

**LifeCell – Daily News Update**

**September 21, 2009**

**Key Industry News:**

Publication	business-standard.com
Headline	<a href="#">The gift of life</a>
Gist of the article	<p>Storage of cord blood for stem cell therapy is set to become more popular in India.</p> <p>Stories of medical miracles always grab headlines and eyeballs. This one story however is doubly sweet, for it's not about a life saved, but also involves bringing into the world another one.</p> <p>Little Thamarabarani from Coimbatore owes her life to her infant brother, Pugazhendi, whose umbilical cord blood has breathed new life into hers. Thamarabharani was born with the genetic disorder thalassemia, which impairs the production of haemoglobin. From the time of the diagnosis, the girl had to depend on painful blood transfusions to live. But that isn't the cure, for the transfusions provide only temporary respite. She would have needed a bone marrow transplant soon.</p> <p>Since finding a matching donor is an arduous process, doctors advised the parents to have a second child whose umbilical cord blood would be harvested for stem cells. The stem cells were harvested on Pugazhendi's birth and Thamarabarani's genetically abnormal bone marrow was replaced with fresh stem cells. Five months on, Thamarabharani has been pronounced free of thalassemia and has a healthy sibling too, to whom she owes her life.</p> <p>The patient's family was helped financially by NGOs and philanthropists, and a stem cell bank that came forward to offer its services for free. The company LifeCell processed and stored the stem cells so they would be ready for the implantation at a later date.</p> <p>LifeCell is among numerous biotechnology companies offering such services for a fee. The others are Cryosave India, Cryobanks India and ReliCord, with another company, Histostem, set to offer this service soon.</p> <p>Stem cells, the companies say, are an "insurance" for newborn babies and adults from diseases such as cancer, leukaemia, spinal cord injuries, genetic disorders and much more. Though therapies for many diseases are either unavailable or not yet proven, companies say storing stem cells is</p>

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Publication	thalforum.ca
Headline	<a href="#">Doctors in TN achieve breakthrough in cure of Thalassaemia</a>
Gist of the article	<p>In a first, doctors in Tamil Nadu have successfully cured a thalassaemic girl child by using umbilical cord blood from her brother.</p> <p>The complicated procedure was performed by a team of doctors from Chennai and Coimbatore on 9-year-old Thamirabharani. She was diagnosed with thalassaemia a year after she was born, leaving her at the mercy of transfusions.</p> <p>The doctors cured Thamirabharani by transplanting the stem cells of her younger brother Pugazhendi into her. His stem cells were extracted during birth to facilitate his sister's cure.</p> <p>Thalassaemia is a genetic disorder that affects production of hemoglobin in Red Blood Cells (RBC) carrying oxygen to various parts of the body has remained a challenge to doctors the world over.</p> <p>After the transplantation process was over, the nine-year-old was kept under observation for five months and then it was official that Thamirabharani had been cured of thalassaemia.</p> <p>"When we first saw her, she was very anemic and needed frequent transfusion," said Dr V Bhooma, one of the doctors of the team.</p> <p>On the post transplant condition of Thamirabharani, Lifecell scientific officer Dr Ajit Kumar said, "After transplantation, her hemoglobin level has been maintained at 12.5 gm/dl. She does not carry diseased cells anymore."</p> <p>"These siblings share a special bond. We have now decided to offer stem cell banking free of cost for poor people with children who have curable disorders," he added.</p> <p>But for the parents of Thamirabharani it has not been a easy journey. After their first child was diagnosed with the disease, her parents Senthil Kumar and Sarojini had decided to abort two subsequent pregnancies fearing that their other children would also be born with the rare disease.</p> <p>But on medical advice, Sarojini gave birth to a healthy baby boy in March this year, who was not only a healthy child but also turned out to be the saviour of his sister. And the rest is medical history</p>

Publication	<a href="#">zikkir.com</a>
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**Key Industry News**

Publication	baltimore.bizjournals.com
Headline	<a href="#"><b>Baltimore to host World Stem Cell Summit</b></a>
Gist of the article	<p>Researchers from 27 countries will tackle the role of stem cells in treating diseases at a Baltimore conference next week.</p> <p>Leading scientists from Johns Hopkins University and the University of Maryland, Baltimore will join 1,200 others at a three-day conference at the Baltimore Convention Center, which starts Sept. 21. Organizers are calling it the largest stem cell conference to date.</p>

