Raising Science Centre’s profile around the world

WATCHING in horror as his pet dog swallowed a frog is one of the new director of the Science Centre’s most vivid early encounters with nature.

The dog, Tommy, lived to an old age and Professor Lim Tih Meng’s curiosity in the world around him also thrived as he went on to study biology at the National University of Singapore (NUS), followed by a PhD at Cambridge University.

Having taken up the reins of the Science Centre seven months ago, the veteran of science education shows no signs of slowing down on his mission to enlighten and educate Singaporeans about the importance of science.

“Singapore has no natural resources... we have to depend on our heads, our brains, to create a knowledge-based economy,” said the father of two.

Prof Lim is no stranger to the centre as he was its assistant chief executive from 2007 to last year, and after a short return to the NUS faculty, he was headhunted and returned to helm the centre.

“Senior colleagues at NUS advised me against taking up the role as it would not contribute to my promotion in my academic career,” he said. “But my upbringing in the Chinese schools and also my training in the Officer Cadet School where we were taught to uphold ‘Duty, Honour, Country’ outweighed my personal interest and I just followed my heart.”

Prof Lim faces the challenge of building the new Science Centre as well as getting Internet-savvy children interested in real science, as opposed to popular science.

“Some students think science is moving so quickly that solutions can be found overnight, but in reality it can take years of research and development,” he said, adding that by bringing researchers in from the Agency for Science, Technology and Research to the centre, real science can be explored.

“I also want to reach out to teenagers who see the centre as a place for young children and don’t return until they have children of their own,” he said, highlighting the upcoming bioethics lectures as a way of igniting interest.

He has first-hand experience of engaging teenagers in science as he set up a club for his own children, now aged 10 and 12, and family friends.

“We used to do things like DNA extraction from onions using household items and organise trips to the nature reserves,” he said.

The club ended last year on its 10th anniversary as the oldest member, Prof Lim’s son, celebrated his 17th birthday then and has gone on to do national service. The event was marked with a trip to Johor Bharu.

As part of raising the profile of the centre, there will be more partnerships with other facilities around the world.

The Science Festival, an annual event in its 10th year, will start on Monday.

This will grow to have an international presence, like the Arts Festival, next year and will take place at more locations like the Marina Bay and the Barrage, the Singapore Zoo and the Underwater World at Sentosa.

Work has begun on an exhibition on the brain, with the American Museum of Natural History in New York. The show will debut there in two years before traveling to Singapore.

The end of the year will also see the Crime Scene Investigation exhibition on forensic science heading this way.

The centre is about to start work on an exhibition on rice which will premiere in Singapore and then tour the world when ready in three years’ time.

Alto, 2013 marks 100 years since the death of Alfred Russel Wallace who, along with his more famous counterpart Charles Darwin, came up with the theory of evolution and spent much of his time researching in South-east Asia.

Although Prof Lim spends the majority of his time at the Science Centre, he is also involved in his own research at NUS in his developmental biology lab.
His lab is looking at the cell death mechanism. Normal cells in the body have a suicide process which is controlled by our genetics. A cell dies and is recycled in the body.

However, in certain diseases this process is disrupted.

For example, cancer cells lose this ability to commit suicide. They live on and grow and can spread in the body, threatening normal functions.

In diseases like Parkinson’s and Alzheimer’s, brain cells initiate the suicide process due to environmental stress or some other biological factors.

So understanding how this works could help find new treatments for these diseases.

After four years’ work, Prof Lim is on the cusp of publishing research in the prestigious journal Blood, about the cell death mechanism in blood cells during the development of acute myeloid leukaemia – which could lead to a new treatment strategy.

VICTORIA VAUGHAN