

# DECCAN Chronicle

THE LARGEST CIRCULATED ENGLISH DAILY IN SOUTH INDIA

CHENNAI | SATURDAY 8 | OCTOBER 2011

Saturday 8 October 2011

well-thy

Chennai Chronicle

## Why should we be aware of stem cells?

October 5 was World Stem Cell Awareness Day. It is high time we understand how vital they are in management & cure of several life-threatening conditions



A laboratory technician harnesses cord blood cells



DR SATYEN SANGHAVI

For long, stem cell therapy has been an elusive form of treatment for most commoners and known only in medical circles. With October 5 being recognised as world stem cell awareness day, it helps to learn about the speciality of stem cells, which remain a mystery even today, and the practical benefits they provide to mankind.

As early as 1900s, scientists discovered these cells' existence. These cells, produced by the bone marrow of the body are wonderful repairing agents that divide and transform into diverse cell types. For example, when there is a need for blood, skin or intestinal tissue, they are produced at the bone marrow. Also, a great source of stem cells is the umbilical cord of humans, that is usually thrown away as medical waste. If properly harnessed and stored by freezing, the umbilical cord blood can last for many years, till the child becomes an adult and help in curing rheumatological (concerning blood) or immunological (concerning immunity) disorders. From cartilage to heart muscles (which die during a heart-attack), stem cells can regenerate it for you.

Only by 1989, the first transplant in

a child with Fanconi's anemia was done successfully and the stem cell science was taken seriously by everybody.

Till date, approximately 14,000 unrelated cord blood transplants have been performed between unrelated people. Since there are HLA types in cord blood, which could be imagined as blood types, if the types match, anyone can donate their cord blood to any other suffering person who needs treatment.

Regenerative medical research has established the significance of stem cell based therapies and has proven remarkable results in the cure of conditions such as cerebral palsy, certain cancers and Hodgkin's disease, among others. However, what remains a distant dream is the proper establishment of stem cell banks. Even today, the government is yet to decide in partnering with private companies to invest in cord blood banks. Only private medical institutes such as the Tata Cancer Hospital in Mumbai have invested in harvesting and storing bone marrow cells.

People can come forward to donate, though it is a more painful exercise to donate bone Marrow, unlike blood donation, it could save precious lives.

Out of the 30,000 children born every day in India, almost 30 are diagnosed with neonatal disorders, several of which can be cured by stem cell therapy. Sadly, out of the 9,00,000 children born in the world every month, only a small per cent go for stem cell banking. So, be aware of the wondrous existence of stem cells, and the difference it can make for so many patients. Awareness is bound to fuel further advancements.

The writer is chief scientific officer, Babycell, RMS Regrow, Mumbai