

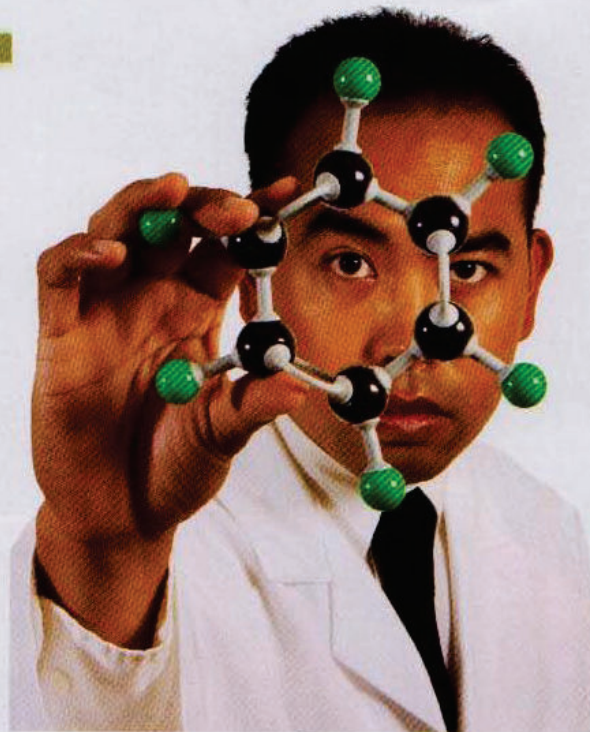
## Malaysia

The Malaysian life sciences industry has employed around 68,000 people; and is estimated that a workforce of 100,000 knowledge workers will be required to support the biotechnology industry which translates into 280,000 additional jobs supporting the industry by 2020. Although the number of students that graduated from public institutes of higher learning in biotechnology and biotechnology-related programs for bachelors, masters and PhD studies was around 1900 from 2007-2009; there has been a decline in the number of Bachelor of Science (BSc) graduates. This indicates shortage of biotechnology

**Biotechnology Entrepreneurship Special Training (BeST) program is implemented to equip graduates for entry-level positions in Malaysian biotechnology industry**

graduates with specialized skills of different disciplines. National Biotechnology Policy (NBP) has outlined a number of strategies and actions, in addressing manpower needs at the bachelor graduate level; Biotechnology Entrepreneurship Special Training (BeST) program is implemented to equip graduates for entry-level positions in Malaysian biotechnology industry. Similarly, at the postgraduate level, BiotechCorp has implemented a Post-Doctoral Research Program to provide research training to Malaysian graduates and post-doctoral students in life sciences.

Universities in Malaysia have built a dedicated department of biotechnology. Besides public universities, private universities like Monash University Malaysia and University Industry Selangor (UniSel) also offer education in life sciences. Giving his thought on the mindset of students in Malaysia to pursue biotechnology as their career, a senior professor at University Putra Malaysia commented, "Nowadays, there is an increased awareness among students on about biotechnology as a prospective career option; and they are showing interest by enrolling in courses. The situation in Malaysia is improving; and the country is grooming students of international calibre."



### Malaysia : Top Life Sciences Institutions

University Malaya  
Universiti Kebangsaan Malaysia (UKM)  
University Malaysia Sarawak  
Universiti Sains Malaysia (USM)  
Agro-Biotechnology Institute Malaysia (ABI)  
Universiti Putra Malaysia (UPM)  
Universiti Teknologi Malaysia (UTM)



Malaysian education centers have also started developing collaborations with foreign schools to tap into their expertise, knowledge and facilities such as the memorandum of understanding (MoU) between University Teknologi Malaysia and Delft University of Technology of The Netherlands; that enables collaboration in development of products involving industrial biotechnology, biorefinery technology and bioproduct development – with future plans to establish a joint postgraduate program in this field.

Managing Director of Malaysian Genomics Resource Centre Berhad, Mr Robert George Hercus says, "Malaysian Genomics Resource Centre Berhad has always relied on the pool of graduate and postgraduate researchers from Malaysian universities. A significant attribute of Malaysian graduates that have joined MGRC, has been their passion and ability to learn and keep pace with new developments in a field as fast changing as bioinformatics. At the same time, we have had to look abroad to recruit domain experts with existing experience, to take on managerial roles; and to train our researchers to take on these roles in the future."