



## PRESS RELEASE

# The Untapped Market Of Cord Blood Banking

- Stem cell therapy could be one of the complementary treatments to alleviate sufferings in Covid-19 patients.

By Azalea Azuar

**Kuala Lumpur, 15 October, 2020** - According to a recent study and clinical trial in China, mesenchymal stem cell (MSC) therapy has been shown to alleviate pneumonia and acute respiratory syndrome (ARDS) symptoms through their immunomodulatory activities in Covid-19 patients.

Although more research studies and clinical trial results are needed to demonstrate the use of stem cells in providing relief to Covid-19 patients, the findings have been rather encouraging.

Patients treated with MSCs have somehow regained lung functions and have restored levels of cytokines and trophic factors.

In short, stem cell therapy could be one of the complementary treatments to alleviate sufferings in Covid-19 patients.



**Wong says his team aims to do their part in raising awareness about the importance of stem cell banking in Malaysia**

While stem cell therapy has been used in different health procedures for various ailments, the rise in the number of Covid-19 patients worldwide is an indication that the potential for companies that promote such treatment is certainly huge.

However, the stem cell banking industry in Malaysia has not been exploited yet as in-depth information about cord blood banking applications and clinical trials is still not widely available to the public.

StemLife Bhd CEO Raymond Wong said there are advertisements about stem cell therapies and supplements that are unproven, which left the public somewhat misinformed.

“A study conducted by nurses in Malaysia discovered that 92% of respondents only had moderate knowledge of the technology. In another study, 80% of respondents said their healthcare providers were unable to provide sufficient information regarding stem cells, while 94% wanted their healthcare provider to share the information,” he told *The Malaysian Reserve* in an interview.

Wong said his team aims to do their part in raising awareness about the importance of stem cell banking in Malaysia.

“It is a form of insurance for families. Our team sees it as one of the best healthcare investment options because the list of cell-based therapy applications is growing throughout the year and there have been many recent research and medical advances in regard to stem cell therapy,” he said.

Wong said banking stem cells would be a long-term “investment” that families and individuals could live healthier, longer and happier.

At the same time, he said the technology also serves as a sustainable medical solution that is readily available.

For the uninitiated, a stem cell has the unique ability to develop into specialised cell types in the body. In the future, they may be used to replace cells and tissues that have been damaged or lost due to different diseases.

By 2025, the world stem cell market is projected to reach more than US\$12.5 billion (RM51.88 billion).

The US is expected to maintain a 9.7% growth momentum, while Germany will bring some US\$294.1 million to Europe in the next five to six years.

In Asia, Japan’s stem cell industry will reach a market size of US\$899.5 million and it has the potential to grow at 8.1% over the next couple of years.

Wong said cord blood banking is another service under the stem cell market, where the blood from the umbilical cord is extracted during birth to treat more than 80 genetic diseases since it contains a rich source of stem cells.

One small amount of cord blood is collected and can be stored for future use.

By 2023, the Asia-Pacific region is expected to dominate the global cord banking services market in terms of growth rate.

The region is also expected to show a huge growth potential due to the increasing awareness of stem cell banking, as well as vast improvements in healthcare reforms in countries like Indonesia, India, Malaysia and China, although it currently has a minimal share in the global market.

Such a bright outlook in the region also grants better opportunities for companies that offer such solution to grow in a huge and untapped regional market which is currently trailing behind regions like North America and Europe.

## The Younger, The Better



### The procedure of collecting cord blood and umbilical cord does not harm the baby or the mother

Wong said previously, bone marrow and umbilical cord were popular sources to extract stem cells, but with the advancement in stem cell therapy, researchers have successfully extracted stem cells from other sources too.

“The younger the stem cells, the better the regenerative properties. The youngest source of stem cells that we can extract from the human body is from the umbilical cord.

“On top of that, the umbilical cord is also the richest source of stem cells with over 20 million cells per cu cm,” Wong said.

He said stem cell extraction from the bone marrow is seen more as an invasive procedure, which always carries the risk of complications as it could also result in permanent damage to the site of extraction.

“On the contrary, the procedure of collecting cord blood and umbilical cord does not harm the baby or the mother.

“In fact, our standard operation of procedure places the highest priority on the safety of the mother and the baby before any collection can be done,” he said.

Wong said studies have also proven that transplantation of stem cells from umbilical cord carries lower risk of developing graft versus host complication, as the stem cells in the umbilical cord aren't fully developed.

Therefore, he said, the human leukocyte antigen matching of stem cells to the patient is less stringent compared to stem cells from other sources.

## Specific Stem Cells



**Successes in the clinical application of stem cells serve as graphic illustrations of how it can be translated into useful therapies**

Just as there are many ways to extract stem cells, there are also different types of stem cells used to treat different diseases.

One of them is blood-forming cells which can develop into all types of blood cells.

“This unique property allows the blood-forming stem cells to be successfully used to treat various blood disorders and blood malignancies like leukaemia and thalassaemia,” Wong said.

