

the number of cord blood units available. "The US government, in 2005, had spent close to \$80 million to increase the number of cord blood units available. The Indian government could also look at investments to that effect. Cord blood banking is still viewed as an experimental stream, and many do not realise the actual potential," Abhaya adds.

While norms already in place in developed markets are a distant reality for India, the government has been taking interest in introducing some regulations for the sector over the past year. Cur-

cells, as all health insurance policies are valid for no more than one year, treating expenses towards stem cell storage as medical expense for tax exemption could also encourage people in investing.

Despite the challenge of convincing people about the viability of spending anywhere between Rs 60,000 to Rs 1,50,000 cumulatively to store stem cells for a period of 21 years, companies believe that India's growth story will apply just as well to this industry as it has to others. An estimate says that with its current

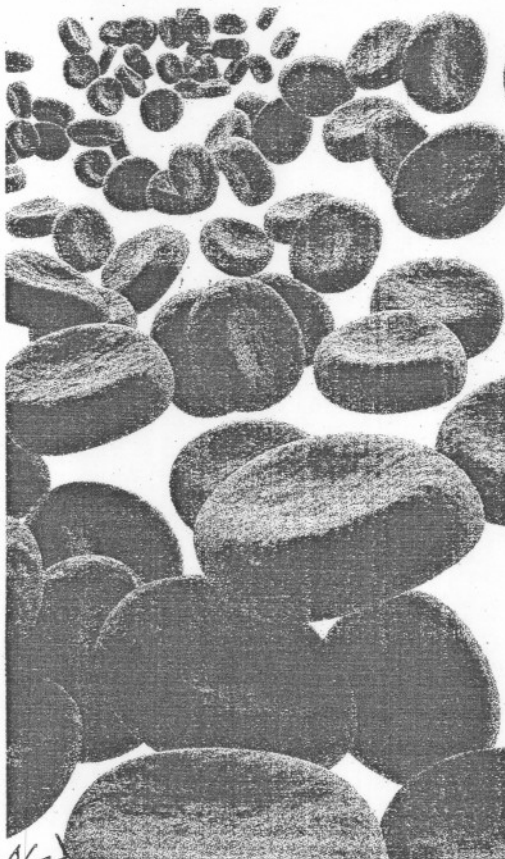
births in Europe.

The industry, currently estimated at Rs 150 crore and growing at the rate of 30-40%, has seen a lot of interest from international stem cell companies such as Netherlands based Cryo-Save, and Singapore based CordLife, as well as domestic majors such as Reliance Life Science—Relicord, and Chennai based LifeCell International. While Cryo-Save has invested close to 2 million Euros in its India operations, CordLife plans to invest close to Rs 17 crore in India over the next two years. LifeCell, started six years ago through a technology collaboration with US based Cryo-Cell International, has plans of investing Rs 10-12 crore over the next 24 months in clinical trials for use of stem cells for cerebral palsy and juvenile diabetes patients. However, despite such interest, over the years, companies have saved 50,000 samples cumulatively in India, while other Asian countries like China, save close to 1,00,000 samples every year.

"Awareness is still very low in India and the industry is quite nascent. First, awareness about the services itself, and second, awareness about the benefits of stem cell preservation. Gynecologists, who are the first point of contact, seldom take it upon themselves to inform expecting parents. While companies could communicate more, it is also important for the government to take some initiative, as in the case of contraceptives, to inform people about the benefits of saving cord blood stem cells," says Mayur Abhaya, executive director, LifeCell.

At a policy level, some governments have introduced acts that aim to promote awareness of stem cell banking. In the United States, for example, 22 state governments have adopted a cord blood awareness and education act, making it mandatory for gynecologists to educate expecting couples about the procedure and benefits of stem cell banking. Every expecting couple is also expected to accept in writing once informed. Such acts are also been discussed in Europe and are likely to be implemented soon in some European nations.

The industry feels that the government could also help by investing through funds for awareness drives, and for increasing



STEM CELL COMPANIES FEEL THAT THE GOVERNMENT COULD HELP BY INVESTING IN AWARENESS DRIVES AND INCREASING THE NUMBER OF CORD BLOOD UNITS

rently, there are no stem cell banking norms governing the industry as it still falls under norms governing blood banking. Cord blood banks do not have to go through a licensing program specific to cord blood banking. There are no checks on the condition and temperature at which the cells are stored or transported. In June, the ministry had also put up for public consultation draft rules for umbilical cord blood banking. Earlier this year, the health ministry had approved a 11 member committee to look at therapies related to stem cells and genes as well.

In addition, experts feel that while it is not possible to have insurance pay for storing stem

growth rate and a birth rate of 26 million a year, companies operating in India will store over 100,000 cord samples by 2012.

"It is very difficult to forecast. But I would say that within the middle class and higher, about 4% of births a year should be possible within the next few years in India. But it will take time. Urban birth rate in India is about 7.5 million. Even a 10% target of that is 75,000. For us as a company, we see that the main cities in India in terms of size is comparable to main cities in Europe. We save about 27,000 per year in Europe. I would say that this is achievable in India over the next few years," says Arnoud van Tudler, global CEO of Cryo-Save.