Manipal Hospital Stem Cell Centre commences trials

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MANIPAL Hospital Stem Cell Research Centre has commenced its maiden Autologous stem cell trial for Myocardial Infarction (MI), Leg Ischemia and spinal chord injury.

The non-randomised study will be conducted on 15 patients each to assess the safety and efficacy of therapy with stem cells. After this, the study will be scaled up for a double blind randomised study to include 150 patients using Autologous stem cells. The Centre has also allocated over Rs 1 crore for upgradation of the laboratory to conduct clinical trials using mesenchymal stem cells in allogenic setting from March 2006, for which it will seek regulatory clearances from the Drugs Control General of India (DCGI). This would make Manipal the second hospital in the world after John Hopkins, USA, to conduct clinical trials using stem cells in allogenic setting.

"The major benefits of the mesenchymal stem cells in allogenic setting is a considerable reduction in treatment cost and duration," Dr Satish Totey, research director, Stem Cell Research, Manipal Hospital, told Pharmabiz. "If the trial outcome is favourable, then the therapies for spinal cord injuries, myocardial infarction and leg ischemia would be offered at the Manipal Hospital within three years," he added.

The Stem Cell Centre, which was set up with an investment of Rs 5 crore, is a comprehensive facility with a Genetics division, Molecular diagnostics lab and Assisted Reproduction Technology (ART) unit. Its cGMP compliant clean room facility is claimed to be the only one of its kind in the country adhering to stringent quality control norms and uses only US FDA clinically approved reagents for clinical trials.

Apart from clinical trials, Dr Totey's team is also conducting research in basic sciences in oncology to target therapies for breast cancer. The hospital's research centre received a Department of Biotechnology (DBT), Government of India funding of more than Rs 1 crore to generate new embryonic stem cell lines that would be available to researchers across the world. For this purpose, a new ART unit would be commissioned by September-end. In addition, the human embryonic stem cell lines will be used as a platform in studying developmental biology and differentiation of various lineages. Currently, the Stem Cell Centre has 10 scientists, which is expected to be a team of 100 by the next year-end. There is also a PhD programme on Life Sciences with a focus on stem cells, which has four students now. From 2006, the Centre will organise a national training programme every six months.

On September 23, 2005, the Unit is organising a one-day meeting with the support of Department of Biotechnology, Government of India to devise strategy for the National Mesenchymal Stem Cell Programme, which will be attended by 15 experts from India and abroad.