Biotechnology is a field that is fast emerging as an area of growth in Malaysia. Regionally, too, it is attracting attention from governments seeking to harness the benefit offered by the application of cutting edge science in areas of biology that has opened new technology and research frontiers.

“For Monash University Malaysia, its location is a platform that offers the unique opportunity to synergise the teaching of biotechnology courses and research in a country that is committed to the development of biotechnology,” said Monash University’s School of Arts and Sciences head, Professor Pua Eng Chong.

“As a leading university in the world, Monash University has a strength in its ability to offer high quality education in biotechnology. This, coupled with the university’s emphasis on research, creates a very conducive environment for development of biotechnology education and research,” said Professor Pua.

Monash University is Australia’s largest and most internationalized university. The university—in all its campuses worldwide—has a student population exceeding 57,000.

It is one of the top 40 universities worldwide and a member of the prestigious “Group of Eight” universities in Australia recognized for research excellence.

“As an international university with campuses in three countries, and an ambition to forge international linkages, Monash University Malaysia can also offer international linkages and access to offshore capabilities to develop biotechnology. This, coupled with Malaysia’s commitment to develop biotechnology—with the aim of making it a pillar of its economy by 2020—further enhances our strengths and makes the country a very attractive location for biotechnology education and research,” said Professor Pua.

Malaysia has launched its National Biotechnology Policy nearly two years ago in April 2005. The policy calls for the country to participate actively in biotechnology-related activities to address vital aspects of biotechnology development, including priority areas covering agriculture, health, legal, safety, financial and other issues for wealth creation through industrialisation using biotechnology.

This policy will complement the existing National Agricultural Policy, which focuses on the development of biotechnology products, extraction of specialty natural compounds from biological resources, utilization of oil palm biomass, floricultural products and aquaculture to generate sources for the future growth of agriculture and creates new high value industries.
In addition, the plan also calls for the National Education Policy to stress very strongly on science and technology education to develop local scientists and research culture.

Professor Pua said Malaysia needs to train a significant number of scientists and biotechnologists to meet its biotechnology ambitions and this is one area in which the university can make a significant contribution.

He said the biotechnology graduates from Monash University Malaysia have been well received by the industry, with most securing jobs within months of graduation with Malaysian firms and multinationals.

The courses offered by the university include a Bachelor of Science (Biotechnology), Bachelor of Science (Medical Bioscience) and Bachelor of Science (Environment Management). Students can also take up a double degree combining the Bachelor of Science (Biotechnology) with either Medical Bioscience or Environmental Management.

Professor Pua said the university has also embarked on an effort to attract research intensive academics to teach and shift their research work to Malaysia.

“This will mean significant pay-offs in the long term by ensuring the conduct of frontier research in biotechnology, some of which could be commercialized, as well as development of education and intellectual capital. These researchers will also be the ‘master genes’ that will spur the further development of research and support the university’s growth in their respective areas,” said Professor Pua.

Among such researchers who have joined Monash recently are Associate Professor Ram Rajasekharan, who is a world leading researcher in lipids and Associate Professor Chow Sek Chuen who is one of few immunotoxicologists in the country.

Professor Pua said the university will hire several additional researchers to join the School in the near future. “We place much emphasis on implementing student-centred teaching practices that will ensure that students get a wholesome university education,” said Pua.

Monash also places a lot of emphasis on research by students as this not only trains the students to apply their knowledge and produce competent graduates, but also creates the foundation for those seeking to further their studies at the honors and higher levels.

Aside from this, efforts are also being made to provide research funding.

Most research in the country is funded by the government under the Intensification of Research in Priority Areas (IRPA) and the National Biotechnology Directorate under the Ministry of Science, Technology and Innovation. Other sources of support include private and international research grants.

“Monash University Malaysia has received government funding for several exciting research projects that may make significant contribution in the respective fields. We are also on the lookout to forge collaborations with other local and international entities and the industry to create research opportunities and source for funding,” he said. 