

LifeCell – Daily News Update

October 27, 2009

Key Industry News:

Publication	reuters.com
Headline	<u>Cryo-Cell International Recognized by Tampa Bay Technology Forum</u>
Gist of the article	<p>Cryo-Cell International, Inc. ("Company") a global leader in stem cell innovation, has been named a finalist for the Tampa Bay Technology Forum's (TBTF) Innovation of the Year award. TBTF selected finalists within five categories who will compete at the organization's 6th Annual Industry Achievement Awards to be held November 12.</p> <p>Debora Winfree, senior vice president at a prominent Tampa-based financial services company, nominated Cryo-Cell as the company which exemplifies Tampa Bay's burgeoning center for innovative entrepreneurs in high-tech industries Cryo-Cell's breakthrough discovery of C'elle menstrual stem cell technology, rapid global expansion of its proprietary service and scientific research partnerships, and solid leadership by a female CEO all were specific examples on which Winfree based her nomination.</p> <p>The C'elle service is the first and only one of its kind, empowering women to collect and cryopreserve stem cells from their own menstrual flow. Stem cells harvested from menstrual blood are proven to be a rich source of undifferentiated stem cells which proliferate rapidly and have the ability to become many different types of cells such as cardiac, neural, bone, fat and cartilage. These stem cells are a potential source for promising regenerative therapies that may possibly treat debilitating diseases in the future.</p> <p>Since launching its proprietary service in 2007, Cryo-Cell continues to expand research and development initiatives worldwide in order to accelerate the potential diagnostic and therapeutic benefits of these unique stem cells. The Company has announced eight partnerships to date with globally renowned researchers and organizations including the National Institutes of Health (NIH) Clinical Center, where research is underway to better understand the C'elle stem cells and their potential benefit for the treatment of breast cancer. Pre-clinical studies are underway to identify future potential diagnostic and therapeutic utilization of menstrual stem cells to possibly treat a broad range of disorders such as diabetes, stroke, vascular regeneration,</p>

endometriosis, stress urinary incontinence and wound-healing. This year alone C'elle menstrual stem cell technology has been licensed in China, Thailand and Brazil.

"As a world-renowned pioneer in the stem cell industry and a company growing despite our economic climate, Cryo-Cell has helped to put Tampa Bay on the map as a leader in fostering high-tech industry businesses, the strength of women in leadership, and is a perfect example of the caliber of technology entrepreneurs for which our area continues to be recognized," said Winfree. "Renowned financial industry press have acknowledged the seismic potential of Cryo-Cell's technology and praised its business model which includes aggressive R&D and international expansion. I'm confident that Cryo-Cell will continue to shine the spotlight on Tampa Bay's blossoming technology industry and attract like-minded entrepreneurs to benefit our region," she added.

Ms. Winfree also commented on the impression that Mercedes Walton as a woman leading a high-tech company made. "I was inspired by Ms. Walton's passion and her determination to empower women to take steps to protect their health and well-being. She's a great example of the growing numbers of women who are breaking ground in science and technology disciplines," she concluded.

"The entire Cryo-Cell organization is very proud to be nominated and recognized by the Tampa Bay Technology Forum for the Company's technological innovation and global expansion," said Cryo-Cell International CEO Mercedes Walton. "We are genuinely honored by Ms. Winfree's enthusiasm and support. As a finalist for this highly prestigious award, Cryo-Cell is privileged to be among the region's leading-edge companies in Tampa's emerging technology industry, and we look forward to next month's event," she added.

Founded in 2000, TBTF is a professional association that brings together the region's growing number of thriving technology and internet-based company entrepreneurs. It currently has more than 450 member organizations representing more than 45,000 employees. Through its networks, events, education, networking, advocacy and philanthropy programs, the organization provides a unique catalyst for relationship creation and collaborative partnerships.

