**Blood vessel cells aid tissue repair in teeth**

Daniel Zimmermann

**NEW YORK, USA/LEIPZIG, Germany:** New research presented at the recently held first International Conference on Dental and Craniofacial Stem Cells in New York in the US could mean a break-through in future tissue and organ repair. In an experiment involving incisors from rodents, a mammal species that includes mice and squirrels, researchers from the UK, Brazil and the US found that connective tissue cells can transform into specialised cells to repair damaged tissue in teeth.

Their results have been published in the latest issue of *Proceedings of the National Academy of Sciences of the USA.*

Previous research suggested that so-called pericytes, usually found in small blood vessels, have the potential to transform into different cells. This new study is the first claiming to have found genetic evidence that they can also act as stem cells to regenerate lost or damaged tissue. In the experiment, they were transplanted into the tooth, where they transformed into dental pulp cells.

“This is the first time vascular cells have been shown to differentiate into specialised cells during a natural repair process,” says Prof. Paul Sharpe from the Department of Craniofacial Development at the Dental Institute at King’s College London, who led the study. “In addition to the obvious significance for understanding the cellular mechanisms of tissue repair, it also has wider implications for areas of regenerative medicine/dentistry directed towards stimulat-

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**US public dental care in poor state**

From news reports

PENNYSYLVANIA & CHICAGO, USA: US dentists are more likely to offer emergency dental care to children enrolled in private insurance schemes than those with Medicaid, the country’s health programme for the poor. These alarming findings are the result of an undercover study of 85 dental practices in the state of Illinois. Researchers at the University of Pennsylvania posed as mother of a fictional 10-year-old boy with an acute oral injury.

According to the study, only six dentists offered an appointment to children with public health insurance. All dentists offered an appointment to privately insured children. However, chances increased significantly when dentists were enrolled in Medicaid.

The findings confirm earlier studies that have painted a sad picture of the country’s dental health-care system for disadvantaged children. According to a 2010 study by the Pew Research Center, one in five children in the US lack access to dental care owing to low income and poor resources.

“Lack of funding is among the greatest barriers to better oral health in America. But funding alone will not fix Medicaid. Patients need help navigating an often complicated bureaucracy and overcoming other barriers,” said Raymond F. Gist, President of the American Dental Association (ADA), commenting on the results of the study. “These programmes cannot reach their potential with- out other significant reforms. These include reducing unnecessary red tape for dentists and patients, and helping patients overcome such related barriers as the need for transportation, child care or permission to take time off from school or work to receive treatment.”

The ADA has been lobbying for increased Medicare funding for years. The association recently launched a pilot programme to train health workers to provide treatment to people experiencing barriers to access of oral health-care services.