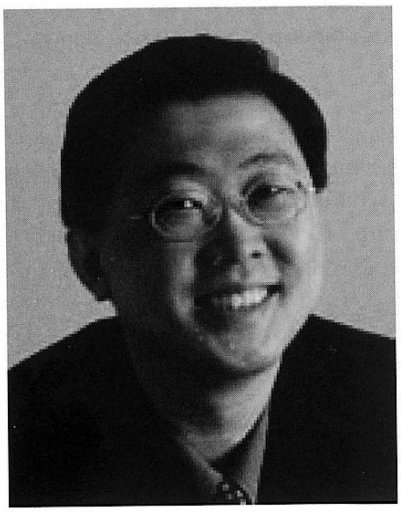


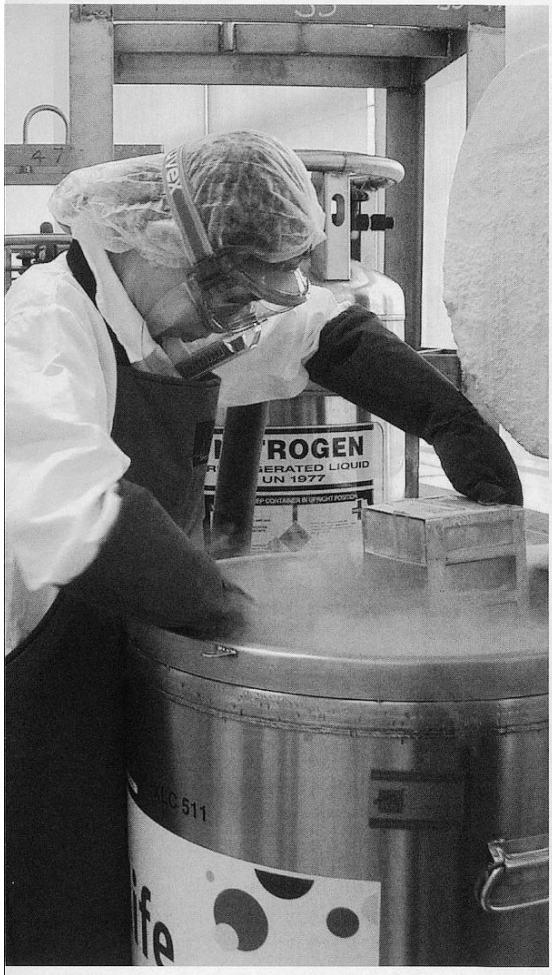
STEVEN FANG
CORDLIFE

Where Blood is its Business

Mr Steven Fang founded CordLife in Singapore in 2001 and negotiated the merger with Cytomatrix, which led to the establishment of CyGenics in 2004. He has great depth of knowledge in the health care providing business, with over 15 years of sales and business development experience in the USA and the Asia Pacific region.

He has worked for Sterling Withthrop, Baxter and Becton Dickinson, undertook business development assignments in Malaysia, Korea, Taiwan, and the Philippines, including the establishment of private dialysis centers. He was the General Manager for Singapore, Malaysia and Vietnam at Becton Dickinson.

Fang has a degree in Computer Engineering and completed his MBA in business strategy with the University of Hull (UK). In this issue, he shares with us more about CordLife and his experience in founding it.



We have a new international collaborative effort to develop new treatments for cancer via developing and mobilizing immune cells outside the human body.

CordLife (formerly known as CyGenics) has several subsidiaries. Could you elaborate what type of business is Cygenics doing and what are its subsidiaries?

Previously, CordLife was a company focusing on the cord blood banking business. We employ about 100 employees. We had four subsidiaries but now we have two subsidiaries. In 2003, Cytomatric merged with CordLife and formed CyGenics, which was listed in Australia in 2004. Later CyGenics changed its name to CordLife. CordLife now has a technology division in the US whereby it owns two core technologies that are under negotiation for licensing. We are also a SCBB accredited company.

Can you explain what SCBB accreditation means?

A SCBB accredited laboratory means it has both AABB and GMP, GTP accreditations. To be given this accreditation, the standards of the laboratory and the end products must be of good quality. This accreditation is necessary for the products to be accepted worldwide and is the only way for quality assurance. There are certain regulatory guidelines like how the tissues are handled and how the specimens are stored, etc. CordLife was commissioned by the Singapore government to design and build a laboratory for them. This laboratory is in the process of being SCBB accredited.

