

Stem Cell Awareness Day seeks to educate public on stem cell research benefits

Tampa Bay Technology Incubator companies contributing to the advancement of stem cell therapies

By Tracey Swartz
USF CONNECT

TAMPA, Fla. (October 1, 2012) – Developments and innovations in the field of stem cell research will be celebrated worldwide during Stem Cell Awareness Day on Oct. 3. Research and academic institutions will be hosting public discussions and community activities to enlighten the general public on the benefits of stem cell research and the scope of potential therapies for disease and injury. Stem Cell Awareness Day is sponsored by the California Institute for Regenerative Medicine (CIRM).

Researchers at the University of South Florida (USF) have made great strides in the field of stem cell therapies, some of which have led to the creation of spinout companies that reside in USF CONNECT's Tampa Bay Technology Incubator (TBTI).

Natura Therapeutics, Inc. is a life science start-up founded in 2004 by scientists at the University of South Florida that joined the TBTI in 2006. The company researches and develops nutraceutical products and allocates a portion of its profits to funding stem cell research and improving its products.

Adult stem cells, also called somatic stem cells, are responsible for helping the body repair itself by rebuilding tissues and organs damaged as a result of injury or disease. Research shows that the number of adult stem cells decreases with age, reducing their ability to repair the body.¹ To combat this problem, Natura developed NutraStem[®], a patented all-natural formulation of botanical extracts and antioxidants that work together to increase the number and health of adult stem cells in the body.

Natura's products, NutraStem[®] Active[™] and NutraStem[®] Cardio[™], are sold worldwide, with distribution partners in the United Kingdom, France, South Korea, Taiwan and China. Natura's third product, NutraStem[®] Bone & Joint[™], is expected to launch later this year.

Biolaminex, Inc. is another USF spinout company residing in the TBTI that works with adult stem cells. The company received a \$99,998 grant from the Bankhead Coley Cancer Research Program for the project, "Use of Synthetic Biomatrix to Enhance Autologous Peripheral Stem Cell Transplantation." The project's objective was to determine if adult stem cell growth and transformation into a specific kind of cell outside of the body can be achieved using coating technology for cell culture vessels.²

Biolaminex designs and develops polypeptide-based nanocoatings and nanofibrils for applications in biotechnology and medicine. The proprietary technology provides a novel coating material and process for delivering implantable material in the body and controlled medicine delivery.

Saneron CCEL Therapeutics, Inc. is a USF spinout company that became an Accelerated Business in Residence at the TBTI in 2010. The biotechnology research and development company focuses on cardiac and neurological cell therapies for early intervention and treatment of destructive and fatal diseases using non-controversial, ethically acceptable cells. The company has ten issued patents and eleven patents pending for its umbilical cord blood and Sertoli cells technology.

Saneron's leading technology U-CORD-CELL[™] is a collection of stem cells that are isolated from human umbilical cord blood. These cells travel to damaged or injured areas of the body and support the body's repair system.

In early 2012, USF Health announced that a research collaboration between USF, Saneron and the Ribeirao Preto School of Medicine at the University of Sao Paulo, Brazil, determined that repeated low-dose injections of mononuclear cells from human umbilical cord blood (MNC hUCB) in mice delayed the progression of ALS and increased life span after symptoms of the disease had begun. These results encouraged Saneron to further interpret the preclinical data and pursue clinical trials.³

In July, Saneron announced a partnership with the South Texas Blood & Tissue Center (STBTC) that will secure a supply of clinical grade umbilical cord blood for use in future clinical trials.

¹ Drummond-Barbosa, D. (2008, December). *Genetics.org*. Retrieved from <http://www.genetics.org/content/180/4/1787.full>.

² *Bankhead coley cancer research program*. (2011, June 15). Retrieved from <http://forms.floridabiomed.com/grantees/1BC-01 HAYNIE Profile.pdf>.

³ *Usf and Saneron find additional benefits of cord blood cells in mice modeling als*. (2012, February 03). Retrieved from <http://hscweb3.hsc.usf.edu/health/now/?p=23984>.

“As we move towards clinical trials, having access to a readily available supply of clinical grade U-CORD-CELL™, Saneron’s proprietary processed mononuclear cell fraction of cord blood, is crucial,” said Nicole Kuzmin-Nichols, Saneron president and COO. “We feel that STBTC has the both the expertise and volume of samples needed to be a key partner.”⁴

For more information regarding Stem Cell Awareness Day and specific events visit http://www.stemcellday.com/SCAD_Index.html or contact Stemcellday@cirrn.ca.gov.

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The University of South Florida is a high-impact, global research university dedicated to student success. USF ranks 50th in the nation for federal expenditures in research and total expenditures in research among all U.S. universities, public or private, according to the National Science Foundation. Serving more than 47,000 students, the USF System has an annual budget of \$1.5 billion and an annual economic impact of \$3.7 billion. USF is a member of the Big East Athletic Conference.

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⁴ Saneron and south texas blood & tissue center to collaborate . (2012, June 06). Retrieved from <http://www.newswise.com/articles/saneron-and-south-texas-blood-tissue-center-to-collaborate>.