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## **Stem cell 'scaffolding' examined**

Stem cell "scaffolding" could help improve the lives of stroke patients, it has been announced.

New research is looking at anchoring stem cells on to special molecules to help regenerate damaged brain tissue.

The scientists behind the move hope their findings will one day lead to patients regaining some of the functions they lost after a stroke.

Strokes cause a temporary loss of blood supply to the brain, which results in areas of brain tissue dying off. This can then result in the loss of bodily functions such as speech and movement.

Neural stem cells can help tissue regeneration but scientists face major obstacles when trying to deliver these cells to the brain.

Now researchers have found a way to combine stem cells with microparticles - organic molecules called PGLA. These microparticles would act like "scaffolding", providing a structure for the cells to hook on to.

Researchers hope the scaffolding would make it easier for the cells to attach themselves to the cavities in the brain caused by strokes.

The structure would then hold the cells in place until they can connect with the surrounding healthy tissue. Once they have done their job, the particles would dissolve away.

Neurobiologists from the Institute of Psychiatry at King's College London and tissue engineers from the University of Nottingham are behind the research, aided by funding from the Biotechnology and Biological Sciences Research Council.

Dr Mike Modo from the Institute of Psychiatry will unveil his findings on the second day of the inaugural UK National Stem Cell Network conference in Edinburgh.