



Between:- NETCELLS BIOSCIENCES (PTY) LTD and "THE CLIENT"

1 INTERPRETATION

1.1 Definitions:

- 1.1.1 "the Act" means the South African National Health Act 2003 (as amended);
- 1.1.2 "the/this Agreement" means this Cord Blood/Tissue Storage and Related Services Agreement, including the Informed Consent and such terms and conditions on the Netcells website which relate hereto;
- 1.1.3 "Authorised Organisation, Institution or Person" means an organisation, institution or person authorised in terms of the Act, Regulation 183 on Stem Cells Banks to conduct the activities referred to in paragraph 2 Regulation 183 (and which are amended from time to time) or any other internationally accredited establishment;
- 1.1.4 "Autologous" means for use by the Child only;
- 1.1.5 "Age of Majority" means, in terms of the Children's Act, 38 of 2005 (as amended), 18;
- 1.1.6 "Child" means the child who is born and from whose umbilical cord the Cord Blood/Tissue Stem Cells are collected;
- 1.1.7 "the Client" means the Mother subject to, in the event:-
 - 1.1.7.1 where the Mother is deceased, the Father of the Child shall automatically be deemed from the date immediately prior to the death of the Mother, to be the Client; or
 - 1.1.7.2 where the Mother and Father of the Child are deceased, the legal guardian of the Child with effect from the date immediately prior to the date of the last deceased; or
 - 1.1.7.3 where the Child attains the Age of Majority, the Child shall be the Client with effect from the date of attainment;
- 1.1.8 "Client Registration Form" means the Netcells Client Registration Form (UC-CLI-FRM-001) required to be completed by the client in order to register with Netcells for Cord Blood/Cord Tissue Storage.
- 1.1.9 "CMV" means Cytomegalovirus- a herpes type virus
- 1.1.10 "Collection Kit" means a collection bag with one needle (for Cord Blood), a vial with saline solution (for Cord Tissue), tubes for maternal blood collection, sterile cleaning material, a temperature control bag, a carrier box provided by Netcells to transport the Cord Blood/Tissue and relevant documentation for the Client to be completed and returned to Netcells.
- 1.1.11 "Cord Blood" means the Cord Blood that contains the Haematopoietic Stem Cells and other cells extracted from the umbilical cord and placenta of the Child;
- 1.1.12 "Cord Tissue" means the Cord Tissue that contains the Mesenchymal Stem Cells and other cells contained in the umbilical cord;
- 1.1.13 "Competent Person" means a medical practitioner who by qualification is competent to advise and/or administer a Stem Cell transplant;
- 1.1.14 "Cryopreservation" means cooling of the Stem Cells to a temperature of -196° Celsius and maintaining it at this temperature;
- 1.1.15 "Days" means any day other than a Saturday, Sunday or official public holiday in the Republic of South Africa;

1.1.16 "Father" means the man who:-

- 1.1.16.1 conceived the Child (biological father); or
- 1.1.16.2 donated the sperm in respect of the Child (biological father); or
- 1.1.16.3 the legal guardian of the Child, as the case may be (legal father);
- 1.1.17 "Healthcare Professional" means *inter alia*, an obstetrician, midwife or nurse;
- 1.1.18 "HLA typing / match" means matching of genetic material to maximize the chances of a successful transplant;
- 1.1.19 "H.I.V." means Human Immunodeficiency Virus 1 and 2 - AIDS-causing virus;
- 1.1.20 "Hepatitis B and C" means Hepatitis B and Hepatitis C viruses that affect the liver causing hepatitis, jaundice and liver dysfunction;
- 1.1.21 "Informed Consent" means the informed consent that is required to be signed by the Client in terms of statute and which is contained in the documents in the Collection Kit;
- 1.1.22 "Maternal Blood" means the blood to be taken from the Mother at birth and to be tested for Transmissible Diseases as required in terms of Regulation 183 of the Act and in terms of the American Association of Blood Banks International Accreditation Standards;
- 1.1.23 "Mother" means the woman who:-
 - 1.1.23.1 gave birth to the Child (birth mother); or
 - 1.1.23.2 donated the egg in respect of the Child (biological mother); or
 - 1.1.23.3 is the legal guardian of the Child (legal mother)
- 1.1.24 "Netcells" means Netcells Biosciences (Proprietary) Limited (Registration No. 2004/026428/07), and its respective shareholders, directors, officers, employees and agents including marketing agents and other representatives. Netcells is a company duly registered and incorporated according to the company laws of the Republic of South Africa;
- 1.1.25 "Parents" means collectively the Mother and the Father, who are jointly and severally liable under this Agreement, for any and all amounts owing in terms hereof;
- 1.1.26 "Processing/Process" means all operations involved in the preparation, isolation, extraction, and cryopreservation of the Stem Cells from the Cord Blood/Tissue;
- 1.1.27 "Processing Laboratory" means the laboratory where Cord Blood/Tissue is processed and the Stem Cells cryopreserved and stored;
- 1.1.28 "Stem Cell(s)" means a cell that has the capability of differentiating into a specialized cell of the body and producing a daughter Stem Cell (i.e. capable of self renewal) that are extracted from the umbilical Cord Blood/Tissue;
- 1.1.29 "Syphilis" means a contagious disease that is characterized by genital ulcers, skins rashes and lesions that can affect all organs of the body;
- 1.1.30 "Storage/Storing/Store" means maintaining the Stem Cells under appropriate controlled conditions, cryopreserved at -196° Celsius;