However, he said stem cells are not only limited for blood-related illness treatment as they can also treat other disorders, such as immunodeficiency disorders and certain types of metabolic disorders.

“To date, there are about 80 diseases that are recognised by Malaysia’s Ministry of Health (MoH) as standard care of treatment using blood-forming stem cell therapy.

“Moreover, the discovery of tissue-forming stem cells has led to growing interest in the use of these cells as therapeutics,” Wong said.

He added that researches about stem cells are now venturing into preclinical and clinical studies to resolve injuries by enhancing endogenous repair programmes.

He said there are also tissue-forming cells which have been widely tested in clinical trials of cardiovascular, neurological and immunological diseases with encouraging results.

“Pioneering studies that led to successful culturing of human epithelial stem cells opened the door for subsequent clinical applications of epithelial stem cells in regenerative medicine,” Wong added.

Such treatments were first applied during the 1980s to treat patients who suffered from burns. Now, it saves the lives of those who have been severely burnt.

“Furthermore, developing applications to generate corneal cells for treating certain forms of blindness has garnered the focus of clinical researchers.

“More recently, cases of eye damage have been successfully treated by transplanting the corneal epithelial sheets cultured from epithelial stem cells.”

Wong added that successes in the clinical application of stem cells serve as graphic illustrations of how exciting advances in the laboratory can be translated into useful therapies.

It encourages the development of other stem cell applications in the regenerative medicine field.

### **Things to Consider...**

One can choose to go to either the public or cord blood banking facilities. The public cord blood banking facilities are within the purview of the National Blood Bank which is parked under the MoH, where any mothers can make their donations.

The public also have a choice to do non-directed donations, directed donations (among at-risk families) and directed donations (for low-risk families).

Wong said while private banking is a good choice, many families are concerned that they have to pay a high price for such peace of mind.

“In terms of affordability, the costs at private cord blood banks are not as high as some might think. For example, at StemLife, the cost to store cord blood roughly translates to about only 80 cent a day.

“In comparison, that is more affordable than your daily morning coffee or tea at a coffee shop or ‘kopitiam’,” he said.

StemLife also encourages parents to consult their healthcare providers on the benefits of storing in private banks, especially if a family member has a high risk of developing or have been diagnosed with diseases that are treatable with stem cell therapy.

This would ensure the sufficiency of stem cells for future treatments.

“Secondly, with the advancement of clinical research in regenerative medicine, it’s worth considering its future usage.

“For example, umbilical cord blood-derived MSCs have proven to be beneficial, exhibiting therapeutic effects in Covid-19 patients with cytokine storm and ARDS,” Wong said.

### **Going Digital**

Last year, more than 60,000 mothers registered with StemLife. However, due to the Covid-19 pandemic, StemLife’s business suffered just like any other private healthcare providers in the first half of the year.

“This is mainly due to limited outreach to the expectant parents from our customer-facing channels during the pandemic and the safety measures taken by the government,” Wong said.

Nevertheless, the number of donors has been picking up steadily under the Recovery Movement Control Order, and StemLife is now keeping a more positive outlook.

Wong said digital engagements would help the company further interact with other potential donors.

“The most significant changes will be in the way we introduce our services — how we engage with our customers and our utilisation of customer data. These changes will lead to much greater levels of personalisation,” Wong said.

Currently, StemLife is looking at adopting the digital-first advice approach among their team members, by engaging customers via video call from the comfort of their homes.

“Secondly, we are looking to create a seamless customer purchase process through digitalisation. Thirdly, we aim to keep track of our customers’ data, while maintaining a high level of privacy to personalise customer experience,” Wong commented.

They aim to monitor the three phases of motherhood which is conceiving, expecting and parenthood.

This is to ensure the mothers receive the help they need as they go through the many phases of their journey with their babies.

“Secondly, we will be embarking on a digital rebranding exercise to strengthen our competitive position and energising our teams internally. In addition, we will also be ensuring that our remote workplace set-ups are smooth by using collaboration tools — embedding these solutions into our operating model and roadmaps,” Wong said.

StemLife is also planning to introduce genomic screening tests that can help detect disease risks of newborns through strategic partnerships.

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**ABOUT STEMLIFE BERHAD**

StemLife is a stem cell bank licensed by the Ministry of Health Malaysia under the Private Healthcare Facilities and Services (PHFS) Act 1998. Established in 2001 and a majority-owned subsidiary of Singapore mainboard listed Cordlife Group Limited, StemLife offers end-to-end stem cell services of the highest standard and quality through cutting-edge technology and lab processing in accordance with international standards. In April 2018, StemLife attained the first international accreditation from AABB, followed by the second one in April 2020. AABB is the strongest endorsement of StemLife’s robust medical and technical capabilities. Collectively, more than 60,000 families have entrusted their baby’s cord blood stem cells with StemLife facility. To-date, StemLife has successfully released 19 cord blood units for transplantation and assisted in over 500 stem cell applications. For more information, please visit [www.stemlife.com](http://www.stemlife.com).