	<p>The conference is a coup for Baltimore, where state and economic development officials are counting on biotechnology parks on the east and west sides to fuel growth in their neighborhoods. It also comes as commercializing stem cell research continues to prove difficult.</p> <p>Columbia’s Osiris Therapeutics Inc., for example, found in two clinical trials that its stem cell drug Prochymal proved no better than a placebo.</p> <p>Conference organizers chose Baltimore for the fifth annual World Stem Cell Summit because it houses leading stem cell researchers at Hopkins and Maryland and because the state funds stem cell research, said Bernard Siegel, executive director of the Genetics Policy Institute. Maryland awarded nearly \$19 million in stem cell research last year.</p> <p>President Barack Obama lifted the ban on federal funding for embryonic stem cell research six months ago, providing more opportunities for stem cell researchers. Given the funding lift, Siegel said the conference is occurring at the “perfect time.”</p> <p>One of the most promising areas for stem cell research in private industry is the field of regenerative medicine. Stem cells therapies could be use to regrow body tissues and organs.</p> <p>“We’re at such an early stage in this,” Siegel said. “This could be the future of medicine.”</p>
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Publication	<a href="http://pittsburghlive.com">pittsburghlive.com</a>
Headline	<a href="#">Human placentas, not embryos, used to get stem cells for therapy to heal burns</a>
Gist of the article	<p>Healing is a long and painful process for burn patients, who endure months of skin grafting and the possibility of life-threatening infections with no guarantees for success.</p> <p>Scientists at Stemnion, an Oakland startup, say they have a solution for burns and other wounds: They’re developing cutting-edge stem cell treatments, but without the ethical dilemma of destroying embryos.</p> <p>"We see this as a product that can extend beyond burns into all types of wounds," said William Golden, executive chairman. "It'll be revolutionary regenerative medicine."</p> <p>Stemnion is moving quickly toward federal approvals, which could make it the first company to sell stem cell treatments without using human embryos. As the company has moved into human testing, government leaders have provided more than \$3 million of public money for its expansion, hoping the groundbreaking science leads to big business for</p>

Pittsburgh.

"I think it's limitless," Allegheny County Executive Dan Onorato said. "You can't even imagine how big it will get if their technology takes off."

Stemnion was formed in January 2004, a time of great public debate about emerging stem cell treatments and the ethical controversies surrounding them. The company has tried to become an industry leader by using placental stem cells rather than those from embryos.

Opponents of embryonic stem cell research say harvesting and dissecting the clusters of cells essentially destroys human life. The U.S. Conference of Catholic Bishops issued a statement in June 2008 terming it immoral, deliberate killing.

To avoid this controversy, Stephen Strom worked to find a different kind of stem cell. A professor of cellular and molecular pathology at the University of Pittsburgh, Strom developed the process of locating and extracting stem cells from placentas several years ago and shared it with Stemnion.

"My lab was looking at alternative stem cells, and we were trying to identify renewable and what was perceived by some as a more ethical source," Strom said.

The company obtains its stem cells from placentas of full-term newborns born at Magee-Womens Hospital of UPMC. Placentas, usually discarded after births, are a rich source of stem cells that can be coaxed to accelerate healing by simply being sprinkled onto a wound, Strom said.

Scientists are working to make stem cells catalyze the growth of more specialized tissues, by draping them on biodegradable frameworks in the shape of tissues and organs.

#### **CONFIDENCE IN MORALITY**

Stemnion is so confident in the morality of its process that it hosted Pittsburgh Catholic Diocese Bishop David A. Zubik and his predecessor, Archbishop Donald Wuerl, for informational meetings. Researchers explained that Stemnion works with only adult stem cells, which is within the church's ethical guidelines, said Susan Rauscher, who accompanied the bishops there when she was the diocese's secretary of social concerns.

By being first to corner this market in a way that opens stem cell treatment to millions who might be offended by embryonic stem cell use, the company could become an industry giant, government officials said. Allegheny County, the state and the federal government awarded \$3.65 million in grants and loans to the company during the past 18 months.

