

# Doctors hail paralysis breakthrough

SCIENTISTS last night claimed a breakthrough in the treatment of paralysis.

It involves the use of stem cells from human embryos, a practice which has been shrouded in controversy.

In what is believed to be the first successful experiment of its kind, researchers at Johns Hopkins University in Baltimore say they have used the cells to partially cure paralysed laboratory mice.

The team hope to experiment on human paralysis sufferers within three years.

The mice were first infected with a virus which damaged nerve cells in their spines, leaving them paralysed. The resulting condition was

From **Sarah Chalmers**  
in New York

similar to a disease suffered by humans called amyotrophic lateral sclerosis, or motor neurone disease.

The disease claimed the lives of actor David Niven and former England football manager Don Revie. Professor Stephen Hawking is a sufferer.

The mice then had a solution containing human embryonic stem cells infused into their spinal fluid.

The cells migrated to the area of the damaged spinal cord and developed as healthy new nerve cells. They also released proteins that spurred the regeneration of normal nerve cells. Scientists

believe that if the experiment works using human cells in mice, then it has a strong chance of success in humans.

Embryonic stem cells are the basic building blocks of body tissue. They can develop into any of the body's different components.

Neurologist Douglas Kerr, who led the experiment, said: "The majority of the animals recovered some function."

"They are not completely normal but they can begin to move their hind limbs under them and some can bear weight."

The extraordinary progress of the mice will challenge critics of stem cell research who have argued that the work has not yielded the breakthroughs promised by scientists.

It comes at a time when President Bush is trying to decide whether or not to allow federal funding for such research.

The Johns Hopkins project was financed by Project ALS, a New York-based charity dedicated to finding a cure for the condition.

Dr Kerr and colleague Professor John Gearhart isolated the primitive human stem cells from five to nine week-old human foetuses.

The foetuses had been selectively aborted after IVF treatment resulted in multiple pregnancies.

Professor Gearhart said the experiment proved that embryonic stem cells can be used to treat diseases in which nerve cells have been damaged and do not normally

heal or regrow. Dr Kerr added: "We are being cautiously aggressive. We want to advance as fast as possible."

More than 200 scientists and doctors attending a genetics meeting in Bar Harbor, Maine, were due to see a dramatic video clip of the partially cured mice last night.

Supporters of embryonic stem cell research hope this latest development will help sway President Bush.

Bush is still considering his decision but is thought to feel uneasy about the use of human embryos in such work.

On his European tour this week he met the Pope, who has condemned stem cell research as 'devaluing human life.'

Times July 26th 2001