Dentists extract stem cells for future regenerative medicine

The recent discovery by the National Institutes of Health that stem cells exist in teeth has the potential to transform dentistry and the future of medical treatments. Now, three dentists in Denver — Dr. James DeLapp, Dr. H. Candace DeLapp and Dr. Sarah Parsons — are offering their patients a chance to bank valuable stem cells for use in future regenerative medical therapies.

Stem cells found in teeth are extracted by Cottonwood Dental Group and are cryo-preserved, enabling patients to recover and save very powerful stem cells found in their teeth. The dental practice is partnering with a company called StemSave to preserve the stem cells. Stem cells are the basis for the emerging field of regenerative medicine. There are more than 78 clinical trials involving stem cell treatments under way, and the U.S. military is developing stem cell therapies to treat soldiers wounded in action.

The current research being conducted suggests that stem cell therapies may, in the future, be able to treat many of today’s most difficult diseases, such as diabetes, Parkinson’s, Alzheimer’s, muscular dystrophy, cancer and many more. Living stem cells have been routinely found in teeth and for the most part have been discarded after extraction. Stem cells from teeth appear to replicate at a faster rate than stem cells from other tissues. Stem cells in the body age over time, and their ability to regenerate slows down and become less effective. The earlier in life that the stem cells are secured, the more valuable they are likely to be later in life.

Not all teeth are eligible for stem cell preservation. As an example, the tooth needs to have a healthy pulp. It needs to have an intact blood supply and be free from infection and deep cavities. Stem cells may be recovered from patients who are middle aged, but the younger they are the better.

Deciduous teeth or baby teeth may be the best source of stem cells. The incisors that have begun to loosen or the baby canine teeth appear to be the best candidates. The pulps of naturally loosened teeth may not have an adequate blood supply. Wisdom teeth between the ages of 16 and 20 years old may be a very good source. The pulp at this stage is large and the potential for viable stem cells is high. Obviously teeth that have root canals or extensive dental treatment are poor candidates.

StemSave is a collaborative effort between stem cell researchers and the dental community to provide families and individuals an affordable, non-invasive methodology for the recovery and cryopreservation of the powerful and valuable adult stem cells residing within baby teeth, wisdom teeth and permanent teeth for future use in personalized medicine and regenerative medical therapies.

According to StemSave, the patented technology has the potential to turn a patient visit into what may one day be a potentially life-saving experience. Patients should consider banking their stem cells while undergoing procedures such as the extraction of wisdom teeth or baby teeth, the dentists said. These planned dental procedures provide an ideal time to preserve one’s stem cells.

Although there are no current medical treatments available using stem cells, much research for various diseases involve treatment that may involve stem cells in the future.

StemSave provides an affordable and non-invasive method for the recovery and cryo-preservation of the powerful children or adult stem cells found in teeth by teaming up with dentists to harvest stem cells during routine dental procedures.