

Milestones of the Medical School and Medical Progress of Singapore over the Past 100 years

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Abstract

The Medical School started off in an old female lunatic asylum on the site of the general hospital at Sepoy Lines. It was founded on 3 July 1905 and was called the Straits and Federated Malay States Government Medical School. In 1916, the Licentiate in Medicine and Surgery (LMS) was recognised fully by the General Medical Council of Britain as a registrable qualification. In 1921, the medical school was renamed King Edward VII College of Medicine to reflect its academic status. In 1926, the College and its hospitals were inspected by Sir Richard Needham, who had been sent by the General Medical Council of Great Britain. In his report, he told the Council that in his opinion, the graduates should be given the MBBS degree because of the high standard of the Medical School. The medical school was closed by the Japanese on 16 February 1942. After the end of World War II, the College of Medicine resumed classes in June 1946. In 1962, the medical faculty became the Faculty of Medicine of the University of Singapore. From 1984 to 1986, following the university's move to Kent Ridge, the Faculty's clinical school also moved to the National University Hospital. In 2004, plans were well underway for the opening of the country's second medical school on the grounds of the Singapore General Hospital.

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1905

The Medical School started off in an old female lunatic asylum on the site of the general hospital at Sepoy Lines.¹ Called the Straits and Federated Malay States Government Medical School, it was founded on 3 July 1905. The official launch was on Thursday, 28 September 1905. The place was renovated to house a Lecture Room, Dissecting Room, Physiology Laboratory, Students' Room and Offices. The first medical class comprised 23 students.

1907

Introductory classes in clinical medicine and clinical surgery were held at the General Hospital. A new lecture theatre with 120 tiered seats was built at the Medical School.

1908

The Straits and Federated Malay States Government Medical School Syllabus of 1908 outlined the number of lectures covering the core subjects over the 5-year period as totaling 175, apart from 2 years of anatomy, dissections and practicals.²

1909

In 1844, a Boat Quay merchant, Mr Tan Tock Seng, with the help of local philanthropists like Tan Kim Cheng, provided the funds to build the first private hospital in Singapore dedicated to the poor.³ This original building, known as the Pauper Hospital, was demolished in 1857 to make way for military barracks. In 1859, the hospital was rebuilt on Balestier's Estate at the junction of Balestier and Serangoon Roads (currently occupied by Kwong Wai Shiu Free Hospital). In 1909, Tan Tock Seng Hospital (TTSH) moved to its present site in Moulmein Road.

1910

In May 1910, the first batch of 7 medical students graduated from the Straits Medical School with a Licentiate in Medicine and Surgery (LMS).¹

1911

A new building, the Tan Teck Guan Building (TTGB), was added to the medical school. It was funded by a Chinese benefactor, Mr Tan Chay Yan, in memory of his father, Mr Tan Teck Guan (sometimes spelt as Tan Teck

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Gein).⁴ Here, there was space for a reading room, a museum, a large classroom and other amenities.

1912

The medical school received a large donation (\$120,000) from the King Edward VII Memorial Fund.

1913

The school was renamed the King Edward VII Medical School, Singapore, with RD Keith as the Principal and JA Campbell as the inaugural King Edward VII Professor in Physiology.^{1,4}

1914

A psychiatry course was started for medical students.

1916

The LMS was fully recognised by the General Medical Council (GMC) of Great Britain as a registrable qualification. The FMS (Federated Malay States) Hostel for medical students opened in 1916.

1920

Approval was given to build a new College building, designed by Major PH Keys.

1921

The medical school was renamed King Edward VII College of Medicine to reflect its academic status.

1922

The first chair of Anatomy was established in 1922.

1923

The Medical College Graduates Association was inaugurated on 5 September 1923 by a group of medical school's graduands at a meeting in the Victoria Memorial Hall. It was managed by a committee of 12, with Dr Chen Su Lan as the President.

1925

The Department of Bacteriology was established in 1925.

1926

The new College Building was officially opened on 15 February 1926 by the Governor of the Straits Settlements, Sir Laurence Nunns Guillemard.

The General Hospital at Sepoy Lines or Outram Road location was declared open by the then Governor of the Straits Settlements, Sir Laurence Nunns Guillemard, on 29 March 1926. The King Edward VII College of Medicine was built on the same grounds as the hospital.

In the same year, the College and its hospitals were

inspected by Sir Richard Needham, who was sent by the GMC of Great Britain. In his report, he told the Council that in his opinion, the graduates should be given the MBBS degree because of the high standard of the Medical School.

1927

The Chair in Biochemistry was established.

1929

The School of Dentistry was established in the College, and produced its first dental graduate in 1933.

1932

The Alumni Association was founded in 1932, with Dr Chen Su Lan as its first President.

1933

Sir Richard Needham again inspected the College, and again he reported the high standards to the GMC.

1934

International participation came its way to put the College on the global map for the first time. The League of Nations' First International Malaria Course for the Far East was held in the College in 1934, with 27 delegates from 7 countries attending.⁴

1935

The School of Pharmacy was established.

