkers for the detection of early signs of cardiovascular disease. As a second foothold, Zora will provide laboratory services to the pharmaceutical industry in metabolomics and bioinformatics, to reduce the time it takes to market new drugs (metabolomics is a high throughput analysis of small molecules that specific cellular processes leave behind). According to the company, there is only a handful of companies specialising in metabolomics worldwide.

The growing company, located at Espoo on the southern coast of Finland near Helsinki, has 20 employees and is currently looking for further staff. Zora has received early-stage financing from the Finnish government; additional funding from other sources is assured. -WK-



Metabolic state analysis in yeast.

Switzerland/India

## Pharma Meets its Waterloo

Novartis has suffered defeat in a legal dispute on drug patent laws in India. A court rejected the efforts of the Swiss drug giant to get its blockbuster drug Glivec patented on the subcontinent. India has unique patent laws that do not allow the protection of new versions



Photo: MedisIn-UK

English students campaign against Novartis taking the India government to court over patent law

of old pharmaceutical agents unless they make the drug significantly more effective. India holds that Glivec is just such an 'old' agent and withheld the patent for it in 2006. Now drug makers between Mumbai, Delhi and Kolkata can go ahead and produce cheaper, generic versions of Glivec, which is Novartis' best-selling cancer drug.

The court's decision will affect international drug

firms' strategies in future. So far, a popular way of transforming old, once-profitable drugs into lucrative new ones was to introduce simple chemical modifications and protect them with new patents. Patient organisations applauded the verdict. -WK-