1 INTERPRETATION - Continue

- 1.1.31 "Storage Period" means 10 (ten) years and any additional upgrade storage period opted and paid for, as indicated in the Client Registration Form.
- 1.1.32 "Storage Facility" means the Cryopreservation storage tank in which the Stem Cells are stored and the facility in which it is located;
- 1.1.33 "Signature date" means the date of signature of this agreement by the last party to sign;
- 1.1.34 "Testing/Test" means (subject to the context of use of such term):-
 - 1.1.34.1 maternal blood tests performed on the Mother (in the case of the carrier of the Child) using NAT testing and tested for Transmissible Diseases ("Maternal Blood Tests"); and/or
 - 1.1.34.2 laboratory tests conducted on the Cord Blood/Tissue (including flow cytometry tests and sterility tests) ("Cord Blood/Tissue Tests");
- 1.1.35 "Transmissible Diseases" means:-
 - 1.1.35.1 H.I.V. -1 and -2 (Human Immunodeficiency Virus);
 - 1.1.35.2 Hepatitis B and Hepatitis C viruses;
 - 1.1.35.3 Human T- lymphotropic viruses I and II; and
 - 1.1.35.4 Syphilis;
 - 1.1.35.5 CMV (Cytomegalovirus)
- 1.1.36 "venipuncture" means inserting a needle into a peripheral vein of the patient drawing a blood sample;
- 1.2 Any reference to an enactment, regulation, rule or by-law is that enactment, regulation, rule or by-law as at the signature date, and as amended from time to time.
- 1.3 All amounts payable in terms of this Agreement are inclusive of VAT unless otherwise indicated.
- 1.4 This Agreement shall be governed by the laws of the Republic of South Africa.

2 PREAMBLE

- 2.1 The Client has requested and consented to the collection, Processing, Testing and Storage of Stem Cells obtained from Cord Blood/Tissue collected from the umbilical cord and placenta at the time of the birth of the Child.
- 2.2 The Client intends to store the Stem Cells acquired from the Cord Blood/Tissue, for the sole and exclusive benefit of the Child or any such family member that the Client expressly and in writing elects to donate the Stem Cells to, provided that that person is a suitable match.
- 2.3 The Client authorises Netcells to Process, Test and Store such Stem Cells in terms of this Agreement and the signed Informed Consent.

IT IS NOW AGREED:

3 OWNERSHIP

- 3.1 Subject to the order of any court or competent jurisdiction, and to the terms and conditions of this Agreement, all right, title and interest in and to the Cord Blood/Tissue and Stem Cells derived therefrom shall, vest exclusively with the Client.

- 3.2 All such right, title and interest shall cede to the Child, at the date at which the Child attains the Age of Majority.

4 COLLECTION OF THE MATERNAL BLOOD AND CORD BLOOD/TISSUE

The Client undertakes:-

- 4.1 to consult with the relevant Healthcare Professional, and make the necessary arrangements to ensure that the Maternal Blood and Cord Blood/Tissue is collected and properly packaged in the Collection Kit, strictly in accordance with the instructions provided therein by Netcells;
- 4.2 to contact Netcells as soon as reasonably possible after the collection of the Cord Blood/Tissue, to ensure that a reasonable time is afforded to Netcells to arrange a courier to transport the Cord Blood/Tissue to the Netcells laboratory within 48 (forty eight) hours of the collection of the Cord Blood/Tissue.
- 4.3 Netcells shall not be responsible for any compromise to the integrity of the Cord Blood/Tissue during such collection.

5 TRANSPORTATION OF THE CORD BLOOD/TISSUE UNIT

- 5.1 Once the Cord Blood/Tissue has been collected, the Client will call Netcells to arrange for the courier.
- 5.2 The courier shall transport the Cord Blood/Tissue to the Netcells laboratory.
- 5.3 Netcells shall not be responsible for any compromise to the integrity of the Cord Blood/Tissue during such transportation, which is beyond its control.

