

# SMART CELLS

M I R A C U L O U S P O S S I B I L I T I E S

Agents details

## SMART CELLS

SMART CELLS INTERNATIONAL LTD

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OFFICES IN: LONDON • HONG KONG • DUBAI • SOUTH AFRICA • SPAIN • LEBANON • MALTA • ITALY

[www.smartcells.com](http://www.smartcells.com)



smart**baby** 

Preserving New-Born Stem Cells

## WHO ARE SMART CELLS INTERNATIONAL?

SMART CELLS INTERNATIONAL started collecting umbilical cord stem cells in February 2001. Since then we have safely collected and stored thousands of stem cell samples.

We continue to be one of the world's leading providers for the safe storage of new-born stem cells. We currently have offices in London, Hong Kong, Dubai, South Africa, Spain, Lebanon, Malta and Italy, and are planning to serve a number of other markets around the world.

As a company, SMART CELLS prides itself on possessing the highest levels of professional and ethical standards, and a complete dedication to customer care.

## WHAT ARE STEM CELLS?

Stem cells are the body's master cells or 'smart cells', they miraculously know how to specialise into any of the different types of cells that make up the human body; these cells form our vital organs, muscle tissue, skin, bone, nerves and blood system.

When used to treat disease or injury, the patient's own stem cells are re-introduced into the body and know how to migrate to the damaged area of the body and begin repairing the tissue.

## WHY ARE STEM CELLS SO VALUABLE?

Stem cells are used to treat dozens of diseases and disorders, (many of which we list on the next page), and many more treatments are on the horizon.

Until recently patients suffering from malignant blood disorders would have to rely on finding a bone marrow donor. The chances of finding a match are less than 1 in 40,000 (10 times higher for patients of Asian and Arabic heritage), and even after a successful bone marrow transplant, rejection could occur in up to 50% of cases.

Stem cells have proven to be a natural alternative to bone marrow transplants, with no risk of rejection. . . these are the patient's own stem cells.

Research has shown that the remarkable additional benefit from storing these life-saving cells is that there is a 1:4 chance that the new-born's stem cells could be used to treat the baby's siblings.

The number of uses for stem cells is expected to grow substantially with continuous international research. With the remarkable ability to specialise into different types of cells, stem cells could be used to treat an extraordinary range of diseases and conditions, including:

HEART DISEASE, STROKE, CANCERS, DIABETES, SPINAL CORD INJURY, BURNS, ALZHEIMER'S DISEASE, PARKINSON'S DISEASE, OSTEO-ARTHRITIS AND RHEUMATOID ARTHRITIS.

Such a simple procedure at birth could save your child's life from a wide and growing range of illnesses.



## WHEN ARE STEM CELLS COLLECTED?

Collection of the stem cells is made immediately after birth. At this time the umbilical cord blood is rich with these potentially life-saving cells, which in the past would have been discarded with the placenta. The cord blood collection bag supplied with your smart**baby** kit can hold a maximum of 200ml of blood; we recommend a minimum of 60ml to process your sample. It is possible to collect the stem cells either before or after the placenta has been delivered.

This makes the collection of your baby's stem cells a once in a lifetime opportunity.

“Stem cells are the progenitors of all other cells in our bodies. They develop into blood, bone, brain and other cells. That is why they are so important. If a child or adolescent gets a disorder, for example leukaemia, their stem cells will give us the means to replenish their bodies with healthy blood and save their lives”

**Derek Tufnell**  
*Gynaecologist and obstetrician*

## EXAMPLES OF DISEASES & DISORDERS TREATABLE WITH CORD BLOOD STEM CELLS

### Malignancies

- Acute lymphocytic leukaemia
- Acute myelogenous leukaemia
- Acute non-lymphocytic leukaemia
- Chronic lymphocytic leukaemia
- Chronic myelocytic leukaemia
- Ewing's tumour – sarcoma
- Hodgkin's disease
- Juvenile myelomonocytic leukaemia
- Multiple myeloma
- Myelodysplastic syndrome
- Neuroblastoma
- Non-Hodgkin's lymphoma

### Inborn Errors of Metabolism

- Adrenoleukodystrophy
- AL amyloidosis
- Bare lymphocyte syndrome
- Dyskeratosis congenita
- Familial erythrophagocytic lymphohistiocytosis
- Gaucher's disease
- Gunther's disease
- Hunter's syndrome
- Hurler's syndrome
- Inherited neuronal ceroid lipofuscinosis
- Krabbe's disease
- Langerhans cell histiocytosis
- Lesch-Nyhan syndrome
- Leukocyte adhesion deficiency
- Osteopetrosis

### Hemoglobinopathies & Blood Disorders

- Amegakaryocytic thrombocytopenia
- Aplastic anaemia
- Diamond-Blackfan anaemia
- Congenital cytopenia
- Evans' syndrome
- Fanconi's syndrome
- Kostmann's syndrome
- Sickle cell anaemia
- Thalassemia

### Immunodeficiencies

- Adenosine deaminase deficiency
- Chronic granulomatous disease
- Severe combined immunodeficiency diseases
- Wiskott-Aldrich syndrome
- X-linked lymphoproliferative disease

Each year more diseases and disorders are being added to the list of those that can be treated with stem cells. This list continues to grow annually...



