

[The Star Online](#) > Business

Saturday May 14, 2011

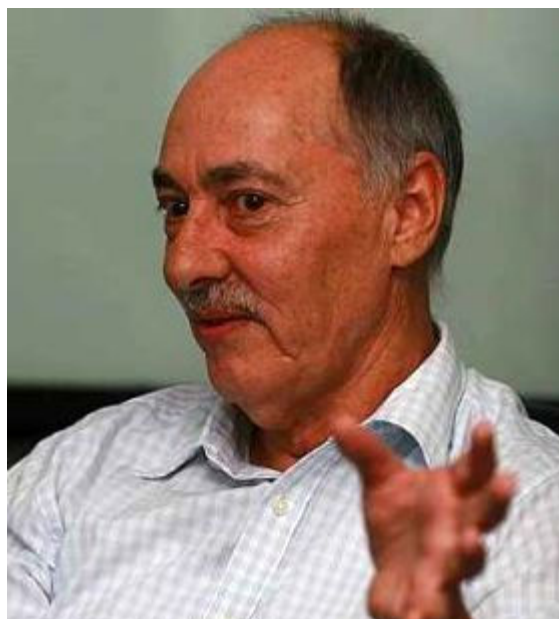
## Up Close with entrepreneur Robert Hercus

By FINTAN NG

[fintan@thestar.com.my](mailto:fintan@thestar.com.my)

**Robert Hercus**

**[Malaysia Genomics Resource Centre Bhd](#) founder and MD gets . . .**



*DO androids dream of electric sheep?*, a novel first published by science fiction novelist Philip K. Dick in 1968, explores the differences between humans and androids.

While androids, which are robots designed to look and act like humans, are a far cry from the state of robotics today, Robert Hercus, founder and managing director of [Malaysian Genomics Resource Centre Bhd \(MGRC\)](#) feels that the software technology that will enable robots to self-learn is there.

“This will involve a paradigm shift as all robots today are not self-learning. They are programmed to walk or stand. Now we have a self-learning algorithm base in our technology where a robot learns to do these actions,” he tells *StarBizweek*.



Hercus' company was listed on the Ace Market in early October last year and is a bioinformatics service provider. Its core NeuraBase technology is applied to the areas of bioinformatics and machine translation but is now being tested on robotics.

Essentially, the technology is based on a new concept for the construction of neural networks using temporal or spatial association of patterns, which is how the brain works.

However, as with most tech-based companies in maturing markets such as Malaysia's, the technology upon which the business model is based on may be hard for investors to grasp. This may be one reason why the company's share price has fallen by more than 32% since going public.

Nevertheless, this has not deterred Hercus, a fan of science fiction and whose younger years were influenced by science fiction greats such as Robert Heinlein and Isaac Asimov, from his biggest dream - to apply this software to robotics in order to make them self-learn.

“We already have self-learning systems in the office and we want to apply this to more sophisticated robotic systems where a robot learns to stand or walk,” he says.

### **The road trip**

The story of MGRC and its proprietary technology has been amply covered by the press in the weeks leading to the company's initial public offer.

The question is, how did Hercus, an Australian by birth and citizenship, come to settle in Malaysia and this is when the story gets interesting.

“I first came here in 1970 and I travelled from Singapore through the east coast of the peninsula to Golok and then to Bangkok, then back to Malaysia via the west coast,” he reminisces.

Hercus says that back in the day, one had to take seven ferries to get to Kota Baru from Singapore as there were no bridges.

“Many Australian students in those days after graduating from university would take a roadtrip or go backpacking or hitchhiking,” he says.

It was no different with Hercus and his friends. They flew into Singapore, hitchhiked all the way to Kota Baru, took a train to Bangkok and then to Perlis and from there they hitchhiked all the way back to Singapore.

“That was my first exposure to Malaysia a four-week holiday,” he says, adding that it was a very different world then where people were more trusting, inviting hitchhikers like himself to stay the night at their homes when they found out that he did not have a place to stay.

Hercus says hotels were never an option in Malaysia or Thailand. “We never stayed in a hotel. Even in Thailand, people would pick us up and take us to dinner. People were friendly. They would really look after us, drop us off the next day and then we hitchhiked to the next town,” he adds.