1937

Vitamin B1 was used successfully for the first time to treat beri-beri in TTSH.³

1938

The Dental Clinic Building was completed at the present site of the Singapore General Hospital (SGH) and served as a teaching department.

1941

Medical education was interrupted by the Japanese invasion of Malaya. During the Occupation, the Japanese Armed Forces commandeered the General Hospital for their own casualties, and the General Hospital became the main surgical centre for the Japanese army and navy in Southeast Asia.

1942

The medical school at the College of Medicine was closed by the Japanese on 16 February 1942, who used it as the base for the Japanese Army Medical Corps to receive war casualties. The Dental School was allowed to continue functioning, with dental graduates receiving diplomas issued by the Japanese Military Administration.

In February 1942, a student was killed at the TTSH dormitory. While a group of fellow students were digging a trench to bury him in one corner of the SGH grounds, a Japanese plane swooped by, and in the raid, 10 more were killed. The names of the 11 students killed are commemorated on a bronze plaque in the College of Medicine Building (COMB).

1943

The Japanese Military Administration established the Syonan Medical College in the grounds of TTSH. The teachers were all Japanese.

1944

The Syonan Medical College was moved to the Malacca General Hospital, where it functioned till the end of the Japanese Occupation.

Singapore's first penicillin injection was administered at the TTSH by a senior physician, Dr Benjamin Chew.³

1946

After the end of World War II, the College of Medicine resumed classes in June 1946. Some 29 medical and dental students passed their examinations during the Japanese Occupation. After the Japanese surrendered, they sat for another final examination held by the restored King Edward VII College of Medicine in September 1946.

After the war, TTSH concentrated its energies on defeating tuberculosis, then Singapore's number one killer.³

After the war, the General Hospital returned to civilian control and its buildings were renamed the Bowyer, Stanley and Norris Blocks in memory of the doctors who died during the war.

1947

The Medical Library, which had been left intact during the war years, was reopened, and shifted to the ground floor of COMB in 1947.

1948

The Department of Social Medicine and Public Health was inaugurated.

1949

The King Edward VII College of Medicine became the Faculty of Medicine in the University of Malaya on 21 April 1949. The foundation day of the University was Saturday, 8 October 1949. Being sited next to the (Singapore) General Hospital facilitated the setting up of University departments in the major disciplines of Medicine, Surgery and Paediatrics at this hospital.

1950

The Department of Parasitology was established.

1951

Kandang Kerbau Hospital, the only obstetrics and gynaecological hospital in Singapore, was reorganised into a two-unit system, a university unit and a government unit.⁵

1955

In October 1955, the Association opened its building, the Medical Centre, at the General Hospital, at 4A College Road.

1957

The Academy of Medicine, Singapore was formed in 1957 through the initiative and foresight of Sir Gordon Ransome, its foundation Master. FMS Hostel was demolished and replaced by a grand new hall in 1957. It was opened by the then Prime Minister of Malaya, Tunku Abdul Rahman Putra AlHaj.

1961

A cardiovascular laboratory was established in 1961. Postgraduate work leading to specialist qualifications received a clear impetus with the formation of the Board of Postgraduate Medical Studies in 1961/62.

In 1961, TTSH was transferred to the Government.

1962

The medical faculty became the Faculty of Medicine of the University of Singapore. In December 1962, 3 serving government officers were selected for appointment to lectureships in obstetrics and gynaecology in the University. One of them was Dr SS Ratnam. The Department of Paediatrics came into being along with the appointment to its chair of its first, long-serving and distinguished incumbent, Dr Wong Hock Boon, in June 1962.

1964

The General Hospital was renamed Outram Road General Hospital in 1964.

1965

On 28 January 1965, a cardiac team comprising NK Yong, SC Ong and NC Foong, surgeons, nurses and laboratory staff, performed Singapore's first human open-heart surgery.

A Medical Progress Fund was started in 1965 to mark the Diamond Jubilee of the medical education in Singapore.

1966

The Faculty of Dentistry was formally established on 16 September 1966, after 7 years of deliberation by the Senate for the conversion of the dental department to full Faculty status.

1967

A coronary care unit was set up in April 1967.

1968

The School of Postgraduate Medical Studies was made a separate institution within the University as of 27 December 1968.

1969

The governing Board of the School of Postgraduate Medical Studies was formed.

1971

The College of Family Physicians was founded as the professional body for practitioners of Family Medicine.

After the end of colonial rule, the British Military Hospital was handed over to the Singapore government for a token sum of S\$1 on 10 September 1971. It was administered as a public hospital under the Ministry of Health and was renamed the Alexandra Hospital (AH) to reflect its location.

1972

Only 3 years after the University started awarding its own postgraduate medical degrees, the Master of Medicine degrees in internal medicine, paediatrics and surgery won recognition in Australia and New Zealand as being equal to British, Canadian and American degrees.

1975

Medical history was made when the first successful limb replantation was performed at the AH in 1975. Its surgeons successfully reattached a severed upper limb of a 17-year-old patient involved in an industrial accident.

The General Hospital was renamed Outram Road General Hospital in 1964, before finally becoming the SGH in 1975.

