

There's Life in the Old Bull Yet

Herman, the world's first genetically engineered bull, has dodged death a second time. This time a funeral insurance company has offered to save his transgenic hide.

Herman was created in 1990 by Pharming, a Dutch biotech company that hoped his female descendants would produce an antibacterial protein called lactoferrin in their milk. The experiment was abandoned in the mid-1990s, and under Dutch law Herman and his transgenic offspring were supposed to be killed. But the popular Herman avoided the abattoir when the government commuted his sentence. Later, Naturalis, a natural history museum in Leiden, agreed to house



Herman's not licked.

him starting later this year and make him the centerpiece of a new biotech exhibit.

But last week it seemed that Herman might not live that long. Regulations aimed at preventing the accidental release of transgenic organisms make keeping Herman expensive, and cash-strapped Pharming recently re-

neged on a promise to continue footing the \$40,000 annual tab. Instead, it said it might put Herman to sleep. That prospect caused a public outcry—and a generous outpouring of financial help. Naturalis says several companies have offered to support Herman in

his old age, and a deal is imminent. Among the most serious contenders is Yarden, a company that, for a small monthly fee, will see that you get a tasteful burial when the time comes. The company says Herman's rescue would nicely embody its mission: "respect for life and death."

The Dutch Society for the Protection of Animals opposes the transfer to Naturalis, however, and wants Herman to spend his remaining years in his familiar Pharming stable. "Herman is not a fairground attraction," says a society spokesperson. "He needs quiet and stability in his life."

The Best and the Brightest

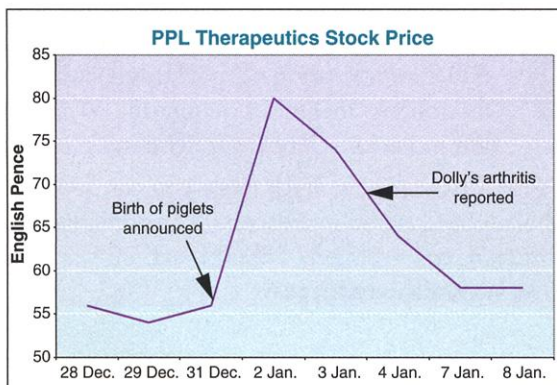
The young inventors of a sign-language translator and a device that could lead to the development of better artificial joints have won the prestigious Siemens Westinghouse Science and Technology Competition for 2001. Top individual honors and a \$100,000 scholarship went to Ryan Patterson, a senior at Central High School in Grand Junction, Colorado. Patterson developed—and patented—a glove that automatically translates sign language into characters on a computer screen. The team title was claimed by Shira Billet and Dora Sosnowik, seniors at the Stella K. Abraham High School for Girls in Hewlett Bay Park, New York. Billet and Sosnowik, who will share \$100,000 in scholarship money, invented a device that measures the viscosity of ultrathin lubricating films. Their invention should aid the developers of electronics, micromechanical devices, and even artificial joints. The annual competition recognizes the scientific and technological achievements of American high school students. The 2001 awards were presented 3 December at the headquarters of the American Association for the Advancement of Science (publisher of *Science*) in Washington, D.C.

There's a new "star" in the sky, and it's taking the twinkle out of all the others. With a little help from the Lawrence Livermore National Laboratory in California, the Keck Observatory in Mauna Kea, Hawaii, has a brand-new laser that projects a yellow spot on the sky 100 kilometers above the Earth. The spot from the 18-watt laser is too dim to be seen with the naked eye, but it's bright enough to help the Keck II telescope see clearly through Earth's atmospheric turbulence, which makes stars twinkle and blurs astronomical images.

The meter-wide blotch "looks slightly fatter than a star," says Livermore's Claire Max, the principal investigator for the laser project. While the telescope focuses on the virtual star, computers adjust Keck II's deformable mirror, which continually flexes to compensate for atmospheric turbulence. No word on whether it does any good to wish upon the artificial star; Jiminy Cricket could not be reached for comment.



Pigs Up, Sheep Down



Maybe it's that herd instinct that causes science-minded investors to stampede into the stock market. Earlier this month investors pushed the price of U.K.-based PPL Therapeutics up 50% on news that the struggling biotech company had created genetically modified pigs that might produce organs transplantable into humans. But a few days later they let the price sink just as precipitously after the BBC reported that Dolly, the pioneering cloned sheep that the company helped create in 1996, had arthritis in one hind leg. Scientists, meanwhile, cautioned against reading too much into either development.