What are your main products?

The CordLife Laboratory produces one main product: cord blood stem cells. We are the only laboratory in Asia to have this accreditation. There are only eight such laboratories in the US. Cytomatrix is our technology-focused business but it is not our core arm. Technology is worth a lot more when used in combination, thus we are partnering with other leading institutions and taking some products through clinical trials.

Speaking of partnerships, what collaborations does CordLife have?

We have many collaborations, one of which is a new international collaborative effort to develop new treatments for cancer. This will be done via the novel approach of developing and mobilizing immune cells outside the human body. Named PACRIMA, the project brings together leading organisations from four countries: Division Haemato-Oncology of University Hospital Maastricht (AZM) of the Netherlands, CordLife, Maia-Scientific NV of Belgium, Pharmacell BV of the Netherlands, and a leading stem cell research institute in Japan. The partners anticipate that the majority of the project will be funded by grants and have applied for funding from

a number of sources including EUREKA, a pan-European initiative to foster European research and development. The other important collaboration is with Melbourne University whereby we are working to train T-cells.

What technologies does CordLife use? How are these different from other technologies in the market?

One of our technologies is the cell expansion platform which is used to promote rapid growth of cells expressing proteins and enzymes. The other technology is an immunotherapy product for replacement therapy. This technology produces de nova T-cells in the whole range of CD3 and CD4.

Cord blood can be used to tackle about 80 diseases including leukemia, bone marrow failure and metabolic diseases.

Tell us more about your core business —— cord blood storage?

Cord blood storage basically means isolating robust hemopoetic stem cells for future usage. There are three sources for such stem cells: blood stream, the bone marrow and from the umbilical cord blood. The cord blood from the blood stream and bone marrow comes from an adult and may not be of high quality. Umbilical cord blood cells are fairly robust and of high quality because at neonatal stage, the cord blood is free from contaminants.

How is the umbilical cord blood collected?

The cord blood is collected very soon after the baby has been delivered. It is collected by the attending physicians. He determines that the child and mother are both fine before collecting cord blood. The doctor is paid a standard fee for his service as recommended by the Singapore Medical Association.

Does CordLife hold any patents?

CordLife holds six patents.

Given the highly advanced storage techniques, complicated process, and patents, how much does it cost to use your service? How many years can it be stored and what can it be used for?

Apart from a person's own use, cord blood may also be used by relatives if there is a match. It can be used to tackle about 80 diseases including leukemia, bone marrow failure and metabolic diseases. Initially, the cost of such service used to be S$5,000–6,000. Now, it has dropped to S$1,400 for the initial fee and an annual fee of S$250 every subsequent year. The standard contract is for 21 years. We also have installment plans available or alternative ways to finance the service.

How many existing clients does CordLife have in total?

CordLife has about 9,000 clients now.

Does Cordlife intend to expand to other countries in Asia? If yes, which countries and when?

