

CASE STUDY

NEW HOPE FOR STROKE REPAIR

Exciting advancements at the Centre for Stem Cell Research are providing hope for thousands of Australians who suffer brain damage as a result of stroke.

The importance of this research is significant, with stroke being the leading cause of disability in Australia. More than 250,000 people are estimated to be living with the aftermath of strokes.

Associate Professor Simon Koblar, Director of the Stroke Research Program, says, "A major challenge before neuroscience is how to repair the brain following a stroke." The research is showing promising results regarding the use of adult stem cells from teeth to improve the brain functionality of victims of stroke.

Associate Professor Stan Gronthos, Co-Director of the Centre for Stem Cell Research, was one of the first to isolate stem cells from the adult human tooth. This discovery laid the foundation in Adelaide to use dental pulp stem cells for brain repair.

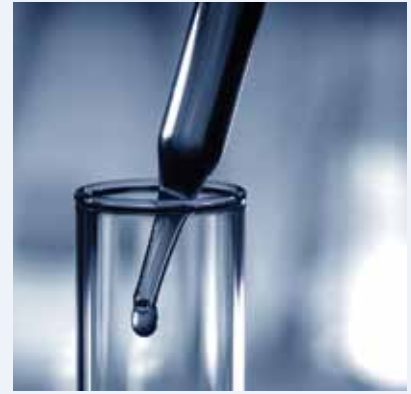
Various organs of the body, such as bone marrow, skin or teeth, have small numbers of adult stem cells that are able to regenerate specific organs' tissues.

The research has discovered that adult dental pulp stem cells have an intrinsic ability to produce brain cells and make a range of growth factors likely to help repair the brain.

The Catholic Archdiocese of Sydney awarded the group \$100,000 through a competitive grant to progress the research using adult stem cells.

The Robinson Institute is working with University of Adelaide graduate and stroke victim, Mr Peter Couche, to raise awareness of and funding to continue this important research through the establishment of the Peter Couche Foundation.

Peter, a highly successful stockbroker, at 41 suffered an irreversible brain-stem stroke that left him paralysed but with an active and alert brain. His book, *Lifelines*, documents his life and the importance of discoveries such as stem cells to improve the lives of people affected by stroke.



"The best cell-therapy is one which is initially from the patient so no treatment is required to reduce the immune system and stop rejection."

Associate Professor Simon Koblar, above with Mr Peter Couche



250,000

Number of Australians estimated to be living with the aftermath of strokes.

Associate Professor Simon Koblar