1976

Singapore's first coronary bypass operation was performed at the TTSH.

1977

The 2 departments of Bacteriology and Parasitology were united as the Department of Microbiology under the leadership of Professor Zaman.

1980

The Department of Psychological Medicine was established with Associate Professor Tsoi Wing Foo as the Head. The department was based at the SGH.⁶

1981

SGH was completed at its present site in 1981. Today, the complex stands on a land area of 18.3 hectares, with 8 blocks comprising inpatient wards, ambulatory and support services, research laboratories and offices. It is the country's

largest acute care tertiary hospital and national referral centre.

1983

The Preservation of Monuments Board recommended that the COMB be preserved for posterity.

1984

From 1984 to 1986, following the university's move to Kent Ridge, the Faculty's clinical school also moved to the National University Hospital (NUH). In May 1984, the Ministry of Health obtained approval from the government to restore and renovate the COMB and the TTGB.

1985

In August 1985, the Preservation of Monuments Board recommended that the TTGB be also preserved. The University Department of Anaesthesia was established in 1985. SGH remained as the main centre for medical training until the new NUH took over the bulk of the undergraduate teaching load in 1985.

Singapore's first bone marrow transplant was performed in TTSH.

Middleton Hospital, which had treated infectious diseases like cholera and typhoid fever, was absorbed into TTSH as the Communicable Disease Centre.

1986

The dental school was relocated to its present home at the Kent Ridge Campus of the National University of Singapore.

In December 1986, NUH successfully performed its first case of open-heart surgery. In the same year, it became the first hospital in Asia to successfully use frozen human embryos in its Assisted Reproduction Treatment programme.

1987

The Ministry of Health moved into the COMB and the TTGB in July 1987, together with the Academy of Medicine and the College of General Practitioners (now the College of Family Physicians).

The Department of Social Medicine and Public Health was renamed the Department of Community, Occupational and Family Medicine.

1988

The King Edward VII Hall of Residence relocated to the new university campus at Kent Ridge, and it was officially opened by the then President Wee Kim Wee on 25 November 1988.

1989

On 20 April 1989, the world's first baby conceived by

means of MIST (micro-insemination sperm transfer) was born at NUH.

1990

On 30 September 1990, Singapore's first liver transplant was successfully carried out at NUH.

1991

A major curriculum review that began in 1991 recognised the importance of increased integration, more collaboration between basic science and clinical disciplines, and increased emphasis on primary healthcare training.

1994

The Singapore General Hospital's Postgraduate Medical Institute (SGH-PGMI) began operations on 2 April 1994 to advance SGH's role as a leading centre for postgraduate medical education and training.⁷ The commitment to continuing education is expressed in the motto of the SGH-PGMI, *Melius medicus scientius*, which translates from the Latin as "The better doctor is the learned doctor."

1995

A formal affiliation was forged between AH and NUS, with AH being designated as the Alexandra Campus of NUS.⁸ The objectives of this affiliation were to enhance the teaching role of the hospital for medical students and to complement the clinical service provision at the AH.

1996

In 1996, the NUS Department of Obstetrics and Gynaecology scored another regional first with the reported birth of 2 sets of twins from frozen embryo donations.

1998

The Faculty of Medicine, National University of Singapore revised its medical undergraduate curriculum in response to the recommendations of the GMC, United Kingdom. The revised curriculum emphasises the core knowledge of biomedical science, and promotes the problem-based and discovery-oriented learning of medicine.

1999

To commemorate 20 years of psychological education and patient care, the NUS Department of Psychological Medicine commissioned a sculpture called "Hope" to reflect its role in reaching out to, and educating, the public about psychological afflictions, and in reducing the stigma of mental illness.

2000

In July 2000, the Faculty of Medicine, National University of Singapore launched the MBBS-PhD programme in collaboration with the Institute of Molecular and Cell

Biology, with support from the Economic Development Board, and the Agency for Science, Technology and Research, Singapore.

The Ministry of Education invited an International Advisory Panel (IAP), headed by Lord Ronald Oxburgh from Britain, to review medical education in Singapore.

2001

The Medical Education Unit (MEU) was mooted in 1997, and formally established in December 2001. It underpins the Faculty's commitment to ensure teaching continues to be championed. The MEU has been tasked with faculty development, medical curriculum development, and medical education research.

2003

Dissection is no longer a requisite in the teaching and learning of anatomy. Teachers demonstrate and students learn using human material readied by prosectors.

2004

Plans are well underway for the opening of the country's second medical school on the grounds of the SGH. Duke University has been invited to help in the planning and organisation of this new Faculty of Medicine. The second medical school will have its own Dean and administrative structure, and be autonomous from the current school at Kent Ridge.

2005

2005 will kick off a year-long celebration of the centennial anniversary of medical education in Singapore; it also marks a century of NUS and university education in Singapore. The NUS announced on 6 April 2005 that its Faculty of Medicine had accepted a \$100 million gift from the Yong Loo Lin Trust. To honour the gift, the faculty will be renamed the Yong Loo Lin School of Medicine.

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