## HOW ARE NEW-BORN STEM CELLS PRESERVED?

On receipt of your application we will supply you with the smart**baby** collection kit. Your doctor, nurse or midwife will then collect your baby's stem cell sample immediately after the birth of your baby. The procedure typically takes less than five minutes and is completely painless and risk-free to baby and mother. Your maternal blood tests are also required and the smart**baby** kit includes everything you need to obtain these.

HLA (Human Leukocyte Antigen) testing is also available as an additional service post collection. This ascertains whether another family member is a 'match' to the stored stem cells.

## WHERE AND HOW ARE MY BABY'S STEM CELLS STORED?

Once your baby's sample has been obtained, it is then transported to our state-of-the-art laboratory, where the stem cells are separated from the umbilical cord blood.

The SMART CELLS UK laboratory sets new standards. Based in the UK at Plymouth, the laboratory undertakes all SMART CELLS cord blood preparation and storage in an environment designed to comply with all current and foreseeable European medical guidelines and practices.

The SMART CELLS laboratory is MHRA registered and complies with all current EU directives and regulations. Furthermore, our laboratory operates under an ISO9001:2000 management system. The laboratory sets new standards in processing and has also been chosen to store samples for the NHS. All processing is undertaken in a Controlled Processing Laboratory, within a Class A Clean Room, ensuring that all processing is sterile and conducted by specifically trained staff. A sophisticated haematology analyser is used to accurately determine the number and quality of the cells in every blood sample.

The blood is prepared for final freezing in a cryogenic pouch using a sterile, closed bag system. The process effectively separates the blood into its component parts and then computer-controlled equipment ensures that the stem cells are captured. These cells are stored as two samples and cryogenically frozen in a hermetically sealed storage pouch. The pouch, in its protective aluminium cassette, is then stored for up to 25 years in a medical registered device, at a temperature below minus 180°C (at which temperature the cell ageing process is effectively suspended). Having been logged into the inventory management system, the sample's location is secure, continually monitored and alarm protected.

Your baby's stem cells are stored and available for immediate use for at least the next 25 years. After 25 years, you will have the option to continue storing, or donate the valuable stem cells to a public bank, or have the sample discarded if you so wish.

“it takes about 3 minutes and cannot affect either mother or baby”

*Daily Mirror*



## FREQUENTLY ASKED QUESTIONS

**Q Do you think people get confused between obtaining stem cells from un-needed embryos, bone marrow, and now umbilical cord blood? Is the confusion understandable, or is at all the same science?**

A There is confusion as to the source of stem cells and these sources are very different. Embryonic stem cells are a completely different set of cells compared to umbilical cord stem cells and the government regulates them. At the scientific level, the concepts are similar but embryonic stem cells raise many legal, ethical and moral questions, which umbilical cord stem cells do not.

**Q Who actually does the collection?**

A Ideally, your midwife or consultant will perform the procedure. In some cases, the father/partner may need to get more involved.

**Q Are there enough stem cells in the cord blood for treatment?**

A The amount of cells necessary is proportional to the weight of the patient, so the chance is better for a child than for an adult. Amplification is being tested now, so we will potentially be able to multiply your sample should the need arise.

**Q Is it also possible to collect the cord blood when the delivery is taking place at home?**

A Of course, but you have to give your midwife a set of the Umbilical Cord Blood Collection Instructions at your next prenatal visit for their review.

**Q What happens if I have a caesarean section?**

A In this case, the ideal time to take the collection of the sample would be only following the removal of the placenta. A caesarean section does not stop the collection at all.

**Q Can any drugs affect the sample?**

A No, no drugs such as Syntometrine or Syntocinon, which are common in labour, will affect the sample.

**Q What tests are performed on maternal blood?**

A We ask the mothers to provide blood tests (no more than 30 days old). The blood tests required are HIV, Syphilis, Hepatitis B, Hepatitis C and HTLV.

**Q How do I get my maternal blood tests?**

A The maternal blood tests are included in the SMART CELLS service fee. SMART CELLS will provide all necessary materials and instructions to arrange the maternal blood tests.

**Q What measures of security are taken to ensure security of the samples?**

A The laboratory is a highly secure facility with restricted and limited access. Each client has an unique client ID which is generated the day a kit is ordered. When the laboratory receives the blood, a sample ID is created, and each storage bag has an individual bar code. All these numbers relate to the client and the sample and are cross checked prior to storing.

**Q How do you ensure client confidentiality?**

A We feel that customer service and client confidentiality is the most important part of our service. We do not share data with anyone else and comply with the Data Protection Act.

**Q Can I pay monthly?**

A Please contact our office for a payment plan.



## SMART CELLS – WORKING WITH SMART COMPANIES

*Pregnacare*



**pharmacychannel**<sup>®</sup>  
THE PHARMACY MEDIA COMPANY



*Blooming Marvellous*

Further details on Smart Cells International Ltd and the smart**baby** product are available from all reputable baby goods retailers and selected pharmacies.

