Home-grown cure

> UCSI University fights cancer with Malaysian medicinal plants

ACCORDING to the World Health Organisation, cancer is the leading cause of death worldwide, killing nearly 8 million people in 2007 alone. This number is expected to rise to 12 million by 2030. Malaysia, unfortunately, is not exempt from these statistics. In fact, more than 10% of Malaysians risk dying from the disease before the age of 75, according to a study done by Globocan, within the World Health Organisation. With people today living longer than ever, the risks of acquiring cancer increases; hence, the urgent need for new therapeutic targets for the disease.

With research conducted all over the world to combat cancer, UCSI University is taking advantage of Malaysia's unique natural resources to develop a new treatment. Spearheading this is the university's Faculty of Pharmaceutical Sciences, which will be researching for anti-cancer properties in local plants. The programme's research module also concentrates on practical laboratory skills that students could use at the newly-acquired postgraduate pharmacy lab on campus.

The students and the faculty academic staff will be studying thousands of chemical compounds that exist in medicinal plants to isolate active ingredients with medical properties. According to Dr Chin Jin Han, a senior lecturer at the university's faculty, these ingredients will then be modified and tested for their anti-cancer properties. "We will also study the oral toxicity and herb-drug interaction to ensure that each plant is safe to be consumed." He also adds that the faculty will be collaborating with other leading universities to formulate other possible compounds.

Like other research and development initiatives, commercialisation is contributory in getting the product to the masses. Assisting the university is Natural Wellness Holdings Malaysia Sdn. Bhd., a local pharmaceutical company that has recently signed a Memorandum of Understanding with the university. In this smart partnership, both parties will be collaborating in joint-research ventures for anti-cancer properties in Malaysia's local plants.

Shahnas Oli Mohamed, Managing Director of Natural Wellness, said research is crucial for long-term sustainability in a pharmaceutical business. Working with the university allows her company to be up-dated on the latest developments.

"Natural Wellness believes that research collaborations and partnerships provide new horizons to all, enabling us to work and learn from specific field experts," she said. "The staff and students at UCSI University will be exposed to the business and manufacturing side of pharmaceuticals when they are with us, while we benefit from the faculty's deep academic knowledge that can be applied to some of our own projects."

"Research needs to have a purpose. It must contribute to society," says Assoc. Prof. Dr Yeong Siew Wei, Dean for the university's Faculty of Pharmaceutical Sciences. "Our faculty believes that the natural resources in Malaysia will enable us to find new therapeutic cancer treatments. Although there is still much to do, we believe we can contribute to the area."

Aside from exposure into the business side of the pharmaceutical industry, the joint venture with Natural Wellness and other industrial partners also enables the Master's programme students to gain business acumen from the compulsory business subjects they are taking under the university's Faculty of Management and Information Technology. This prepares them to comprehend commercialisation of research works, as well as marketing strategies for pharmaceutical products.

UCSI University is among the first private institution to implement this mixed mode format, to offer both coursework as well as research opportunities. The programme, which can be completed in a year, or up to three years, ends with the completion of an individual research project, guided by a team of highly-dedicated and experienced academic faculty staff.

The faculty's brand new laboratory for master's students can support up to 25 students, and contains three instrument rooms to hold the field's latest research tools, including high performing liquid chromatography (HPLC), fourier transform infrared (FTIR), and an ultraviolet-visible spectroscopy equipment.

The faculty is now accepting applications for its Master of Science in Pharmaceutical Chemistry and Master of Science in Pharmaceutical Technology, with its first intake in July 2011.

From left: UCSI group chairman Datuk Peter Ng, UCSI University Council chairman Tan Sri Dr Musa Mohamed and UCSI University vice-chancellor Dr Robert Bong launch the new postgraduate science laboratory with a ribbon-cutting ceremony.