6 PROCESSING OF THE CORD BLOOD/TISSUE UNIT

- 6.1 Netcells shall Process the Cord Blood/Tissue and Store the Stem Cells, provided that it reserves the right to refuse to Process and Store the Cord Blood/Tissue if:-
 - 6.1.1 the requisite Netcells Agreement and Informed Consent have not been completed, have been incorrectly and/or inadequately filled out or have not been signed, and/or;
 - 6.1.2 the collection fee has not been paid, and/or;
 - 6.1.3 the requisite Maternal Blood Tests, have not been complied with, or as a consequence of Testing, the presence of Transmissible Diseases is detected, and/or;
 - 6.1.4 the Cord Blood/Tissue has been contaminated for any reason; and/or
 - 6.1.5 less than 60 ml of the cord blood is received and after preliminary Testing thereof, is deemed to be sub-optimal;
 - 6.1.6 less than 15 cm of the umbilical cord tissue is received for storage;
 - 6.1.7 once processed, the number and/or viability of the Cord Blood/Tissue Stem Cells falls below the minimal requirements as defined by Netcells as being optimal for Storage.

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7 NOTIFICATION

- 7.1 Once the Maternal Blood Tests and Cord Blood/Tissue Tests have been taken and/or the Stem Cells Cryopreserved and stored, Netcells shall notify the Client in writing whether:-
 - 7.1.1 the Cord Blood/Tissue Stem Cells are suitable for storage, in which case they will be stored in terms of this Agreement; or
 - 7.1.2 the Cord Blood/Tissue Stem Cells are sub-optimal, in which case the Client has the option to elect to:-
 - > 7.1.2.1 continue Storage of the Stem Cells; or
 - 7.1.2.2 destroy the Stem Cells; or
 - 7.1.2.3 donate them for internal research and/or validation purposes.
 - 7.1.3 the Cord Blood/Tissue Stem Cells fail to meet the Netcells storage limit requirements, in which case the client will have the option to:-
 - > 7.1.3.1 destroy the Stem Cells; or
 - 7.1.3.2 donate them for internal research and/or validation purposes.
 - 7.1.4 In each of Clauses 7.1.2 and 7.1.3, the Client's express written authorisation therefore will be obtained and the Client will be required to sign the necessary disclaimer.
 - 7.1.5 The Cord Blood/Tissue Stem Cells are contaminated by a bacteria or fungus during the birth.
 - 7.1.6 The results of the flow cytometry testing will be made available to the birth Mother's Healthcare Professional.

8 STORAGE OF THE Stem Cells

- 8.1 Netcells shall Store the Stem Cells in good condition for the Storage Period.
- 8.2 Netcells undertakes to contact the Client six months prior to the expiration of the Storage Period, and the Client will have the option to elect to:-
 - > 8.2.1 continue Storing the Stem Cells, in which case Netcells shall invoice the Client for the Storage thereof at its then current rates, which will be market related; or
 - 8.2.2 terminate this Agreement in accordance with Clause 14.3.
- 8.3 The Client (or Child obtaining the Age of Majority), in consultation with the Competent Person, may elect to retrieve the Stem Cells from Storage in accordance with Clause 9, as and when deemed necessary.
- 8.4 Netcells shall be entitled to transfer the stored Stem Cells to an Authorised Organisation, Institution or Person in South Africa, the United Kingdom, Europe, United States or relocate its own storage facility at any time after furnishing the Client with written notice thereof.
- 8.5 In the unlikely event that Netcells ceases to continue trading for whatever reason, Netcells has contracted its obligations in terms hereof out to an independent Authorised Organisation, Institution or Person, who will ensure the ongoing storage of the Stem Cells in terms of this Agreement.

9 RETRIEVALS FOR TRANSPLANT (PREPARATION, TRANSFER AND SHIPMENT)

- 9.1 Should the Client wish to retrieve the stored Stem Cells, the Client shall provide Netcells with a minimum of 21 (twenty one) Day's written notice of the intended transplant date.
- 9.2 The notice in Clause 9.1 shall include details and contact numbers of the Competent Person and Authorised Organization, Institution or Person receiving the Stored Stem Cells and such other information as may be required by Netcells to transfer the Stem Cells in a manner that ensures their integrity.
- 9.3 In the case of Cord Blood, the Stem Cells require no preparation and will be transported in their frozen state to the place of transplant. The transplant centre may however require the Stem Cells to be washed and if this service is requested to be carried out by Netcells, there will be an additional charge for this service. The Stem Cells will then be transported in a non-frozen state to the place of transplant;
- 9.4 In the case of Cord Tissue, additional laboratory work is required to isolate the Stem Cells from the Wharton's Jelly. Depending on the treatment required, the Mesenchymal Stem Cells will most likely require additional expansion and other (intellectual property) laboratory work in order to prepare the therapeutic required. The cost of this additional laboratory work will be for the client's own account.
- 9.5 The Client shall provide Netcells with a signed authorisation within 7 (seven) days of the intended transplant date, by the transplant physician for release of the Stem Cells by Netcells.
- 9.6 Netcells undertakes to release the Stem Cells timeously to ensure timeous delivery to the transplant centre.
- 9.7 Provided that the Stem Cells are used for transplant, there is no cost for retrieval, however the cost of transport of the Stem Cells will be for the Client's own account.
- 9.8 If the Stem Cells are retrieved at any time prior to the paid-up Storage Period, then the Client will be refunded the proportionate amount of unutilised storage fees.
- 9.9 If the Stem Cells are retrieved and used by the Child or related sibling in a transplant during the first year of storage, then a full refund of the Processing & Storage Fee will be given.