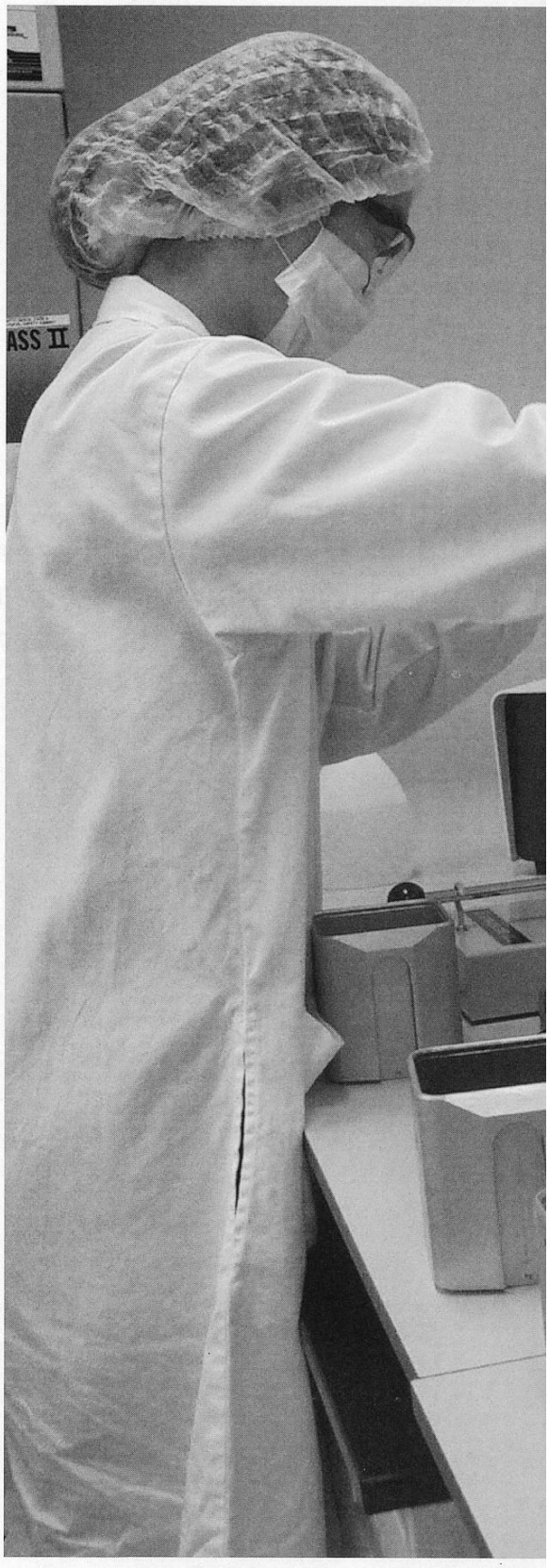
The business of cord blood banking is a very sustainable business. We started it in Singapore, and later expanded to Australia where we are listed on the stock exchange. We have also started operations in Hong Kong, Indonesia, Thailand and the Philippines. We are looking into expanding our business to India, China and the Middle East. 45% of the world's population is in China and India. The market demand for our business is really huge especially with the aging population.

What do you think of the business overall?

It is an interesting business. The market of stem cell therapy is developing. What we do today will influence how medical health care will look like in future by applying the patient's own cells to regenerate and repair. It is the most natural way to treat and cure.

What are your plans for 2007 and 2008?

We plan to break into new markets in 2007 and 2008. Instead of penetrating the US or Europe market, we plan to be a strong player in the Asia Pacific region. That is where half the world's population is.



What are the future challenges CordLife faces and what measures will be suggested to overcome these challenges?

One of the challenges of the business is to gain access to markets. Another challenge is for us to play a supportive and connective role to the clinical side. Creating market awareness is also another challenge of the business. We try to hold educational talks to educate clients about cord blood and what they can do as therapeutics.

You have been in the health care providing business for many years. What do you think are the latest trends in health care?

The trends of individualized medicine is very real. The dawn of personalized medicine will become realistic soon. Gene therapy is also another area to look out for as the age of biotechnology is slowly taking over the age of semiconductors. Another trend would be a change in treatment into one that effectively treats the rapidly aging population.

You are the chairman of BioSingapore. Can you tell us something about BioSingapore? How active is it now and what are its aims, goals, and future directions?

BioSingapore is a non-profit organization. It represents the life science industry in Singapore. It is basically a forum for the biotechnological life science companies to come together to share thoughts and views. The association is run by active members who try to meet regularly to network. Every month we arrange a speaker to give a talk which ends with a networking session.

You founded CordLife in 2001 in Singapore when the idea of cord blood was still relatively new. Can you share with us your experience in building this company from scratch?

I did a bachelors in computer engineering and a MBA, both in the UK. I have worked in several multinationals such as Sterling, Baxter, and General Motors. From these companies, I learnt from scratch about the biomedical/life sciences industry by attending conferences and undergoing professional training. While working, I explored the possibility of starting my own business. I looked at different products and thought that the idea of a perfect medical product was exciting.

Many products carry a lot of risk. While working as the head of stem cell division in Baxter, I decided to come out on my own. I quit my job, sold my home to finance the start-up which was very much a one-man company at that time. Along the way, I gathered support from 500 share holders accountable to the Australian stock exchange. Now I'm 41 years old, I'm the CEO of this growing company and I serve as a board member of IE Singapore and BioSingapore. ■