

EDITORIAL

The Faculty of Medicine and Health Sciences - Charting the Future

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Being the largest faculty in the university, the Faculty of Medicine and Health Sciences (FMHS), Universiti Putra Malaysia produces well-trained doctors, specialists, nurses, dieticians, biomedical scientists, nutritionists, environmental health and occupational health officers. The faculty is also producing scientists, academics and researchers. There is no doubt that the contribution of the faculty to nation building in the field of medicine and health is very significant.

FMHS is celebrating its silver jubilee this year after its formation in 1996. Being 25 years old, in human terms, one would be equipped with knowledge and skills acquired during the early years. Now is the time to explore opportunities and seek ways to successes and achievements.

Initially known as the Faculty of Biomedicine and Health Sciences, it comprised the Department of Medical Sciences, the Department of Biomedical Sciences and the Department of Nutrition and Community Health. The name was later changed to its current name a year later. For a start, there were only 25 academics and 74 support staff.

Four undergraduate academic programmes were offered namely the Doctor of Medicine, Bachelor of Science (Biomedical Sciences), Bachelor of Science (Nutrition and Community Health) and Bachelor of Science (Environmental and Occupational Health).

The early years were focused on forming a solid foundation of implementing recognised and accredited programmes and establishing a pool of highly qualified and competent professionals. Research was also at its infancy limited by lack of space and equipment.

While the majority of students were based in the main campus in Serdang, the clinical training for our medical students were based in Hospital Kuala Lumpur and the branch office of the faculty had an academic and teaching facilities, initially at the hospital's nurses hostel and then later moved to the nearby office suites of the Grand Seasons Hotel. Apart from clinical training, Hospital Kuala Lumpur was used as the clinical practice for our clinician academics. The symbiosis was

developed over the years and our clinicians had gained reputations in their own field.

Bachelor of Nursing was offered in 2004; followed by Bachelor of Science (Dietetics) in 2005. The faculty moved to its current location in June 2006. The administrative structure was revamped to become 13 departments.

The current RM 202 million faculty complex was located adjacent to Hospital Serdang, which serves as the teaching hospital for our clinical and health sciences students. Majority of our clinicians moved from Hospital Kuala Lumpur to serve full time in Hospital Serdang. The faculty complex was officiated by the then Minister of Higher Education, YB Datuk Seri Mohamed Khalid Nordin. By 2015, the faculty had expanded to 16 departments and subsequently, in 2020; there were 23 departments in total. This is in tandem with the opening of our brand new teaching hospital, Hospital Pengajar Universiti Putra Malaysia (HPUPM).

Moving forward, the faculty has big plans to chart her way to be a reputable institution. For a start, the vision and mission needs to be revised to reflect a visionary and big move; as well as to excite everyone to contribute for the betterment of health for the nation and internationally.

It is worthwhile to analyse the world's top medical schools such as Mayo Clinic and Harvard Medical School (HMS) and we should learn on how they attain success. Mayo Clinic is a nonprofit hospital system with six campuses in the US. The hospital ranked first in the US in many fields, namely diabetes and endocrinology, gastroenterology, geriatrics, gynaecology, nephrology, neurology and neurosurgery, pulmonology and urology. Many other disciplines are also top ranked (1).

In addition to the hospital, educational programs such as MD, Master, PhD and fellowships training were offered by the Mayo Clinic College of Medicine and Science which were embedded in the clinical practice and biomedical research activities. A very important point to highlight in their exceptional achievement is their research which contributed to the understanding of disease processes, best clinical practices and translation

of findings from the laboratory to the clinical practice.

HMS is the top medical school in the world. An interesting fact is HMS does not operate a single hospital but is directly affiliated with several teaching hospitals in the Boston area. HMS is famous for numerous innovations since its early days being a pioneer in smallpox vaccination, the use of anesthesia for pain control during surgery, the use of insulin to treat diabetes and many others (2).

Clinical management is an integral part of medical school and to be a leading institution, one cannot run away from research and innovation being the primary driver for advancement in human health.

In 2020, the faculty has achieved success in terms of journal publications where 580 citation-indexed journals papers were published; 37% were published in at least Q2 of the Web of Science database. On average, the faculty had acquired RM 10 million annually in research grants at national and international levels. In terms of QS World University Rankings by subject, which is Medicine, UPM is ranked at 251 - 300th in the World, at 49th place in Asia and third in Malaysia.

In my opinion, the faculty is moving in the right direction. For the next five years, the faculty will work on establishing a robust research and innovation culture. At the moment, the culture has been highly variable from departments to departments.

There are three areas that are worth focusing on. Firstly, is on strengthening high impact research. A high impact research program will be introduced to get research groups developing their research niches to higher levels. A research group which has achieved a set requirement will be accorded a centre of excellence status and may receive financial and other support from the university and faculty. One would expect a research group with a centre of excellence status would have a multidisciplinary group with an excellent research ecosystem, addressing niche areas, with a high number of high impact publications, lots of journal citations, large number of research grants, and excellent international collaborations, with excellent community and industrial relations.

Secondly, is to strengthen the research support system. A good support system is a must and these include ample and safe research facilities, well maintained high-end equipment, optimisation on staff utilisation, good financial support and excellent research competencies.

To conduct high impact research, high-end equipment is necessary. In order to acquire these equipment, it is necessary to include financial support and sustainability to maintain and repair them. In addition to this, staff manning the equipment should be highly trained and

this poses a challenge when staff are difficult to hire due to financial constraints. Therefore, optimisation on staff deployment is necessary. A proper quality management system should also be in place. Eventually, laboratory accreditation is necessary to ensure the results are acceptable and accurate.

And finally, to strengthen HPUPM as an academic hospital. At an academic hospital; education, research, and clinical care are combined to provide the best possible clinical care. Cutting-edge technologies, resources and therapies are available for patients and hence, they have better access to the latest medical breakthroughs and clinical trials.

HPUPM had started its clinical service beginning end of 2019 and is now progressing and expanding its services. Currently, the management of the hospital is separate from the faculty.

The existence of the hospital is a great opportunity for the hospital to set the right strategy to move forward and lead in the identified niche areas. Through its clinical research unit, with proper strategy and coordination with strategic partners, the unit plays a major role in pushing the agenda of the hospital as an academic hospital.

An academic hospital incorporating research and innovation into its clinical care is the way forward. The hospital should be focusing on identified niches that incorporated strategic and sustained collaborations between two categories of academics, namely clinicians and scientists. This symbiotic relationship will realise the translation of fundamental research into clinical applications; from bench to bed. With medicine and health science as the main focus, there are vast areas to be explored and strategic focus based on the current strength and opportunities is needed. Good leadership among the management of the faculty and hospital is required and definitely good collaborations between the two entities is prudent.

In order to execute these plans and strategies, a total change of mindset is required especially among clinician academics whose work is predominantly providing clinical services to their patients. One must be re-oriented to the fundamental foundation of academia where the activities and core business centred around knowledge or academic. Creating a robust research and innovation culture among the academics is a long term strategy and requires carefully thought plans, taking into consideration strengths and weaknesses; and opportunities and threats. It is not an easy task and requires the right leadership to get the buy-in and steer on the desired path.

In conclusion, the Faculty of Medicine and Health Sciences, Universiti Putra Malaysia is now facing heaps of opportunities in years to come and with the strengths

that it has developed over the years, it is vital for the faculty to take advantage of the opportunities to be an institution of global prestige and national pride in the advancement of human health.

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