10 TERMS AND CONDITIONS OF PAYMENT

- 10.1 The total cost of this service is set out in the Client Registration Form and which is to be paid by the Client as follows:-
 - > 10.1.1 The Collection Fee shall be payable by the Client to Netcells upon registration and prior to the delivery of the Netcells Collection Kit;
 - 10.1.2 the Processing, Testing & Storage Fee shall be due and payable once the Client has received notification (meaning confirmation of storage by Netcells together with issue of the Cord Blood/Tissue Test results) of the storage of the Stem Cells.



10 TERMS AND CONDITIONS - Continue

- 10.2 Included in the Collection Fee in Clause 10.1.1 above, is the normal cost of a courier. Any additional special courier charges (public holidays, outlying areas, express delivery) shall be pre-authorized and separately invoiced to the Client.
- 10.3 Included in the Processing, Testing & Storage Fee in Clause 10.1.2 above, is the cost for the testing of Maternal Blood. Should the Maternal Blood not be collected at birth and couriered with the Cord Blood/Tissue or should there be insufficient blood and additional Maternal Blood is required, then the costs of withdrawing the Maternal Blood and couriering it (separately from the Cord Blood/Tissue) to the Netcells laboratory, will be for the Client's own account.
- 10.4 The Client may select to pay the Processing and Storage Fee in accordance with a monthly payment plan as indicated in the Client Registration Form. In this case, a compulsory debit order needs to be signed and should this be returned by the bank, then the Client will be liable to pay a debit order rejection fee of R100 (one hundred Rand). By signing this Agreement the Client confirms that the Parents have the necessary funds and cashflow to service the monthly repayments and that this repayment commitment cannot be deemed to be a reckless extension of the Parents financial obligations.
- 10.5 All overdue amounts shall bear interest at a rate equivalent to the aggregate of the publicly quoted prime overdraft lending rate charged by the Standard Bank of South Africa plus 2% (two percent).
- 10.6 The Client acknowledges that the failure to effect payment of any fee or cost timeously may result in the termination of this Agreement by Netcells in terms of Clause 14.3, after written notice to the Client.

11 WARRANTIES

- 11.1 The Client acknowledges that Netcells has not made nor does not make any representations or warranties to the Client, whether express or implied, of any kind or nature, including, without limitation of the foregoing, any warranties with respect to:-
- 11.1.1 the suitability of the Cord Blood/Tissue or Stem Cells derived there from for the future treatment of any disease, illness, injury or other medical affliction;
- 11.1.2 the successful treatment of any disease, illness, injury or other medical affliction through Stem Cell transplantation;
- 11.1.3 the advantages of transplanting Stem Cells derived from Cord Blood/Tissue over other types of treatment using Stem Cells derived elsewhere.

12 LIMITATION OF LIABILITY

- 12.1 Notwithstanding anything that may be construed to the contrary in this Clause 12, Netcells' maximum amount of any and all liability to the Client in terms of this Agreement or with respect to any and all actions or omissions of Netcells, or such other persons, under any and all circumstances shall be the total amount paid by the Client to Netcells hereunder.
- 12.2 The Client further acknowledges that Netcells is not responsible for the actions of others, including physicians, nurses, midwives, the birthing hospital or medical facility, hospital or medical facility staff and couriers and transporters of the Cord Blood/Tissue and Stem Cells.

- 12.3 Netcells shall not be liable to the Client or any other third party for any direct, indirect special, punitive, consequential or incidental damages or losses.
- 12.4 Netcells shall not be held liable for any loss or damage to the Cord Blood/Tissue or Stem Cells derived therefrom caused by any event beyond its control and/or which is considered to be a force majeure event.

13 ASSIGNMENT

Netcells may:-

- 13.1 transfer the location of the Processing Laboratory, and/or;
- 13.2 transfer the Storage Facility, and/or;
- 13.3 cede and assign any and all of its rights and obligations under this Agreement to an Authorised Organisation, Institution or Person after prior written notice to the Client provided the Client shall be given full details as to such Authorised Organisation, Institution or Person in advance.
- 13.4 The Client may, after prior written notice to Netcells, transfer to one or more persons his rights under this Agreement at any time, in particular upon the Client's death or disablement. No transfer shall take effect until the transferee or successor consents in writing to the transfer and agrees to be bound by this Agreement. Should the Client be deceased or disabled and should there be no transferee or successor to the Client's rights, Netcells may, in its entire discretion, recognise the authority of any person to represent the Client.