A pioneer in the non-controversial stem cell arena with its U-Cord® service for collection and cryopreservation of cord blood stem cells, Cryo-Cell has served nearly 185,000 clients worldwide. Stem cells from umbilical cord blood treat more than 75 diseases today, including sickle cell disease, several types of acute and chronic leukemias, Non-Hodgkin's lymphoma, and Hodgkin's disease. Emerging science shows great promise for potential treatments

	utilizing cord blood stem cells including spinal cord injury, heart disease, breast cancer, stroke, diabetes, Parkinson's disease, Alzheimer's disease and many more
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Publication	pharmabiz.com
Headline	Stem cells engineered in NCRM lab in Japan could cure blood cancer: Dr Nakamura
Gist of the article	<p>Treating bone marrow disorders such as Aplastic anaemia and Thalassemia with stem cells engineered in the lab of NCRM in Japan will be possible in the near future, according to Dr Yukio Nakamura, world renowned stem cell scientist and head of bio resources centre, Riken institute, Japan.</p> <p>The iPS cell (Induced Pluripotent Stem Cells) technology discovered by Japanese scientists would pave way for such breakthrough as this technology doesn't involve usage of embryonic stem cells and therefore is devoid of ethical conflicts, he said. Dr. Nakamura was delivering a speech at the fourth anniversary- and International stem cell meeting organized by Chennai-based Nichi-In Centre for Regenerative Medicine (NCRM), an Indo-Japan joint venture institute.</p> <p>This ray of hope for blood cancer victims had another shot in the arm with the possibility of laboratory expansion of human bone marrow blood forming stem cells (CD34+ cells) by the NCRM team without using animal protein presented in the meeting.</p> <p>Dr Nakamura said Red Blood Cells (RBC) are the cells that carry oxygen from the lungs to the other parts of the body which are depleted in conditions like Aplastic anaemia and in Thalassemia defective blood cells are formed. Both need multiple transfusions of blood components. However finding donors whose blood or bone marrow will match that of the patients' HLA for such transfusions is difficult. The doctor's team has developed a technology by which they could engineer RBCs in the lab from iPS cells in large quantities thereby avoiding the need for searching donors every time the patient needs a transfusion which has been proven in animal studies for safety and efficacy.</p> <p>According to Dr Samuel Abraham, director of NCRM, another breakthrough discovery of multiplying the bone marrow CD34+ stem cells (which are Pluripotent and can also form blood components) in the lab was presented by the NCRM scientists. There are several earlier reports in the literature of this nature using many growth factors and serum derived from animal sources which not only make the procedure very expensive but also the contamination due to</p>

	<p>animal serum is of concern. “However in our methodology we have not used growth factors or animal serum, which makes this technology affordable and contamination free,” said Dr Abraham.</p> <p>Dr Shripad Banavali, head, Medical Oncology, Tata Memorial Hospital, Mumbai insisted in his talk the need for such technologies in India as India has many patients with blood diseases who need multiple transfusions. Earlier, Dr Ryuji Hata of Ehime university, Japan presented his work on prevention of auditory hair cell damage in animal models using Hematopoietic stem cells which he said in future may help treat sensory neural hearing loss and Dr YY Rao of KG Hospital, Coimbatore, presented the successful outcome of bone marrow stem cell application in end stage cardiac disease patients.</p> <p>The deputy consul general of Japan at Chennai Takayuki Kitagawa lauded the Indo-Japan collaborative efforts in this evolving field of stem cells by NCRM and its Japanese collaborators and distributed the prizes to winners of the Fujio Cup Quiz, an all India quiz competition on stem cells conducted for the forth time consecutively named after the renowned Japanese physician Dr Fujio Takayama. The first prize and the prestigious ever-rotating Fujio cup went to the team from Manipal Institute of Regenerative Medicine, Bangalore.</p> <p>The vice-chancellor of Tanuvas, Dr P Thangaraju congratulated the winners of the quiz programme and said that Tanuvas is proposing to set up a world class facility for animal stem cell research, treatment and banking in Chennai in collaboration with NCRM. He also congratulated Prof. Justin William of Tanuvas who has become the topper of the stem cell training programme conducted by NCRM jointly with University of Toronto.</p>
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Publication	wisn.com
Headline	<u>Local Stem Cell Break Through Could Help Fight Liver Disease</u>
Gist of the article	<p>A stem cell breakthrough at the Medical College of Wisconsin offers new hope in the fight against liver disease.</p> <p>Scientists figured out how to turn skin cells into healthy liver cells.</p> <p>On good days, Emily Moynihan motors through a busy afternoon routine. She makes snacks, helps her three boys with homework and watches her two nieces.</p> <p>On bad days, the routine is completely disrupted.</p> <p>“I get itchy. My whole body itches, jaundice, fever, very tired,” Moynihan said.</p> <p>She feels so tired, that she stays in bed for days. This has been Moynihan’s whole life as a patient with liver disease.</p> <p>“I got sick a lot. I would get sick about every 12 to 14 months and go in the hospital for about two weeks,” Moynihan said.</p> <p>Just after birth, Moynihan was diagnosed with biliary atresia, a</p>

