

## ROBOT NEWS

## Star car

John Jostins, designer of *Star Wars* icon R2-D2, has created a hydrogen-powered car. Called the Microcab, it will presumably be slightly faster than the trundling droid.

## SCORECARD



## Bill Gates's credentials

The world's richest college dropout will finally claim his degree from Harvard — albeit an honorary one — when he speaks at the university's commencement ceremony in June.



## Cell biologists' aches

Repetitive strain injury in the biology lab could be a thing of the past with the advent of the Shake 'N Plate, an ergonomic invention that reduces the strain caused by endless hours of bacterial culture plating.

## ZOO NEWS

## The calamari's off

Researchers in New Zealand are considering microwaving the largest squid ever caught... but not so they can eat it. They hope the treatment would help to thaw the 490-kilogram frozen specimen without it rotting so that they can study it.

## Born survivor

Knut, the world's new favourite bear (pictured), has shrugged off a bizarre request by animal activists that he should be killed because keepers at Berlin Zoo raised him by hand — an action that was apparently a "gross violation" of animal-protection laws.

Sources: *Times Higher Education Supplement*, *Network World*, *Joint Genome Institute*, *Bloomberg.com*, *Yahoo news*

M. SCHREIBER/AP



# Chinese network to start trials of spinal surgery

Earlier this month, around 60 of China's top orthopaedic surgeons and neurosurgeons met at a military hospital in the southwest provincial capital, Kunming. Over three days of discussion and joint operations on two monkeys, the surgeons reached a consensus on how and where incisions should be made to transplant materials in spinal-cord treatment. "It's hard to get a bunch of prima-donna surgeons to agree," says Wise Young, a neuroscientist studying spinal-cord injuries at Rutgers University in Piscataway, New Jersey. "We need to have them roll up their sleeves and do it."

Young, originally from Hong Kong, is preparing a network of surgeons to address a big problem in China: maverick doctors, pushed by growing medical tourism, are increasingly transplanting cells or drugs into injured spines despite having only anecdotal support for their effectiveness. There is also little rigorous follow-up of the patients, so although many procedures are done, the field does not advance. But Chinese local and national governments are increasingly requiring doctors to use clinically proven procedures. "People are starting to demand data," says Young.

Young's network — called China SCINet and based in Hong Kong — aims to provide those data. Its first major trial will test a combination therapy of lithium and stem cells. Starting in 2008, the team will transplant umbilical-cord stem cells to around 400 patients. Half of the patients will also receive lithium, which stimulates the growth of neurons, in the same oral doses as those prescribed for manic depression (L.-W. Yick, K.-F. So, P. T. Cheung and W. Wu *J. Neurotrauma* **21**, 932–943; 2004). The idea is that the stem cells will provide a 'bridge' at the injury site, which new axons can grow on. Twenty centres in the network are already doing an observational study on the patients who will be in the trial, to get a baseline from which to judge improvement from the therapy.

Young also hopes to involve industry. He is negotiating with pharmaceutical companies to provide a third element to add to the mix — drugs known to block the chemicals that inhibit growth of neurons.

Young says that he has two main reasons to work in China. The number of patients living with spinal-cord injuries has increased over

the past decade, which Young attributes to the growth of the automobile market and better care, which keeps patients alive longer. China now has more of these patients than any other country. In addition, it is fast and cheap to run trials there. Large numbers of patients gather in relatively few hospitals, making recruitment easy. "You can get hundreds, or even thousands, of patients at a single centre," says Young. And the cost of surgery and after-care is about US\$20,000 per patient in China — about a fifth of that in the United States.

The combination therapy in the trial will be preceded by preliminary studies on lithium and umbilical-cord transplants separately, the first of which will begin next month. Together, the trials will cost just US\$12 million.

The 2008 trial will be the first controlled study for spinal-cord injury in a country where doctors have increasingly been transplanting all kinds of cells. The most famous example is Hongyun Huang from Chaoyang Hospital in Beijing, who has performed hundreds of procedures in China after working with Young as a postdoctoral student at Rutgers (see *Nature* **437**, 810–811; 2005 and **440**, 850–851; 2006).

These studies tend to claim that the treatments are effective, often on the basis of patient testimony, without peer review or any rigorous follow-up. Huang is now carrying out

**"It's hard to get a bunch of prima-donna surgeons to agree."**



Spinal tap: some techniques lack solid data.

D. RIESS/THE IMAGEBANK/GETTY