14 TERMINATION

- 14.1 Netcells reserves the right to terminate this Agreement in the following circumstances:-
- 14.1.1 failure of the Client to provide the Cord Blood/Tissue, and/or the Maternal Bloods and/or the information that Netcells requires for the performance of its services or compliance with the law, regulations or accreditation;
- 14.1.2 receipt of the results of the Maternal Blood Tests, and according to Netcells' internal quality and accreditation requirements or the relevant government regulations or statute, indicating that the Cord Blood/Tissue is not appropriate for Storage;
- 14.1.3 should Netcells be unable to extract any Stem Cells from the Cord Blood, or should the Cord Blood yield insufficient Stem Cells according to Netcells internal quality and accreditation requirements, then no Storage shall take place, and accordingly, the Client shall incur no liability in regard to the Processing & Storage Fee;
- 14.1.4 in the event that the payment due has not been received within 30 (thirty) Days after the date of written notification to the Client to effect payment;
- 14.1.5 in the event of the Client not responding within 6 (six) months after the expiration date of the Storage Period, despite Netcells having notified the Client at least twice, within 6 (six) months prior to the date of expiration and once within the 6 (six) months after expiration.



14 TERMINATION - Continue

- 14.2 The Client may terminate this Agreement at any time upon written notice to Netcells. In this instance the Client will be refunded the proportionate unutilised portion of the collection, processing and storage fee, after deducting a related administrative charge.
- 14.3 On termination, the Client can elect that stored Stem Cells are:
 - 14.3.1 Transferred to an alternative storage location (once all outstanding fees have been paid, including the withdrawal fee); or
 - 14.3.2 Destroyed; or
 - 14.3.3 Donated for internal research and/or validation purposes.

If no election has been made, then the Stem Cells will be donated for internal research and/or validation purposes.
- 14.4 Notwithstanding the foregoing, this Agreement will be terminated on withdrawal by the Client of all his/her stored Stem Cells for transplant and any unutilised storage fees will be refunded.

15 MAINTAINANCE AND PROTECTION OF CLIENT INFORMATION

- 15.1 The Client undertakes to provide Netcells with complete and accurate information in writing concerning contact information of the Client and the Child required by Netcells. The Client also agrees to provide such other information that Netcells may require for the Testing of the Cord Blood/Tissue, maternal blood, performance of its services, compliance with the laws, regulations, permits and certifications, as well as for the proper identification of the Client and the Child.
- 15.2 If any information that the Client has provided to Netcells changes or is no longer valid, the Client acknowledges that it is his/her/their responsibility to advise Netcells promptly of all such changes or invalidity.
- 15.3 Netcells will use all reasonable endeavours to keep confidential all information relating to the Client and/or Child. Personal information will only be held in Netcells' hardcopy files in a locked location and on our secure electronic database and back-up files.
- 15.4 Where 3rd parties have been contracted to manage off-site storage of Netcells Client information, the same confidential procedures will be ensured.
- 15.5 Information will only be released to the Client and/or Child's Healthcare Professional and/or Competent Person for their internal confidential records or otherwise as requested by the Client and/or Child. Information may also be released for the purposes of performing Netcells' obligations under this Agreement. None of the information held on Netcells' database will otherwise be disclosed or released to any third parties other than those required by law.
- 15.6 By signing this Agreement, the Client consents to Netcells holding the Client and/or Child's personal data for the purposes of performing Netcells' obligations under this Agreement.
- 15.7 Netcells may from time to time to send out electronic information by email or sms to the Client, to update the Client on developments regarding Netcells and the Stem Cell industry in general. The Client may at any time opt out from receiving this communication.

16 DOMICILIUM AND NOTICES

The parties choose as their domicilium citandi et executandi their respective addresses set out on the Netcells website (in respect of Netcells) and the Informed Consent (in respect of the Client).

17 DISPUTES

Any dispute, other than where an interdict is sought, arising out of or pursuant to this Agreement shall be addressed in accordance with the rules and processes of the Arbitration Foundation of Southern Africa.

18 ENTIRE AGREEMENT

This Agreement, the appendices, all references to terms and conditions contained on the Netcells website and the explanatory terms as contained in the documentation within the Collection Kit, constitute the entire Agreement between the parties.

19 VARIATION AND CANCELLATION

No agreement varying, adding to, deleting from or cancelling this Agreement shall be effective unless reduced to writing and signed by or on behalf of the parties.

20 INDULGENCES

No indulgence granted by a party shall constitute a waiver of any of that party's rights under this Agreement.

SIGNED

MANAGING DIRECTOR
NETCELLS BIOSCIENCES (PTY) LTD

SIGNED BY THE PARENTS

MOTHER

FATHER

DATE:

CLIENT NO.:

Initial



CLIENT PARTICULARS

Full Name

Identity Number

I am the Mother of the unborn child ("my Child") whose Cord Blood and/or Cord Tissue is to be collected at the time of its birth. I am entitled and duly authorized to sign this document on behalf of my Child.

