

CRYOLIFE

跨奧 | 細胞庫

會員專訊 / Newsletter 2019 第1季 | Q1

2018 年美國血庫協會年度會議 發表臍血幹細胞質量研究報告

2018 Annual meeting of the AABB
Published research report about
quality evaluation of
umbilical cord blood cells

最新質檢報告

Latest QA Test Report

臍帶儲存

Banking Cord Tissue

焦點案例

News Clips

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Quality Evaluation of Umbilical Cord Blood Cells in a AABB Accredited Cord Blood Bank in Hong Kong (QT16)
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2018 年美國血庫協會年度會議 發表臍血幹細胞質量研究報告 2018 Annual Meeting of the AABB Published research report about quality evaluation of umbilical cord blood cells

對跨奧多年的臍血幹細胞質量 報告表示肯定 Accredited CRYOLIFE's Quality Assurance Test for years

2018 AABB 美國血庫協會年度會議於 10 月 13 日至 10 月 16 日美國波士頓舉行。

CRYOLIFE 於會議期間發表臍血幹細胞質量報告。報告指出，除了幹細胞的存活率外，以隨機方式選取臍帶血樣本進行解凍的「細胞聚落形成單位 (CFU)」測試 (與功能性幹細胞的數量有關)，結果顯示質量是非常高的。足以證明所有測驗過程及臍帶血儲存均符合 AABB 的嚴格規管和指引。

CRYOLIFE 向來自世界各地的醫生、護士、醫療技術和研究人員、以及臍血庫機構發表了臍血幹細胞質量報告。會議同期還發表了 120 篇學術報告及 500 篇壁報論文，讓業內人士交流最新血液及創新醫療技術。

2018 Annual meeting of the AABB was held from 13 – 16 October in Boston, USA.

CRYOLIFE presented the quality evaluation of umbilical cord blood cells research report during this Annual Meeting. Results show that besides stem cells' viability, the CFU (Colony Form Unit, which is related to the quantity of functional stem cells) from thawed samples of randomly selected cord blood units are of impressively high. All processing and cryopreservation are according to strict protocols and guidelines of AABB.

Cryolife's report and presentation were well received by attending medical and healthcare practitioners including doctors, nurses, technologists and researchers, as well as cord blood bank institutions from around the world. The annual meeting also published 120 academic reports and 500 poster papers for medical participants to exchange the latest blood and innovative medical technologies.



For more details, please contact Cryolife
如須詳盡資料，請聯絡 CRYOLIFE

2018 年 10-11 月品質檢定 (細胞活躍測試結果) Oct - Nov Quality Assurance (Variability Results)

全面檢測・信心保證

CRYOLIFE 每年進行兩次品質檢定，全面而透明度高的檢測顯示 CRYOLIFE 對實驗室儀器及專業技術人員的信心，測試結果亦會於網頁上公佈。

一般幹細胞儲存庫都會作「解凍後幹細胞恢復之存活能力」測試，確保幹細胞解凍後仍具備理想的造血功能。不過，對 CRYOLIFE 而言，這只是最基本的測試，CRYOLIFE 更注重完整保存幹細胞最具醫療價值的特性。幹細胞的珍貴價值，全在於其自我倍增及自我分化的特性。因此，CRYOLIFE 早於 2008 年起引入「細胞聚落形成單位 (CFU)」測試，檢驗不同儲存年份的樣本是否仍能保持自我倍增及自我分化能力。據國際品質鑑定機構 AABB 標準，血庫在發放幹細胞作任何醫療用途前，必須進行「細胞聚落形成單位 (CFU)」測試，以確保幹細胞品質，足以證明 CRYOLIFE 的定期質檢已到甚至超越國際水平。

CRYOLIFE 新一期的測試剛於 10 月進行。此次檢測從儲存缸中提取了 6 份樣本檢測。測試結果顯示，所有樣本在解凍後，恢復之存活能力均超逾 83.3%。總括而言，此次測試結果非常令人滿意。

Comprehensive Quality Assurance Test

Committed to deliver the highest service quality, and taking pride in its cutting edge facilities, CRYOLIFE undertakes comprehensive quality assurance test twice a year. At least one sample from each storage tank – of most prior preservation years – will be tested, with test results publish on website.

