ADULT STEM CELL BREAKTHROUGHS, TREATMENTS AND CURES

- Scientists in Portugal are using olfactory enshathing glial cells from the lining of a patient's nose to treat spinal cord injuries. Senator Brownback recently held a press conference where he introduced two young ladies, Susan and Laura, who were paralyzed, one a quadriplegic. Both of them are now able to walk with braces, due to adult stem cells.


- In South Korea a 20-year-old quadriplegic woman received transplanted umbilical cord stem cells to the site of her spinal injury. She’s now mobile with a walker.


- In Germany, stem cells have been used to help repair skull bone damage in a 7-year-old girl. Unlike other bones, skull bones do not regenerate, hence the use of metal plates to repair the damage. Using adult stem cells, the missing bone plates were replaced by thin, solid bone. Bits of the child’s own bones, mixed with adult stem cells, produced the healing.


- London researches have been using adult stem cells in trials to treat damaged livers. They hope to colonize and grow new liver cells allowing the liver to function again.


- In the US Germany, Brazil and France, human patients have been treated with their own stem cells to regenerate heart muscle destroyed during a heart attack or injury. In most cases this was successful.


- Twenty-three patients regained their eyesight following limbal (adult) stem cell transplants. This treatment has helped many suffering from blindness for years, including victims of Iraqi mustard gas attacks.


- Patients with Crohn’s disease have apparently been cured after treatment with stem cells from their own blood.

Ninety percent of 19 patients with various autoimmune disorders, such as systemic lupus, are in remission or have improved after treatment with their own blood stem cells. 

One patient with multiple sclerosis improved after being treated with adult stem cells from his own blood.

One Study of Parkinson’s patients showed an average improvement of sixty-one percent increase of coordination, as well as fewer symptoms after transplants of the patient’s own neuronal stem cells.

Doctors added adult stem cells from umbilical cord blood to the treatment of leukemia patients. This freed fourteen of eighteen patients of the disease.

Hematopietic stem cell transplants successfully treated over two hundred sickle cell patients. The success rate has been eighty to eighty-five percent.

A 52-year-old woman with rheumatoid arthritis in 38 joints was treated with adult stem cells from her sister. While still in the hospital, her morning stiffness ceased. One year later she is free of the disease and off medication.

Innsbruck, Austria, doctors have used adult stem cells from patients’ muscles to successfully treat urinary stress incontinence. Eighteen of twenty remain continent one year later.

Researchers found that adult stem cells in the pulp of baby teeth may be extremely useful in growing replacement brain tissue to overcome stroke damage and other neurological disorders.

Chagas disease is a potentially lethal parasitic condition attacking and destroying the heart and other tissue. It kills six million people worldwide every year. The parasite can be killed with treatment, but the damage remains. Now scientists in Buenos Aires, using adult stem cells from patients’ own bone marrow, have been repairing heart damage.

Scientists in New York are exploring the real possibility of using adult stem cells to regenerate teeth that have been removed.

Toronto researchers reported finding adult stem cells not merely in umbilical cord blood, but also in “jackpot” of adult stem cells in the tissue mass (Warton’s Jelly) surrounding the three umbilical cord blood vessels. They anticipate using these adult stem cells to regrow bone and connective tissue in knees that have been damaged in
an accident.


- In Argentina, stem cells from a diabetic patient’s own bone marrow were fed into his pancreas through an artery. His glucose levels returned to normal with no need for medications.

- Pennsylvania and Louisiana scientists have coaxed adult stem cells from bone marrow to differentiate into the type of cells that line lungs and air passages. This may lead to effective treatments for cystic fibrosis.

- Adult stem cells hold a promise to treating baldness in humans. A study at the University of Pennsylvania School of Medicine reports using them to grow hair on bald mice.

- Chicago researchers are looking at a new adult stem cell technique that will replace implants for reconstructive surgery and body augmentation. This could have profound commercial implications for cosmetic surgery.

- Dr. Migoshi, Kelo U. Tokyo, March, Am Col Cardiology, Adult Stem Cells from Menstrual blood into heart cells.
- Dr. G. Hasenfuss, Goettingen, Germany, versatile stem cells from testicles into liver, muscle, pancreas, heart and nerve cells, Nature, 24, March.
- First lung stem cell found “Technology Review, March, 2006, online.”
- Hair follicle stem cells repair mice nerve damage.
- Umbilical cord blood stem cells contain naturally known hematopietic stem cells but also additional formative cells similar to embryonic ones.
- Adult stem cells made to multiply at will … MIT, Boston, Dr. Shewey, J. Biotech & Bioeng.
- Bone marrow cells found that behave like embryonic ones, M. Ratajczak, University of Louisville, American Society Hematology Meeting, Dec. 2005.
- From placenta: Amniotic epithelial cells similar to embryonic cells, University of Pittsburg, Stem Cell Express online, Aug. 9, 2005.
- Many of the above studies are preliminary and have been done on animal models, although many have been used in human trials. A single report of a success (e.g. of skull bone) is not considered definitive until other scientists replicate the same study. Then trials must succeed in human subjects, using adult stem cells before such treatments will be available for you and your loved ones. This being said, however, we can hardly conceal our excitement at these new discoveries. Most of the above have been reported within the last 1 to 3 years. In stark contrast to this, we have no reports of any such successes using embryonic stem cells.