Winning with a strategy for commercialisation

NeuroMOD Technologies faced tough competition from 500 other teams to win the Intel+UC Berkeley Technology Entrepreneurship Challenge 2008, writes DANNY TAN, the founder of the team.

FACING off against 500 other teams in an international competition was no mean feat, but emerging champion was something that I did not expect.

I was part of a team of Singaporeans who competed in the prestigious Intel+UC Berkeley Technology Entrepreneurship Challenge 2008. The competition, hosted by the Haas School of Business at the University of California, had a judging panel comprising more than 20 Silicon Valley-based investors, including representatives from Intel Capital, the giant chipmaker’s venture capital arm.

I founded the winning team, NeuroMOD Technologies, when still an undergraduate at the National University of Singapore’s (NUS) School of Design and Environment. The firm is a development stage company that designs, develops, manufactures and markets implantable medical devices for patients suffering from neurological disorders such as epilepsy.

It was my responsibility to represent Singapore and NUS at the Intel+UC Berkeley Technology Entrepreneurship Challenge after impressing judges at Start-up@Singapore 2008, a national business plan competition organised by the NUS Entrepreneurship Society and supported by NUS Enterprise.

At the international competition, we locked horns with national winners from various countries including the United States, United Kingdom, Japan, Russia, France, Brazil, India and China.

The business idea for NeuroMOD Technologies was first conceived in late 2006 during my year-long work-cum-study stint at the NUS Overseas Colleges (NOC) programme in the Valley, Philadelphia. As part of this programme, I was doing a full-time internship in an early-stage venture fund while taking technology management and venture finance courses at the University of Pennsylvania.

Through the NOC programme, I met Karen Anne Moxon, a researcher at Drexel University who was facing difficulty in attracting commercial interest for her invention. She had developed an electrode that could chronically record precise neurological signals from patients, which can then be used for diagnostic and therapeutic purposes.

I was excited when tasked by my internship company to help Dr Moxon further develop her commercialisation plans, as I was impressed by her technology and its potential to improve the quality of life of epilepsy patients.

The team working on this project comprised Andrew Khair, then a PhD student in Dr Moxon’s laboratory, and Terence Chia, a fellow Singaporean who was pursuing his final year of undergraduate studies at the University of Pennsylvania.

Reaching out to epileptics

After a series of discussions with Dr Moxon, our team decided that the first application of the technology should be targeted at epilepsy, a disorder which affects more than 50 million people in the world today.

About 20 per cent of all epilepsy patients currently do not respond to any available treatments, and suffer from regular seizure attacks which affect their daily lives.

At the same time, developments in other treatment methods are expected to hit major roadblocks. Here was an opportunity to improve the quality of life of patients suffering from epilepsy, and fulfill an unmet medical need.

Since none of us had any experience in bringing a biomedical device to the market, we spent many hours trying to understand the highly regulated and complex biomedical device industry. We were fortunate to meet many experienced industry practitioners who were willing to guide us along.

The thing that surprised us the most was how supportive people can be when they see that you are fully committed to something meaningful. In fact, we found that there was almost no stigma attached to us being students when it came to seeking advice from our mentors.

As we felt that the competition was stiff, it came as quite a surprise when NeuroMOD was announced as the winner. I think what differentiated our business plan from those submitted by the other teams was that we had a well thought-out commercialisation strategy.

This was the result of extensive research to better understand the needs of customers, and also spending time to talk to industry experts about the best way to bring our innovation to the market.

In short, we made sure that our business plan was robust and could stand up to scrutiny by the experienced judging panel and potential investors.

The prize money of US$25,000 that we won will be used to invest in the further development of the product. Following the competition, NeuroMOD has since received private funding, and is presently conducting animal studies for our device in the US.

While I am currently back in Singapore to further my education, my partner Andrew is working full-time to bring our technology to the next stage. If all goes well, we expect our first product to reach the market in four to five years’ time after undergoing additional tests and clinical studies.

The writer is a fresh graduate from the 2008 class of the NUS School of Design and Environment.