I authorize Netcells to receive, Process and Test the Cord Blood and/or Tissue from the placenta and umbilical cord and to Cryopreserve and Store the Stem Cells contained therein (collectively, "Cord Blood and/or Cord Tissue") in accordance with the accompanying Cord Blood / Tissue Storage and Related Services Agreement.

1 WHAT ARE STEM CELLS?

Stem Cells are the earliest cells of a developing embryo that differentiate to form all the cells of the human body. Researchers have found that Stem Cells remain in our bodies to maintain and repair our organs throughout life. Stem Cells are also found in the blood and tissue of the umbilical cord and placenta of newborn babies, which are normally discarded after birth.

Cord Blood contains blood forming **Haematopoietic Stem Cells** ("HSCs") and the main uses of these are in the treatment of the following groups of disease:

- **Malignancies** (Leukaemia, lymphoma, multiple myeloma, solid tumours);
- **Anaemia** (Fanconi's Anemia, sickle cell disease, Thalassemia);
- **Bone marrow failures** (Aplastic anaemia, pancytopenia);
- **Immunodeficiency** (SCID, Kotsmann syndrome, Wiskott-Aldrich syndrome, lymphoproliferative disorder, ataxic telangiectasia, Di George syndrome);
- **Inborn errors of metabolism** (Adrenoleukodystrophy, Gaucher's disease, Krabbe disease, Niemann-Pick syndrome, Tay-Sachs disease).

Cord Tissue is rich in **Mesenchymal Stem Cells** ("MSCs"). 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, pigmentation disorders);
- **Neurology** (nerve regeneration and repair);
- **Orthopedics** (cartilage, bone repair);
- **Sports injury** (tendon, ligament repair);
- **Cardiology** (heart muscle regeneration);
- **Reconstructive surgery** (fat grafts); and
- other possible clinical areas.

The Stem Cells will not be used for cloning purposes.

I understand:-

- 1.1 That my Child's Cord Blood/Tissue Stem Cells are stored exclusively for use for my Child or any family member who is an HLA-type match that I, the Mother of the Child or the Child, decides to donate the Stem Cells to;
- 1.2 Netcells does not do HLA-typing of the Cord Blood prior to storage and will therefore not be able to suggest donation of my Child's Cord Blood to persons not known to me, as compatibility is not known;
- 1.3 I shall have the opportunity to deny or withdraw consent to the procurement procedures without affecting my access to medical care.

2 HOW IS THE CORD BLOOD COLLECTED?

- 2.1 A Collection Kit is provided for the collection of the Cord Blood, which is taken to the birth of my Child and handed over to the Healthcare Professional that will perform the collection.
- 2.2 The collection bag is packaged in a sterile manner and needs to be opened on a sterile tray.
- 2.3 After my Child is born (via normal vaginal delivery or Caesarian section) the umbilical cord is clamped and my child is safely handed over.
- 2.4 The Healthcare Professional will then insert the needle of the collection bag into the umbilical vein of the umbilical cord. The bag will fill with Cord Blood. Once the flow of blood stops, the needle will be removed from the vein.
- 2.5 Two knots will then be tied in the tubing and the Cord Blood bag will be packed into the temperature coolant bag and placed back into the Collection Kit for courier to the laboratory.

3 HOW IS THE CORD TISSUE COLLECTED?

- 3.1 Cord Tissue is collected after the Cord Blood is collected and the placenta delivered.
- 3.2 The Healthcare Professional will cut a 15cm piece of umbilical cord and will place this within the tube provided in the Collection Kit to be couriered to the laboratory.

4 COLLECTION RISKS AND CONSENT

- 4.1 I will request that my Healthcare Professional collects the Cord Blood and/or Cord Tissue using the Collection Kit provided by Netcells.
- 4.2 I understand that, under normal circumstances, collection should never interfere with the birthing process and cause me no discomfort or pain.
- 4.3 I understand that there may be complications at birth that will make it impossible or problematic to collect the Cord Blood/Tissue, and for these reasons my Healthcare Professional would be entitled to refuse to collect the Cord Blood/ and Cord Tissue.
- 4.4 I understand that there is a risk of bacterial and/or fungal contamination when collecting Cord Blood and/or Cord Tissue. The contaminating bacteria and/or fungus is usually a naturally occurring contaminant of the birthing canal. Netcells tests every cord blood unit for these contaminants.

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CORD BLOOD/TISSUE STORAGE INFORMED CONSENT

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4 COLLECTION RISKS AND CONSENT - Continue

- 4.5 I understand that the Cord Blood/Tissue collected may be insufficient and/or not viable for storage and/or transplantation and/or any other purpose.
- 4.6 I record and agree that I have been fully informed about the procedure for collecting Cord Blood and/or Cord Tissue and hereby consent to allow my Healthcare Professional to collect the Cord Blood and/or Cord Tissue after the birth of my Child and to furnish it to Netcells for Testing, Processing, Cryopreservation and Storage.

