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Umbilical cord stem cell banking bandwagon swells

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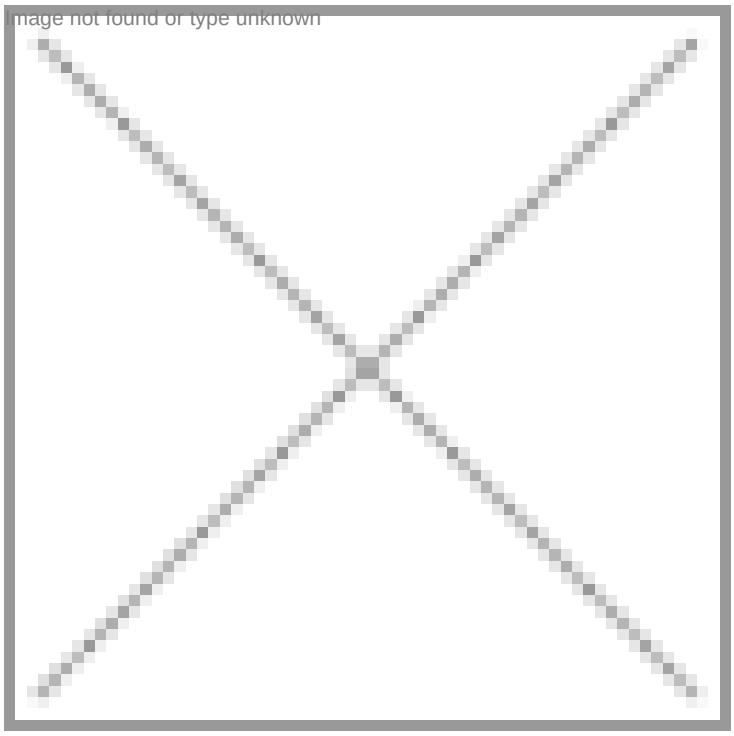

Umbilical cord stem cell banking bandwagon swells

With over 26 million births being registered every year in India, the number of Stem cell banking companies in India is on the rise.

Enterprises ranging from India's largest corporate player like Reliance Life Sciences to local non-government organizations (NGOs) are making early investments in setting up stemcell and umbilical cord blood banks across the country. While Cryobanks International, LifeCell, and Reliance have already established themselves in the cord blood and stem cell banking space, regional players are seeing this as a futuristic business option. This year alone has witnessed the setting up of two companies.

The Reliance Life Sciences offers stem cell banking services under the "Reli Cord" brand and is known to have direct presence in more than 30 locations. Cryobanks has established its facility in Gurgaon with an investment of Rs 35 crore. The company operates in over 25 cities and hopes to harvest about 6,000 units during 2008. "We plan to increase the number of offices from 25 to 50 by March 2008 and the client base from 1,500 to 6,000 this year," said Dr C V Nerikar, CEO, Cryobanks International India. "We plan to set up about four banks across India in the next three to four years. One would be in Delhi, one in Calcutta, one in Mumbai or Pune and one in South or whichever place suits," he added.

LifeCell, in collaboration with Cryo-Cell International, USA facilitates the cryogenic preservation of stem cells at its unique facility in Chennai. LifeCell has set up a 21,000 sq ft laboratory at the cost of Rs 14 crore in the outskirts of Chennai and has

more than 30 centers. The company has centers in Dubai and Sri Lanka and plans to open centers in other countries as well. LifeCell has recently inaugurated its area office and collection centre in Indore and by 2009, the company plans to have more than 50 centers to cater to the growing Indian market for stem cell banking. The facility has a capacity to store over 1 lakh samples and conforms to the standards of American Association of Blood Banks and US FDA.

The other players operating in this space include Cord Life Biotech, Cryo Stem Cell, and Karnataka Stem Cell.

Chennai-based Jeevan Blood Bank is also setting up Jeevan Stem Cell Bank. The main source of stem cells will be umbilical cord blood. IQRA Biotech Services, claimed to be the first human DNA banking company based in Lucknow, UP, also proposes to setup an umbilical cord blood bank by 2008-09.

The Potential

Stem Cell Banks in India

- Reliance Life Sciences, Mumbai
- LifeCell, Chennai
- Cryobanks International, Gurgaon
- Jeevan Stem Cell Bank, Chennai
- Karnataka Stem Cell, Bangalore
- Cryo Stem cell, Bangalore
- Cord Life Biotech, Pune
- Apollo Hospital, Hyderabad
- Advanced Cell Therapeutics, Mumbai
- IQRA Biotech Services,

Based on Frost & Sullivan's findings, the global stem cell banking market size for 2005 was estimated to be $1.02 billion and it is projected that this number would triple to $3.2 billion in 2010, at a compounded annual growth rate (CAGR) of 25.8 percent. Stem cell preservation is a huge business opportunity in the international market and as per estimates the global stem cell market is expected to become $10 billion opportunity over next few years.

India, having a very high birth rate, presents a lucrative opportunity for stem cell banking business. With more than 26 million births a year, India is poised to be the largest source for umbilical cord blood in the world. Leading cell banking companies are keenly eyeing India for the potential it carries in this segment and are contemplating to enter the Indian market preferably via joint ventures with local companies.

According to industry observers, India has all the essential ingredients to emerge as a key repository of cord blood for companies across the globe. Leveraging the well developed logistics infrastructure, leading companies can create huge storage capacities for their global and Asia-Pacific operations in India, they said.

Trends

Most of the cord-cell banking companies are increasingly looking at fostering links with medical institutes, hospitals, research institutions and biotechnology companies to aid in stem sell research. "We are looking at collaborating with lot of hospitals for taking stem cell research forward. In this direction, we have already signed up certain agreements with few hospitals in some of the metros," said Dr Nerikar. Many of the stem-cell banking companies have also been focusing on stem cell therapy centers. TRICell is an affiliate of LifeCell and has a therapeutics facility to provide clinical applications under stem cell therapy. It has been set in association with Sri Ramachandra University, Chennai. Cyrobanks is also in the process of establishing a therapy center by the end of this year.

At present, lack of awareness among the common people about the huge potential to be gained from the storage of cord blood stem cells and highly technical nature of the process is the key reason for a small customer base in the country. However, the market has tremendous potential that could be tapped by initiating an awareness campaign and a customized marketing plan say players in the industry.

Applications

Cord blood stem cell transplantation has moved over the last few years from being an experimental procedure to an accepted treatment for a number of hematological diseases and genetic disorders. Researchers suggest that some cord blood cells, present in extremely low frequency, may have the capacity to develop into many different lineages including cartilage, fat cells, hepatic and cardiac cells. Originally stored for the treatment of hematological disorders, these stem cells have now been found to be more versatile, even pluripotent, with potential for use in the treatment of a broader range of disorders and diseases and may be particularly valuable in cell therapy and regenerative medicine.

Potential Indian Patient Population for Stem Cell-Based Therapies	
Condition	**Number of Patients**

Cardiovascular Diseases	58 million
Autoimmune Diseases	30 million
Diabetes	32 million
Osteoporosis	10 million
Cancers	8.2 million
Alzheimers disease	5.5 million
Parkinson's Disease	5.5 million
Burns (Severe)	0.3 million
Spinal-cord Injuries	0.25 million
Birth Defects	0.15 million/year

Source: Dr. Vasantha Muthuswamy, Senior Deputy Director General, ICMR