Conventional cord blood banks will conduct Recovery of Viability Test to evaluate the preservation of stored stem cell's viability. CRYOLIFE's quality control and quality assurance go beyond that. Apart from basic tests, CRYOLIFE conducts the advanced Colony Forming Unit (CFU) Test since 2008 to investigate the ability of proliferation and differentiation of hematopoietic stem cells. According to AABB, industry's leading authority, this CFU test must be performed before the cord blood is being released for any medical treatments to ensure the quantity, quality and stability of stem cells meet transplantation requirements. This highlights CRYOLIFE's achievement in international assessment standard on stored stem cells from umbilical cord blood.

In the latest test carried out in 30th Oct, 2018, 6 samples[#] have been thawed to evaluate the preservation of viability. The result is satisfying, showing that the recovery of viability of all samples is over 83.3%. The result indicates that long – term storage has no negative effects on the cord blood stem cell's viability. Overall the quality test result is encouraging.

臍血處理年份 (存放時間) Year of Storage (Storage Period)	解凍後幹細胞存活能力之恢復率* Recovery Rate of Viability*	細胞聚落形成單位 CFU (x 104/mL)
2001 (17 ^年)	90.8	1.20
2002 (16 ^年)	83.3	1.15
2003 (13 ^年)	83.8	0.12
2006 (11 ^年)	85.6	0.42
2007 (10 ^年)	93.7	0.20
2010 (8 ^年)	85.6	0.76

* 國際醫療指標的移植存活能力要求: >50% International medical viability standard: >50%

品質檢定測試結果是來自隨機抽樣方式來選取樣本，測試結果並不代表其他儲存中的樣本會有相同的結果。
QA Results shown are from randomly selected samples. It does not represent that other samples within the storage will bear the same result.



臍帶儲存 Banking Cord Tissue

一家三代受惠

臍帶組織具有較強的免疫調節作用，可降低細胞或器官移植期間及之後的免疫排斥反應，不僅適合您的孩子，也適用於直系親屬作移植用途。

為什麼要儲存臍帶組織？

臍帶組織蘊含豐富的間葉系幹細胞（MSCs）。臨床證實，間葉系幹細胞於再生醫學、組織工程和基因治療領域上有着巨大的醫療潛力。

間葉系幹細胞（MSCs）有什麼吸引醫療研究之處？

來自臍帶組織的間葉系幹細胞（MSC）可以分化成多種器官細胞及組織，包括骨骼細胞、神經細胞、心臟細胞、及平滑肌細胞等，以治療疾病和器官組織退化。科學家已進行廣泛研究，並發現間葉系幹細胞對治療多種疾病和挽救生命的價值正不斷提升。

Banking Cord Tissue

Cord tissue is a perfect match not only for your child, but also immediate family members too since there are literally no risk of complication due to Graft-versus-Host Disease for (GVHD) allogeneic transplants.

Why consider banking cord tissue?

Stem cells from cord tissues are known as Mesenchymal Stem Cells (MSCs). They are very versatile and have shown great medical potential in the field of regenerative medicines, tissue engineering and gene therapy.

What are the excitements about Mesenchymal Stem Cells (MSCs)?

Mesenchymal Stem Cells (MSCs) from the cord tissues can differentiate into a variety of cell types, including bone, cartilage, muscle, nerve and others to treat tissues or organs degenerated by diseases and illnesses. The use of cord tissue stem cells has the enormous potential to enable regenerative medicine a life-saving reality.

超過 150 項臨床研究治療使用了臍帶組織幹細胞¹

目前以臍帶組織進行臨床治療，包括²：



運動損傷（軟骨）
Sports injuries (cartilage)
骨骼疾病和損傷
Skeletal Disease & Injury
類風濕關節炎
Rheumatoid Arthritis



心臟和血管疾病
Heart & Vascular Disease
血管損傷
Vascular Damage



1 型糖尿病
Type 1 Diabetes
胃腸疾病
Gastrointestinal disease



視網膜疾病
Retinal Disease



傷口，燒傷和潰瘍
Wounds,
burns and ulcers



神經疾病與損傷
Neurological
Disease & Injury
帕金森病
Parkinson's Disease



肝纖維化
Liver fibrosis
損壞的組織和器官
Damaged tissue and organs
移植並發
Transplant Complications



癌症
Cancers
自身免疫和炎症性疾病
Autoimmune and
inflammatory disease

Over 150 clinical research trails have used cord tissue stem cells¹

MSCs are currently being studied for their use in the treatment of² :





獨家 10日冷靜期

SPECIAL SERVICE DAYS Cooling-off Period

為使準父母更有保障,CRYOLIFE跨奧獨家為您而設,凡購買任何臍帶、臍血、胎盤儲存計劃,均享受簽約後**10日冷靜期保障***。

For the best purchasing experience, CRYOLIFE launches **10 Days Cooling-off Period*** for all paid storage plans.