5 RISKS INVOLVED IN STORAGE AND USE

- 5.1 I understand that there are no assurances that any benefits of storing my Child's stem cells will be obtained;
- 5.2 I understand that the transplantation of Cord Blood and/or Cord Tissue Stem Cells is a relatively new procedure that may offer possible future benefits to my Child and other beneficiaries in treating certain diseases;
- 5.3 I understand that there are several instances in which the use of my Child's Cord Blood Stem Cells for herself/himself would not be recommended;
- 5.4 I acknowledge that there are alternative sources of Stem Cells such as bone marrow, peripheral (circulating) blood and adipose tissue, that could be accessed from my child or possibly a suitable matching donor, should I decide not store my Child's own Cord Blood and/or Cord Tissue Stem Cells;
- 5.5 Pertaining to Cord Blood Stem Cells only,
- 5.5.1 I understand that the likelihood of using my Child's Cord Blood Stem Cells is limited and that it is highly likely that they may never be used;
- 5.5.2 Even though there is a good chance of a suitable match, I understand there are no guarantees that the Cord Blood Stem Cells will be a match for other family members;
- 5.5.3 I understand that Cord Blood Stem Cells contaminated by bacteria and/or fungus can be stored, but there is no guarantee that the transplanting physician will accept the sample for transplant. However, we do not know what future medicine will bring and perhaps this contamination will not be an issue in the future.
- 5.6 Pertaining to Cord Tissue Stem Cells only,
- 5.6.1 I understand that there is the likelihood that my Child's Cord Tissue Stem Cells may never be used;
- 5.6.2 If the Cord Tissue Stem Cells are required, I understand that further laboratory work will be required to isolate these stem cells from the Wharton's Jelly of the Cord Tissue and that these cells will most likely need to be expanded to grow sufficient numbers for therapy. In this instance blood serum from the Child may be required to culture the cells and consequently Netcells will require a sample of my child's blood to be drawn for the process. The cost of this additional laboratory work will be for my account, and/or that of my Child.
- 5.7 I understand that the Cord Blood and Cord Tissue Stem Cell harvests are typically low in volume and could be insufficient (without expansion or supplementation) for a transplant.

- 5.8 I understand that there is a documented and unavoidable cell loss during the cryopreservation and thawing process, even though Netcells uses proven methodology and the most up-to-date technology.
- 5.9 As this science is relatively new, the longest recorded period of viable thawed Stem Cells has been for 23 (twenty three) years (Broxmeyer H.E et al; Hematopoietic stem/progenitor cells, generation of induced pluripotent stem cells and isolation of endothelial progenitors from 21- to 23.5-year cryopreserved cord blood; Blood. 2011 May 5; 117(18): 4773-4777. Pre-published online 2011 March 10. doi : 10.1182/blood-2011-01-330514), and as such, I understand that there are no guarantees that the Cord Blood/Tissue can actually be stored indefinitely.

6 MATERNAL BLOOD TESTING AND HEALTH QUESTIONNAIRE

- 6.1 Maternal Blood Testing is required for Cord Blood and/or Cord Tissue Stem Cell storage according to the South African National Health Act (61/2003) Regulation on Stem Cell Banks (Reg 183).
- 6.2 I agree to fill out the Maternal Health Questionnaire in the Collection Kit and return the form to Netcells with the Collection Kit.
- 6.3 I understand that I must have a sample of my own blood taken by venipuncture (the usual method for blood tests) within 7 Days prior to delivery or 7 Days after the delivery, in order to be tested for Transmissible Diseases.
- 6.4 I am responsible for and will ensure that I have my blood sample taken by a Healthcare Professional at the hospital or clinic where I am delivering my baby. The blood sample will be taken in the blood tests tubes provided by Netcells in the Collection Kit.
- 6.5 I understand that there is a slight risk of bruising, discomfort, inflammation, or infection at the site of the blood draw. My blood will be tested for certain infectious diseases, including:
- 6.5.1 Human Immunodeficiency Virus (HIV) -1 and -2 (AIDS causing virus);
- 6.5.2 Hepatitis B and Hepatitis C Viruses (viruses that affect the liver causing hepatitis, jaundice and liver dysfunction);
- 6.5.3 Syphilis (a contagious disease that is characterized by genital ulcers, skin rashes and lesions that can affect all organs of the body).
- 6.5.4 Cytomegalovirus (a common herpes type virus that goes unnoticed in healthy individuals but can be life-threatening in immune-compromised patients).
- 6.6 Netcells' Medical Director will review the results of the Testing.
- 6.7 I understand that abnormal results will be reported to me. Should my test results be positive for any of the following: HIV, Hepatitis B or C, or Syphilis, I will have a confirmatory test done i.e. another sample of my blood will be taken and tested. If these confirmatory tests are positive, in line with Netcells' Policy (refer to Section B), the Cord Blood Stem Cells and/or the Cord Tissue will either be stored in quarantine or not be allowed storage in the Netcells Laboratory. CMV positive test results will not preclude the storage of the Cord Blood Stem Cells and/or the Cord Tissue.
- 6.8 I hereby consent to Netcells' disclosure of the results of my blood tests to my Healthcare Professional, to any other Stem Cell storage facility to which I have authorized transfer of the Stem Cells, to the transplantation service in the event the Stem Cells are released for use, and to any government agency to which Netcells may be required to report such results under applicable law and regulations.

