

**LifeCell – Daily News Update**

**May 22 , 2009**

**Direct News:**

Publication	pharmabiz.com
Headline	<a href="#">LifeCell ties up with Harvest Technologies to bring BMAC system in India</a>
Gist of the article	<p>The Chennai-based LifeCell International, India's first and the largest stem cell banking service provider, announced its tie-up with Harvest Technologies, a world leader in developing technologies that accelerate natural healing, to bring in a next generation technology Bone Marrow Aspirate Concentrate (BMAC) system in India. BMAC is a US FDA and CE approved biological technology that accelerates the body's natural healing capacity, thereby improving surgical outcomes.</p> <p>Existing methods to produce a stem cell concentrate therapy are time consuming, labour intensive, and require complex logistical considerations. The BMAC system helps in safe and rapid preparation of cell concentrate from bone marrow. The process takes only 15 minutes and can be conducted in the point of care setting.</p> <p>The system is currently being used clinically in many developed countries like US, Europe for various medical disciplines. These applications range from fractures, non-unions, osteonecrosis, cartilage repair applications and critical limb ischemia (CLI). The system will soon be applied for cardio vascular regeneration.</p> <p>LifeCell has implemented this technology for an ongoing Indian CLI study which is being led by Dr KS Vijayragavan, Dept of Vascular Surgery, SRMC. As per the data available on the interim study conducted on 30 patients after a 12-week followup major amputations were seen only in 4 patients and 6 of them went for minor amputation. The patients' also reported significant reduction in their pain perception and considerable improvement in quality of life. The study also emphasised the fact that the BMAC process is safe and the Intra-arterial infusion does not cause any adverse reaction.</p> <p>Talking on the association with Harvest Technologies, Mayur Abhaya, executive director, LifeCell International, said, "We are excited to partner with Harvest Technologies to bring-in international standards to India. LifeCell International is today India's only comprehensive stem cells solutions provider as we offer a complete spectrum of services and with this</p>

	<p>association we intend to accelerate the availability of advanced stem cell therapy in India.</p> <p>According to Scott Shea, MD, Harvests Technologies GmbH, "The Autologous regenerative cells from bone marrow offer profound potential for therapies. Harvest has conducted about 30,000 clinical procedures for various applications, the highest number of procedures in the world, using the BMAC System. Our novel technology now makes it possible to harvest the regenerative cells safely and rapidly in order to develop new therapies for heretofore incurable diseases."</p> <p>"We are delighted to be associated with LifeCell, an undisputed market leader in stem cell technology space and extend our services in India. LifeCell has a well established network with hospitals and clinical institutions across India and we would leverage their strength to rapidly deploy our service across the country and provide hope in addressing unmet medical challenges by offering cellular therapeutic options."</p> <p>Commenting on the interim report presented on the studies conducted for CLI in India using the BMAC technology, Mayur added, "Through our clinical research, we have identified that the transplantation of autologous BMAC into critically ischemic leg can increase blood flow and support in healing the wounds quickly. It also helps in reducing pain and avoiding leg amputation of otherwise incurable patients. This is also validated by the outcome of the CLI study which showed that 86.6 per cent of patients could avoid amputation."</p>
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**Key Industry News:**

Publication	<a href="http://timesofindia.indiatimes.com">timesofindia.indiatimes.com</a>
Headline	<a href="#">Kidney institute uses stem cells to cure nephritis</a>
Gist of the article	<p>The Institute of Kidney Disease and Research Centre (IKDRC) claims to have pioneered stem cell therapy for the first time on patients suffering from acute and chronic nephritis which may end in kidney failure.</p> <p>"Nephritis is an early kidney disease which in many cases is chronic and becomes resistant to drugs. The disease may lead to kidney failure. Since we are doing stem cell therapy for kidney transplant patients, we decided we should also try using it to prevent kidney failure as well," said IKDRC director, Dr HL Trivedi.</p> <p>"The stem cells were manufactured in the advanced stem cell laboratory set up in IKDRC using cells from the bone marrow and fat of the patients," said head of pathology at IKDRC, DR Aruna Vaniker.</p>

	<p>IKDRC has already done 685 kidney transplants using combination of stem cells from bone marrow and fat. "We have been able to considerably reduce the use of anti-rejection drugs due to stem cell therapy," said Dr Aruna.</p> <p>The stem cell therapy for nephritis has been done in two patients. One is Rajesh Soni, 21, who was suffering from nephritis since past 15 years. His was a chronic disease which was resistant to treatment. His urine sample showed strains of protein which caused heavy swelling on his face and limbs, sure signs of kidney failure in the future.</p> <p>"The bone marrow and mesenchymal stem cells were delivered directly into the kidneys through a canulated artery so as to help the organ repair the damage. The protein in his urine has reduced by 90 per cent," said Dr Trivedi.</p> <p>Another patient Thakoresinh Chavda, a police official, suffered drug-resistant nephritis as well. "He has been almost cured as he has reported 99 per cent drop in the protein strains in his urine," said Dr Trivedi.</p> <p>Doctors however caution that the stem cell treatment is still in the experimental stages and should be offered to only patients with chronic disease who may end up with kidney failure.</p> <p>"There are many cases of nephritis which respond well to drugs. Only patients who do not respond to drugs over a long time may qualify for stem cell treatment," doctors said.</p> <p>Meanwhile, doctors at IKDRC said that they are hopeful of preventing many patients from kidney failure with this treatment. "This treatment is at experimental stage as we are still working out the dose of stem cells per kg that a patient may need for best results", said Dr Trivedi.</p>
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Publication	pharmabiz.com
Headline	<a href="#">Novocell gets patent for innovative stem cell therapy for diabetes</a>
Gist of the article	<p>Novocell Inc, a stem cell engineering company, has received US Patent # 7,534,608 with method claims covering the company's innovative stem cell therapy for the production of functional pancreatic, insulin producing cells from human embryonic stem cells (hES). Novocell's therapy is being developed as a method for the use of hES cells to replace insulin producing pancreatic cells that are destroyed in people with diabetes.</p> <p>The patent claims are supported by landmark research by Novocell (Kroon et. Al. Pancreatic endoderm derived from human embryonic stem cells generates glucose-responsive insulin-secreting cells in vivo Nature</p>

Biotechnology 26(4):443-52, 2008) demonstrating for the first time that hES cells can be turned into pancreatic cells capable of releasing insulin in response to glucose challenge in mice. Such cells exhibit properties characteristic of functional human adult pancreatic insulin producing cells and provide protection in an animal model of diabetes characterized by loss of pancreatic insulin producing cells.

"Novocell continues to build its patent position around its intellectual property for using stem cell therapies to treat diabetes," said Fred Middleton, chairman of Novocell. "We are pleased the US Patent and Trademark Office is continuing to recognize the pioneering nature of Novocell's stem cell research program as a novel approach to providing diabetes therapy."

"This important patent covers our methods employing hES cells as a renewable source of glucose responsive insulin-producing cells for diabetes cell replacement therapies," said Emmanuel Baetge, senior vice president and chief scientific officer of Novocell. "This proprietary process provides a potential treatment option that could lead to the first widespread application of a cell replacement therapy for diabetes."

Novocell is a stem cell engineering company with product development operations in San Diego, California and Athens, Georgia. Its core expertise is in efficient differentiation and encapsulation of human stem cells for therapeutic applications in diabetes.