

NETCELLS PARENTS' NEWSLETTER

MARCH 2011

There is much happening in stem cells around the world and there are exciting developments with regards to **mesenchymal stem cells**. These stem cells are abundant in the **umbilical cord tissue of babies and lipoaspirate (fat) of adults (discussed below)**.

Netcells continues to stay abreast of world developments and has invested in some research and development regarding mesenchymal stem cells, where we are developing some Intellectual Property. In this regard we are pleased to announce the recent appointments of **Dr Carola Niesler (University of Kwa-Zulu Natal) as Netcells' Scientific Director and Dr Steve Ray (University of Oxford Brookes in the United Kingdom) as our International Scientific Adviser**. Dr Ray has been researching stem cells for the past 17 years and is currently treating patients in Germany and Switzerland for various neurological illnesses.

More and more stem cell transplants are taking place throughout the world and in South Africa, which is very encouraging

We would like to remind you that your child's stem cells remain safely stored with us and you are always welcome to pop to our laboratory at any time to view them.

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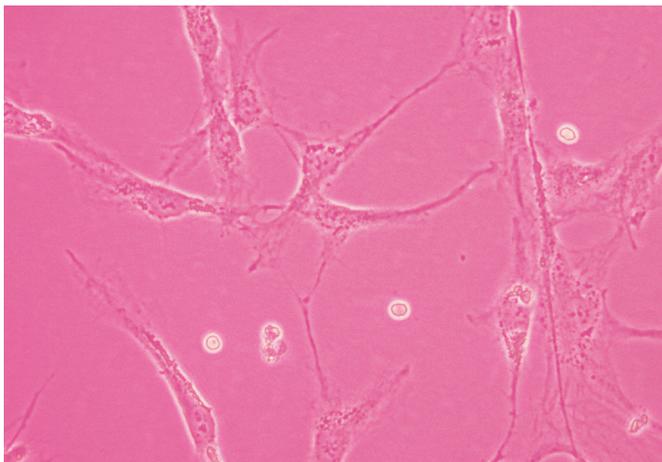


01 | MESENCHYMAL STEM CELLS

➤ Mesenchymal Stem Cells (MSCs) are stem cells that differentiate into many tissues of the body. These MSCs have been shown to be extremely robust and easily replicated thus making them ideal for cell therapy and transplantation.

MSCs have been sourced in bone marrow and in smaller numbers, in the umbilical cord blood itself. Compared to these sources, MSCs can however be found in more considerable numbers in the Wharton's Jelly of the umbilical cord tissue and in adipose (fat) tissue of adults.

MSCs are being employed in both research and clinical environments for a variety of aesthetic and medical conditions that include: skin regeneration (wound healing and burns, scar remodeling, the protection from and repair of UV light damage, antioxidant effects against free radicals, skin pigmentation disorders); neurology (nerve regeneration and repair in multiple sclerosis, stroke, Parkinson's); orthopaedics (cartilage, bone repair); sports injury (tendon, ligament repair); cardiology (heart muscle regeneration); reconstructive surgery (fat autografts); and many other clinical areas.



Mesenchymal Stem Cells Growing in the Netcells Laboratory.

02 | CORD TISSUE STEM CELL STORAGE

➤ Netcells now offers parents the opportunity to store their child's umbilical cord tissue stem cells.

Just as with the cord blood (which contains an abundance of haematopoietic (blood) stem cells), the collection procedure is a quick, safe, non-invasive and simple procedure. Proprietary protocols have been developed by Netcells to allow the mesenchymal rich wharton's jelly to be frozen and thawed (as opposed to the actual cord tissue) whilst maintaining the viability of the stem cells so that high quality cells can be retrieved.

03 | FAT BANKING

As a continuation from cord tissue stem cell banking, Netcells is currently in the process of launching the banking of adult fat tissue stem cells. The fat is retrieved by a micro-liposuction procedure and sent to the Netcells laboratory for processing and storage. Application of these stem cells is currently being tried by plastic surgeons to regenerate and improve skin condition through regeneration of collagen, supporting facial structures and in the treatment of skin pigmentation, scarring and wound healing.

05 | SUNFLOWER FUND



In 2010 we supported the Sunflower Fund's fundraising event, which was hosted by Girls' School Maris Stella in Durban. They held an art exhibition named "Five 2 Midnight", which stresses the urgency for leukaemia patients in finding a bone marrow donor that could potentially save their life. We purchased a stunning painting called "The Gift", produced by a Grade 4 pupil (Suzanna Spooner). As with storing your baby's cord blood, the painting symbolizes that the Sunflower Fund can "gift" a cancer patient a second chance in life.



The Sunflower Fund
share a little save a life

04 | CURRENT SA TRANSPLANTS

There are 3 major stem cell transplant centers in South Africa – Netcare Pretoria East Hospital, Constantiaberg Medi-Clinic and Groote Schuur Hospital both in Cape Town. Many transplants are done monthly with bone marrow stem cells but in the past year, 15 transplants using umbilical cord blood stem cells have been done. 13 transplants were done in children and 2 were done in adult patients. The transplants were used

as part of treatment for certain bone marrow cancers and immune deficiency disease arising for a defective bone marrow. All the transplants engrafted successfully. It is encouraging that South African physicians are becoming increasingly more involved in stem cell transplantation and in the future will be able to offer more treatment options to their patients.

06 | BABY CITY

Netcells has partnered with Baby City in providing Baby City Gift Vouchers to returning clients and other special marketing offers. Baby City is Africa's largest baby store and offers the best in brands and pricing.



07 | PHOTOGRAPHS

We would love to include photos of our special stem cell babies on our website. Please email photos to catherine.brazier@netcells.co.za.

The beautiful Andrews' twins, Max and Finn, were delivered by Dr Veronique Eeckhout at Cape Town Medi-Clinic on 22nd October 2010.



08 | CONTACT DETAILS

It is very important that we continue to keep in touch with you, therefore if any of your contact details change please could you send us an email updating us with your latest contact details.

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