Hercus says “those days were pure and open and we enjoyed it. That's what's different about Asia, genuine”.

Hercus took a liking to Malaysia, especially the east coast. “In the east coast, where mat sallehs were still a novelty, we would have 20 kids following us while we were walking down a street in Kuantan,” he says.

Of course, one can never talk about Malaysia and not talk about the country's rich diversity in cuisine. For Hercus, that will be nasi dagang. “You can never get the same in Kuala Lumpur,” he says.

### **The return**

After returning to Australia, Hercus went back to school to pursue a graduate degree. “I dropped out of the course, then started working with the Defence Department but when they wanted to transfer me due to my demonstrating against the Vietnam War, I resigned,” he says.

Hercus says friends alerted him to a teaching position in Institut Teknologi Mara (ITM), to which he duly wrote a letter requesting for a job as an information technology (IT) lecturer.

“I didn't plan to stay permanently; only for six months then spend a year backpacking and working as I did an overland tour of South Asia and Europe,” he says.

Unfortunately, due to a miscommunication, Hercus arrived at ITM before the letter of offer had. When Hercus came, [Tan Sri Arshad Ayub](#) (who was the founding head of ITM) told him that the institute was closed for a two-month break.

However, Hercus says that ITM decided to pay him over the two months and Arshad even arranged a loan for a car in which he used to get around the country. “That was a great start but the only catch was that I was in a two-year contract instead of a six-month one,” he says.

Hercus has a lot to say about the old Kuala Lumpur which he was at first not used to, having come from a rural background.

“I grew up on a farm where the nearest neighbour was one or two km away. The only time we met our neighbours was on Sundays at church or at school. So it was very quiet. I used to go back to the farm and work during holidays when I was an undergraduate,” he says.

Hercus says there were only two hotels of note in Kuala Lumpur, the Merlin and the Federal, and Batu Road was the only place to shop in Kuala Lumpur.

He adds that there were only two roads between Kuala Lumpur and Petaling Jaya and one of them was the Federal Highway while the other was the back road to Damansara which no one used at night (seemingly) because of ghosts.

“All my Malay friends whom I stayed with will never travel on this road at night,” Hercus recalls. It was through them that he met his future wife (Munirah, who is also MGRC's executive director). She was then a student at Universiti Malaya.

“We used to meet up at Section 14's Medan Selera with friends and have a meal of satay,” he says.

### **The past three decades**

Hercus has held a variety of jobs. After his stint in ITM, he set up a software consultancy together with his wife in the late-1970s.

Hercus decided to look for a job back in Australia after Malaysia went into recession in the mid-1980s. “I was offered a job (back home) but then a friend called to say there was an opening in the then [Projek Lebuhraya Utara Selatan Bhd](#) (now [Plus Expressways Bhd](#)), a member of the UEM group of companies.

“I joined PLUS in 1988 when there were only half a dozen people working for the company. I think I was employee number 10. When they set up all the key departments, I was placed in charge of the IT functions,” he says.

Hercus says that was his first exposure to a huge project the construction of the North-South Expressway.

“Everything was placed under the IT department toll operations, engineering, CAD-CAM. Everything they had in IT was managed by the department,” he says.

Then in 1995, Hercus proposed to [Tan Sri Halim Saad](#) (then executive vice-chairman of PLUS) the implementation of the Touch n Go smart card system, which was set up by 1998.

“I was given a share of the company operating the system, which I sold to UEM in 1998 when I left because I was ready to retire which I did more or less,” he says.

After a bit of travelling and dabbling in the stockmarket, Hercus set up [Neuramatix Sdn Bhd](#) together with Munirah in 2001 to research, develop and commercialise the neuronal technologies powered by NeuraBase. MGRC is the listed subsidiary of Neuramatix.

NeuraBase was patented in 2004 but the idea had been in Hercus' mind for much longer. “When my son was born, I became interested in how people learn,” he says.

“Everyone has a pattern in doing things. Everything in life has a pattern, so I look for patterns. That's how I developed the software to capture this pattern,” Hercus says.

He says when robots become self-learning, there will be no limits to what can be done. “Unlimited potential. All you need is that one neuron that can activate the whole sequence of events and everything flows automatically,” Hercus says.

© 1995-2011 Star Publications (Malaysia) Bhd (Co No 10894-D)