Australian researchers transform teeth into early-stage brain cells
New findings could aid in the therapy of stroke victims

ADelaide, australia/London, UK: After almost a decade of research, the University of Adelaide’s Centre for Stem Cell Research has recently announced another breakthrough discovery in the use of dental stem cells for regenerative therapy. By exposing stem cells from mouse teeth to different growth factors present in the brain during early embryonic development, they were able to create complex networks of cells that resembled neurons, the cells in the brain that are responsible for transmitting and processing information.

While the cells are still missing features, such as ion channels, necessary to support the kind of communication that neurons conduct, they could be a major step in developing new therapies to help patients who have suffered a stroke, according to lead researcher Dr Kylie Ellis, a doctoral graduate in Physiology and Commercial Development Manager of the university’s commercial arm, Adelaide Research & Innovation. She said that other methods of induction using a different composition of factors may be necessary to support the full transition of the stem cells into neurons. Her team is now investigating the time window after a stroke in which these stem cells will be useful in helping aid recovery and how they may have this effect.

The neuronal-like appearance of a mouse-derived dental pulp stem cell. (DTU/Photos University of Adelaide, Australia)
clinical and histological results and a sufficient complication of researchers were able to show that the technique provided predictable results in the regeneration of buccal bone on dental implants.

Fu was recognized for her first and second study, which were being collected clinical and radiographic parameters between 2009 and 2011 as part of an international scholarship at the University of Michigan in the United States. Follow-up research, which has recently been submitted for review, found that bone height, they can be performed with simultaneously or two-stage implant placement using osteotomes, a trans-alarver or lateral-window approach.

Numerous studies have shown predictable results using autogenous bone as the "golden standard" for sinus grafting procedures. However, within the last decade, the role of autogenous bone as the "golden standard" for sinus grafting procedures has been increasingly discussed, since same results can be obtained using bone substitute materials, additional stress for the patient.

In the webinar, different approaches of sinus grafting procedures, the selection of different bone substitute materials, clinical and histological results and a sufficient complication management will be discussed.

It has been 32 years since the first reports of Acquired Immunodeficiency Syndrome (AIDS) were reported to the United States Centers for Disease Control and Prevention. The dental team has been and continues to be an important tool in accessing a patient's overall well-being as they are important indicators of disease progression for those known to be HIV positive. For those with unknown HIV status, the presence of these lesions may signify HIV infection or other systemic conditions. This presentation will enable the participants to accurately diagnose and manage the most common oral opportunistic infections seen in association with HIV disease. Topics to be covered will also include proper dental management for people living with HIV disease including a discussion of important lab values and when, if ever, premedication prior to invasive dental procedures is required.

**UPCOMING WEBINARS**

**ORAL HEALTH CARE FOR HIV+ PATIENTS**
Daniel Rothamel, DDS 06:00 PM (CET)

**SINUS LIFT PROCEDURES IN THE DAILY PRACTICE**
Daniel Rothamel 06:00 PM (CET)

**Research from Singapore wins implantology award**

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**Asia News**

Dr Jia-Hui Fu, winner of the André Schröder Research Prize.

In addition to its award, the ITI says to provide 2 million Swiss Francs (US$ 2.25 million) annually to research in both fields.
Dental curriculum in Bangladesh revamped

DT Asia Pacific

DHAKA, Bangladesh: Students planning to take up an education in dentistry in Bangladesh this year will have to study longer, as the country’s Medical and Dental Council in the capital Dhaka has approved a new curriculum at its general meeting, which was held in early May. Among other things, it will see Bachelor of Dental Surgeon (BDS) programmes extended to five years.

Timelines for the annual examinations will also be changed in order to give students more time to focus on practical learning when the new guidelines will become effective later this year.

The previous dental curriculum, implemented in 2007, required BDS students to study for four years which, according to representatives of the Bangladesh Dental Society, proved insufficient for remaining competitive with students from other countries where students often have to complete longer programmes.

Similar rules were already implemented successfully with new guidelines for academic degrees in medicine and general surgery last year, they told the newspaper Dhaka Tribune last week.

The update for dental programmes will become valid for students who enroll for the next academic year 2014–2015 starting in fall. All graduates who have started under the previous curriculum will not be affected by the changes, the Council said. Bangladesh has currently 1,700 seats available in 23 dental colleges nationwide, of which over 90 per cent are operating privately, according to figures from the Directorate General of Health Services, an agency working under the country’s Ministry of Health and Family Welfare.

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