

Interview with Dr John E. Dick

FOCUS ON THE BIG DREAM

The global community is likely to see some positive outcomes from the current wave of stem cells research projects in the next five years, said Canadian scientist, Dr John E. Dick.

The Professor of Molecular Genetics at the University of Toronto and Senior Scientist at the University of Health Network is known for his work in identifying cancer stem cells in certain types of human leukemia. His work highlighted that not all cancer cells are the same and paved a new direction in cancer research.



Dr Dick's 90-minute delivery, titled "Cancer Stem Cells: Fact or Fiction", at the 7th Humphrey Oei Distinguished Lecture Series on 31st July at the National Cancer Centre Singapore drew a packed auditorium. Separately he also held face-to-face meetings with several scientists during his four-day stay in Singapore.

"I think we are seeing the first potential cancer stem cell targeted therapies, which are going into the clinical trials. They are going into early tests and I think we will in the next five years see the results of this first wave of research work," he said in an interview with *Salubrius*, adding that some of the results are likely to be in leukemia.

Dr Dick developed an in vivo repopulation assay using the nonobese diabetic/severe combined immunodeficiency (NOD/SCID) mouse. This technique of using an immune-deficient mouse to generate human hematopoietic cells won him the international recognition.

Before the development of this model, studies of human hematopoietic system and diseases of the blood were limited. There was no method to study the development of the human blood system. His model transformed the study of both normal and leukemic human blood systems.

Dr Dick was cautiously hopeful that the vast resources committed

to cancer stem cell research would bear some fruitful results. He said there was too much hype about using stem cells to grow human organs in lab dishes. "We are making inroads in certain areas but the challenges are great and I think some scientists are promising too much too fast," he cautioned.

Asked whether the current global economic crisis has impacted on research programmes, he said the US Administration has pumped in US\$15 billion into cancer stem cell research. "People are willing to put more money into research as a channel to drive the economy out of the recession," he added.

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Currently Dr Dick leads a 25-man research team but his one regret is that he could not spend more time in the laboratory. He said a lot of time is spent preparing for applications for research grants and his normal day at the office could keep him at his work desk well past 7pm.

Sharing his views on Singapore, he said he was impressed by the energy and drive of the people to create a knowledge-based economy. He opined that NCCS has an impressive team of scientists though he only had time to meet a handful of them. "They clearly have a commitment to drive forward towards excellence," he said.

His advice to young scientists is to "strive for excellence". "Focus on the big dreams and don't take short cuts. Take a long view of your research and try to establish that the question that you are answering is an important one, and it is going to make the difference," said the bespectacled and soft-spoken Dr Dick.

Married to a nurse, they have two grown up children – a son who is a primary school teacher and a daughter who recently graduated to become a nurse. A self-confessed voracious newspaper reader, he disclosed that one of his simple delights was to spend his time at the cafeteria to read the two Saturday newspapers in Toronto.

His other delight is to cook and his favourite dishes are spaghetti and pasta. "On weekends I will do the cooking," he proudly proclaimed.



Prof Kon Oi Lian, Head of the Division of Medical Sciences at NCCS, presenting a memento to Dr John E. Dick.

In fact he would often tell his new students when he invites them to his house for potluck parties that if they can't cook then they may not be cut up for lab work.

He said he has been fortunate to be a scientist. "It is an interesting career and one where you are paid to follow your interest. No one tells me what I have to do. Besides, I get to interact with scientists from around the world and scientists are interesting and liberal thinking people, no matter where they may be," he explained.

Indeed Dr Dick enjoyed his work so much that he spent his 55th birthday not at home with his family or celebrating with his friends or colleagues.

Instead he was some 15,000 kilometres away from his home in Toronto. He had to face foreign audience at NCCS Lecture Hall, delivering his lecture and taking a barrage of questions, before adjourning to a 30-minute working lunch, followed by a media interview. He was then whisked back to his hotel to prepare for his next presentation on the following day.

To make up for his birthday, Dr Dick was treated to a special dinner outing by Prof Kon Oi Lian, NCCS Head of the Division of Medical Sciences and some young researchers at Sangokushi Restaurant at Robertson Quay.

By Sunny Wee

SPECIAL PULL-OUT

SALUBRIS
July / August 2009