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CORD BLOOD/TISSUE STORAGE INFORMED CONSENT

UC-CLI-CON-001
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7 TESTING

7.1 Cord Blood - I understand that:

- 7.1.1 Netcells will undertake tests on my Child's Cord Blood to ascertain the nature, number and viability of the Stem Cells to be Cryopreserved;
- 7.1.2 prior to the treatment of the intended recipient of the Cord Blood Stem Cells, should the recipient not be the same person from whom the Stem Cells were obtained, the Cord Blood will need to be tested for an HLA-match, which costs are for the Client's own account;
- 7.1.3 Netcells will not release the Stem Cells until Netcells has received the HLA-typing results (if required) and approval from the recipient's transplant physician;
- 7.1.4 Reference samples of the Cord Blood will be Stored for future Testing of HLA-type, and cell count and viability upon thawing. These are small in quantity and do not significantly affect the overall number of Cord Blood Stem Cells stored.

7.2 Cord Tissue - I understand that:

- 7.2.1 Viability testing will be carried out on the Cord Tissue prior to storage;
- 7.2.2 Once the cells are required for therapy and have been removed from storage and the stem cells isolated from the Wharton's Jelly of the Cord Tissue, they will be tested for quantity and quality.

8 PREPARATION OF STEM CELLS FOR TRANSPLANT

- 8.1 Cord Blood Stem Cells may require washing after thawing, for transplantation. They will be transported in either their thawed or frozen state (to be thawed at the bedside) and infused into the patient's blood stream.
- 8.2 Cord Tissue requires further preparation for transplant. The mesenchymal rich fraction of the Wharton's Jelly is stored and as such the Cord Tissue Stem Cells are not extracted from the cord tissue before storage. When required for transplant, the cord tissue will be thawed in the laboratory and the Cord Tissue Stem Cells will be isolated from the Cord Tissue. The cells will then be cultured and prepared for transplant, as required. There is an additional cost for this laboratory work.

9 DISCLOSURE OF HEALTH INFORMATION

- 9.1 Netcells will maintain the confidentiality of my health information that I provide to them concerning myself and my Child.
- 9.2 I do however understand that health care providers may need such information to provide treatment to me and/or my Child and/or matching relative and that government agencies may be entitled to obtain such information under applicable law and regulations.
- 9.3 I authorize Netcells to disclose such information to health care providers that are treating me and/or my Child and/or matching relative; and to government agencies as may be required under applicable law and regulations.
- 9.4 I authorize Netcells to disclose such information for research purposes in an anonymous manner and always maintaining Netcells' confidentiality obligations in terms hereof.

10 CORD BLOOD DISPOSAL

- 10.1 If the Cord Blood that is collected has low cell count or low cell viability and is not recommended for Storage according to Netcells storage limits and standards, I will be informed by Netcells about the possible options available to me.

- 10.2 I have the choice to continue Storage and will sign a disclaimer in order to do so, or if I decide to discontinue Storage I will sign a disclaimer to either donate the Cord Blood for research purposes or to discard it.
- 10.3 I understand that Netcells will retain confidentiality of the sample and that the Stem Cells will not be used for any other purposes including cloning.
- 10.4 Non-conforming Cord Blood i.e. specimens that are positive for any of the following: HIV, Hepatitis C, or resistant bacteria or fungus, will not be stored by Netcells and could be stored at an alternative Authorized Organization, Institution or Person, if so required by the Client.
- 10.5 I will be responsible for the additional cost and transport of the Cord Blood Stem Cells to the alternative bank. I will also assume the additional costs of the alternative stem cell bank and will agree to their conditions of storage.

11 VALIDATION

I authorize Netcells to cryopreserve and store any excess Cord Blood/Tissue (that would normally be discarded) and routinely perform validation testing on this, to ensure the ongoing viability of the stored Cord Blood/Tissue,

12 DISCLOSURE OF INFORMATION

I authorize Netcells to use (research, study and publish) information obtained from the Collection, Testing, Processing, Cryopreservation and Storage of the Cord Blood and/or Cord Tissue Stem Cells in an anonymous manner.

13 WARRANTIES AND LIMITATION OF LIABILITY

I confirm that I have read and accept Clause 11 and 12 of the Cord Blood/Tissue Storage and Related Services Agreement.

SIGNED

DR YVONNE HOLT
NETCELLS BIOSCIENCES (PTY) LTD

THE CLIENT

DATE:

CLIENT NO.:

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