Pig virus discovery underlines risks of xenotransplants

[SYDNEY] Australian researchers say they have discovered a virus that has 'jumped' species from fruit bats to pigs, and apparently to humans. The finding followed a marked reduction in the size of litters and the birth of many stillborn piglets on three farms in New South Wales. Many of the piglets surviving suffered birth defects, notably in the brain and spinal cord.

Peter Kirkland, of the Elizabeth Macarthur Agricultural Institute near Sydney, told the Horizons of Science Forum in Australia last week: "This had not been seen in pigs before." Kirkland classifies the agent as a paramyxovirus, a group including canine distemper and human measles.

Tests on cattle, sheep, cats, birds, rodents and a dog near the pigs were negative, but finally the virus was traced to a neighbouring colony of fruit bats. Antibodies to the virus were found in two workers out of 36 on the farms who contracted influenza-like illness at the time the virus was affecting the pigs.

Kirkland does not believe the virus presents a health risk to the public, as it is not highly infectious. But the discovery has highlighted the potential hazards of using tissues from pigs for transplantation to humans. Kirkland says that screening programmes for testing donor pigs could not be expected to successfully detect a new agent such as this "especially when it is transmitted silently in the pig population."

Court ruling could close medical marijuana clubs

[WASHINGTON] **The Supreme Court of California last week unanimously refused to review a lower court decision prohibiting 20 medical marijuana clubs from selling the substance. The clubs may now be shut down.**

The clubs claimed that they should be allowed to supply the drug under the terms of a 1996 referendum in which California voters approved the use of marijuana for medical conditions such as glaucoma, cancer and AIDS, allowing its possession and cultivation for these purposes on a doctor's orders.

But last December the First District Court of Appeal ruled that the referendum did not allow clubs to provide marijuana to patients who designated a club as their 'primary care giver'.

Germany and US agree energy research pact

[MUNICH] Germany and the United States have signed their first energy research cooperation agreement. One of the goals of the agreement will be to find ways to fulfil targets set at the Kyoto conference on climate change, for example through the development of renewable energy sources.

The terms of the agreement anticipate specific technology partnerships. These could include a two-year project to develop a new generation of superconducting magnets for high-energy accelerators, involving DESY, the German electron–synchrotron facility, and the US Brookhaven National Laboratory.

Radioactive pollution at sea sparks Nordic protest

[LONDON] **Environment ministers from Nordic countries are calling on the United Kingdom to stop releasing into the sea the radioactive substance Technetium-99 from the nuclear reprocessing plant at Sellafield in the northwest of England.**

The call was made after a meeting of the Nordic council of ministers last week. It was prompted by the detection of raised concentrations of Technetium-99 in seawater along the coast of Norway during 1996 and 1997.

Anna Lindh, Sweden's environment minister, said: "The Nordic countries with their extensive coastlines are particularly vulnerable to pollution of the marine environment. Many of the countries are very dependent on fisheries and clean fishing waters."

'Risky' research wins more British backing

[LONDON] The UK government is to extend a £100 million (US$165 million) scheme designed to fund riskier strategic research of potential help to industry. The Realizing Our Potential Award (Ropa) scheme will now award funds across all scientific disciplines covered by all the research councils.

The research councils have given 1,200 Ropa awards since the scheme was set up in 1994. A Ropa award is considered successful if it generates a research advance that justifies further exploration.

Car makers in a jam over emission targets

[LONDON] **Car makers are locked in a dispute with Europe's governments and the European Parliament over reductions to carbon dioxide emissions from vehicles.**

Manufacturers have offered to cut emissions to an average 155 grams of carbon dioxide per kilometre in new cars by 2005, compared to the average in 1995 of 171 grams. But the governments are insisting that the companies agree on a target of 120 grams to help achieve the European Union's overall legally binding reduction targets agreed at the United Nations climate conference in Kyoto last year. Motor manufacturers say they fear the union's proposed targets could drive them out of business. But the European Commission is understood to be preparing to draw up mandatory targets if the companies fail to agree on a voluntary cut.

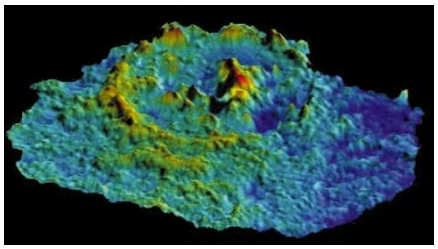
£3m scheme promotes biotech business skills

[LONDON] Ten projects have been picked for a £3 million (US$4.5 million) UK government initiative to provide entrepreneurial and intellectual property management skills to bioscientists.

Five of the projects come under the Biotechnology Exploitation Platform scheme. This aims to build partnerships between research groups and experts in marketing and intellectual property rights management. The other five awards are part of the Biotechnology Mentoring and Incubator Challenge, designed to help small biotechnology companies start up and grow.

The winners include Oncotech, a consortium made up of the Cancer Research Campaign technology transfer company, the Leukaemia Research Fund, the law firm Cameron McKenna and the patent firm Mewburn Ellis. The group's aim is to set up a company to focus on maximizing the commercial potential of cancer research.

NASA gives a new angle on jovian moon's water



NASA

[WASHINGTON] **Pwyll Crater on Jupiter's moon Europa (above) shows some of the best evidence yet for water or warm slush underlying the moon's crust of hard ice. In this computer-generated view based on data returned by the Galileo spacecraft in February and December 1997, and released by NASA on Monday (2 March), the floor of Pwyll is seen to be shallow, lying at about the same elevation as the surrounding terrain.**

The crater's central peak, which stands 600 metres above the floor, is higher than its rim, suggesting that Pwyll was modified by slushy ice after its formation by impact between 10 million and 100 million years ago. The vertical scale of the image has been exaggerated. The space agency was expected to make an announcement today (5 March) about its most recent conclusions concerning the possible presence of water on the Earth's Moon.