Why Develop Academic Medicine in Singapore?

There are at least 2 reasons why Academic Medicine that is properly developed can add value.

The first is that Academic Medicine and the curiosity that is engendered by the environment, coupled with the right resources, and under capabilities of the key drivers, can produce clinical breakthroughs that lead to new and better treatments.

Two examples from Duke University are the development of Myozyme as a replacement for the enzyme that is lost in Pompe Disease (Dr YT Chen) and the thymic transplantation as a treatment for DiGeorge syndrome.

Only in an Academic Medical Centre (AMC) can these breakthroughs become a reality. Clinician scientists are given the opportunity to work with multiple profession groups across different disciplines. This interaction within a clinical setting allows them to identify and address unmet needs with their curiosity and scientific knowledge. This innovation greatly improves patient care.

The second equally important reason is that AMCs can attract and retain top talent in the healthcare industry. It is a well-known fact that in the United States (US), AMCs are able to retain the “best” doctors while offering reasonable pay packages.

AMCs give clinicians the intellectual freedom and support to quench their academic thirst. AMCs also help them to respond to unmet needs and unanswered questions that in turn, allow clinicians to improve care for their patients. To solve extremely complex problems, they are given seed funding, protected time, and access to the expertise of like-minded professionals across numerous disciplines.

So If There Is Value in Academic Medicine, What Is Needed to Develop a Successful AMC?

Duke-NUS and SingHealth have established a functional ecosystem in the form of an Academic Healthcare Cluster.

Vibrant in this ecosystem are the key ingredients that contribute to the success of the partnership and Academic Medicine in Singapore—a shared vision and mission, right leadership, and established organisational structures that expect accountability by incentivising performance.

The Academic Healthcare Cluster will also see a critical mass of clinician scientists and researchers, and a lasting pipeline of outstanding students and trainees under the mentorship of strong role models. Both groups are given access to, and collision space with, diverse clinical and non-clinical disciplines in a thriving clinical setting.

A product of this nurturing ecosystem is the discovery of critical genes in bile duct cancer by scientists from National Cancer Centre Singapore and Duke-NUS. Another breakthrough in research was a discovery by National Cancer Centre, Singapore General Hospital and Duke-NUS that could potentially treat the deadly lymphoma in Asians.

The joint partnership between SingHealth and Duke-NUS is a functional integration; one that involves a shared vision, collaborative strategic planning, and transparency in functions between the two even though the formal organisations remain distinct business and legal entities.

Two uncommon organisational cultures have taken on a common vision and mission to be at the frontiers of Medicine so as to improve patients’ lives (Fig. 1).

Visionary leaders were appointed, and an organisational

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The Academic Healthcare Cluster that we are building has one mission: Improve patients’ lives through clinical care, research and educating the next generation.
structure that makes up an evolving ecosystem was established. We are sowing the seeds that grow an academic culture in the quest for better patient outcomes. The emphasis is on functional integration as distinct from formal organisational integration. Functional integration operates at both the strategic and operational levels and is not a constraint.

What Are the Results of This Functional Integration?

At the highest level, it has involved strategic agreements that include cross-representation on each other’s boards and the establishment of an Academic Medicine Executive Committee (EXCO) co-chaired by Group CEO, SingHealth and Dean, Duke-NUS.

The EXCO comprises the top leaders of both organisations and representation from Duke University, and is advised by an esteemed Academic Medicine Advisory Council comprising renowned academic clinicians from AMCs in the US and United Kingdom (UK). The AM EXCO is the platform for discussions and agreements on the way forward, on who we are, what we do, and how we will support each other.

This has led to the development of Academic Clinical Programs (ACP) that provide academic titles and recognition to clinicians, similar to academic departments in an AMC.

Each ACP is led by a division chief who is also the academic chair. He or she is responsible for both the clinical and academic components of their programme. They in turn have appointed vice-chairs to assist them in fulfilling their mission. Eight of these programmes have been launched.

Supporting the ACPs are 2 cross-cutting institutes—the Academic Medicine Research Institute (AMRI) at SingHealth’s 2 campuses, and the Academic Medicine Education Institute (AM•EI).

The 2 institutes have been launched as enabling platforms that provide resources and faculty development to help our clinician scientists and clinician educators succeed.

Figure 2 shows the matrix structure of ACPs and cross-cutting institutes that will drive the operationalisation of our academic medicine mission and help us accomplish our shared vision to improve the lives of patients by providing the best integrated clinical care, and research vital to promoting healthcare and training of the next generation of doctors, clinician scientists and scientists.

This vibrancy in our academic pursuit supports our 3 missions in clinical excellence, teaching, and research. However, the synergistic nature of the 3 missions can sometimes cause a rift in faculty members whose interests both conflict and compete with each other.

Addressing these arising concerns and supporting the

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**Fig. 2. Matrix structure of ACPs and cross-cutting institutes.**
The functional integration of Duke-NUS and SingHealth are various communications between faculty and management from both entities. Clearing the air on their roles in the Academic Healthcare Cluster and providing a comprehensive overview of the resources and support given to our clinicians and faculty ensure a deeper understanding of our ecosystem, and plant the seeds for advocates in our Academic Medicine journey.

The foundation has been laid and both SingHealth and Duke-NUS look forward to this exciting journey together.

REFERENCES