## WHY SMART CELLS?

- One of the longest established stem cell storage companies
- Fully qualified stem cell advisory board
- State of the art laboratory within the UK
- Class A Clean Room Processing
- Inclusive of all maternal blood tests
- Storage and processing in accordance with MHRA regulations
- Ambient temperature controlled kits
- Full twenty five (25) years storage
- No additional cost for retrieval
- HLA typing of sample if required\*
- Full refund for all samples transplanted within first 12 months
- MHRA registered and ISO certified laboratory

\*additional charge applies

“I would like to see umbilical cord stem cells storage offered to every pregnant woman. It is a simple process which can be a life-saver.”

**Dr Peter Hollands**

**Senior Lecturer in Biomedical Science and stem cell pioneer**



## WHAT THE EXPERTS SAY

“...I want to make the UK the best place in the world for this (stem cell) research, so our scientists can develop new therapies to tackle brain and spinal cord repair, Alzheimer’s and other degenerative diseases such as Parkinson’s”

Prime Minister Tony Blair

British scientists said today they were the first in the world to create a pure batch of nerve stem cells made from human stem cells. It is hoped the newly-created cells will eventually help scientists to grow replacement brain tissue for people with neurological disorders like Alzheimer’s and Parkinson’s disease.

Source: The Guardian, London

When Lisa Farquharson gave birth to her son Jesse in June 2000, she did something most parents never think about: on advice from her mother, a nurse, she saved the cell-rich blood from her baby’s umbilical cord. She could never have imagined that in less than two years her decision would help to save the life of the Canadian infant as he battled against eye cancer.

Source: The Sunday Times

Researchers in the US say they have been using stem cells to successfully treat genetic diseases in children. The doctors told a conference that cells taken from umbilical cord blood can turn into healthy heart cells, for instance, and repair damaged tissue.

The research suggests many childhood disorders such as leukaemia can be treated in this method.

For scientists, this confirms what laboratory tests have long suggested – stem cell treatment works in the body.

Source: BBC News

Millions of diabetics worldwide could put insulin injections behind them if a stem cell treatment that Argentine physicians have successfully used to reverse the disease confirms promising early results. The treatment, in which stem cells are injected into the pancreas, does not involve risks of rejection, requires no prolonged inpatient treatment and any physician trained in and skilled with catheterisation could perform it, cardiologist Roberto Fernandez Vina told AFP.

Source: AFP News

Stem cells derived from umbilical cord blood from four Hawaiian newborns has been matched to four Asian patients on the mainland with aggressive forms of leukemia. “These four people had a second chance from something we would have tossed in the trash” said Dr Randal Wada.

Source: LifeSiteNews.com



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“They gave Jesse a 0% chance of survival. But we had his cord blood and he’s still alive.”

*Lisa Farquharson, Sunday Times*

## WHAT DO I DO NEXT?

Either send the completed form, together with the initial payment, to your local office OR contact your local office on the telephone number provided OR order online at [www.smartcells.com](http://www.smartcells.com)

### SMART CELLS INTERNATIONAL LTD

56-58 Bloomsbury Street London WC1B 3QT

Tel: +44 (0)20 7436 9966 [www.smartcells.com](http://www.smartcells.com)

Payment for your collection kit and balance can be made by credit card, cheque, cash or bank transfer.

SMART CELLS will not charge you the balance due if you need your baby’s stem cells within the first 12 months.

ANY INFORMATION YOU PROVIDE ON THIS FORM or on-line at our website, will be handled in the strictest confidence.

## YES, I WOULD LIKE TO PRESERVE MY BABY’S STEM CELLS

The total cost for our smartbaby product consists of the initial payment which is non-refundable, and the balance due. The balance due is only payable once your baby’s stem cells have been collected and stored at our laboratory. If for any reason, the sample is not collected or successfully stored, you will not be charged the balance due. HLA Testing costs an additional £150/€225.

When we receive your non-refundable initial payment we will send the smartbaby collection kit to you and begin to assist you with arranging the collection process. Please note that copies of your maternal blood tests are required both before and 180 days after the birth.

Be sure to allow ample time before the birth of your baby for your collection kit to be delivered.

**STERLING**  
TOTAL COST\* £1,375  
INITIAL PAYMENT £125

**EUROPEAN UNION**  
TOTAL COST\* €1,995  
INITIAL PAYMENT €350

**ALL OTHER WORLD LOCATIONS**  
TOTAL COST\* £1,500  
INITIAL PAYMENT £250

### Your details:

Mother’s Name \_\_\_\_\_

Date of Birth \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

City \_\_\_\_\_

Postcode \_\_\_\_\_

Home Telephone \_\_\_\_\_

Mobile \_\_\_\_\_

Email \_\_\_\_\_

Expected Delivery Date \_\_\_\_\_

Father’s Name \_\_\_\_\_

Date of Birth \_\_\_\_\_

Hospital \_\_\_\_\_

Physician’s Name \_\_\_\_\_

Do you require the HLA Testing option? \_\_\_\_\_

YES / NO

Where did you hear about us? \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

\*Prices are inclusive of VAT at the prevailing rate