



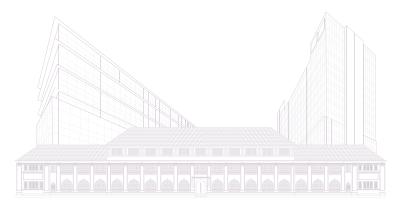


Medical Education Research and Scholarship Unit

## Medical Education Research and Scholarship Unit (MERSU) at Lee Kong Chian School of Medicine (LKCMedicine)

Medical schools serve to improve the health of populations through research and education. The health and wellbeing of patients depends upon the skills of the health professionals responsible for their care; the development of these skills requires an effective programme of education. However, like new treatment methods in clinical medicine, medical education must be evidence-based rather than based on tradition and convenience.

Working with partners from across the world, LKCMedicine's MERSU focuses on rigorous, theory-driven medical education research. Our mission is to progress knowledge of the cognitive, social, systems and material influences on learning and performance, through collaborative inter-disciplinary working. The key domains of medical education research at LKCMedicine are introduced in the following pages.



# Advancing medical education research and scholarship

LKCMedicine was created to address global healthcare challenges and educate doctors to meet the healthcare needs of Singapore. The School's vision of 'redefining medicine and transforming healthcare' highlights a commitment to drive education and scholarship, research and innovation to always be "fit for purpose" in a rapidly evolving healthcare environment.

There is a strong focus on preparing students to deliver healthcare effectively by drawing on, and contributing, best evidence to inform all aspects of teaching and learning. Students benefit from excellent facilities and inventive educational practices. Technology is used to maximal benefit to engage students with new ways of learning. Support systems are in place to enable students to flourish while with us and also be prepared for the rigours of working as a doctor, using research effectively to inform their own practice and managing their own learning.

LKCMedicine's Medical Education Research and Scholarship Unit (MERSU) is the cornerstone of our endeavours, developing and disseminating new knowledge, challenging current practices and adding value.

Professor Jennifer Cleland, Vice-Dean, Education and Director MERSU Professor of Medical Education Research, LKCMedicine



#### Team-based Learning

LKCMedicine uses team-based learning (TBL) as its core teaching strategy to prepare graduates for future collaborative working in healthcare teams. TBL at LKCMedicine is further enhanced by an electronic-learning ecosystem that enables in-depth research into this learning approach. LKCMedicine faculty have established themselves as the leading scholars in this area, looking at questions such as how TBL influences student motivation and knowledge acquisition. New areas of TBL research at LKCMedicine include empirical work conceptualising and interrogating TBL's social (relationships, people) and material (technologies, tools) aspects.

#### Anatomy

Anatomy teaching in medical schools has undergone a transformation over the last decades. Anatomical education has evolved to include the use of technology and innovative teaching tools/methods such as 3D printed anatomical models, virtual anatomy (AR and VR) models and student-centred learning methods. LKCMedicine's anatomy research includes cutting-edge interdisciplinary studies investigating the educational value of 3D printing bio-models for medical students and in surgical simulation training.









### Emerging technologies

Medical education is rapidly evolving, influenced by many factors including the changing health care environment, changing roles, altered societal expectations, and the rapid expansion of medical knowledge. The educational goals of using technology in medical education include facilitating basic knowledge acquisition, improving decision making, practicing for rare or critical events, learning team training, etc. LKCMedicine research looks at how the use of technologies can effectively assist medical education for the future.

#### The Workplace

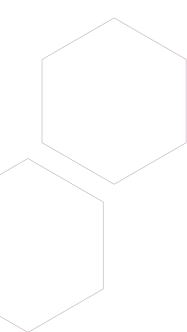
In collaboration with local healthcare providers and policy makers, emerging areas of research follow LKCMedicine students into the workplace. Our aim is to answer questions which are meaningful for educational practice in Singapore and worldwide. Our particular focus is to understand individual, group and systems influences on clinical practice, and use this knowledge to underpin the development, implementation and evaluation of educational interventions.











The Lee Kong Chian School of Medicine, a partnership between Nanyang Technological University, Singapore (NTU Singapore) and Imperial College London (Imperial), is training doctors who put patients at the centre of their exemplary care. The School, which offers both undergraduate and graduate programmes, is named after local philanthropist Tan Sri Dato Lee Kong Chian. Officially opened on 28 August 2017 by Singapore's Deputy Prime Minister Mr Teo Chee Hean, LKCMedicine aims to be a model for innovative medical education and a centre for transformative research. The School's primary clinical partner is the National Healthcare Group, a leader in public healthcare recognised for the quality of its medical expertise, facilities and teaching.

The School's first batch of doctors graduated in 2018 with Bachelor of Medicine and Bachelor of Surgery (MBBS) degrees awarded jointly by NTU Singapore and Imperial.

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