disease that causes the bile ducts in her liver not to work properly, causing severe liver damage. She is on constant antibiotics and never knows when the illness will flare up. Her last pregnancy made it worse.

“My third, it really did a lot damage,” Moynihan said. She has been on a liver transplant waiting list for 18 months now.

“It’s very scary,” Moynihan said. “I think about my kids, and they need me around for a long time.”

Research at the Medical College of Wisconsin is giving Moynihan new hope after cell biologist Stephen Duncan and his laboratory team made a breakthrough discovery with skin cells.

“We’ve been working on ways we can try to make cells that could substitute for the need for a liver transplant,” Duncan said. They’re able to do this by using a person’s skin cells.

“Using a number of proteins, adding the proteins to these cells, and it tricks the cells into becoming the equivalent of an embryonic stem cell,” Duncan said.

Those are baseline cells. Duncan’s team figured out how to then turn those cells back into healthy liver cells. They’ve done tests putting those cells into mouse livers, where the good cells were taken and multiplied. While performing such a procedure in humans is probably some time away, this opened up a number of other possibilities.

“We could take skin cells from an individual with liver disease, make liver cells, then start screening for drugs that reverse that disease,” Duncan said.

He thinks pharmaceutical research could be done now using this technique, and also to test the side effects of drugs.

“The possibility of using liver cells to screen for toxicity in existing pharmaceuticals,” Duncan said.

Moynihan is hopeful for any option to transplant. While she knows it is necessary, the possibility of rejection always exists and post-transplant drugs can be hard on the body. She just wants to feel good again.

“You know, I can just have a normal life,” Moynihan said.

Publication	health.asiaone.com
Headline	ParkwayHealth takes action against stem-cell firms
Gist of the article	<p>PRIVATE health-care provider ParkwayHealth has taken action against stem-cell companies that have been misusing its brand on their websites to endorse their unproven therapies.</p> <p>Last month, it wrote to three such firms after a my paper tip-off, asking them to remove its logo and references to its hospitals from their websites.</p> <p>Bangkok-based stem-cell company, Returning Hope, had claimed partnership with ParkwayHealth and had used the group’s logo on its website without the latter’s approval.</p>

Two other companies in Bangkok had falsely listed Parkway- owned Mount Elizabeth Hospital and Gleneagles Hospital as partner hospitals.

The references to Parkway- Health were removed a week later. Attempts by my paper to contact the stem-cell companies were unsuccessful.

The companies' websites tout stem-cell treatments for adults - for conditions ranging from heart disease to ageing - that doctors here said were yet to be proven.

Earlier this month, prominent plastic surgeon Martin Huang became the first doctor here to be censured by the Singapore Medical Council for injecting patients with sheep stem cells in anti-ageing therapies.

Doctors said that patients could have been fooled by the references into believing that these unproven and pricey therapies were credible, because of the good reputation of Singapore's health-care system.

Parkway Holdings' executive vice-president for Singapore and Malaysia operations, Dr Tan See Leng, said that the group takes a "serious view" of the matter, especially as the companies were dabbling in "experimental therapy".

Director of Keystone Law Corporation Bryan Tan added that under intellectual-property laws, companies whose brand names and logos have been misused could "claim damages due to misrepresentation, passing off or damage of goodwill".

ParkwayHealth's logo has been misused by other healthcare firms and students in presentations, and the group has sent some of them similar warning letters, said its spokesman.

The group does not have the resources to monitor every single website, Dr Tan said.

He cautioned the public to be discerning about experimental treatments on non-official websites, and to verify any questions about such treatments with the group directly.