	<p>The emerging technology is of special interest to the military because medical advances are allowing troops to survive injuries that previously would have been fatal, officials said. U.S. Rep. Mike Doyle, D-Forest Hills, sponsored a \$1.2 million earmark, the largest of Stemnion's government awards, to help it develop rapid healing technologies with the Department of Defense.</p> <p>The government money will be used for research and to build a clean room, which could cost \$1 million, Golden told the county's Community Infrastructure and Tourism Board in June when it approved a \$250,000 grant. The room is needed to keep cells sterile for human clinical trials with second-degree burn patients.</p> <p>Stemnion is in a "phase II" trial seeking to enroll 99 patients at 14 locations, including West Penn Hospital in Bloomfield, according to information filed with the National Institutes of Health. Phase II clinical trials assess the safety and best dosage of a medical treatment or drug. The next step would be a clinical trial enrolling hundreds, possibly thousands, of patients to gather data to commercialize the product.</p>
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Publication	hindustantimes.com
Headline	<a href="#"><u>Family banks on stem cell treatment to cure Dasmunsi</u></a>
Gist of the article	<p>Former information and broadcasting minister Priyaranjan Dasmunsi (64) will be taken to Bonn in Germany between October 18 to 24 this year for stem cell treatment.</p> <p>Dasmunsi has been lying in a paralysed state in New Delhi's Apollo hospital since the past 11 months.</p> <p>Giving details to HT of his treatment in Germany, Dasmunsi's wife Deepa said: "We are in touch with doctors through mail at a couple of institutes there that use stem cell treatment. They haven't assured us anything, as it's going to be on an experimental basis. But I'm hopeful."</p> <p>The family is yet to zero in on any institute for treatment. "It'll take me a couple of days to sort out things, and decide how we want to go about the whole thing," she said.</p> <p>Two months ago, a doctor from germany had examined Dasmunsi, and it is on his recommendation that the family is taking him to Bonn for the experiment.</p> <p>"He told us that in Germany they do treat such patients using stem cells, but it is all experimentation, as final result can't be predicted in such cases," said Deepa.</p>

	<p>“At this stage I am clinging on to every glimmer of hope coming from anywhere. I want my husband back, and I’m sure he will be back,” she added.</p> <p>The family have consulted doctors who offer experimental stem cell therapy in India."We are in touch with people in India but weren’t convinced. The German doctors appeared to be more transparent in their approach; they will take cells from his body only and culture them for use in his treatment,” she said.</p> <p>Dasmunsi is stable but has made little improvement since he was put off life support system in January this year.Doctors treating him at the hospital describe his condition as ‘neurologically status quo’.</p> <p>In the past 11 months, the family has tried all sorts of medication and even alternate therapies to improve his condition.</p> <p>“We tried everything, Ayurveda, homeopathy, and even Baba Ramdev came to visit him, but his condition remains the same,” she said.Baba Ramdev could not be much help has his treatment uses yoga asanas.</p> <p>“His way of curing is through performing yoga, but my husband is lying in almost a paralysed state and couldn’t perform them,” she said.Dasmunsi was brought to Apollo on October 20, 2008 from AIIMS, where he was admitted on October 13 following a massive heart attack.</p>
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<b>Publication</b>	timesofindia.indiatimes.com
<b>Headline</b>	<a href="#"><u>People reluctant to invest in stem cell banks</u></a>
<b>Gist of the article</b>	<p>Antenatal classes, advertisements and gimmicks by stem-banking companies have not been able to attract the residents. The aim to popularize the concept of stem cell banking is to lure companies to towns like Ludhiana.</p> <p>For cord blood banking, there must be awareness and the right kind of information should be provided to people. The concept is emerging and would take time to be accepted in small cities and towns, said Dr Vaneet Kaur, president, Ludhiana Obstetrical and Gynaecological society.</p> <p>Referring to the only 10 to 15% who opt for it, Dr Vaneet said one of the reasons is that trials related to its usage and advantages are still on. Presently, it is only beneficial for patients with blood disorders like leukaemia.</p> <p>Dr Vaneet while explaining the concept said cord blood banking is a process of preserving extra blood in the umbilical cord of the baby that is rich in stem cells, used for life-saving transplant or regenerative medicine. The</p>

	<p>procedure is simple and it takes five minutes to take out the cells from the baby. These are then taken to their central labs in kits provided by the firms like cryobank, life cell and reliance, she added. Dr Joseph John, haemato oncologist at Christian Medical College and Hospital said if public banking was initiated, it would have popularized the practise. Pointing to the requirement of such banks, he added it could be highly beneficial in certain disease-specific conditions such as Thalassaemia.</p>
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