

Indian company seeks US approval for generic AIDS drugs

Washington The first attempt to get generic AIDS drugs approved by the US Food and Drug Administration (FDA) was announced on 2 August.

The Indian pharmaceutical company Ranbaxy is seeking approval for its generic antiretroviral drugs, which cost less than brand-name versions, under an FDA scheme announced in May. The process seeks to approve generic AIDS drugs for distribution through US AIDS-relief programmes in developing countries.

The policy announcement followed criticism of the United States for refusing to distribute generic drugs through its AIDS programmes. Ranbaxy says it hopes to submit its products for approval by the end of the year, and the FDA plans to process applications within six weeks.

Three of Ranbaxy's drugs were removed from the World Health Organization's list of approved drugs last week owing to problems with facilities that had been used to test them. Ranbaxy says that the problems should not affect its application to the FDA, as these facilities will not be used to make the US drugs.

Women go to bed to give weightlessness a chance

London John Lennon and Yoko Ono only managed one week in a hotel in Amsterdam. But 24 women will stay in bed for 60 days next year, not to give peace a chance, but as part of an experiment to simulate extended periods of weightlessness on female astronauts.

The volunteers will not be allowed to stand up, even for meals or to wash. They must remain supine, tilted head-down six degrees below horizontal, for two months.

The experiment, which will take place in Toulouse, France, in early 2005, is part of a study by the European Space Agency, NASA and the French and Canadian space agencies to explore the role of nutrition and physical exercise in countering the adverse effects of long-duration weightlessness on female astronauts. Relatively little is known about how females are affected by weightless conditions because few women have flown in space and most previous ground-based studies have been carried out on male volunteers.

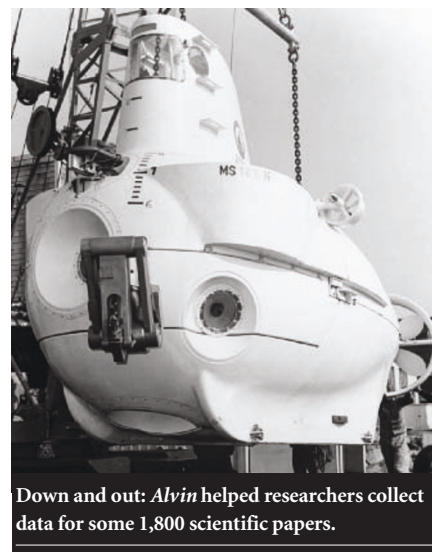
Belarus deports British Chernobyl researcher

London A British researcher studying the after-effects of the Chernobyl nuclear disaster has been expelled from Belarus and banned from returning.

Alan Flowers of Kingston University, London, has been visiting the former Soviet republic regularly for about ten years to study the impact of the 1986 nuclear-reactor meltdown on agriculture. Areas of Belarus close to the reactor, which is in neighbouring Ukraine, remain evacuated because they still suffer from high levels of radioactivity.

Flowers says he was intercepted by a KGB official in Minsk, the Belarus capital, on 29 July and told that his visa was being revoked. He is now banned from entering Belarus and Russia for five years.

The authorities have not given a reason for Flowers' expulsion, but there has been press speculation that the Belarus government was wary of the implications of his research. Some journalists have alleged that Russia seeded clouds that passed over the reactor so they would shed rain on Belarus and keep contaminated material away from Russia. But Flowers thinks it is more likely that the government objects to his work with youth groups that promote democracy and debate.



Down and out: *Alvin* helped researchers collect data for some 1,800 scientific papers.

Retirement of *Alvin* provokes deep feelings

Washington After 40 years of service, the deep-sea exploration vehicle affectionately known as *Alvin* is being retired. *Alvin*'s replacement, which has yet to be named, is due to be completed in 2008, and will be capable of diving to a depth of 6,500 metres, giving it access to 99% of the sea floor.

Alvin, which could dive to 4,500 metres, had its big moment in the late 1970s, when researchers surveying Pacific Ocean ridges found a whole ecosystem that was based not on solar energy, but on chemical energy from volcanic vents.

As well as being able to go deeper, the new submersible will have other advantages over *Alvin*. For example, a variable ballast system will allow it to work at multiple depths during a single dive. "This will allow it to do more mid-water work," explains Robert Detrick, of the Woods Hole Oceanographic Institution in Massachusetts, where the \$23-million sub is to be based.

Korean science set for government promotion

Tokyo Science in South Korea is to become a higher political priority with the impending elevation of the role of science minister to the post of deputy prime minister. The new position, which could be created as early as next month, is expected to go to the current science minister, Myung Oh.

The new government line-up will feature three deputy prime ministers, responsible for science, education and industry, respectively. Korean researchers hope the move will bring in more cash for research.

"There will probably be some long-term projects with major scientific infrastructure," says an official in the budget and planning ministry. Nanoscience and the interface between information technology and biotechnology are likely to be priorities.

Rising shuttle costs put NASA projects at risk

Washington Getting the space shuttle off the ground again will cost twice as much as NASA predicted just a few months ago, the agency's latest report says. In January, NASA estimated that 15 fixes recommended by the Columbia Accident Investigation Board, plus additional safety measures, would cost \$600 million for the three years until 2005. But an implementation plan for returning the three remaining shuttles to flight nearly doubles that estimate to about \$1.15 billion.

The increase adds to worries that NASA has failed to fully grasp the scale of the work needed (right), and will have to scrap or delay other projects unless Congress provides more money. Whether such funds are forthcoming will be



decided after the presidential election. The fixes required range from ensuring that foam insulation does not fall off the external fuel tank, as it did on Columbia's last flight, to finding ways to repair a damaged wing in space.