查詢熱線 (852) 2110 2121

*條款及細則: 1)於簽約當天起按曆日計算10天內,客戶可享有「10天冷靜期」2)此「10天冷靜期」計劃只適用於未收取細胞的情況下:「2年體驗期計劃」並不適用 3)如客戶於「10天冷靜期」決定不儲存,客戶必須致電客服(+852 21102121)辦理,並退還「寶寶盒」。如遺失或開啟「寶寶盒」,必須繳付HKD 2,000

*Terms and Conditions: 1)"10 days cooling-off period" starts from the contract signed date and within 10 calendar days 2)"10 days cooling-off period" is applicable when the cells are not collected from the baby. "2-YEAR deferred payment plan" is NOT applicable 3) If the expectant parents decide not to proceed storage, please contact CRYOLIFE customer service (+852 21102121) and return the "baby box". HKD 2,000 will be charged for any used or lost of the BB box

焦點案例 NEW CLIPS

體外培植臍帶血幹細胞治療骨髓患者 New stem cell treatment uses umbilical cord blood for bone marrow patients



Tauren Dyson
5th December, 2018
HEALTH NEWS
<https://bit.ly/2Qq3oHs>

醫生在過往已成功地為兒童使用臍帶血移植。但由於幹細胞數量低,對成人臍帶血移植的效果有所保留。

為了解決幹細胞數量低的問題,大學研究人員在體外培植臍帶血幹細胞,然後將培植的幹細胞移植到成人血癌患者體內。獲治療後的患者大多數都恢復至正常血細胞數量,結果令人非常鼓舞。

在“臨床腫瘤醫學雜誌”上發表的一項新研究,結果顯示 94%接受培植臍帶血幹細胞的成人血癌患者,在完成移植手術的六個星期內,血細胞數量成功回復至正常水平。

In the past, doctors have successfully used umbilical cord blood transplantation on children, but the procedural effectiveness to adults is questionable due to low stem cell counts.

To address the issue of low stem cell counts, a team of university researches cultured and expanded umbilical cord blood stem cells outside the body and then subsequently transplanted the expanded stem cells into adult blood cancer patients. The results have been very positive showing that the therapy restored a normal blood count in most of the treated patients.

The finding of a new study, published Tuesday in the Journal of Clinical Oncology, show that 94 percent of adult blood cancer patients who received the expanded umbilical cord blood treatment ended up with successful graft procedures within six weeks.

臍帶血幹細胞醫治兔唇 - 助嬰兒長出新顎 Umbilical cord blood heals cleft palates in infants



3rd October, 2018
Drug Target Review
<https://bit.ly/2QREp00>

來自哥倫比亞首都波哥大(Bogota)聖何塞醫院的研究人員發現,利用有再生能力的幹細胞,可以讓「兔唇」患者從新長出顎骨,帶來醫學界的新突破。現時的「兔唇」患者可能需要從身體其他部份移植骨塊填補顎骨位置的裂口,但風險不低,此項實驗的成功意味將來患者不需依賴骨塊移植。

Researchers at the Hospital De San Jose in Bogota, Colombia, experimented new surgery and treatment methodology using cord blood stem cells procedures which deliver encouraging results in growing new bone to close the upper jaw cleft. This development could result in the avoidance of bone graft surgery in the near future.

Umbilical cord blood is a rich source of stem cells which have the potential to different into many specialised cells in the body, including bone and cartilage.

The thawed stem cells were placed in a pocket of soft tissue bridging the gap in the upper jaw. A piece of Gelfoam (absorbable material) was used as a scaffold to guide growth of the new bone across the cleft palate.

CRYOLIFE

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StemCellCare® global coverage*

一筆過 現金保障

LUMP SUM

以及由醫療團隊專家提供可行
之臍血幹細胞治療的意見

♥ StemCellCare® CASH Benefit for a potentially cord blood stem cell
treatment with the advice from a team of medical experts

跨越生命的奧秘。香港首家臍血庫
CRYOLIFE。Your Premium Choice

*計劃只適用於所有付費之臍血儲存計劃的父母。StemCellCare® 由安達保險香港有限公司承保。詳情請參閱StemCellCare®條款及細則。

Coverage is only applicable for ALL PAID cord blood clients. StemCellCare® is underwritten by Chubb. Please refer to the Terms and Conditions of StemCellCare® for details.